UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/443,273	12/28/2021	11211801	047158.100042	1069

132858 7590 12/08/2021

Hogan Lovells US LLP
609 Main Street
Suite 4200
Houston, TX 77002

ISSUE NOTIFICATION

The projected patent number and issue date are specified above.

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(application filed on or after May 29, 2000)

The Patent Term Adjustment is 0 day(s). Any patent to issue from the above-identified application will include an indication of the adjustment on the front page.

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (http://pair.uspto.gov).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Application Assistance Unit (AAU) of the Office of Data Management (ODM) at (571)-272-4200.

INVENTOR(s) (Please see PAIR WEB site http://pair.uspto.gov for additional inventors):

Brandon N. Hinderliter, Houston, TX;
Jared Oehring, Houston, TX;

APPLICANT(s) (Please see PAIR WEB site http://pair.uspto.gov for additional applicants):

U.S. Well Services, LLC, Houston, TX

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The USA offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to encourage and facilitate business investment. To learn more about why the USA is the best country in the world to develop technology, manufacture products, and grow your business, visit SelectUSA.gov.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT
(Not for submission under 37 CFR 1.99)

Application Number	16443273
Filing Date	2019-06-17
First Named Inventor	Brandon N. Hinderliter
Art Unit	3672
Examiner Name	Cathleen R. Hutchins
Attorney Docket Number	047158.100042

	142	20160341281		2016-11-24	~~Oneubsea IP UK Limited~~ Brunvold et al.	
Change(s) applied to document, /J.T./ 8/23/2021	143	20050274508		2005-12-15	Folk	
	144	20070131410		2007-06-14	Hill	
	145	20190003329		2019-01-03	Morris	
	146	20090045782		2009-02-19	Datta	
	147	20150097504		2015-04-09	Lamascus	
	148	20170241221		2017-08-24	Seshadri	
	149	20150330172		2015-11-19	Allmaras	
	150	20110166046		2011-07-07	Weaver	
	151	20160265457		2016-09-15	Stephenson	
	152	20190120024		2019-04-25	Oehring	

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /RDC/

INFORMATION DISCLOSURE STATEMENT BY APPLICANT
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Application Number	16443273
Filing Date	2019-06-17
First Named Inventor	Brandon N. Hinderliter
Art Unit	3672
Examiner Name	Cathleen R. Hutchins
Attorney Docket Number	047158.100042

	131	20170022807		2017-01-26	Dursun	
	132	20160208595		2016-07-21	Tang	
	133	20150075778		2015-03-19	Walters	
	134	20180320483		2018-11-08	Zhang	
	135	20180038216		2018-02-08	Zhang	
	136	20160102537		2016-04-14	Lopez	
	137	20140290768		2014-10-02	Randle	
	138	20140277772		2014-09-18	Lopez	
	139	20170096885		2017-04-06	Oehring	
	140	20070277982		2007-12-06	Shampine	
Change(s) applied to document, /J.T./ 8/23/2021	141	20170051732		2017-02-23	~~Baker Hughes Incorporated~~ Hemandez et al.	

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /RDC/

INFORMATION DISCLOSURE STATEMENT BY APPLICANT
(Not for submission under 37 CFR 1.99)

Application Number	16443273
Filing Date	2019-06-17
First Named Inventor	Brandon N. Hinderliter
Art Unit	3672
Examiner Name	Cathleen R. Hutchins
Attorney Docket Number	047158.100042

	42	8899940		2014-12-02	Laugemors	
	43	8905056		~~2004-12-09~~ 12/2014	Kendrick	
	44	4151575		1979-04-24	Hogue	
	45	5130628		1992-07-14	Owen	
	46	6315523		2001-11-13	Mills	
	47	7336514		2008-02-26	Amarillas	
Change(s) applied to document. /J.T./ 8/23/2021	48	7525264		~~1999-04-28~~ 04/2009	Dodge	
	49	8096891		2012-01-17	Lochtefeld	
	50	9160168		2015-10-13	Chapel	
	51	8146665		2012-04-03	Neal	
	52	8474521		2013-07-02	Kajaria	

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /RDC/

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

132858 7590 08/19/2021

Hogan Lovells US LLP
609 Main Street
Suite 4200
Houston, TX 77002

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

(Typed or printed name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/443,273	06/17/2019	Brandon N. Hinderliter	047158.100042	1069

TITLE OF INVENTION: INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	$1200	$0.00	$0.00	$1200	11/19/2021

EXAMINER	ART UNIT	CLASS-SUBCLASS
COYER, RYAN D	2191	700-293000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

❑ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

❑ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-09 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 Hogan Lovells US LLP
2
3

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE: U.S. Well Services, LLC

(B) RESIDENCE: (CITY and STATE OR COUNTRY): Houston, Texas

Please check the appropriate assignee category or categories (will not be printed on the patent) : ❑ Individual ☒ Corporation or other private group entity ❑ Government

4a. Fees submitted: ☒ Issue Fee ❑ Publication Fee (if required) ❑ Advance Order - # of Copies _____

4b. Method of Payment: *(Please first reapply any previously paid fee shown above)*

☒ Electronic Payment via EFS-Web ❑ Enclosed check ❑ Non-electronic payment by credit card (Attach form PTO-2038)

☒ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. 50-1349

5. **Change in Entity Status** (from status indicated above)

❑ Applicant certifying micro entity status. See 37 CFR 1.29

❑ Applicant asserting small entity status. See 37 CFR 1.27

❑ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.
NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.
NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature /Taylor P. Evans/ Date 2021-11-18

Typed or printed name Taylor P. Evans Registration No. 60506

Electronic Patent Application Fee Transmittal

Application Number:	16443273
Filing Date:	17-Jun-2019
Title of Invention:	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING
First Named Inventor/Applicant Name:	Brandon N. Hinderliter
Filer:	Taylor P. Evans/Stephanie McDonough
Attorney Docket Number:	047158.100042

Filed as Large Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
UTILITY APPL ISSUE FEE	1501	1	1200	1200

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**1200**

Electronic Acknowledgement Receipt

EFS ID:	44320172
Application Number:	16443273
International Application Number:	
Confirmation Number:	1069
Title of Invention:	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING
First Named Inventor/Applicant Name:	Brandon N. Hinderliter
Customer Number:	132858
Filer:	Taylor P. Evans/Stephanie McDonough
Filer Authorized By:	Taylor P. Evans
Attorney Docket Number:	047158.100042
Receipt Date:	18-NOV-2021
Filing Date:	17-JUN-2019
Time Stamp:	16:43:14
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$1200
RAM confirmation Number	E2021AHG43333133
Deposit Account	501349
Authorized User	Stephanie McDonough

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.16 (National application filing, search, and examination fees)

37 CFR 1.17 (Patent application and reexamination processing fees)

37 CFR 1.19 (Document supply fees)

37 CFR 1.20 (Post Issuance fees)

37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Issue Fee Payment (PTO-85B)	047158-100042_Issue_Fee.pdf	1241433 220d0c80769b5b56d2baccb9bc2a16e006541ea8	no	1
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	38218 594a0aa6bc98a6cbb70fdac5673e0769c87296b3	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	1279651		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
16/443,273	06/17/2019	Brandon N. Hinderliter	047158.100042

CONFIRMATION NO. 1069

132858
Hogan Lovells US LLP
609 Main Street
Suite 4200
Houston, TX 77002

37 CFR 1.48 ACKNOWLEDGEMENT LETTER

OC000000129883066

Date Mailed: 11/18/2021

NOTICE OF ACCEPTANCE OF REQUEST UNDER 37 CFR 1.48(a)

This is in response to the applicant's request under 37 CFR 1.48(a) submitted on 11/16/2021.

The request under 37 CFR 1.48(a) to correct the inventorship, to correct or update the name of an inventor, or to correct the order of names of joint inventors is accepted.

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at **(571) 272-4000** or **(571) 272-4200** or **1-888-786-0101**.

/byemane/

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
16/443,273	06/17/2019	2191	1880	047158.100042	20	2

CONFIRMATION NO. 1069

UPDATED FILING RECEIPT

132858
Hogan Lovells US LLP
609 Main Street
Suite 4200
Houston, TX 77002

OC000000129883085

Date Mailed: 11/18/2021

Receipt is acknowledged of this non-provisional utility patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF FIRST INVENTOR, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection.

Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please submit a written request for a corrected Filing Receipt, including a properly marked-up ADS showing the changes with strike-through for deletions and underlining for additions. If you received a "Notice to File Missing Parts" or other Notice requiring a response for this application, please submit any request for correction to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections provided that the request is grantable.

Inventor(s)

Brandon N. Hinderliter, Houston, TX;
Jared Oehring, Houston, TX;

Applicant(s)

U.S. Well Services, LLC, Houston, TX

Assignment For Published Patent Application

U.S. Well Services, LLC, Houston, TX

Power of Attorney: The patent practitioners associated with Customer Number 132858

Domestic Priority data as claimed by applicant

This appln claims benefit of 62/685,797 06/15/2018

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see http://www.uspto.gov for more information.) - None.
Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

Permission to Access Application via Priority Document Exchange: Yes

Permission to Access Search Results: Yes

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

Projected Publication Date: Not Applicable

Non-Publication Request: No

Early Publication Request: No

Title

INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING

Preliminary Class

700

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).

LICENSE FOR FOREIGN FILING UNDER

Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign AssetsControl, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

SelectUSA

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The U.S. offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to promote and facilitate business investment. SelectUSA provides information assistance to the international investor community; serves as an ombudsman for existing and potential investors; advocates on behalf of U.S. cities, states, and regions competing for global investment; and counsels U.S. economic development organizations on investment attraction best practices. To learn more about why the United States is the best country in the world to develop technology, manufacture products, deliver services, and grow your business, visit http://www.SelectUSA.gov or call +1-202-482-6800.

Doc Code: R48.REQ
Document Description: Request under Rule 48 correcting inventorship

PTO/AIA/40 (04-18)
Approved for use through 11/30/2020. OMB 0651-0031
U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

REQUEST FOR CORRECTION IN A PATENT APPLICATION RELATING TO INVENTORSHIP OR AN INVENTOR NAME, OR ORDER OF NAMES, OTHER THAN IN A REISSUE APPLICATION (37 CFR 1.48)

Application Number	16443273
Filing Date	2019-06-17
First Named Inventor	Brandon N. Hinderliter
Art Unit	2191
Examiner Name	Ryan D. Coyer
Practitioner Docket Number	047158.100042

To: Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Applicant hereby **requests that the inventorship be corrected or changed, or that the name of the inventor or a joint inventor, or the order of the names of joint inventors, be changed,** in the above-identified application. **Note**: 37 CFR 1.48 applies to any request to correct inventorship filed on or after September 16, 2012, regardless of the application filing date. **Do not submit this form after payment of the issue fee or if the application has been patented.** See 37 CFR 1.324 for correction of inventorship in a patent.

Please check the applicable box(es) below.

For a nonprovisional application:

☒ 1. This request is to correct or change the inventorship in a **nonprovisional** application (**under 37 CFR 1.48(a)**) and includes:

☒ An application data sheet (ADS) in accordance with 37 CFR 1.76(c) with the corrected or updated information shown with markings (*e.g.*, underlining for insertions, strikethrough for deletions). See the Manual of Patent Examining Procedure (MPEP) section 601.05(a) for information about filing an ADS in an application filed on/after September 16, 2012. For information about filing a Supplemental ADS in an application filed before September 16, 2012, see MPEP 601.05(b).

☒ The processing fee set forth in 37 CFR 1.17(i). $ 140

☒ An inventor is being added. An inventor's oath or declaration by any actual inventor who has not yet executed an oath or declaration is required (see 37 CFR 1.48(b)). See MPEP 602.01(a) for information about an inventor's oath or declaration for an application filed on/after September 16, 2012 (*e.g.*, form **PTO/AIA/01**). For information about an inventor's oath or declaration for an application filed before September 16, 2012 (*e.g.*, form **PTO/SB/01**), see MPEP 602.01(b).

☒ This request is being filed after the first Office action on the merits has been given or mailed (see 37 CFR 1.48(c) and 1.17(d)). Check one of the following:

☐ This request to correct or change the inventorship is due solely to the cancellation of claims in the application.

OR

☒ The fee set forth in 37 CFR 1.17(d) is due (in addition to the fee set forth in 37 CFR 1.17(i)). $ 640

This collection of information is required by 37 CFR 1.48. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

PTO/AIA/40 (04-18)
Approved for use through 11/30/2020. OMB 0651-0031
U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

REQUEST FOR CORRECTION IN A PATENT APPLICATION RELATING TO INVENTORSHIP OR AN INVENTOR NAME, OR ORDER OF NAMES, OTHER THAN IN A REISSUE APPLICATION (37 CFR 1.48)

☐ 2. This request is to correct or update the name of the inventor or a joint inventor, or the order of names of joint inventors, in a **nonprovisional** application (**under 37 CFR 1.48(f)**) and includes:

☐ An application data sheet in accordance with 37 CFR 1.76(c) identifying the complete inventive entity, including the corrected or updated name of the inventor, or the new order of names shown with markings (*e.g.*, underlining for insertions, strikethrough for deletions). See the MPEP 601.05(a) for information about filing an ADS in an application filed on/after September 16, 2012. For information about filing a Supplemental ADS in an application filed before September 16, 2012, see MPEP 601.05(b).

☐ The processing fee set forth in 37 CFR 1.17(i). $ _____

For a provisional application:

☐ This request is to change or correct the inventorship, or correct or update the name of the inventor or a joint inventor, in a **provisional** application (**under 37 CFR 1.48(d)**) and includes:

☐ **Attached hereto** is a **document that is** signed by a party set forth in 37 CFR 1.33(b) **and** identifies each inventor by his or her legal name, in the preferred order. **Note: the document may be an application data sheet in accordance with 37 CFR 1.76(c) that identifies the changes with markings (underlining for insertions, strikethrough for deletions).**

☐ The processing fee set forth in 37 CFR 1.17(q). $ _____

Fee Payment Information:

☐ Applicant asserts small entity status. See 37 CFR 1.27.

☐ Applicant certifies micro entity status. See 37 CFR 1.29.
Form PTO/SB/15A or B or equivalent must either be enclosed or have been submitted previously

☐ A check in the amount of the fee is enclosed.

☐ Payment by credit card. Form PTO-2038 is attached.

☒ The Director is hereby authorized to charge any fees which may be required, or credit any overpayment to Deposit Account No. 50-1349.

☒ Payment made via EFS-Web.

WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.

I am the

☐ Applicant*

☒ attorney or agent of record
Registration number 60,506

☐ attorney or agent acting under 37 CFR 1.34
Registration number _____

Signature /Taylor P. Evans/

Typed or printed name Taylor P. Evans

Date November 16, 2021

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. *Juristic entities must be represented by a patent practitioner (See 37 CFR 1.31, applicable to any paper filed on or after September 16, 2012 that is presented on behalf of a juristic entity, regardless of application filing date). Submit multiple forms if more than one signature is required, see below**.

☒ ** Total of 1 forms are submitted.

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

PTO/AIA/01 (06-12)
Approved for use through 11/30/2020. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING

As the below named inventor, I hereby declare that:

This declaration is directed to:

☐ The attached application, or

☒ United States application or PCT international application number 16/443,273 filed on June 17, 2019.

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

LEGAL NAME OF INVENTOR

Inventor: Jared Oehring Date (Optional): 11/15/2021

Signature: Jared Oehring

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form or must have been previously filed. Use an additional PTO/AIA/01 form for each additional inventor.

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1 minute to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal

Application Number:	16443273
Filing Date:	17-Jun-2019
Title of Invention:	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING
First Named Inventor/Applicant Name:	Brandon N. Hinderliter
Filer:	Taylor P. Evans/Stephanie McDonough
Attorney Docket Number:	047158.100042

Filed as Large Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
PROCESSING FEE, EXCEPT PROV. APPLS.	1830	1	140	140
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
CORRECTION OF INVENTORSHIP ON MERITS	1819	1	640	640
		Total in USD ($)		**780**

Electronic Acknowledgement Receipt

EFS ID:	44297092
Application Number:	16443273
International Application Number:	
Confirmation Number:	1069
Title of Invention:	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING
First Named Inventor/Applicant Name:	Brandon N. Hinderliter
Customer Number:	132858
Filer:	Taylor P. Evans/Stephanie McDonough
Filer Authorized By:	Taylor P. Evans
Attorney Docket Number:	047158.100042
Receipt Date:	16-NOV-2021
Filing Date:	17-JUN-2019
Time Stamp:	16:48:31
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$780
RAM confirmation Number	E2021AFG49070025
Deposit Account	501349
Authorized User	Stephanie McDonough

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.16 (National application filing, search, and examination fees)

37 CFR 1.17 (Patent application and reexamination processing fees)

37 CFR 1.19 (Document supply fees)

37 CFR 1.20 (Post Issuance fees)

37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Application Data Sheet	100042_Substitute_ADS.pdf	1255442 6f103d9180fbd158cca575a2d0b016d19b3d387a	no	8
Warnings:					
Information:					
This is not an USPTO supplied ADS fillable form					
2	Request under Rule 48 correcting inventorship	100042_Correct_Inventorship_as-filed.pdf	283553 4eb668eb1d0840dfb5a22518c315d6874bc8e1d0	no	3
Warnings:					
Information:					
3	Oath or Declaration filed	Declaration-as-filed.pdf	241410 b889195f5368b6d72d89bfcc61de20224c35f050	no	2
Warnings:					
Information:					
4	Fee Worksheet (SB06)	fee-info.pdf	40741 8244728d19289a30de175db5d9c183ed8eeaf243	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	1821146		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

SUBSTITUTE APPLICATION DATA SHEET

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	047158.100042
	Application Number	16/443,273
Title of Invention	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING	

The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76.
This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.

Secrecy Order 37 CFR 5.2:

☐ Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)

Inventor Information:

Inventor 1

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Brandon	N.	Hinderliter	

Residence Information (Select One) ◉ US Residency ○ Non US Residency ○ Active US Military Service

City	Houston	State/Province	TX	Country of Residence	US

Mailing Address of Inventor:

Address 1	c/o U.S. Well Services, LLC		
Address 2	1360 Post Oak Boulevard, Suite 1800		
City	Houston	State/Province	TX
Postal Code	77056	Country	US

Inventor 2

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Jared		Oehring	

Residence Information (Select One) ◉ US Residency ○ Non US Residency ○ Active US Military Service

City	Houston	State/Province	TX	Country of Residence	US

Mailing Address of Inventor:

Address 1	c/o U.S. Well Services, LLC		
Address 2	1360 Post Oak Boulevard, Suite 1800		
City	Houston	State/Province	TX
Postal Code	77056	Country	US

All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the **Add** button. Add

Correspondence Information:

SUBSTITUTE APPLICATION DATA SHEET

PTO/AIA/14 (08-15)
Approved for use through 04/30/2017. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	047158.100042
	Application Number	16/443,273
Title of Invention	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING	

Enter either Customer Number or complete the Correspondence Information section below.
For further information see 37 CFR 1.33(a).

☐ **An Address is being provided for the correspondence Information of this application.**

Customer Number	132858		
Email Address	hlusdocketing@hoganlovells.com	Add Email	Remove Email

Application Information:

Title of the Invention	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING		
Attorney Docket Number	047158.100042	**Small Entity Status Claimed**	☐
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)	11	**Suggested Figure for Publication (if any)**	

Filing By Reference:

Only complete this section when filing an application by reference under 35 U.S.C. 111(c) and 37 CFR 1.57(a). Do not complete this section if application papers including a specification and any drawings are being filed. Any domestic benefit or foreign priority information must be provided in the appropriate section(s) below (i.e., "Domestic Benefit/National Stage Information" and "Foreign Priority Information").

For the purposes of a filing date under 37 CFR 1.53(b), the description and any drawings of the present application are replaced by this reference to the previously filed application, subject to conditions and requirements of 37 CFR 1.57(a).

Application number of the previously filed application	Filing date (YYYY-MM-DD)	Intellectual Property Authority or Country

Publication Information:

☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)

☐ **Request Not to Publish.** I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application **has not and will not** be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32).
Either enter Customer Number or complete the Representative Name section below. If both sections are completed the customer Number will be used for the Representative Information during processing.

Please Select One:	◉ Customer Number	○ US Patent Practitioner	○ Limited Recognition (37 CFR 11.9)
Customer Number	132858		

SUBSTITUTE APPLICATION DATA SHEET

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	047158.100042
	Application Number	16/443,273
Title of Invention	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING	

Prefix	**Given Name**	Middle Name	**Family Name**	Suffix	Remove
Registration Number					
Prefix	**Given Name**	Middle Name	**Family Name**	Suffix	Remove
Registration Number					

Additional Representative Information blocks may be generated within this form by selecting the **Add** button.

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, 365(c), or 386(c) or indicate National Stage entry from a PCT application. Providing benefit claim information in the Application Data Sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78.
When referring to the current application, please leave the "Application Number" field blank.

Prior Application Status	Pending		Remove
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
16443273	Claims benefit of provisional	62685797	2018-06-15

Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the **Add** button.

Foreign Priority Information:

This section allows for the applicant to claim priority to a foreign application. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55. When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX) the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(i)(1) and (2). Under the PDX program, applicant bears the ultimate responsibility for ensuring that a copy of the foreign application is received by the Office from the participating foreign intellectual property office, or a certified copy of the foreign priority application is filed, within the time period specified in 37 CFR 1.55(g)(1).

Application Number	Country	Filing Date (YYYY-MM-DD)	Access Code (if applicable)

Additional Foreign Priority Data may be generated within this form by selecting the **Add** button.

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

PTO/AIA/14 (08-15)
Approved for use through 04/30/2017. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

SUBSTITUTE APPLICATION DATA SHEET

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	047158.100042
	Application Number	16/443,273
Title of Invention	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING	

☐ This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013.
NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	047158.100042
	Application Number	16/443,273
Title of Invention	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING	

Authorization or Opt-Out of Authorization to Permit Access:

When this Application Data Sheet is properly signed and filed with the application, applicant has provided written authority to permit a participating foreign intellectual property (IP) office access to the instant application-as-filed (see paragraph A in subsection 1 below) and the European Patent Office (EPO) access to any search results from the instant application (see paragraph B in subsection 1 below).

Should applicant choose not to provide an authorization identified in subsection 1 below, applicant **must opt-out** of the authorization by checking the corresponding box A or B or both in subsection 2 below.

NOTE: This section of the Application Data Sheet is **ONLY** reviewed and processed with the **INITIAL** filing of an application. After the initial filing of an application, an Application Data Sheet cannot be used to provide or rescind authorization for access by a foreign IP office(s). Instead, Form PTO/SB/39 or PTO/SB/69 must be used as appropriate.

1. Authorization to Permit Access by a Foreign Intellectual Property Office(s)

A. Priority Document Exchange (PDX) - Unless box A in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the State Intellectual Property Office of the People's Republic of China (SIPO), the World Intellectual Property Organization (WIPO), and any other foreign intellectual property office participating with the USPTO in a bilateral or multilateral priority document exchange agreement in which a foreign application claiming priority to the instant patent application is filed, access to: (1) the instant patent application-as-filed and its related bibliographic data, (2) any foreign or domestic application to which priority or benefit is claimed by the instant application and its related bibliographic data, and (3) the date of filing of this Authorization. See 37 CFR 1.14(h)(1).

B. Search Results from U.S. Application to EPO - Unless box B in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the EPO access to the bibliographic data and search results from the instant patent application when a European patent application claiming priority to the instant patent application is filed. See 37 CFR 1.14(h)(2).

The applicant is reminded that the EPO's Rule 141(1) EPC (European Patent Convention) requires applicants to submit a copy of search results from the instant application without delay in a European patent application that claims priority to the instant application.

2. Opt-Out of Authorizations to Permit Access by a Foreign Intellectual Property Office(s)

☐ A. Applicant **DOES NOT** authorize the USPTO to permit a participating foreign IP office access to the instant application-as-filed. If this box is checked, the USPTO will not be providing a participating foreign IP office with any documents and information identified in subsection 1A above.

☐ B. Applicant **DOES NOT** authorize the USPTO to transmit to the EPO any search results from the instant patent application. If this box is checked, the USPTO will not be providing the EPO with search results from the instant application.

NOTE: Once the application has published or is otherwise publicly available, the USPTO may provide access to the application in accordance with 37 CFR 1.14.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	047158.100042
	Application Number	16/443,273
Title of Invention	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING	

Applicant Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Applicant 1

If the applicant is the inventor (or the remaining joint inventor or inventors under 37 CFR 1.45), this section should not be completed. The information to be provided in this section is the name and address of the legal representative who is the applicant under 37 CFR 1.43; or the name and address of the assignee, person to whom the inventor is under an obligation to assign the invention, or person who otherwise shows sufficient proprietary interest in the matter who is the applicant under 37 CFR 1.46. If the applicant is an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest) together with one or more joint inventors, then the joint inventor or inventors who are also the applicant should be identified in this section.

Clear

○ Assignee	○ Legal Representative under 35 U.S.C. 117	○ Joint Inventor
◉ Person to whom the inventor is obligated to assign.	○ Person who shows sufficient proprietary interest	

If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:

Name of the Deceased or Legally Incapacitated Inventor:

If the Applicant is an Organization check here. ☒

Organization Name	U.S. Well Services, LLC

Mailing Address Information For Applicant:

Address 1	1360 Post Oak Boulevard, Suite 1800		
Address 2			
City	Houston	**State/Province**	TX
Country[i]	US	Postal Code	77056
Phone Number		Fax Number	
Email Address			

Additional Applicant Data may be generated within this form by selecting the Add button.

SUBSTITUTE APPLICATION DATA SHEET

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	047158.100042
	Application Number	16/443,273
Title of Invention	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING	

Assignee Information including Non-Applicant Assignee Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Assignee 1

Complete this section if assignee information, including non-applicant assignee information, is desired to be included on the patent application publication. An assignee-applicant identified in the "Applicant Information" section will appear on the patent application publication as an applicant. For an assignee-applicant, complete this section only if identification as an assignee is also desired on the patent application publication.

If the Assignee or Non-Applicant Assignee is an Organization check here. ☒

Organization Name	U.S. Well Services, LLC

Mailing Address Information For Assignee including Non-Applicant Assignee:

Address 1	1360 Post Oak Boulevard, Suite 1800		
Address 2			
City	Houston	**State/Province**	TX
Country ⓘ	US	Postal Code	77056
Phone Number		Fax Number	
Email Address			

Additional Assignee or Non-Applicant Assignee Data may be generated within this form by selecting the Add button.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	047158.100042
	Application Number	16/443,273
Title of Invention	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING	

Signature:

NOTE: This Application Data Sheet must be signed in accordance with 37 CFR 1.33(b). **However, if this Application Data Sheet is submitted with the INITIAL filing of the application and either box A or B is not checked in subsection 2 of the "Authorization or Opt-Out of Authorization to Permit Access" section, then this form must also be signed in accordance with 37 CFR 1.14(c).**

This Application Data Sheet **must** be signed by a patent practitioner if one or more of the applicants is a **juristic entity** (e. g., corporation or association). If the applicant is two or more joint inventors, this form must be signed by a patent practitioner, **all** joint inventors who are the applicant, or one or more joint inventor-applicants who have been given power of attorney (e.g., see USPTO Form PTO/AIA/81) on behalf of **all** joint inventor-applicants.

See 37 CFR 1.4(d) for the manner of making signatures and certifications.

Signature	/Taylor P. Evans/			Date (YYYY-MM-DD)	2021-11-16
First Name	Taylor P.	Last Name	Evans	Registration Number	60506

Additional Signature may be generated within this form by selecting the Add button.

Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (02-18)
Approved for use through 11/30/2020. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT
(Not for submission under 37 CFR 1.99)

Application Number	16443273
Filing Date	2019-06-17
First Named Inventor	Brandon N. HINDERLITER
Art Unit	2191
Examiner Name	Ryan D. COYER
Attorney Docket Number	047158.100042

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	10648311	B2	2020-05-12	Ohering et al.	
	2	10415332	B2	2019-09-17	Morris et al.	
	3	10794165	B2	2020-10-06	Fischer et al.	
	4	7795830	B2	2010-09-14	Johnson	
	5	6788022	B2	2004-09-19	Sopko	
	6	6121705	A	2000-09-19	Hoong	
	7	6035265	A	2000-03-07	Dister et al.	
	8	5798596	A	1998-08-25	Lordo	

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /RDC/

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	First Named Inventor	Brandon N. HINDERLITER
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	Examiner Name	Ryan D. COYER
	Attorney Docket Number	047158.100042

	9	5334899	A	1994-08-02	Skybyk	

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U.S.PATENT APPLICATION PUBLICATIONS Remove

Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20180363640	A1	2018-12-20	Kajita et al.	
	2	20160006311	A1	2016-01-07	Li	
	3	20090072645	A1	2009-03-19	Quere	

If you wish to add additional U.S. Published Application citation information please click the Add button. Add

FOREIGN PATENT DOCUMENTS Remove

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1							

If you wish to add additional Foreign Patent Document citation information please click the Add button Add

NON-PATENT LITERATURE DOCUMENTS Remove

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1	Non-Final Office Action issued in US Application No. 16/871,928 mailed August 25, 2021	

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /RDC/

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	Attorney Docket Number	047158.100042

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	4	Non-Final Office Action issued in US Application No. 16/404,283 mailed July 21 2021	
	5	Notice of Allowance and Notice of Allowability issued in US Application No. 15/829,419 mailed July 26, 2021	
	6	WOODBURY et al., "Electrical Design Considerations for Drilling Rigs," IEEE Transactions on Industry Applications, Vol. 1A-12, No. 4, July/August 1976, pp 421-431	

If you wish to add additional non-patent literature document citation information please click the Add button Add

EXAMINER SIGNATURE

Examiner Signature	/Ryan D. Coyer/ (10/01/2021)	Date Considered	10/01/2021

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /RDC/

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Application Number	16443273
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First Named Inventor	Brandon N. HINDERLITER
Art Unit	2191
Examiner Name	Ryan D. COYER
Attorney Docket Number	047158.100042

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☒ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

X See attached certification statement.

X The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Taylor P. Evans/	Date (YYYY-MM-DD)	2021-09-23
Name/Print	Taylor P. Evans	Registration Number	60506

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /RDC/

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these record s.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

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5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /RDC/

PTO/SB/08a (02-18)
Approved for use through 11/30/2020. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT
(Not for submission under 37 CFR 1.99)

Application Number	16443273
Filing Date	2019-06-17
First Named Inventor	Brandon N. HINDERLITER
Art Unit	2191
Examiner Name	Ryan D. COYER
Attorney Docket Number	047158.100042

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	10648311	B2	2020-05-12	Ohering et al.	
	2	10415332	B2	2019-09-17	Morris et al.	
	3	10794165	B2	2020-10-06	Fischer et al.	
	4	7795830	B2	2010-09-14	Johnson	
	5	6788022	B2	2004-09-19	Sopko	
	6	6121705	A	2000-09-19	Hoong	
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	Attorney Docket Number	047158.100042

	9	5334899	A	1994-08-02	Skybyk	

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U.S.PATENT APPLICATION PUBLICATIONS Remove

Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20180363640	A1	2018-12-20	Kajita et al.	
	2	20160006311	A1	2016-01-07	Li	
	3	20090072645	A1	2009-03-19	Quere	

If you wish to add additional U.S. Published Application citation information please click the Add button. Add

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Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1							

If you wish to add additional Foreign Patent Document citation information please click the Add button Add

NON-PATENT LITERATURE DOCUMENTS Remove

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1	Non-Final Office Action issued in US Application No. 16/871,928 mailed August 25, 2021	

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EXAMINER SIGNATURE

Examiner Signature		Date Considered	

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	Art Unit	2191
	Examiner Name	Ryan D. COYER
	Attorney Docket Number	047158.100042

CERTIFICATION STATEMENT

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OR

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☒ See attached certification statement.

☒ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Taylor P. Evans/	Date (YYYY-MM-DD)	2021-09-23
Name/Print	Taylor P. Evans	Registration Number	60506

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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Electronic Patent Application Fee Transmittal

Application Number:	16443273
Filing Date:	17-Jun-2019
Title of Invention:	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING
First Named Inventor/Applicant Name:	Brandon N. Hinderliter
Filer:	Taylor P. Evans/Tina Fluharty
Attorney Docket Number:	047158.100042

Filed as Large Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
SUBMISSION- INFORMATION DISCLOSURE STMT	1806	1	260	260
		Total in USD ($)		**260**

Electronic Acknowledgement Receipt

EFS ID:	43849453
Application Number:	16443273
International Application Number:	
Confirmation Number:	1069
Title of Invention:	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING
First Named Inventor/Applicant Name:	Brandon N. Hinderliter
Customer Number:	132858
Filer:	Taylor P. Evans/Tina Fluharty
Filer Authorized By:	Taylor P. Evans
Attorney Docket Number:	047158.100042
Receipt Date:	23-SEP-2021
Filing Date:	17-JUN-2019
Time Stamp:	16:27:20
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$260
RAM confirmation Number	E20219MG27373925
Deposit Account	501349
Authorized User	Tina Fluharty

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.21 (Miscellaneous fees and charges)

37 CFR 1.20 (Post Issuance fees)

37 CFR 1.19 (Document supply fees)

37 CFR 1.17 (Patent application and reexamination processing fees)

37 CFR 1.16 (National application filing, search, and examination fees)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Form (SB08)	047158-100042-IDS.pdf	1035184 f948cb753cbd64d8a0fbbe75db70436ec1d8e4c3	no	5
Warnings:					
Information:					
2	Non Patent Literature	047158-NOAllow.pdf	8603965 ce67b960432101d4f6ccd7521c7250aacafe6284	no	10
Warnings:					
Information:					
3	Non Patent Literature	047158-OA1.pdf	3773826 c7bd7bc4edf316fcb304b6049510ec7d0b963df9	no	6
Warnings:					
Information:					
4	Non Patent Literature	047158-OA2.pdf	5581085 31ef72a73318b75089d210480a144136b670fb6b	no	9
Warnings:					
Information:					
5	Non Patent Literature	047158-OA3.pdf	9262178 5729c835226e4108cf5dcae571878c3538589623	no	13
Warnings:					
Information:					
6	Non Patent Literature	047158-OA4.pdf	4845122 07ac294e7b973e6244cac95950537b5c994a8665	no	8
Warnings:					
Information:					

7	Non Patent Literature	Woodbury.pdf	1514903 5d7d029bdc016d8f60d0c5bd6b9911df3fe7c0c7	no	11
Warnings:					
Information:					
8	Fee Worksheet (SB06)	fee-info.pdf	38159 a5d404ae71b72368ef5505ef0971f2ff7dccf03e	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	34654422		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

NOTICE OF ALLOWANCE AND FEE(S) DUE

132858 7590 08/19/2021

Hogan Lovells US LLP
609 Main Street
Suite 4200
Houston, TX 77002

EXAMINER
COYER, RYAN D

ART UNIT	PAPER NUMBER
2191	

DATE MAILED: 08/19/2021

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/443,273	06/17/2019	Brandon N. Hinderliter	047158.100042	1069

TITLE OF INVENTION: INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	$1200	$0.00	$0.00	$1200	11/19/2021

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE DOES NOT REFLECT A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE IN THIS APPLICATION. IF AN ISSUE FEE HAS PREVIOUSLY BEEN PAID IN THIS APPLICATION (AS SHOWN ABOVE), THE RETURN OF PART B OF THIS FORM WILL BE CONSIDERED A REQUEST TO REAPPLY THE PREVIOUSLY PAID ISSUE FEE TOWARD THE ISSUE FEE NOW DUE.

HOW TO REPLY TO THIS NOTICE:

I. Review the ENTITY STATUS shown above. If the ENTITY STATUS is shown as SMALL or MICRO, verify whether entitlement to that entity status still applies.

If the ENTITY STATUS is the same as shown above, pay the TOTAL FEE(S) DUE shown above.

If the ENTITY STATUS is changed from that shown above, on PART B - FEE(S) TRANSMITTAL, complete section number 5 titled "Change in Entity Status (from status indicated above)".

For purposes of this notice, small entity fees are 1/2 the amount of undiscounted fees, and micro entity fees are 1/2 the amount of small entity fees.

II. PART B - FEE(S) TRANSMITTAL, or its equivalent, must be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted. If an equivalent of Part B is filed, a request to reapply a previously paid issue fee must be clearly made, and delays in processing may occur due to the difficulty in recognizing the paper as an equivalent of Part B.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Maintenance fees are due in utility patents issuing on applications filed on or after Dec. 12, 1980. It is patentee's responsibility to ensure timely payment of maintenance fees when due. More information is available at www.uspto.gov/PatentMaintenanceFees.

LIBERTY EXHIBIT 1002, Page 47

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via EFS-Web.

By mail, send to: Mail Stop ISSUE FEE
Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

By fax, send to: (571)-273-2885

INSTRUCTIONS: This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

CURRENT CORRESPONDENCE ADDRESS (Note: Use Block 1 for any change of address)

132858 7590 08/19/2021

Hogan Lovells US LLP
609 Main Street
Suite 4200
Houston, TX 77002

Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

Certificate of Mailing or Transmission

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being transmitted to the USPTO via EFS-Web or by facsimile to (571) 273-2885, on the date below.

(Typed or printed name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/443,273	06/17/2019	Brandon N. Hinderliter	047158.100042	1069

TITLE OF INVENTION: INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	UNDISCOUNTED	$1200	$0.00	$0.00	$1200	11/19/2021

EXAMINER	ART UNIT	CLASS-SUBCLASS
COYER, RYAN D	2191	700-293000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

❑ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.

❑ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-09 or more recent) attached. **Use of a Customer Number is required.**

2. For printing on the patent front page, list
(1) The names of up to 3 registered patent attorneys or agents OR, alternatively,
(2) The name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed.

1 _____
2 _____
3 _____

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document must have been previously recorded, or filed for recordation, as set forth in 37 CFR 3.11 and 37 CFR 3.81(a). Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE (B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent) : ❑ Individual ❑ Corporation or other private group entity ❑ Government

4a. Fees submitted: ❑ Issue Fee ❑ Publication Fee (if required) ❑ Advance Order - # of Copies _____

4b. Method of Payment: *(Please first reapply any previously paid fee shown above)*

❑ Electronic Payment via EFS-Web ❑ Enclosed check ❑ Non-electronic payment by credit card (Attach form PTO-2038)

❑ The Director is hereby authorized to charge the required fee(s), any deficiency, or credit any overpayment to Deposit Account No. _____

5. **Change in Entity Status** (from status indicated above)

❑ Applicant certifying micro entity status. See 37 CFR 1.29

❑ Applicant asserting small entity status. See 37 CFR 1.27

❑ Applicant changing to regular undiscounted fee status.

NOTE: Absent a valid certification of Micro Entity Status (see forms PTO/SB/15A and 15B), issue fee payment in the micro entity amount will not be accepted at the risk of application abandonment.
NOTE: If the application was previously under micro entity status, checking this box will be taken to be a notification of loss of entitlement to micro entity status.
NOTE: Checking this box will be taken to be a notification of loss of entitlement to small or micro entity status, as applicable.

NOTE: This form must be signed in accordance with 37 CFR 1.31 and 1.33. See 37 CFR 1.4 for signature requirements and certifications.

Authorized Signature _____ Date _____

Typed or printed name _____ Registration No. _____

UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
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www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/443,273	06/17/2019	Brandon N. Hinderliter	047158.100042	1069

132858 7590 08/19/2021

Hogan Lovells US LLP
609 Main Street
Suite 4200
Houston, TX 77002

EXAMINER	
COYER, RYAN D	
ART UNIT	PAPER NUMBER
2191	

DATE MAILED: 08/19/2021

Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)
(Applications filed on or after May 29, 2000)

The Office has discontinued providing a Patent Term Adjustment (PTA) calculation with the Notice of Allowance.

Section 1(h)(2) of the AIA Technical Corrections Act amended 35 U.S.C. 154(b)(3)(B)(i) to eliminate the requirement that the Office provide a patent term adjustment determination with the notice of allowance. See Revisions to Patent Term Adjustment, 78 Fed. Reg. 19416, 19417 (Apr. 1, 2013). Therefore, the Office is no longer providing an initial patent term adjustment determination with the notice of allowance. The Office will continue to provide a patent term adjustment determination with the Issue Notification Letter that is mailed to applicant approximately three weeks prior to the issue date of the patent, and will include the patent term adjustment on the patent. Any request for reconsideration of the patent term adjustment determination (or reinstatement of patent term adjustment) should follow the process outlined in 37 CFR 1.705.

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571)-272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at 1-(888)-786-0101 or (571)-272-4200.

LIBERTY EXHIBIT 1002, Page 49

OMB Clearance and PRA Burden Statement for PTOL-85 Part B

The Paperwork Reduction Act (PRA) of 1995 requires Federal agencies to obtain Office of Management and Budget approval before requesting most types of information from the public. When OMB approves an agency request to collect information from the public, OMB (i) provides a valid OMB Control Number and expiration date for the agency to display on the instrument that will be used to collect the information and (ii) requires the agency to inform the public about the OMB Control Number's legal significance in accordance with 5 CFR 1320.5(b).

The information collected by PTOL-85 Part B is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 30 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450. Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Notice of Allowability	Application No. 16/443,273	Applicant(s) Hinderliter, Brandon N.	
	Examiner RYAN D COYER	Art Unit 2191	AIA (FITF) Status Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☑ This communication is responsive to the amendment filed 7/30/2021.
   ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2. ☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

3. ☑ The allowed claim(s) is/are 1-20 . As a result of the allowed claim(s), you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see **http://www.uspto.gov/patents/init_events/pph/index.jsp** or send an inquiry to **PPHfeedback@uspto.gov.**

4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   Certified copies:

   a) ☐ All b) ☐ Some* c) ☐ None of the:

   1. ☐ Certified copies of the priority documents have been received.
   2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
   3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

   * Certified copies not received: _____ .

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
   ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____ .

   Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).

6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☐ Notice of References Cited (PTO-892)
2. ☑ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date 6/8/2021.
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material _____.
4. ☐ Interview Summary (PTO-413), Paper No./Mail Date. _____.
5. ☐ Examiner's Amendment/Comment
6. ☑ Examiner's Statement of Reasons for Allowance
7. ☐ Other _____.

/Ryan D. Coyer/
Primary Examiner, Art Unit 2191

Statement of Reasons for Allowance

The present application is being examined under the pre-AIA first to invent provisions. The following is an examiner's statement of reasons for allowance: Applicants' arguments in the Remarks filed 7/30/2021 are found to be persuasive. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RYAN D COYER whose telephone number is 571-270-5306. The examiner can normally be reached on Monday-Friday 12pm-10pm Eastern Time. Examiner interviews are available via telephone, in-person, and video conferencing using a USPTO supplied web-based collaboration tool. To schedule an interview, applicant is encouraged to use the USPTO Automated Interview Request (AIR) at http://www.uspto.gov/interviewpractice. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Zhen can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR.

Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ryan D. Coyer/
Primary Examiner, Art Unit 2191

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/443,273	Hinderliter, Brandon N.
	Examiner	**Art Unit**
	RYAN D COYER	2191

CPC						
Symbol					**Type**	**Version**
H02J	/	3	/	46	F	2013-01-01
F01D	/	15	/	10	I	2013-01-01
E21B	/	41	/	0085	I	2013-01-01
G05B	/	15	/	02	I	2013-01-01
E21B	/	43	/	16	A	2013-01-01
E21B	/	43	/	26	A	2013-01-01

CPC Combination Sets							
Symbol					**Type**	**Set**	**Ranking**	**Version**
	/		/					

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	20	
/Ryan D. Coyer/ Primary Examiner, Art Unit 2191	14 August 2021	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	11

U.S. Patent and Trademark Office

Part of Paper No.: 20210812

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/443,273	Hinderliter, Brandon N.
	Examiner	**Art Unit**
	RYAN D COYER	2191

INTERNATIONAL CLASSIFICATION				
CLAIMED				
H02J3/46	/	3	/	46
F01D15/10	/	15	/	10
E21B41/00	/	41	/	00
G05B15/02	/	15	/	02
E21B43/16	/	43	/	16
E21B43/26	/	43	/	26

NON-CLAIMED				
	/		/	

US ORIGINAL CLASSIFICATION	
CLASS	**SUBCLASS**
700	293

CROSS REFERENCES(S)						
CLASS	**SUBCLASS (ONE SUBCLASS PER BLOCK)**					

NONE (Assistant Examiner)	(Date)	**Total Claims Allowed:** 20	
/Ryan D. Coyer/ Primary Examiner, Art Unit 2191 (Primary Examiner)	14 August 2021 (Date)	O.G. Print Claim(s) 1	O.G. Print Figure 11

U.S. Patent and Trademark Office

Part of Paper No.: 20210812

Issue Classification	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/443,273	Hinderliter, Brandon N.
	Examiner	**Art Unit**
	RYAN D COYER	2191

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIMS

Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original	Final	Original
1	1	10	10	19	19										
2	2	11	11	20	20										
3	3	12	12												
4	4	13	13												
5	5	14	14												
6	6	15	15												
7	7	16	16												
8	8	17	17												
9	9	18	18												

NONE		**Total Claims Allowed:**	
(Assistant Examiner)	(Date)	20	
/Ryan D. Coyer/ Primary Examiner, Art Unit 2191	14 August 2021	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	11

U.S. Patent and Trademark Office

Part of Paper No.: 20210812

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/443,273	Hinderliter, Brandon N.
	Examiner	Art Unit
	RYAN D COYER	2191

CPC - Searched*		
Symbol	**Date**	**Examiner**
G05B15/02 (text-delimited)	09/16/2019	RDC
H02J3/14 (text-delimited)	09/16/2019	RDC
H02J8/066 (text-delimited)	09/16/2019	RDC
E21B43/26 (text-delimited)	09/16/2019	RDC

CPC Combination Sets - Searched*		
Symbol	**Date**	**Examiner**

US Classification - Searched*			
Class	**Subclass**	**Date**	**Examiner**
700	293 (text-delimited)	09/16/2019	RDC

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/443,273	Hinderliter, Brandon N.
	Examiner	Art Unit
	RYAN D COYER	2191

Search Notes		
Search Notes	**Date**	**Examiner**
EAST Search	09/16/2019	RDC
PLUS Search	09/16/2019	RDC
Inventor Name & Double Patenting Search	09/16/2019	RDC
NPL Search	09/16/2019	RDC
EAST Update Search	09/28/2020	RDC
NPL Update Search	09/28/2020	RDC
EAST Update Search	03/29/2021	RDC
NPL Update Search	03/29/2021	RDC
EAST Update Search	08/14/2021	RDC
NPL Update Search	08/14/2021	RDC

Interference Search			
US Class/CPC Symbol	**US Subclass/CPC Group**	**Date**	**Examiner**
	EAST Text-Based Interference Search	08/14/2021	RDC

Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (02-18)
Approved for use through 11/30/2020. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16443273
Filing Date	2019-06-17
First Named Inventor	Brandon N. HINDERLITER
Art Unit	2191
Examiner Name	Ryan D. COYER
Attorney Docket Number	047158.100042

U.S.PATENTS

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	5950726	A	1999-09-14	Roberts	
	2	6097310	A	2000-08-01	Harrell et al.	
	3	5114239	A	1992-05-19	Allen	

If you wish to add additional U.S. Patent citation information please click the Add button.

U.S.PATENT APPLICATION PUBLICATIONS

Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20190040727	A1	2019-02-07	Oehring et al.	
	2	20110110793	A1	2011-05-12	Leugemores et al.	
	3	20170096889	A1	2017-04-06	Blanckaert et al.	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT
(Not for submission under 37 CFR 1.99)

Application Number	16443273
Filing Date	2019-06-17
First Named Inventor	Brandon N. HINDERLITER
Art Unit	2191
Examiner Name	Ryan D. COYER
Attorney Docket Number	047158.100042

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	Examiner Name	Ryan D. COYER
	Attorney Docket Number	047158.100042

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If you wish to add additional U.S. Published Application citation information please click the Add button.

FOREIGN PATENT DOCUMENTS

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2]	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1	112196508	CN	A	2021-01-08	China Nat. Petroleum Corp.	English-language abstract	☐
	2	104117308	CN	A	2014-10-29	Danyan Hisense Paint Chemical Plant	English-language abstract	☐

If you wish to add additional Foreign Patent Document citation information please click the Add button

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	First Named Inventor	Brandon N. HINDERLITER
	Art Unit	2191
	Examiner Name	Ryan D. COYER
	Attorney Docket Number	047158.100042

	1	International Search Report and Written Opinion mailed in PCT/US20/67526 mailed May 6, 2021	☐
	2	International Search Report and Written Opinion mailed in PCT/US20/67608 mailed March 30, 2021	☐
	3	International Search Report and Written Opinion mailed in PCT/US20/67528 mailed March 19, 2021	☐
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	6	International Search Report and Written Opinion mailed in PCT/US2020/066543 mailed May 11, 2021	☐

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Examiner Signature	/Ryan D. Coyer/ (08/12/2021)	Date Considered	08/12/2021

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[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16443273
Filing Date	2019-06-17
First Named Inventor	Brandon N. HINDERLITER
Art Unit	2191
Examiner Name	Ryan D. COYER
Attorney Docket Number	047158.100042

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☒ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☒ See attached certification statement.

☒ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☐ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Taylor P. Evans/	Date (YYYY-MM-DD)	2021-06-08
Name/Print	Taylor P. Evans	Registration Number	60506

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

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9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

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Patents (mobile unit) (switch gear) (mobile) (power bus) before:priority:20180615

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The control method of working truck and working truck

WO EP US CN JP · CN104377726A · [redacted]

Priority 2013-06-28 · Filed 2014-06-25 · Granted 2017-07-18 · Published 2017-07-18

The working truck of the 1st aspect of the present invention possesses : Engine, hydraulic pump, equipment, equipment operating portion Part, **mobile** devices, **power transmission**, bus-speed monitoring portion, accelerator operation part, accelerator operation test section and control Portion.Hydraulic ...

Method and system for improving reliability of emergency power supplies of ...

CN · CN102135924B · [redacted]

Priority 2011-05-20 · Filed 2011-05-20 · Granted 2012-12-05 · Published 2012-12-05

transformer 2130 is connected in emergency bus 2910 through Medium voltage switch or circuit breaker or high-voltage **switch gear** 2140.In the present .. This step is carried out in circulation, till the power of difference less than single energy-storage system module of the power demand of the **power** ...

Reconfigurable interconnection

US CN · CN108269224A · [redacted]

Priority 2017-01-04 · Filed 2017-09-29 · Published 2018-07-10

... , Pendant, other jewellery), **mobile unit** is (for example, train, aircraft, helicopter, unmanned plane, UAV navigation, nobody is land Vehicle, automobile, motorcycle, bicycle, scooter, hovering plate, other people or commercial transportation equipment), industrial equipment etc..Cause This, **mobile** ...

Battery replacement robot with **mobile** temporary storage frame and battery ...

WO EP US CN · CN102700513B · [redacted]

Priority 2012-06-29 · Filed 2012-06-29 · Granted 2015-02-04 · Published 2015-02-04

Change electric machine people and can carry out pose adjustment by **power bus** battery location, automatic identification and quick, accurate, safe ... 3. as claimed in claim 1 change electric machine people with **mobile** pallet, it is characterized in that, described bearing unit is primarily of ...

Remote control of associated vehicle devices



US · US9123338B2 · Christopher P. Ricci · Flextronics Ap, Llc

Priority 2012-03-14 · Filed 2014-04-15 · Granted 2015-09-01 · Published 2015-09-01

417 , green zone 413 , and uses the I/O **bus for power** connections. In accordance with an optional low cost implementation, the firewall 484 can be ... wherein rule (i) applies and the vehicle occupant is able to control the requested vehicle task, function or operation using one or more of a **cell** ...

Vehicle-mounted fuel **cell** and storage **cell** directly paralleled power system ...

CN · CN102738827B · [redacted]

Priority 2012-06-01 · Filed 2012-06-01 · Granted 2014-05-21 · Published 2014-05-21

... **cell** powered vehicle development process, integrated as fuel **cell unit**, improve commercialization electronimobil fuel processor, optimize Fuel **Cell** ... **switch gear** K2 closure, the direct accumulators group charging in parallel of fuel **cell** pile and battery pack; Otherwise, control high-voltage **switch** ...

Lighting Control Assembly

WO EP US CN BR CA MX · CN104115577B · [redacted]

Priority 2011-12-12 · Filed 2012-12-12 · Granted 2017-02-22 · Published 2017-02-22

... . 16. control systems as claimed in claim 1, further include data/address **bus, power bus** and have at least two The multiplexer of communication port. ... example, if user goes to bed, he can use interface, For example smart **mobile phone**, bluetooth **equipment, iPad, switch** etc., system of informing it is ...

Unmanned vehicle docking system and method

WO EP US CN JP · CN105517844B · [redacted]

Priority 2014-05-30 · Filed 2014-05-30 · Granted 2018-11-20 · Published 2018-11-20

The unmanned vehicle includes data storage **cell** comprising at least one storage unit, computer-readable medium. Data storage **cell** may include at least one processor **unit, memory cell** may include include code, logic or instruction To execute the non-transitory computer-readable medium of at least ..

The method of **mobile** terminal and control **mobile** terminal

US CN FR · CN105187624B · [redacted]

Priority 2014-05-30 · Filed 2015-05-29 · Granted 2018-12-04 · Published 2018-12-04

... destination and place associated with the default destination are in preset distance Within, control the **mobile** terminal execution to the place associated with the default destination call program. 17. according to the method for claim 16, this method further include: control **mobile terminal unit** ...

System and method for operating a hybrid vehicle system

WO US CN JP · CN104411535B · [redacted]

Priority 2012-07-05 · Filed 2013-06-28 · Granted 2017-02-22 · Published 2017-02-22

In this case, switch control module 250 can open second Catalyst 238 and close first contactor 236, so that DC electric power flow **switch equipment** ... Dynamical system 101 can also include the energy storage system 106 for **mobile** vehicle system 100.Energy storage system 106 can for example have one ...

Transmission device and robotic arm assemblies

WO EP US CN JP · CN106063309B · 小久保哲 · 株式会社

Priority 2014-03-06 · Filed 2015-02-19 · Granted 2019-08-13 · Published 2019-08-13

In addition, the high operability about second point, in general counter-jib, only some driving of hand unit, example Such as, the Two axle drive only for imaging **unit mobile** in (two dimension) plane is electric drive, and is manuallyd locate for arm list It is necessary for the movement of member ...

Motion process is used to control and access content on the **mobile** apparatus

WO EP US CN JP · CN102265242B · 史蒂文·G·格雷茨 · 索尼电脑娱乐公司

Priority 2008-10-29 · Filed 2009-10-29 · Granted 2015-09-02 · Published 2015-09-02

... relevant with application that described display shows; In response to the movement of described **equipment, switch** between at least two applications; ... According to an aspect of the present invention, user can **mobile** device 10 in space, and this to move be motion sensor senses by equipment, as ...

System and methods of using electromagnetic waves to wirelessly deliver power ...



US · US20180248378A1 · Michael A. Leabman · Energous Corporation

Priority 2013-06-25 · Filed 2017-10-04 · Published 2018-02-15

1210 . Other unique identifiers may include International **Mobile** Equipment Identity (IMEI) numbers, which usually include a 15-digit unique identifier associated with all GSM, UMTS and LTE network **mobile** users; Unique Device ID (UDID) from iPhones, iPads and Mods, comprising a combination of 40

Portable power supply for **mobile** computing device

WO US CN DE GB · CN102856618B · R·莱斯特 · 英特尔公司

Priority 2009-11-18 · Filed 2010-11-17 · Granted 2018-08-03 · Published 2018-08-03

... failure also can indicate that Power leakage situation (for example, pseudo- metal).If 1230 success of certification mode, the **equipment switch** to ... Provide a kind of portable power supply for **mobile** computing device.The portable power supply includes for keeping the holding structure of the ...

Mobile power system



US · US8593037B2 · Elden Prax · Sundial Power Pods, Llc

Priority 2009-09-09 · Filed 2010-09-09 · Granted 2013-12-03 · Published 2013-12-03

9. The **mobile** power system of claim 1 , wherein the plurality of energy sources includes at least one of a solar powered generating device, a wind powered generating device, a hydrogen fuel **cell** powered generating device, and a bio-diesel powered generating device. 10. The **mobile** power system of

System and methods of using electromagnetic waves to wirelessly deliver power ...



US · US20180241285A1 · Michael A. Leabman · Energous Corporation

Priority 2012-07-06 · Filed 2018-04-24 · Published 2018-08-23

distributed thereon. FIGS. 11B-11D illustrate wireless power transmitters integrated with various types of **mobile** law enforcement equipment (e.g., a police squad car and a SWAT team vehicle) for use in conjunction with law enforcement operations, in accordance with some embodiments. FIG. 11B

A kind of wearable intelligence equipment of electric power field work

CN · CN104539311B · 国家电网公司 · 国网江苏省电力公司常州供电分公司

Priority 2014-12-17 · Filed 2014-12-17 · Granted 2017-08-08 · Published 2017-08-08

The wearable intelligence equipment of foregoing electric power field work, wherein handheld terminal main frame includes PDA processors, electric energy matter Phasor measurement unit, bar code reading unit, RFID read-write unit, far infrared Transmit-Receive Unit, IC-card read-write **cell, image** ...

Energy management system and method

WO EP US CN JP KR AU BR CA CL MX · CN102449866A · 凯文·P·文森特 · 阿尔卡特朗讯公司

Priority 2009-07-20 · Filed 2010-07-20 · Granted 2015-04-29 · Published 2015-04-29

A place read requests in this first inhabitation place is received from this first **mobile** device; Access this database to retrieve the place report data in this first inhabitation place; Accessed place reporting data format is turned to data of **mobile** device; A **mobile** device network is utilized to ...

System and method for server based control



US · US20180343304A1 · Yehuda Binder · May Patents Ltd.

Priority 2012-01-09 · Filed 2018-08-03 · Published 2018-11-29

, wherein the cellular telephone network is according to, is based on, or is compatible with, a Third Generation (3G) network that uses Universal **Mobile** Telecommunications System (UMTS) UMTS, Wideband Code Division Multiple Access (W-CDMA) W-CDMA UMTS, High Speed Packet Access (HSPA) HSPA, UMTS Time ...

The **mobile** system of automation

WO EP US CN · CN103777618B · 赛米·N·哈姆迪 · 伊顿公司

Priority 2012-11-12 · Filed 2012-11-12 · Granted 2019-11-01 · Published 2019-11-01

... device.If display does not have the battery of their own, this It is also operation mode (for example, ultralight model).Having fully charged battery in wherein display **unit, still mobile** device is in low in the case where battery capacity, **mobile** device can obtain electric power from display unit.

Method and apparatus for an environmentally-protected electronic equipment ...



US · US8422888B2 · ⊞ William E. Woodbury · Elliptical Mobile Solutions, LLC

Priority 2005-12-22 · Filed 2009-11-17 · Granted 2013-04-23 · Published 2013-04-23

Such installations often include **switch equipment** rooms that include a large number of electronic equipment racks that have been installed to provide ... or conversely is operated in a non-**mobile** application as discussed above, power may be applied to the electronic equipment rack via an external **power** ...

System and method for recycling, processing or reselling **mobile** equipment and ...

WO EP US CN · CN105279695B · 廖忠 李琴 · 深圳市[illegible]公司

Priority 2014-10-03 · Filed 2015-10-08 · Granted 2020-04-10 · Published 2020-04-10

In operation, the power switch 455 receives an enable signal S from the controller 422 e When closed, the second power supply line 446b is connected to the first power supply line 446 a. **Mobile** device 480 (FIG. 4A) in turn obtains device current I via power lines 446a-b and device **bus power** line 496 ...

Wireless hotspot device capable of sharing video pictures

US CN TW · CN203872881U · 张中荣 · 立德[illegible]公司

Priority 2014-01-28 · Filed 2014-02-07 · Granted 2014-07-09 · Published 2014-07-09

Another person, more there is dealer to pass through using hard disk external box combination hard disk drive or Portable disk as a **mobile** hard disc, and by connecting a serial bar (Universal Serial Bus, USB) interface carries out the action of access data to this action hard disc, and by serial ...

Power management for vehicle-mounted base station



WO EP US · US10092228B2 · Randy Rutherford · Parallel Wireless, Inc.

Priority 2015-03-30 · Filed 2016-03-30 · Granted 2018-10-09 · Published 2018-10-09

601 , the base station may monitor the CAN **bus for power** down messages, runlock messages, battery voltage low messages, or other messages. If a ... conducting, at the in-vehicle base station, an orderly shutdown of radio frequency services for **mobile** devices attached to a radio access network via ...

Systems and methods of using electromagnetic waves to wirelessly deliver power ...



US · US20200006288A1 · Michael A. Leabman · Energous Corporation

Priority 2012-07-06 · Filed 2019-01-25 · Published 2020-01-02

distributed thereon. FIGS. 11B-11D illustrate wireless power transmitters integrated with various types of **mobile** law enforcement equipment (e.g., a police squad car and a SWAT team vehicle) for use in conjunction with law enforcement operations, in accordance with some embodiments. FIG. 11B

Steering control system and method



US · US7756621B2 · Duane R. Pillar · Oshkosh Corporation

Priority 2002-06-13 · Filed 2007-10-29 · Granted 2010-07-13 · Published 2010-07-13

FIG. 14 is a schematic diagram showing the vehicle of FIG. 13 being used as a **mobile** electric power plant; FIG. 15 is a schematic diagram showing ... 1988 is used to facilitate the connection of the modules to the communication network 1976 and the AC **power bus** assembly 1942 and multiple junctions ...

User interface and the virtual personalities presentation based on user ...

WO EP US CN · CN108762541A · C.P陈奇 · 创新基础设施技术有限公司

Priority 2013-04-15 · Filed 2014-04-15 · Granted 2018-05-29 · Published 2018-05-29

Term " communicator ", " smart **phone** " and " **mobile** device " as used herein and its variation can be interchangeably Using and can include communicating by communication protocol and another device of one or more and/or across communication network Any kind of device etc. Exemplary communication ...

Remote controlled **mobile** traffic control system and method



US CA · US9773395B2 · Leo Beaudoin · Leo Beaudoin

Priority 2015-11-27 · Filed 2016-11-28 · Granted 2018-05-15 · Published 2018-05-15

...). In such embodiments, a leader or master unit within the work zone would be automatically followed by the **mobile** platform, whereby the **mobile unit** ... As outlined elsewhere herein, there are multiple types of power systems and **power buses** which could be used on **mobile** platform of the present ...

A kind of data collaborative processing system based on intelligent gateway

CN · CN103236988B · 潘绍元 · 潘绍宁等

Priority 2013-05-31 · Filed 2013-05-31 · Granted 2016-12-28 · Published 2016-12-28

1. **mobile** Internet intelligence based on 3G/4G accesses and escape mechanism, by event driven mode, with in advance Definition (system definition and client are self-defined) event triggers linking Internet and exits, by intelligent network switch unit 13 pairs of linking Internet are managed ...

Switch power converter and system for controlling a plurality of switch power ...

WO EP US CN JP KR AT AU DE · CN100472931C · 赛普科技有限 · 艾利森公司

Priority 2002-11-14 · Filed 2003-11-14 · Granted 2009-04-01 · Published 2009-04-01

Multiplexer 3806 4 (Figure 40 D) uses high-voltage **switch gear** and safeguard (care) that need take, so that voltage divider 3804 4 can not provide ... Switching Power Supply for example be used in a plurality of products **cell phone**, camera, PDA (personal digital assistant), calculator, portable ...

Semiconductor device

US CN JP · CN103915782B · 秦博安 · 株式会社半导体能源研究所

Priority 2012-12-28 · Filed 2013-12-27 · Granted 2018-04-20 · Published 2018-04-20

.. has the function of as follows : Collect The **cell** voltage of multiple electrical storage devices 8105 possessed by electrical storage device group 8106 (**cell** voltage) And the number of **cell** temperature According to, monitoring overcharging or overdischarging, monitoring overcharge stream, control **unit** ...

Shared opportunism resource between devices

WO US CN JP DE TW · CN104025566B · K·O·韦尔斯 · 英特尔公司

Priority 2011-12-28 • Filed 2012-12-21 • Granted 2018-02-02 • Published 2018-02-02

Power management is the critical product feature of electronic equipment particularly **mobile** device.**Mobile** device utilizes compact power Such as battery supplies power to the various parts of equipment.Power management is to disconnect power when inactive or **switch equipment** To the feature of lower ..

Method for controlling **mobile** communications



US · US9008082B2 · Mark S. Frye · General Motors LLC

Priority 2011-05-04 • Filed 2011-08-03 • Granted 2014-08-12 • Published 2014-08-12

wherein the application resident on the **mobile** communications device includes: computer readable code for enabling the **mobile** communications device to enter into a sleep mode after a predetermined amount of time of non-use of the **mobile** communications device has passed since establishing the RFID ...

Robot arm equipment, the control method and program of robot arm equipment

WO EP US CN JP · CN110613623A8 · 奥田隆平 · 索尼公司

Priority 2014-03-28 • Filed 2015-03-20 • Granted 2019-11-26 • Published 2019-11-26

Firstly, the task space about the operation for ensuring at first point is pacified inside base unit etc. In general counter jib It is anti-loaded to be used for balance weight (also referred to as counterweight or balancer) when hand **unit is mobile**, the balance of retentivity, therefore, It is ...

Automatically walk snow removing equipment

WO EP US CN · CN107044116A · 高振乐 · 苏州宝时得电动工具有限公司

Priority 2016-02-06 • Filed 2017-02-06 • Published 2017-08-15

.. controlled in time.Therefore, detection control unit includes detection **unit and mobile control unit**, Inspection Survey unit be used for detect memory storage boundary line 320 coordinate data whether the number of coordinates with the snow breaker of memory storage According to coincidence ; **Mobile**

Personal emergency response (PER) system



US · US9311640B2 · Bao Tran · Koninklijke Philips N.V.

Priority 2006-06-30 • Filed 2013-11-04 • Granted 2016-05-31 • Published 2016-05-31

verbally communicating with a user through a base unit, wearing a **mobile** device with a plurality of different sensors on the patient to detect patient motion, wherein the **mobile** device transmits data to the base unit, refining identification of the activity, comprising analyzing at least one ..

For managing the system of reactive power, equipment and method

WO US CN AU BR CA CL PE RU ZA · CN102150322B · D·W·赛格莱 · 西门子工业公司

Priority 2008-09-22 • Filed 2009-09-22 • Granted 2015-11-25 • Published 2015-11-25

can be and/or can utilize any one in multiple sub-network and/or agreement, such as circuit switching, public exchange, packet switching, without connecting, wireless, virtual, radio, data, **phone**, twisted-pair feeder, POTS, non-POTS, DSL, honeycomb fashion, telecommunications, video distribution, ..

Electric bicycle operating system, electric speed changer and electric seat bar ...

US CN DE TW · CN106672521B · 奥川健太 · 株式会社岛野

Priority 2016-01-15 • Filed 2016-12-15 • Granted 2019-04-05 • Published 2019-04-05

Valve **cell** 32 is closed when flowing control section 30 and being located at closed position P11.It is fixed in flowing control section 30 Valve **cell** 32 is opened when position is at the P12 of open position.Valve **cell** 32 is connected to the second pipe 22 via guiding elements 28, so as to opposite ...

Control system for power storage device



US CN JP KR · JP6823717B2 · 恩德 宋 · 株式会社半导体エネルギー研究所

Priority 2012-12-28 • Filed 2020-07-01 • Published 2020-10-15

AM refers to a memory in which the transistor having a low off-current is used as a selection transistor (transistor as a switching element) of a memory **cell**. First, the memory will be described with reference to FIG. Here, FIG. 12A is a circuit diagram showing a memory **cell** array of the memory.

On-demand robot food assembling and related system, device and method

WO EP US CN JP KR AU BR CA CL CO MX TW · CN109475219A · 詹姆斯·R·柯蒂斯 · 维多利亚农场公司

Priority 2016-04-08 • Filed 2017-04-06 • Published 2019-03-15

At least contact portion of arm tool end is rotated, while when the rotation of arm tool end, selectively making arm tool last End is **mobile** at least two-dimensional pattern. 76. the method according to claim 73, wherein provide control signal with determining **mobile** pattern driving arm tool end ...

Battery system, electric vehicle, movable body, power storage device, and power ...

WO EP US CN KR · CN102823107B · 大仓计宽 · 三洋电机株式会社

Priority 2011-03-25 • Filed 2011-09-13 • Granted 2014-07-30 • Published 2014-07-30

10. a moving body, it possesses: Battery system in claim 1 to 8 described in any one; **Mobile** agent portion; With Power source, power converter from described battery system is become the power for described **mobile** agent portion is moved by it. 11. 1 kinds of power storage devices, it possesses: ..

System, method, and apparatus for powering intelligent lighting networks



[illegible] • [illegible] • David M. Snyder • Ideal Holdings Llc
Priority 2013-03-25 • Filed 2016-02-25 • Published 2016-06-23
claim 2 wherein the power station is configured to permit a plurality of adjacent ports to operate on a common **power bus**; wherein the plurality of ... 140 may be configured as a smart-**phone**, which is a **mobile phone** built on a **mobile** operating system. Most modern smart-phones also include high- ...

Mobile hot spot/router/application share site or network



WO US EP • [illegible] • Christopher P. Ricci • Flextronics Ap, Llc
Priority 2011-11-16 • Filed 2012-11-16 • Granted 2015-07-14 • Published 2015-07-14
212 can include an integrated audio input/output device 556 and/or an audio jack for interconnecting an external speaker or microphone. For example, an integrated speaker and an integrated microphone can be provided, to support near talk or speaker **phone** operations. Hardware buttons 280 can be ...

Non-contact receiving device, non-contact transmitting device, and non-contact ...

WO EP US CN JP • [illegible] • [illegible] • [illegible]
Priority 2011-06-20 • Filed 2011-06-20 • Granted 2015-07-08 • Published 2015-07-08
[other variation of the monitor **unit of mobile** object] Figure 16 is the figure of other the variation 1 for illustration of the monitor **unit of mobile** object.As shown in figure 16, also thermal camera 450 can be set in the side of vehicle 100, detect **mobile** object to power transmission unit 220 and ...

System, method, and data packets for messaging for electric power grid elements ...



US • [illegible] • Joseph W. Forbes, Jr. • Causam Energy, Inc.
Priority 2012-07-31 • Filed 2017-10-30 • Granted 2019-06-04 • Published 2019-06-04
... with the electric power grid (including but not limited to control systems, thermostats, controllers, anything that controls the device, **switch gear**, ... The grid element(s) further include at least one **mobile** device having at least one access point name (APN) for providing a priority of delivery for ...

Vehicle identification or authentication



WO US • [illegible] • Christopher P. Ricci • Nio Usa, Inc.
Priority 2016-07-07 • Filed 2016-10-31 • Granted 2018-05-29 • Published 2018-05-29
... , reverse, and/or drive positions, etc.), throttle control pedal or mechanism, brake control pedal or mechanism, power control **switch**, **communications** ... **Mobile** Subscriber Identity ("IMSI") number (stored on a Subscriber Identity Module ("SIM") card of the communication device), Temporary **Mobile** ...

Mobile communications terminal using multi-functional socket and method thereof



EP US JP RP • [illegible] • Yong-Hum Lee • Lg Electronics Inc.
Priority 2005-04-27 • Filed 2010-12-06 • Granted 2012-02-14 • Published 2012-02-14
A **mobile** communications terminal using a multi-functional socket and a method thereof, the **mobile** communications device comprising a connector capable of connecting the **mobile** communications device to at least one external device for establishing an electrical connection between the at least one ...

Intelligent vehicle for assisting vehicle occupants



WO US • [illegible] • Christopher P. Ricci • Flextronics Ap, Llc
Priority 2012-03-14 • Filed 2014-04-15 • Granted 2015-07-14 • Published 2015-07-14
417 , green zone 413 , and uses the I/O **bus for power** connections. In accordance with an optional low cost implementation, the firewall 484 can be ... and path of vehicle travel and wherein the action is providing a notification of an instant message, email, voice mail from, and/or missed **phone** call ...

Communication system, guided wave switch and methods for use therewith



WO EP US CN JP KR BR CA MX • [illegible] • Gerald J. Bamickel • At&T Intellectual Property I, Lp
Priority 2015-10-02 • Filed 2015-10-02 • Published 2017-04-06
1504 . Media content received by the central office 1501 can be supplied to the second instance of the distribution system 1560 via the base station device 1504 for distribution to **mobile** devices 1522 and establishments 1542 . The transmission device 1510 can be tethered to the establishments 1542 by ...

Systems, devices and methods for vehicles



US • [illegible] • Clay Skelton • Mill Mountain Capital, Llc
Priority 2011-12-12 • Filed 2016-08-01 • Granted 2019-01-29 • Published 2019-01-29
in which the first antenna is configured to detect the presence of the **mobile** device within an 8 foot radius of the antenna, in which the processor is configured to compare a MAC address of the detected wireless transmission with the listing of the authorized MAC addresses present in a memory unit ...

... , time synchronization, KPI filtering and spectral coordination small **cell** ...

WO EP US CN JP KR • [illegible] • S 达斯 • [illegible]
Priority 2013-12-18 • Filed 2014-12-15 • Granted 2019-11-01 • Published 2019-11-01
Shown UMTS core net 304 includes the circuit switching domain (CS) and the domain packet switch (PS).Some circuit switching **Unit** is **mobile** service switching centre (MSC), visitor location register (VLR) and gateway MSC (GMSC).Packet switch unit including Serving GPRS Support Node (SGSN) and Gateway ...

Switchover method for controlling data transmission interface in **mobile** ...

US CN • [illegible] • [illegible] • [illegible]
Priority 2008-12-16 • Filed 2008-12-16 • Granted 2012-10-10 • Published 2012-10-10

Said initial setting up unit; Be used for behind **mobile** terminal-opening; Through the high speed data lines that GPIO interface CS equipment breaks off high-speed interface described in this application processor and the communication processor, with Signalling exchange, data transmission path is ...

Switched-mode power supply circuit

US CN DE • CN104852338B • M·施耐尔曼 • 英飞凌科技奥地利有限公司
Priority 2014-02-13 • Filed 2015-02-12 • Granted 2019-01-18 • Published 2019-01-18
... parallel operation, analogue-to-digital converters etc..In the present example, output voltage V is represented OUT Signal (V OUT =V **BUS**) **via electrical** ... 34. charging circuit according to claim 28, wherein the switch controller unit is configured as via the electricity **Mobile** device described in sir ...

Scoring driving measurement, triggering and the system intelligent, adaptive, ...

WO EP US CN • CN110047021A • S·阿加瓦尔 • 英士系统软件有限公司
Priority 2016-09-10 • Filed 2017-09-11 • Published 2019-04-26
Vehicle remote information processing refers to mainly installation or insertion electricity in **mobile unit** (such as automobile or other vehicles) Equipment is believed, to be used to send real-time driving data (such as can be by third party system use), thus as automatic Risk Monitoring With risk ...

Self-organizing systems and methods for data collection



US • US20190224437A1 • Charles Howard Cella • Strong Force IoT Portfolio 2016, Llc
Priority 2017-08-02 • Filed 2019-06-29 • Published 2019-10-24
directing the **mobile** data collector unit to the target location; and collecting sensor data at the target location from the **mobile** data collector unit. 5 . The method of claim 1 , wherein self-organizing the distribution of the **mobile** data collector unit and the one or more other **mobile** data ...

Automatic local electric power management system

WO EP US CN • CN104885322B • 罗伯·赫尔 • 罗伯·赫尔
Priority 2012-09-26 • Filed 2013-09-20 • Granted 2017-06-09 • Published 2017-06-09
... adapted for by internet, radio communication, or its His suitable mode makes controller and remote computer, remote server, or at least one of **mobile** ... The system can also include being electrically connected to the sensor of main **power bus** and be configured as on detection main **power bus Electric** ...

Power inverter

EP US CN JP • CN101420951B • 格雷戈里·斯塔基斯 • 特灵科技公司
Priority 2007-08-09 • Filed 2008-08-11 • Granted 2011-11-23 • Published 2011-11-23
Capacitor **cell** 514 as the unit tectosome of the Reserve Power Division of capacitance component 500 has thin-film capacitor 515 respectively, and it is that insulation film is clipped in as the film of positive pole and as between two kinds of conducting films of the film of negative pole and reel ...

Motorised scooter



EP US CN JP KP AU SG • US20190248439A1 • Zuzi WANG • Neuron Mobility Pte. Ltd.
Priority 2016-06-16 • Filed 2017-06-15 • Published 2019-08-15
replenishing an on-board energy source of the at least one motorised scooter automatically. 25 . The method of any of the preceding claims 21 to 24 further comprising communicating with a **mobile** communication device of a user. 26 . The method of any of the preceding claims 21 to 25 further comprising ...

Intelligent network

WO EP US CN JP AU BR CA MY NZ RU ZA • CN102870096B • J·多尔 • 皇家飞利浦电子有限公司
Priority 2010-03-19 • Filed 2011-03-16 • Granted 2016-10-12 • Published 2016-10-12
21. integrated frameworks according to claim 13, wherein said multiple sensors include: Movable sensor, is attached to the **mobile unit** of described industry network and is configurable to generate end-point data ; And Static sensors, be configured to detect about described industry network ...

Telematic control system with integrated power supply and control method

US JP DE • JP2008508825A • エス．フェルナンデス・エス．フェルナンデス
Priority 2003-07-23 • Filed 2004-07-23 • Granted 2010-09-15 • Published 2010-09-15
2. The automobile electronic device according to claim 1, wherein the first voltage power source comprises a 36-42 volt **power source / bus**, and the ... In this fuel **cell** stack, a voltage of a plurality of levels is applied by one or more of a solid polymer fuel **cell**, a tubular solid oxide fuel **cell**, ...

For the modularization movable accessory of **mobile** device

WO EP US CN JP KR AU CA CL CO MX SG • CN103229128B • 乔纳森·塞·斯马尔
Priority 2010-05-19 • Filed 2011-05-19 • Granted 2016-05-11 • Published 2016-05-11
... module 2304, one or more processor 2306a and2306b, one or more input and output (I/O) interface 2308a and 2308b, built-in interface 2310,External interface 2312, encrypting module 2314, such as battery supply of supplying **cell** module 2316(),integrated display screen 2318, bus 2320 and/or **power bus** ...

Active antenna system



WO EP US CN JP • JP6512778B2 • クレメンス・ラインフェルダー・グロー・バルディンガスト・ブロバティーズホールディングアーゲー
Priority 2013-12-30 • Filed 2014-12-30 • Granted 2019-11-27 • Published 2019-11-27
1. To establish a communication connection, start with a scan for the communication partner 63. The active antenna system 1 can emit a beam-shaped scan signal that permanently changes direction so that the scan signal scans the **cell** 64 for a new potential communication partner during a specific ...

Wireless communication methods and apparatus supporting wireless terminal mode ...

WO EP US CN JP KR AR DE ES RU PL TW • CN101341715B • P·施蒂姆 • 英商黑莓公司

Priority 2006-01-11 • Filed 2007-01-11 • Granted 2011-12-07 • Published 2011-12-07

Electric energy is dispensed into various assemblies (2302,2303,2304,2306,2308,2312) from power module 2310 via **power bus** 2309.User I/O equipment 2308 ... 16. **mobile** communication equipment as claimed in claim 16 is characterized in that, Described **mobile** communication equipment is a cellular network ...

Steering control system and method



US • US6882917B2 • Duane R. Pillar • Oshkosh Truck Corporation

Priority 1999-07-30 • Filed 2003-03-28 • Granted 2005-04-19 • Published 2005-04-19

Battery Electro- Determines whether electrolyte PASS/FAIL lyte Level in the sensed **cell** is of sufficient (PASS/FAIL) level (i.e., in contact with ... 1988 is used to facilitate the connection of the modules to the communication network 1976 and the AC **power bus** assembly 1942 and multiple junctions

Control system and method for electric vehicle



US • US6885920B2 • Christopher K. Yakes • Oshkosh Truck Corporation

Priority 1999-07-30 • Filed 2002-12-19 • Granted 2005-04-26 • Published 2005-04-26

wherein the power source comprises a fuel **cell** coupled to an inverter, and wherein the method further comprises using the inverter to convert DC ... back to AC power to augment and supplement the AC power generated by the principal power unit 1916 over the AC **power bus** assembly 1942 . Applicants ...

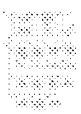
Driving is detected with wearable calculating equipment

EP US CN • CN104978028B • 俞学斌 吴建雄 许可欣 • 北京智谷睿拓技术服务有限公司

Priority 2014-04-07 • Filed 2015-04-07 • Granted 2019-06-28 • Published 2019-06-28

It wearable calculated equipment by described and detected and the wearable instruction for calculating the associated movement of equipment, wherein institute The opposite variation in terms of **mobile** instruction includes the wearable absolute altitude for calculating equipment is stated, and ...

Equipment service vehicle with network-assisted vehicle service and repair



US • US8892302B2 • Duane R. Pillar • Oshkosh Truck Corporation

Priority 1999-07-30 • Filed 2002-12-20 • Granted 2006-01-31 • Published 2006-01-31

can also be a fuel **cell** or a nuclear power device. The fuel **cell** may for example be a hydrogen-oxygen fuel **cell** that produces electrical power in the ... back to AC power to augment and supplement the AC power generated by the principal power unit 1916 over the AC **power bus** assembly 1942 . Applicants ...

Information processing apparatus and power supply control method thereof



US JP • JP5016783B2 • 榎仁 勝彦 • 株式会社東芝

Priority 2004-08-11 • Filed 2004-08-11 • Granted 2012-09-05 • Published 2012-09-05

According to the charging technology disclosed in Patent Documents 1 to 3, a **bus power** is taken out from a USB connector included in many information processing apparatuses and device devices of today, and a battery of a portable electronic device such as a **mobile phone** is used by using the **bus** ...

System and method for signal waveform analysis for detecting changes in wired ...

WO EP US CN • CN110088623B • 高八·科恩斯坦 • 科磊股份有限公司

Priority 2016-12-07 • Filed 2017-11-18 • Granted 2021-05-25 • Published 2021-05-25

... in parallel within the node. **Bus power** is fed to the male connector of a node, and the **bus draws power** from the female connector of the node. This ... And (5) short messages. Short Message Service (SMS) is a Short Message Service component of a telephone, Web or **mobile** communication system. Which ...

Energy harvesting system



US • US8723344B1 • James Dierickx • James Dierickx

Priority 2010-06-24 • Filed 2011-06-24 • Granted 2014-05-13 • Published 2014-05-13

An energy harvesting and harnessing system is **mobile** and can store energy when the system is not in motion for later use in powering the **mobile** transport refrigeration unit (TRU) or truck mounted refrigeration units eliminating unnecessary use of the diesel motor on the refrigeration unit. There ...

Shell, electronic equipment, device, method and flat articles pop-up device ...

WO EP CN JP TW • CN104053372B • J·B·泰利 • 苹果公司

Priority 2011-01-31 • Filed 2012-01-31 • Granted 2018-06-12 • Published 2018-06-12

Compressible foam as described herein may include the stomata and cavity of commonly known as honeycomb (**cell**).According to honeycomb Structure and formula, honeycomb can be described as " open honeycomb ", " half-open honeycomb " and " closed cellular ".Foam element can be used for outer Many ...

... analytics and maintenance using the industrial internet of things and a **mobile** ...



US • US20200166923A1 • Charles Howard Cella • Strong Force Iot Portfolio 2016, Llc

Priority 2018-05-07 • Filed 2019-11-15 • Published 2020-05-28

wherein the vibration activity represents frequency information for at least the portion of the industrial machine. 8 . The method of claim 1 , wherein the **mobile** data collector is one of a plurality of **mobile** data collectors of a **mobile** data collector swarm. 9 . The method of claim 8 , further ...

Vehicular electronic system with crash sensors and occupant protection systems

US • US7657352B2 • David S. Breed • Automotive Technologies International, Inc.

Priority 1995-10-30 • Filed 2007-10-29 • Granted 2010-02-02 • Published 2010-02-02



The network can accurately predict the GPS signal the communication unit will receive and convey that information to the **mobile unit** such as a ... are different views of an automotive connector for use with a coaxial **electrical bus** for a motor vehicle illustrating the teachings of this invention ...

Smart solar **cell** and module

WO US CN JP • JP2016519865A • メールボックス エム. & ヒル • ソレクセル、インコーポレイテッド
Priority 2013-04-13 • Filed 2014-04-14 • Published 2016-07-07
... solar cells) It can be placed / attached or attached as an individual component to an individual **cell** backside (eg, using SMT or an **electrical bus** ... The MPPT power optimizer is an autonomous **unit (cell** MPPT DC / DC buck converter is not frequency-synchronized) with the goal of realizing the ...

Tracking power consumption and payment



US • US9564815B2 • Christopher P. Ricci • Nio Usa, Inc.
Priority 2015-11-13 • Filed 2016-09-30 • Granted 2018-05-08 • Published 2018-05-08
..., and/or drive positions, etc.), throttle control pedal or mechanism, brake control pedal or mechanism, power control **switch, communications equipment** ... The loads 1508 may include a **bus or electrical** interconnection system 1802, which provides electrical energy to one or more different loads within ...

Mobile-power system with solar-powered hydrogen liberator, fuel **cell**, turbine, ...



WO EP US AU CA • US7116021B2 • Larry L. Johnson • Sprint Communications Company L.P.
Priority 2003-05-15 • Filed 2005-05-05 • Granted 2006-09-26 • Published 2006-09-26
.. have sufficient existing charge that they are able to bridge. If so, capacitors 52 will be used to temporarily maintain DC **power in bus** 34 in a step ... a hydrogen liberator for producing hydrogen; a fuel **cell** adapted to consume said hydrogen produced to generate a second source of DC; and said ...

Mobile inspection robot



US • US9463574B2 • Indrajit Purkayastha • Irobot Corporation
Priority 2012-03-01 • Filed 2013-02-13 • Granted 2016-10-11 • Published 2016-10-11
.. remain a safe distance from the circuit breaker 20 or switchgear 10 a. Referring to FIGS. 1B-1D, in some implementations, a **mobile** robot 100, 100 b may be used to monitor or observe electrical equipment 10, such as **switch gear** 10 a and/or data center equipment 10 b, in a data center 50. The robot

Peer to peer sharing of functionality of **mobile** devices

WO US CN EP • CN101711387B • 诺基亚 • 诺基亚公司
Priority 2007-04-04 • Filed 2008-04-01 • Granted 2014-05-07 • Published 2014-05-07
2. **mobile** device according to claim 1, also comprise function expansion component, for identifying the one group of remote functionality assembly that comprises the described remote functionality assembly that can be used for sharing, and make described **mobile** device can from the group of described ...

Exit criteria for conditionity handover and the mobility status estimation ...

WO EP US CN • CN110226327A • 华为技术 • 华为技术公司
Priority 2017-02-27 • Filed 2018-02-22 • Published 2019-10-11
... be by Referred to as they: client, **mobile** device, **mobile** terminal, user terminal, **mobile unit**, movement station, **mobile** subscriber, is ordered **mobile** ... the system of SoC.It may include other bus systems (such as I 2 C interface, SPI interface, point-to-point interface and electricity **Power bus** etc.) ...

Hybrid hydraulic fracturing fleet



WO US AP CA • US11035207B2 • Jared Oehring • U.S. Well Services, LLC
Priority 2018-04-16 • Filed 2019-04-16 • Granted 2021-06-15 • Published 2021-06-15
The MPU is configured to generate voltage that matches the requirements of an **electrical bus** from the at least one **switch gear** such that a combined ... A hydraulic fracturing system is disclosed as including a singular **mobile** platform of at least one **mobile power unit** (MPU) and at least one first ...

Teleoperated robotic system

WO EP US CN JP • JP2018043343A • スティーヴン・シー・ジェイコブセン • レイセオン カンパニー | R a y t h e o n C o m p a n y
Priority 2011-04-29 • Filed 2017-12-14 • Published 2018-03-22
Optionally, an energy storage device such as a battery may be configured to transmit power to the **electrical bus** 706 and / or the hydraulic pump 703. ... A **mobile** platform that is steerable around the ground and in an operating environment, wherein the **mobile** platform is a user within an operating area ...

Apparatus and method for a motor vehicle wheel

WO EP US CN JP CA • CN107206837B • A·阿姆斯 • 德伊公司
Priority 2014-11-24 • Filed 2015-11-24 • Granted 2020-02-14 • Published 2020-02-14
1. A method for controlling a human powered vehicle, the method comprising: receiving, from a **mobile** device associated with a user of a vehicle, a user selection of one of a plurality of operating modes for controlling vehicle performance; in response to receiving the user selection, setting a set ...

On-vehicle device and content providing method

WO EP US CN JP KR • CN101535086C • 松下电器 • 松下电器产业
Priority 2006-09-25 • Filed 2007-09-19 • Granted 2009-08-26 • Published 2009-08-26

1. **mobile unit**, it accepts from the selection of hierarchical menu to it is characterized in that to provide content according to operation of being undertaken by touch panel and the operation undertaken by telepilot: Described telepilot comprises: The focus switching operating device, it switches ...

Method and system for controlling a **mobile** communication device in a moving ...



WO US • US8792882 • Scott Ferrill Tibbitts • Kajeet Llc

Priority 2009-07-21 • Filed 2010-07-21 • Granted 2014-07-22 • Published 2014-07-22

(31) U.S. Patent No. 2009/00895744 by Sellin et al. which discloses, a system for controlling access to a network includes a wireless switch configured for radio frequency communication with a **mobile unit** associated with a radio frequency identification tag. The wireless switch is adapted for ..

Serviceable battery pack



US • US10283882 • Karl F. Scheucher • Karl F. Scheucher

Priority 2006-02-09 • Filed 2014-10-27 • Granted 2018-10-23 • Published 2018-10-23

... is a battery pack described herein above in regard to FIGS. 1, 2, 5, 6 and 7 . An array of batteries arranged in parallel supplies **power to bus** 450 B. ... 19. A process for operating a battery pack service station comprising the steps of: detecting, using a controller, a failed **cell** in a battery pack, ...

For providing the capstan winch of the non-drum cable part with predetermined ...

WO EP US CN DK ES • CN102415754B • [illegible] • [illegible]

Priority 2010-12-20 • Filed 2011-12-15 • Granted 2016-06-29 • Published 2016-06-29

Circuit board 360 also has to interface 342(especially, to the data division 342 of interface, especially to the interface of DMX **bus**) **electrical** ... Peripheral control unit can be computer, smart **mobile phone** or mixing station (mixingdesk) Peripheral control unit can be the PC with customization ...

Method and device for the safe, unlimited and exclusive allocation of command ...

WO EP US CN JP AT • AT501888B1 • Keba Ag

Priority 2005-04-08 • Filed 2005-04-08 • Granted 2008-02-15 • Published 2008-02-15

119. Logout method according to one of claims 1 to 118, characterized in that 35 a the operating state of an enabling button (39) of the **mobile control unit** (2) ent speaking signal state or a corresponding date for the safety circuit after logoff as inactive or unconfirmed in the safety circuit ...

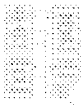
Power supply control device, image processing equipment and power supply ...

US CN JP • CN104977958B • [illegible] • [illegible]

Priority 2012-10-15 • Filed 2014-07-07 • Granted 2018-06-01 • Published 2018-06-01

I.e , in the first illustrative embodiment, by the Function detection close to camera 29 close to image processing equipment 10 **Mobile** object, and the identity of the function certification **mobile** object by identifying camera 30.However, it is possible to by close to camera 29 Function detect the ...

Equipment service vehicle with remote monitoring



US • US7184856B2 • Bradley C. Squires • Oshkosh Truck Corporation

Priority 1999-07-30 • Filed 2002-12-20 • Granted 2007-02-27 • Published 2007-02-27

can also be a fuel **cell** or a nuclear power device. The fuel **cell** may for example be a hydrogen-oxygen fuel **cell** that produces electrical power in the ... 1988 is used to facilitate the connection of the modules to the communication network 1976 and the AC **power bus** assembly 1942 and multiple junctions ..

Electrically driven curtain processing means

WO EP US CN • CN104220308B • [illegible] • [illegible]

Priority 2011-03-11 • Filed 2012-03-08 • Granted 2016-08-31 • Published 2016-08-31

According to another embodiment of the invention, electric-motor drive unit includes that power supply, described power supply are used for receiving described electricity **Cell** voltage and generation have the direct current power source voltage for the first nominal amplitude powered to described ..

Vehicle with crash sensor coupled to data bus

US • US7527288B2 • David S. Breed • Automotive Technologies International, Inc.

Priority 1995-06-07 • Filed 2006-09-05 • Granted 2009-05-05 • Published 2009-05-05

The network can accurately predict the GPS signal the communication unit will receive and convey that information to the **mobile unit** such as a .. D are different views of an automotive connector for use with a coaxial **electrical bus** for a motor vehicle illustrating the teachings of this ...

Robotic vehicle



US • US8255092B2 • Adam P. Couture • Irobot Corporation

Priority 2006-10-06 • Filed 2008-06-06 • Granted 2012-09-04 • Published 2012-09-04

may need to carry payloads weighing up to 6 lbs (which is 20% of the allowable **mobile base unit** (MBU) weight). Since various mission scenarios may ... a four-conductor Ethernet bus 1522 , a 2-conductor PM Bus 1554 , and a 2-conductor **power bus** 1528 . In some implementations, base 1502 may be a chassis ...

Brake apparatus

US CN JP KR DE • CN105313782A • [illegible] • [illegible]

Priority 2014-07-31 • Filed 2015-07-31 • Granted 2019-05-10 • Published 2019-05-10

shift sensor 19 is also referred to as transmission sensors, **Gear-shift switch**, selection switch, exports the tooth selected by driver Take turns ... have: Piston keeps friction member **mobile**, which is pushed to the rotary part rotated together with wheel, applies to vehicle Braking forces thereto ;

User equipment (UE) downlink transmission configuration indication (TCI)-state ...



US • US12335922B2 • Yushu Zhang • Apple Inc.
Priority 2018-05-10 • Filed 2019-05-08 • Granted 2021-04-20 • Published 2021-04-20
... system. Other bus systems may be included, such as an I2C interface, an SPI interface, point-to-point interfaces, and a **power bus**, among others. ... or "UE" may be considered synonymous to, and may be referred to as client, **mobile**, **mobile** device, **mobile** terminal, user terminal, **mobile unit**, **mobile** ...

A kind of intelligent movable power supplies and the method for carrying out ...

US CN • CN107465224B • 王开放 • 广东欧珀移动通信有限公司
Priority 2017-08-11 • Filed 2017-10-11 • Granted 2018-11-09 • Published 2018-11-09
12. a kind of intelligent movable power supplies according to claim 1, it is characterised in that： The equipment that is electrically charged is to run the **mobile** device of Android system. 13. a kind of method carrying out usb data communication with intelligent movable power supplies, the ...

Mobility support device

WO EP JP AU CA MX • JP2019523562A • クリシュナー ニム、 ヨーエルさー、 イダン・グロスマン • リミテッド・メート・サービシズ
Priority 2016-05-20 • Filed 2017-05-20 • Published 2019-08-29
... commands and other critical data. In some configurations, the sensor, infrastructure processor, and **power bus** can be physically replicated in the MD. ... A **mobile** support device wireless processor that enables communication with an external application that is electronically remote from the **mobile** ...

Robotic vehicle



WO EP US AU IL • US8237389B2 • Adam R Couture • iRobot Corporation
Priority 2006-10-06 • Filed 2007-10-02 • Granted 2012-12-11 • Published 2012-12-11
may need to carry payloads weighing up to 6 lbs (which is 20% of the allowable **mobile base unit** (MBU) weight). Since various mission scenarios may ... , a four-conductor Ethernet bus 1522 , a 2-conductor PM Bus 1554 , and a 2-conductor **power bus** 1528 . In some implementations, base 1502 may be a chassis ...

System, method, and apparatus for settlement for participation in an electric ...



WO EP US AU CA MX ZA • US10467702B2 • Joseph W. Forbes, Jr. • Causam Energy, Inc.
Priority 2012-10-24 • Filed 2017-07-07 • Granted 2019-12-03 • Published 2019-12-03
... with the electric power grid (including but not limited to control systems, thermostats, controllers, anything that controls the device, **switch gear**, .. Outside the **electrical bus** or substation within the electric power grid, the financial transaction subsystem provides information between the ...

Control system and method for electric vehicle



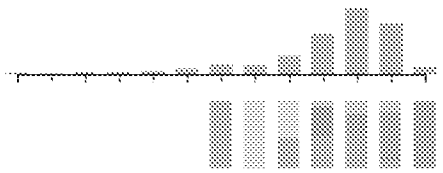
US • US7777782B2 • Christopher P. Yakes • Oshkosh Truck Corporation
Priority 2001-01-31 • Filed 2005-04-25 • Granted 2007-10-02 • Published 2007-10-02
wherein the power source comprises a fuel **cell** coupled to an inverter, the inverter being used to convert DC power from the fuel **cell** to AC power for .. over the AC **power bus** assembly 1942 . Applicants have determined that additional horsepower of short-term power can be provided into the AC **power bus** ...

Being used for based on probabilistic method ensures the generic sync engine of ...

WO EP US CN JP KR AU CA HK • CN104541472B • 高通股份有限公司 • 高通股份有限公司
Priority 2012-06-01 • Filed 2013-03-14 • Granted 2017-09-12 • Published 2017-09-12
Main equipment 52 or slave unit 54 can include (i between integrated circuit 2 C) interface 56, its be connected to BBP or Other **mobile processing** ... With I 2 C is realized to be compared with the realization of similar open collector structure, and the realization of dual-wire **bus reduces power** ..

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Top 1000 results by filing date



Relative count of top 5 values

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Automotive Technologies International, Inc.		2.3%
诺基亚技术有限公司		2.2%
英特尔公司		2.1%

Expand

Microgrids management

F Katiraei, R Iravani, N Hatziargyriou... - IEEE power and ..., 2008 - ieeexplore.ieee.org

... As an example, Figure 14 displays the daily economic scheduling of a 400-kW microgrid comprising one 100-kW microturbine **unit**, one 100-kW fuel-**cell unit**, one 40-kW wind-turbine **unit**, and two 10-kW PV **units**, assuming that the DER bids reflect fuel costs and ...

☆ 99 Cited by 1984 Related articles All 14 versions

Aspects of Implementation of Digital Substation Technology in Medium Voltage **Switchgear**

EI Khromtsov, AV Mokeev... - ... Youth Scientific and ..., 2018 - ieeexplore.ieee.org

... Page 3. Nevertheless, the interaction of the microprocessors of the control **units** with the ... has no built-in merging **unit** and has analog low-voltage interface instead. The differences of this version of the digital **switchgear cell** from UniGear Digital are ...

☆ 99 Related articles

Building Heat **Load** Contributions from Medium and Low Voltage **Switchgear**: Part I--Solid Rectangular **Bus** Bar Heat Losses

WN White, EC Piesciorovsky - ASHRAE Transactions, 2009 - researchgate.net

... **current** density of **cell** m in amp/m2, (xm, ym) = coordinates inside **cell** m, having the **units** of meters ... the vector G in equation (18) to be evaluated, and finally equation (20) provides the **current** densities in each **cell** ... The analysis deter- mines the losses per **unit** length of conductor ...

☆ 99 Cited by 4 Related articles All 5 versions »

Grid interaction operation of a telecommunications **power** system with a novel topology for multiple-input buck-boost converter

OC Onar, OHA Shirazi, A Khaligh - IEEE transactions on **power** ..., 2009 - ieeexplore.ieee.org

... a three-phase four-wire split dc **bus** inverter of a single distributed generation **unit** working in ... the parallel operation and **load sharing** capabilities of the PEMFC and MT **units** utilized by ... the required amount of hydrogen and oxygen are directly supplied to the fuel-**cell** anode and ...

☆ 99 Cited by 55 Related articles All 3 versions

Climate Change Fuel **Cell** Program

M Walneuski - 2004 - osti.gov

... fuel **cell** is significantly better than that of comparably sized small natural gas reciprocating engine cogeneration **units** which range ... Replaced boost pole on inverter **unit** ... and efficiency results over the past two years and seven months of operation of the fuel **cell power** plant in ...

☆ 99 Cited by 1 Related articles »

Naval **power** systems: Integrated **power** systems for the continuity of the electrical **power** supply.

N Doerry - IEEE Electrification Magazine, 2015 - ieeexplore.ieee.org

... the commercial **power** utilities operate by scheduling the **power** delivered by each of the generating **units** ... is needed to convert diesel fuel marine to a fuel compatible with the fuel **cell** ... would be to employ a droop response wherein the **bus** voltage would reflect its per-**unit load** ...

☆ 99 Cited by 84 Related articles All 2 versions

The electric **power** system of the international space station-a platform for **power** technology development

EB Gietl, EW Gholdston, BA Manners... - ... (Cat. No. 00TH8484 ..., 2000 - ieeexplore.ieee.org

... The BYPT also houses the battery **cell** drain resistors used for battery conditioning ... These **units** will provide an output of 120 & 2.0 Volts for use on the high-voltage systems ... Each **unit** sequentially turns on as **load** is increased, with the last one on, providing pulse width modulation ...

☆ 99 Cited by 21 Related articles All 4 versions

The US department of energy's microgrid initiative

DT Ton, MA Smith - The Electricity Journal, 2012 - Elsevier

... by 10 min), PV, NAS Battery, Fuel **Cell**, Smart Metering, PMU (Phasor Measurement **Unit**) ... owner (+NEDO), Ancillary service, **balancing**, PV, LA Battery, City Gas, Fuel **Cell**, Smart Metering ... and play; develop three-phase estimators based on phasor measurement **units** (PMUs) and ...

☆ 99 Cited by 421 Related articles All 5 versions

A high **power** medium voltage resonant dual active bridge for MVDC ship **power** networks

MS Agamy, D Dong, LJ Garcés, Y Zhang .. - ... Topics in Power ..., 2016 - ieeexplore.ieee.org

... of withstanding full system voltage, which increases the system footprint compared to a single high **power unit** [28], [29] ... the second converter is given a **current** command to circulate the **power** between the two **units**, while using ... [31] Rules and Classing—**Mobile** Offshore Drilling ...

☆ 99 Cited by 36 Related articles

Customer domain supply and **load** coordination: A case for smart villages and transactive control in rural off-grid microgrids

G Prinsloo, A Mammoli, R Dobson - Energy, 2017 - Elsevier

... include several rational appliance **load** groups, such as lights, refrigerators, televisions, radios, cellular **mobile** chargers, etc ... L 3 ; p 4), TV (L 4 ; p 3), Lights (L 5 ; p 2), **Cell** phone (L ... more **power** is purchased, they would also be spending more because each **unit** of **electricity** ...

☆ 99 Cited by 44 Related articles All 8 versions

Peak-**load** management in commercial systems with electric vehicles

K Mahmud, MJ Hossain... - IEEE Systems Journal, 2018 - ieeexplore.ieee.org

... Other than this, **mobile** battery (EV), another type 1937-9234 © 2018 IEEE ... (19) The annualized capital cost for battery (BC) includes the per- **unit** battery-**cell** purchase cost, battery-management system and **power** converter cost, and the cost to balance the **power** ...

☆ 99 Cited by 37 Related articles All 7 versions

10kWe SOFC **Power** System Commercialization Program Progress

D Norrick, CP Generation - SECA Annual Workshop, Pacific Grove, CA, 2005 - neti.doe.gov

... Marine Commercial **Mobile** Military Residential DG ... **Load** management – Buffer required **load power** and fuel **cell** dynamics. – Ramped stack loading ... Implemented Q3-Q4 2003 • Controls sited on CPG production master control **unit** (MCU) for development purposes ...

☆ 99 Cited by 43 Related articles All 4 versions »

Are there risks associated with testing turbine-generator sets prior to acceptance?" Mr. Murphy thinks so"

DA Veliz, SC Beaver, G Bankes - Fifty-First Annual Conference ..., 2004 - ieeexplore.ieee.org

... If this is the case, and the insulator had not been defective, it might have survived the over-voltage condition and the over-excited **unit** might have tripped out on over-voltage prior to the initiation of a ... 'Rules for Buildina and Classina **Mobile** Offshore Drillina **Units** {MODUl ...

☆ 99 Cited by 2 Related articles All 3 versions

Frequency-based **load sharing** in **current**-mode-controlled buck converters

JE Moore - 1999 - apps.dtic.mil

... depending on how many parallel **units** there are. Nevertheless we want to design the ... 'ref K if) Reference Voltage Controller VreK Output Voltage Controller **Cell Power** Stage r ... Figure 11-11 **Current**-Mode Control **Unit** Employing Frequency-Based **Load Sharing** 25 Page 35. 26 ...

☆ 99 Cited by 6 Related articles All 3 versions »

The impacts of distributed generation on fault detection and voltage profile in **power** distribution networks

P Mohammadi, H El-Kishyky... - ... International Power ..., 2014 - ieeexplore.ieee.org

... toward categorizing varied DG integration effects on distribution networks protection schemes miscoordination or **switchgear** malfunctioning ... of synchronous and induction generators or recently developed technologies such as Fuel **cell** (FC), Photovoltaic ... **Power** Generation **Unit** ...

☆ 99 Cited by 22 Related articles All 2 versions

Fuel **cell** inverter scale-up experience

GP Bemtsen - 2011 IEEE Power and Energy Society General ..., 2011 - ieeexplore.ieee.org

... AC **power** (Refer to Figure 2). The EBOP consists of inverters, transformers and **switchgear** and is ... such as water treatment systems or natural gas desulphurizers at a multi-**unit** site ... Fuel **cell** distributed generators provide high capacity factor, baseload **power** and thus are much ...

☆ 99 Related articles All 3 versions

Hierarchical microgrid paradigm for integration of distributed energy resources

Z Jiang, RA Dougal - 2008 IEEE Power and Energy Society ..., 2008 - ieeexplore.ieee.org

... For the voltage-regulating **unit**, the MSLC is supposed to regulate the DC **bus** voltage ... source can be added to the microgrid without changes to the control and protection of **units** that are ... Taking the above concerns into account, the fuel **cell** is to compensate for the rest of the ...

☆ 99 Cited by 91 Related articles All 2 versions

Digital grid: Communicative electrical grids of the future

R Abe, H Taoka, D McQuilkin - IEEE Transactions on Smart ..., 2011 - ieeexplore.ieee.org

... is attached to the controllers of generators and en- ergy storage **units** within the **cell** ... DGRs and dispatches commands to the con- trollers of generators, **loads**, and energy storage **units** ... 1–5. [14] AY Saber and GK Venayagamoorthy, "**Unit** commitment with vehicle-to-grid using ...

☆ 99 Cited by 253 Related articles All 14 versions

An online monitoring system of contact temperature inside HV **switchgear** cabinet based on Zigbee wireless network

X Huang, G Huang - ... Communications, Networking and Mobile ..., 2008 - ieeexplore.ieee.org

... The operating parameters of the temperature monitoring and display **units**, such as sample interval ... The on-line monitoring system of contact temperature inside HV **switchgear** is based ... A. Temperature Monitoring **Unit** The temperature monitoring **unit** installed on the contact arm ...

☆ 99 Cited by 2 Related articles All 3 versions

Electrical integration of renewable energy into stand-alone **power** supplies incorporating hydrogen storage

M Little, M Thomson, D Infield - International Journal of Hydrogen Energy, 2007 - Elsevier

... 9. Data from fuel **cell** set points ... The minimum **power** level at which the **unit** can run can be seen along with modulation when there was an excess of wind ... Suitable DC–DC converters were not readily available and the construction of bespoke **units** has been very time consuming ...

☆ 99 Cited by 152 Related articles All 10 versions

Murphy's law

DA Voltz, SC Beaver, G Bankes - IEEE Industry Applications ..., 2006 - ieeexplore.ieee.org

... Bureau of Shipping (ABS), Rules for Build- ing and Classing **Mobile** Offshore Drilling ... droop compensation provides the mechanism for reactive **load sharing** between **units** ... The damaged components, including electrodes and insulators, were replaced and the **unit** was given an ...

☆ 99 Cited by 2 Related articles All 2 versions

Fuel cells for data centers: **Power** generation inches from the server

L Zhao, J Brouwer, J Liu, S James, J Siegler... - ... Research, Tech. Rep ..., 2014 - microsoft.com

... The gas pipes run through the hot air compartment connected with the air handling **units** ... in charging the UPS, while 39.8% of the **power** delivered to the server PSU (**power** supply **unit**) ... [17] DOE, in US Department of Energy: Hydrogen and Fuel **Cell** Activities, Progress, and ...

☆ 99 Cited by 19 Related articles »

Next-generation shipboard dc **power** system: Introduction smart grid and dc microgrid technologies into maritime electrical netowrks

Z Jin, G Sulligoi, R Cuzner, L Meng ... - IEEE Electrification ..., 2016 - ieeexplore.ieee.org

... **unit** can be directly ... dc distribution systems, dc microgrid-based **power** systems for **mobile** applications, and **power** and energy management of **mobile** microgrids ... Giorgio Sulligoi (giorgio.sulligoi@di3.**units**.it) received his Ms degree (with honors) in electrical engineering from ...

☆ 99 Cited by 225 Related articles All 4 versions

Modeling and simulation of microgrid

A Alzahrani, M Ferdowsi, P Shamsi, CH Dagli - Procedia Computer Science, 2017 - Elsevier

... A microgrid is a smaller electric grid that contains several homes, energy storage **units**, and distributed generators ... Energy Storage **Unit** ... Table 2: Parameters of the S&T microgrid **Load** Rating Battery storage 60kWh Bidirectional Inverter 50kW Fuel **cell** 5kW Photovoltaic Panels ...

☆ 99 Cited by 42 Related articles All 4 versions

Principles and applications of electrochemical capacitors

R Kötz, M Carlen - Electrochimica acta, 2000 - Elsevier

... The low voltage of the **unit** cells allows an easy adoption to the desired voltage level by ... In the global system for **mobile** communication (GSM) format, **current** pulses of about 0.5 ms duration ... One single damaged **cell** may deteriorate the performance of the whole capacitor system ...

☆ 99 Cited by 5333 Related articles All 7 versions

A survey of distributed **power** system---AC versus DC distributed **power** system

CD Xu, KWE Cheng - ... 4th International Conference on Power ..., 2011 - ieeexplore.ieee.org

... the processing **unit** is showed in a typical dc distribution system used in some ... for DC **power** supply as the **power** electronics products such as the **mobile**, LED lighting ... integrated system and renewable **power** resources such as wind, photovoltaic, fuel **cell**, bioYthermal energy ...

☆ 99 Cited by 109 Related articles All 4 versions

Future electronic **power** distribution systems a contemplative view

D Boroyevich, I Cvetković, D Dong... - ... on Optimization of ..., 2010 - ieeexplore.ieee.org

... concept that com- prises energy storage and a larger number of generating **units** in order to ... for the energy trading purposes, and also acts as the data acquisition **unit** collecting and ... of the local renewable generation, **load** shedding, utilization of the static or **mobile** battery (PHEV ...

☆ 99 Cited by 632 Related articles All 3 versions

Coupled numerical modelling of **power** loss generation in busbar system of low-voltage **switchgear**

M Sedkowski, J Smolka, K Banasiak, Z Bulinski... - International journal of ..., 2014 - Elsevier

... i = 1 n A i h i (T w , i + T ext) + A i ε σ (T w , i 4 − T ∞ 4) where A is the area of a **cell**, h is ... The **switchgear** was powered by three transformer **units** ... Thus it offers more reliable results during the simulation of new **unit** design or existing models with the unknown temperature level ...

☆ 99 Cited by 31 Related articles All 5 versions

Hybrid DC-and AC-linked microgrids: towards integration of distributed energy resources

Z Jiang, X Yu - 2008 IEEE Energy 2030 Conference, 2008 - ieeexplore.ieee.org

... For the voltage-regulating **unit** such as ... Maintaining this profile relies on the flexibility of the advanced **power** electronics that control the interfaces among DER **units**, DC links, AC links, and the ... [21] F. Jurado, M. Valverde, and J. Carpio, "Effect of the fuel **cell** on distribution ...

☆ 99 Cited by 129 Related articles All 2 versions

Microgrid: A conceptual solution

RH Lasseter, P Paigi - 2004 IEEE 35th Annual Power ..., 2004 - ieeexplore.ieee.org

... Plug-and-play implies that a **unit** can be placed at any point on the electrical system without re ... This provides an excellent emulation of microturbines and fuel **cell** systems with storage on dc **bus** [6]. The ... In this case study the **power** output from the DR **units** are regulated not ...

☆ 99 Cited by 2261 Related articles All 9 versions

PTO/SB/30EFS (02-18)
Approved for use through 11/30/2020. OMB 0651-0031
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REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL
(Submitted Only via EFS-Web)

Application Number	16443273	Filing Date	2019-06-17	Docket Number (if applicable)	047158.100042	Art Unit	2191
First Named Inventor	Brandon N. Hinderliter			Examiner Name	Ryan Coyer		

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.
Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. The Instruction Sheet for this form is located at WWW.USPTO.GOV

SUBMISSION REQUIRED UNDER 37 CFR 1.114

Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

☐ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

- ☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____
- ☐ Other _____

☒ Enclosed

- ☒ Amendment/Reply
- ☐ Information Disclosure Statement (IDS)
- ☐ Affidavit(s)/ Declaration(s)
- ☒ Other One Month Extension of Time

MISCELLANEOUS

☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of months _____ (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

☐ Other _____

FEES

☒ **The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.**
The Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to Deposit Account No 501349

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

☒ Patent Practitioner Signature

Applicant Signature

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Signature of Registered U.S. Patent Practitioner			
Signature	/Sanjiva K. Reddy/	Date (YYYY-MM-DD)	2021-07-30
Name	Sanjiva K. Reddy	Registration Number	70816

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.

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The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

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3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

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7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

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I hereby certify that this correspondence is being filed via EFS-Web with the United States Patent and Trademark Office on July 30, 2021.

Hogan Lovells US LLP

By: /Stephanie McDonough/

PATENT
Attorney Docket No.: 047158.100042

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Brandon N. Hinderliter Application No.: 16/443,273 Filed: June 17, 2019 For: INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING	Confirmation No.: 1069 Examiner: COYER, Ryan D. Technology Center/Art Unit: 2191
Customer No.: 132858	**AFTER-FINAL AMENDMENT**

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Commissioner:

In response to the Final Office Action mailed April 2, 2021, please enter and consider the following.

The Claims, with any amendments, begin on page 2 of this paper.

Remarks/Arguments begin on page 7 of this paper.

A **Request for Continued Examination (RCE)** accompanies this paper.

The Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

1. (Currently Amended) A system comprising:

a first mobile unit;

~~at least one first generator; and~~

at least one switch gear to be associated with at least one transformer, an interconnect, and a bus bar; and

[[, the]] at least one first generator coupled to the at least one switch gear and located on the first mobile unit with the at least one switch gear, the first mobile unit configured to provide power generated by the at least one first generator [[in]] using electrical buses of the at least one switchgear and using the at least one transformer, the interconnect, and the bus bar, the power for loads on one or more external mobile units, the at least one switchgear, the electrical buses, the interconnect, and the bus bar ~~common to the loads and adapted~~ sized to support voltage and ~~combined~~ current requirements of the loads and to support voltage and current outputs of the at least one transformer with the at least one first generator ~~and of~~ in a load sharing arrangement with a second generator of a second mobile unit ~~that is adapted to support load sharing with the at least one first generator of the first mobile unit~~.

2. (Original) The system of claim 1, wherein the system is part of a hydraulic fracturing system that consumes the power and that comprises a wellbore and at least one pressuring system to create fractures in a subterranean formation that surrounds the wellbore.

3. (Currently Amended) The system of claim 1, further comprising:

at least one fracturing pump (FP) mobile unit of the one or more external mobile units, the at least one FP mobile unit physically external relative to the first mobile unit, wherein the [[; and]] at least one transformer ~~provided between the at least one FP mobile unit and the at least one switch gear~~ is provided to condition the power supplied to the at least one FP mobile unit.

4. (Previously Presented) The system of claim 1, further comprising:

a predetermined number of FP mobile units comprised in the one or more external mobile units, the predetermined number of FP mobile units determined by a maximum of the power available from the at least one first generator and handled by the at least one switch gear.

5. (Previously Presented) The system of claim 1, further comprising:

a predetermined number of first generators comprising the at least one first generator, the predetermined number of first generators having individual power output values that is lesser than a power output of an isolated single generator occupying all available space in an independent mobile unit physically external to the first mobile unit.

6. (Previously Presented) The system of claim 1, further comprising:

the at least one switchgear being physically arranged to replace an electronic equipment room (EER) of at least one of the one or more external mobile units that is designed to comprise the EER.

7. (Previously Presented) The system of claim 1, further comprising:

at least one Variable Frequency Drive (VFD); and

at least one Motor Control Center (MCC), the VFD and the MCC being on individual ones of the one or more external mobile units that is physically external relative to the first mobile unit.

8. (Currently Amended) The system of claim 1, further comprising:

~~one or more power cable interconnects~~ the interconnect configured to couple the first mobile unit with the second mobile unit, the second mobile unit having at least one second switch gear in addition to the second generator, the ~~one or more power cable~~ interconnect[[s]] to transmit power in support of redundancy in addition to the load sharing arrangement between the first mobile unit and the second mobile unit.

9. (Currently Amended) The system of claim 1, further comprising:

~~an interconnect between transformers of the at least two mobile units of the one or more external mobile units, the interconnect for the load sharing between the transformers comprising:~~

the at least one ~~load sharing~~ switch gear ~~optionally associated with at least one of the transformers and~~ configured [[for]] in the load sharing arrangement by being in part on an incoming side of ~~at least one of~~ the at least one transformer[[s]] such that the ~~at least one load sharing switch gear, associated bus bars, and associated cable interconnects are sized~~ sizing is based at least in part on current available for [[a]] the voltage output of a secondary side [[of the]] of the at least one ~~of the~~ transformer[[s]] that is coupled to the at least one first generator and the second generator; or

the at least one ~~load sharing~~ switch gear configured [[for]] in the load sharing arrangement by being in part on an outgoing side of the at least one of the at least one transformer[[s]] such that the ~~at least one load sharing switch gear, the associated bus bars, and the associated cable interconnects are sized~~ sizing is based at least in part on the current available at the secondary side of the at least one [[of the]] transformer[[s]] that is coupled to the at least one first generator and the second generator.

10. (Currently Amended) The system of claim 1, further comprising:

at least one load sharing FP mobile unit coupled, as at least one of the loads, with ~~to share the at least one load of~~ a second FP mobile unit of the one or more external mobile units; and

~~an optional~~ a datavan in the one or more external mobile units for control of the at least one load sharing FP mobile unit, the ~~optional~~ datavan offering the control of the at least one load sharing FP mobile unit instead of a second control available from within the first mobile unit.

11. (Currently Amended) The system of claim 1, further comprising:

the at least one transformer being an isolation transformer that is located in the one or more external mobile units, the isolation transformer being physically external relative to the first mobile unit and being configured for filtering harmonics between the at least one first generator and the loads in the one or more external mobile units.

12. (Currently Amended) A method comprising:

providing a first mobile unit with at least one first generator and at least one switchgear located together in the first mobile unit, the at least one first generator coupled to the at least one switch gear on the first mobile unit, the at least one switch gear to be associated with at least one transformer and with an interconnect and a bus bar;

generating power from the at least one generator;

providing the power using electrical buses of the at least one switchgear and using the at least one transformer, the interconnect, and the bus bar, the power for loads in one or more external mobile units, the at least one switchgear, the interconnect, the bus bar, and the electrical buses ~~common to the loads and adapted~~ sized to support voltage and ~~combined~~ current requirements of the loads and to support voltage and current outputs of the at least one transformer with the at least one first generator in a load sharing arrangement with ~~and of~~ a second generator

of a second mobile unit ~~that is adapted to support load sharing with the at least one first generator of the first mobile unit~~.

13. (Currently Amended) The method of claim 12, further comprising:

providing at least one fracturing pump (FP) mobile unit of the one or more external mobile units that is physically external relative to the first mobile unit; and

conditioning the power supplied to the at least one FP mobile unit using the at least one transformer ~~provided between the at least one FP mobile unit and the at least one switch gear~~.

14. (Previously Presented) The method of claim 12, further comprising:

determining a number of FP mobile units for the one or more external mobile units based at least in part on a maximum of the power available from the at least one first generator and handled by the at least one switch gear.

15. (Previously Presented) The method of claim 12, further comprising:

determining a number of generators for the at least one first generator based at least in part on the number of first generators having individual power output values that is lesser than a power output of an isolated single generator occupying all available space in an independent mobile unit physically external to the first mobile unit.

16. (Previously Presented) The method of claim 12, further comprising:

physically arranging the at least one switch gear to replace an electronic equipment room (EER) of at least one of the one or more external mobile units that is designed to comprise the EER.

17. (Previously Presented) The method of claim 12, further comprising:

providing at least one Variable Frequency Drive (VFD); and

providing at least one Motor Control Center (MCC), the VFD and the MCC being on individual ones of the one or more external mobile units that is physically external relative to the first mobile unit.

18. (Currently Amended) The method of claim 12, further comprising:

coupling the first mobile unit with the second mobile unit using ~~one or more power cable~~ the interconnect[[s]], the second mobile unit having at least one second switch gear in addition to the second generator, the ~~one or more power cable~~ interconnect[[s]] to transmit power

in support of redundancy in addition to the load sharing between the first mobile unit and the second mobile unit.

19. (Currently Amended) The method of claim 12, further comprising:

coupling at least one load sharing FP mobile unit to share the at least one load of a second FP mobile unit of the one or more external mobile units; and

controlling, via ~~an optional~~ a datavan in the one or more external mobile units, the at least one load sharing FP mobile unit, the ~~optional~~ datavan offering the control of the at least one load sharing FP mobile unit instead of a second control available from within the first mobile unit.

20. (Currently Amended) The method of claim 12, further comprising:

filtering harmonics between the at least one first generator and the loads in the one or more external mobile units using an isolation transformer as the at least one transformer that is in the one or more external mobile units, the isolation transformer being physically external relative to the first mobile unit.

REMARKS

Before entry of this paper, claims 1-20 were pending, with claims 1 and 12 being independent. The Office Action rejects claims 1-20.

The Office Action rejects claims 1 – 20 under section 102 for allegedly being unpatentable in view of a combination of *Oehring* (U.S. Publication 20160105022) and *Baten* (U.S. Patent 6,765,304). Applicant traverses these rejections.

In the interest of prosecution economy and without acquiescing in the characterization of the claims and the reference, Applicant amends claims 1, 3, 8-13, and 18-20 in this paper. The amendments are fully supported through the filed Specification, including at least in paragraphs 0022, 0023, 0031, and 0038. Claims 1-20 remain pending and no claim are added, leaving claims 1-20 for examination. In view of the following remarks, reconsideration of the claims is respectfully requested.

I. EXAMINER INTERVIEW

Applicant thanks Examiner Coyer for the courtesies extended in conducting an Examiner Interview with the undersigned Applicant's representative on July 8, 2021, and for providing further feedback on July 14, 2021. The rejections and the characterizations of the references and of the claims were discussed in detail. While no agreement was reached, distinguishing aspects between the present subject matter and the references were made apparent and appreciated in the Examiner Interview. Particularly aspects of load sharing and sizing of features to be used with a switch gear and at least one first generator of a first mobile unit that is in a load sharing arrangement with a second generator of a second mobile unit were discussed as allowable matter. Applicant appreciates the feedback received and provides this response in consideration of the feedback and the discussions in the Examiner Interview.

II. CLAIMS 1-20 ARE ALLOWABLE OVER THE ART

As also noted in the Remarks above, the Office Action rejects claims 1 – 20 under section 102 for allegedly being unpatentable in view of a combination of *Oehring* (U.S. Publication 20160105022) and *Baten* (U.S. Patent 6,765,304).

A decision on whether a claim is invalid under 35 U.S.C. § 103 requires a determination that the evidence as a whole shows that a legal determination sought to be proved

(*i.e.*, the reference teachings establish a *prima facie* case of obviousness) is more probable than not. M.P.E.P. § 2142. Accordingly, "the key to supporting any rejection under 35 U.S.C. § 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious." M.P.E.P. § 2142; *see KSR International Co. v. Teleflex, Inc.*, 550 U.S.398 (2007).

A. Independent Claim 1 Is Allowable

Independent claim 1, as amended, recites:

> A system comprising:
> a first mobile unit;
> at least one switch gear to be associated with a transformer, an interconnect, and a bus bar; and
> at least one first generator coupled to the at least one switch gear and located on the first mobile unit with the at least one switch gear, the first mobile unit configured to provide power generated by the at least one first generator using electrical buses of the at least one switchgear and using the at least one transformer, the interconnect, and the bus bars, the power for loads on one or more external mobile units, the at least one switchgear, the electrical buses, the interconnect, and the bus bar sized to support voltage and current requirements of the loads and to support voltage and current outputs of the at least one transformer with the at least one first generator in a load sharing arrangement with a second generator of a second mobile unit.

Such subject matter as recited by claim 1, as amended, is not disclosed by the cited combination. For example, the cited combination fails to disclose at least a feature for "the first mobile unit configured to provide power generated by the at least one first generator using electrical buses of the at least one switchgear and using the at least one transformer, the interconnect, and the bus bars, the power for loads on one or more external mobile units, the at least one switchgear, the electrical buses, the interconnect, the bus bars, and the electrical buses sized to support voltage and current requirements of the loads and to support voltage and current outputs of the at least one transformer with the at least one first generator in a load sharing arrangement with a second generator of a second mobile unit," as partly recited in claim 1.

> The Office Action alleges from *Oehring* as to the above-referenced feature:
>
> Oehring does not appear to disclose the underlined portions of the following limitations: "the at least one generator coupled to the at least one switch gear and located on the mobile unit with the at least one switch gear." However, figure 2 of Baten "shows an example of a main trailer 100 on which a gas turbine and mounting system 125 and a complete generator with

> lineside and neutral cubicles are mounted. It is preferable that the gas turbine 125 and complete generator with lineside and neutral cubicles 150 are mounted on the same trailer so as to avoid the extensive time and effort that would be required to align a turbine and a generator transported on separate trailers." Baten 2:12-20. Baten continues, [a]lso provided in this example are a main turbine terminal box 130; a main generator terminal box 155 and switch gear 160 that is hard wired to the line side cubicle of generator 150." Baten 2:31-34.

Office Action, 3. However, the Office Action does not apply to claim 1, as amended. The cited combination is different than claim 1, as amended, because there is no discussion of a at least one first generator coupled to the at least one switch gear and located on the first mobile unit that also has electrical buses of the at least one switchgear, at least one transformer, interconnect, and bus bars that are sized to support voltage and current requirements of the loads and to support voltage and current outputs of at least one transformer with the at least one first generator in a load sharing arrangement with a second generator of a second mobile unit. For instance, this enables load sharing without complexity of dealing with changing out equipment. See discussion in, *e.g.*, Specification, 0031, 0038. Such teachings are not in the cited combination.

For failing to disclose each and every limitation, the cited combination does not render obvious claim 1 and the rejection must be withdrawn. Applicant respectfully request reconsideration of the rejection to claim 1.

B. Independent Claim 12 Is Similarly Allowable

Applicant respectfully submits that claim 12 is allowable at least for similar reasons as those discussed above with respect to claim 1. Section I.A, *supra*. For example, as in the case of claim 1, the Office Action is not directed to claim 12, as amended. So considered, claim 12, as amended includes variation from the amending in claim 1:

> providing the power using electrical buses of the at least one switchgear and using the at least one transformer, the interconnect, and the bus bar, the power for loads in one or more external mobile units, the at least one switchgear, the interconnect, the bus bar, and the electrical buses sized to support voltage and current requirements of the loads and to support voltage and current outputs of the at least one transformer with the at least one first generator in a load sharing arrangement with a second generator of a second mobile unit. . . .

Applicant respectfully submits that claim 12, as amended, is patentable over the cited

combination asserted under section 103. Accordingly, Applicant respectfully requests reconsideration of the rejection under section 103 to this claim.

C. Dependent Claims 2-11 And 13-20 Are Also Allowable

Each of claims 2-11 and 13-20 depends, directly or indirectly, from one of independent claims 1 and 12, and thus incorporates each feature of one of the aforementioned independent claims. Applicant therefore respectfully submits that claims 2-11 and 13-20, by virtue of at least their dependencies from an allowable base claim, are at least patentable over the cited reference or modification alleged to the cited reference under section 102 or 103, as asserted in the Office Action. Furthermore, these claims include limitations that are independently patentable over the cited references for reasons similar to those discussed with respect to claims 1 and 12. For example, these claims may further described the features already identified as absent in the reference or modification alleged to the reference.

For all these reasons, reconsideration and withdrawal of the rejections of dependent claims 2-11 and 13-20 are respectfully requested.

III. AMENDMENTS TO THE CLAIMS

Unless otherwise specified or addressed in the remarks section, amendments to the claims are made for purposes of clarity, and are not intended to alter the scope of the claims or limit any equivalents thereof. The amendments are supported by the specification and do not add new matter. In addition, by focusing on specific claims and claim elements in the discussion above, Applicant does not imply that other claim elements are disclosed or suggested by the references. In addition, any characterizations of claims and/or cited art are being made to facilitate expeditious prosecution of this application. Applicant reserves the right to pursue at a later date any other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by another prosecution. Accordingly, reviewers of this or any child or related prosecution history shall not reasonably infer that Applicant has made any disclaimers or disavowals of any subject matter supported by the present disclosure.

CONCLUSION

In view of the foregoing, Applicant believes all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

Further, the Commissioner is hereby authorized to charge any additional fees or credit any overpayment in connection with this paper to Deposit Account No. 50-1349.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 212-918-3209.

Respectfully submitted,

/Sanjiva K. Reddy/
Sanjiva K. Reddy
Registration No. 70,816

HOGAN LOVELLS US LLP
390 Madison Avenue,
New York City, NY 10017
Ph.: 212-918-3209
Fax: 212-918-3100

Electronic Patent Application Fee Transmittal

Application Number:	16443273
Filing Date:	17-Jun-2019
Title of Invention:	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING
First Named Inventor/Applicant Name:	Brandon N. Hinderliter
Filer:	Sanjiva Kumjula Reddy/Stephanie McDonough
Attorney Docket Number:	047158.100042

Filed as Large Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension - 1 month with $0 paid	1251	1	220	220
Miscellaneous:				
RCE- 2ND AND SUBSEQUENT REQUEST	1820	1	2000	2000
		Total in USD ($)		**2220**

Electronic Acknowledgement Receipt

EFS ID:	43392909
Application Number:	16443273
International Application Number:	
Confirmation Number:	1069
Title of Invention:	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING
First Named Inventor/Applicant Name:	Brandon N. Hinderliter
Customer Number:	132858
Filer:	Sanjiva Kumjula Reddy/Stephanie McDonough
Filer Authorized By:	Sanjiva Kumjula Reddy
Attorney Docket Number:	047158.100042
Receipt Date:	30-JUL-2021
Filing Date:	17-JUN-2019
Time Stamp:	16:17:30
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$2220
RAM confirmation Number	E20217TG17540791
Deposit Account	501349
Authorized User	Stephanie McDonough

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.16 (National application filing, search, and examination fees)

37 CFR 1.17 (Patent application and reexamination processing fees)

37 CFR 1.19 (Document supply fees)

37 CFR 1.20 (Post Issuance fees)

37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Request for Continued Examination (RCE)	047158-100042_RCE.pdf	1349969 4c32c64c0886e1632f18f6c11cbd0279faab0998	no	3
Warnings:					
Information:					
2		047158-100042_Response.pdf	185087 7fb7d447cffc89036c81e7391c3485c6ee035e72	yes	11

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Amendment Submitted/Entered with Filing of CPA/RCE	1	1
	Claims	2	6
	Applicant Arguments/Remarks Made in an Amendment	7	11

Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	41109 684e878af9002db029f903db4e2082115accdb2b	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	1576165		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/06 (09-11)
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 16/443,273	Filing Date 06/17/2019	☐ To be Mailed

ENTITY: ☑ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A		N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*		x $100 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*		x $460 =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).				
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))					
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT	07/30/2021	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0		x $100 =	0
	Independent (37 CFR 1.16(h))	* 2	Minus	*** 3	= 0		x $480 =	0
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	0

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=		x $0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x $0 =	
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.	SLIE
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".	/DESHONNE T. MARTINO/
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".	
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.	

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/443,273	06/17/2019	Brandon N. Hinderliter	047158.100042	1069

132858 7590 07/13/2021

Hogan Lovells US LLP
609 Main Street
Suite 4200
Houston, TX 77002

EXAMINER
COYER, RYAN D

ART UNIT	PAPER NUMBER
2191	

NOTIFICATION DATE	DELIVERY MODE
07/13/2021	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

hlusdocketing@hoganlovells.com
stephanie.mcdonough@hoganlovells.com

Applicant-Initiated Interview Summary	**Application No.** 16/443,273	**Applicant(s)** Hinderliter, Brandon N.		
	Examiner RYAN D COYER	**Art Unit** 2191	**AIA (First Inventor to File) Status** Yes	**Page** 1 of 2

All Participants (applicant, applicants representative, PTO personnel)	**Title**	**Type**
RYAN D COYER	Primary Examiner	Telephonic
Sanjiva Reddy (Reg. No. 70,816)	Agent of Record	

Date of Interview: 08 July 2021

Issues Discussed:

35 U.S.C. 103

Applicant traverses the standing rejections on the grounds set forth in the attached agenda. Examiner respectfully disagrees with the arguments in traversal. The main article of contention is the degree of distinction between redundancy and "load sharing." The cited prior art is explicitly directed toward redundancy while the claims are explicitly directed toward "load sharing." Applicant asserts that redundancy teaches away from "load sharing." Examiner disagrees and asserts that redundancy is a type of "load sharing" and vice versa, i.e., with redundancy, and with load sharing, shared components are used to drive common loads.

Other

Mr. Reddy requested a subsequent interview including a Supervisory Primary Examiner (SPE). Examiner agreed to inquire as to whether his SPE would be willing to grant an interview and to return her answer to Mr. Reddy.

☑ Attachment

/Ryan D. Coyer/ Primary Examiner, Art Unit 2191	

Applicant is reminded that a complete written statement as to the substance of the interview must be made of record in the application file. It is the applicants responsibility to provide the written statement, unless the interview was initiated by the Examiner and the Examiner has indicated that a written summary will be provided. See MPEP 713.04
Please further see:
MPEP 713.04
Title 37 Code of Federal Regulations (CFR) § 1.133 Interviews, paragraph (b)
37 CFR § 1.2 Business to be transacted in writing

Applicant recordation instructions: The formal written reply to the last Office action must include the substance of the interview. (See MPEP section 713.04). If a reply to the last Office action has already been filed, applicant is given a non-extendable period of the longer of one month or thirty days from this interview date, or the mailing date of this interview summary form, whichever is later, to file a statement of the substance of the interview.

Examiner recordation instructions: Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general

indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

From: Reddy, Sanjiva K.
To: Coyer, Ryan D.
Cc: stephanie.mcdonough@hoganlovells.com; Evans, Taylor; HLUSDocketing
Subject: 16/443,273 -- 047158.100042 Examiner Interview Agenda and confirmation
Date: Wednesday, July 7, 2021 5:44:22 PM

CAUTION: This email has originated from a source outside of USPTO. **PLEASE CONSIDER THE SOURCE** before responding, clicking on links, or opening attachments.

Hello Examiner Coyer –

Pursuant to my call regarding scheduling an Examiner Interview for the above captioned application (No. 16/443,273), please accept this email as confirmation of our Examiner Interview scheduled for **July 8 (Thursday), at 1 pm ET**. I will call you at your listed number (571-270-5306) for the interview.

Applicant proposes the following agenda:

1. As to independent claim 1, to the claim requirement for "the electrical buses common to the loads and adapted to support voltage and combined current requirements of the loads of the at least one first generator and of a second generator of a second mobile unit that is adapted to support load sharing with the at least one first generator of the first mobile unit," Applicant will discuss that the cited combination fails to disclose this.
2. Applicant will discuss that the Office Action appears to cite from the Oehring reference, but provides no specificities of its interpretation or assertion.
3. Applicant will discuss that the Oehring reference provides redundancy and reports that "the at least one first generator being independent of the at least one second generator so that if the at least one first generator loses the ability to generate electricity, the at least one second generator can continue to generate electricity."
4. Applicant will discuss that such discussion is at least teaching away from load sharing and from electrical buses common to the loads and adapted to support voltage and combined current requirements, as in claim 1.
5. Applicant will seek any interpretations that may be adopted to the claim terms but that is not expressly in the Office Action.

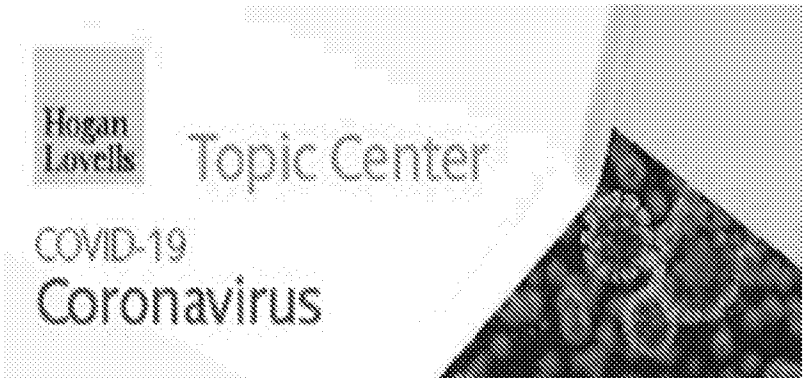
Please let me know if you have any questions or concerns with the above schedule or agenda.

Thank you and regards,
Sanjiv

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Patent Agent

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PTO/SB/08a (02-18)
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16443273
Filing Date	2019-06-17
First Named Inventor	Brandon N. HINDERLITER
Art Unit	2191
Examiner Name	Ryan D. COYER
Attorney Docket Number	047158.100042

U.S.PATENTS

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	5950726	A	1999-09-14	Roberts	
	2	6097310	A	2000-08-01	Harrell et al.	
	3	5114239	A	1992-05-19	Allen	

If you wish to add additional U.S. Patent citation information please click the Add button.

U.S.PATENT APPLICATION PUBLICATIONS

Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20190040727	A1	2019-02-07	Oehring et al.	
	2	20110110793	A1	2011-05-12	Leugemores et al.	
	3	20170096889	A1	2017-04-06	Blanckaert et al.	

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	Attorney Docket Number	047158.100042

	4	20120150455	A1	2012-06-14	Franklin et al.	
	5	20180313677	A1	2018-11-01	Warren et al.	
	6	20080257449	A1	2008-10-23	Weinstein et al.	
	7	20150147194	A1	2015-05-28	Foote	
	8	20180181830	A1	2018-06-28	Luharuka et al.	
	9	20120063936	A1	2012-03-15	Baxter et al.	
	10	20170204852	A1	2017-07-20	Barnett	
	11	20190145251	A1	2019-05-16	Johnson	
	12	20190128104	A1	2019-05-02	Graham et al.	
	13	20190257462	A1	2019-08-22	Rogers	
	14	20060109141	A1	2006-05-25	Huang	

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	Filing Date	2019-06-17
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	15	20150233530	A1	2015-08-20	Sandidge	
	16	20110081268	A1	2011-04-07	Ochoa et al.	
	17	20080164023	A1	2008-07-10	Dykstra et al.	
	18	20050201197	A1	2005-09-15	Duell et al.	
	19	20010000996	A1	2001-05-10	Grimland et al.	

If you wish to add additional U.S. Published Application citation information please click the Add button.

FOREIGN PATENT DOCUMENTS

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1	112196508	CN	A	2021-01-08	China Nat. Petroleum Corp.	English-language abstract	☐
	2	104117308	CN	A	2014-10-29	Danyan Hisense Paint Chemical Plant	English-language abstract	☐

If you wish to add additional Foreign Patent Document citation information please click the Add button

NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	Filing Date	2019-06-17
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	Examiner Name	Ryan D. COYER
	Attorney Docket Number	047158.100042

	1	International Search Report and Written Opinion mailed in PCT/US20/67526 mailed May 6, 2021	☐
	2	International Search Report and Written Opinion mailed in PCT/US20/67608 mailed March 30, 2021	☐
	3	International Search Report and Written Opinion mailed in PCT/US20/67528 mailed March 19, 2021	☐
	4	International Search Report and Written Opinion mailed in PCT/US20/67146 mailed March 29, 2021	☐
	5	International Search Report and Written Opinion mailed in PCT/US20/67523 mailed March 22, 2021	☐
	6	International Search Report and Written Opinion mailed in PCT/US2020/066543 mailed May 11, 2021	☐

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EXAMINER SIGNATURE

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

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Filing Date	2019-06-17
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Art Unit	2191
Examiner Name	Ryan D. COYER
Attorney Docket Number	047158.100042

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☒ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☒ See attached certification statement.

☒ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☐ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Taylor P. Evans/	Date (YYYY-MM-DD)	2021-06-08
Name/Print	Taylor P. Evans	Registration Number	60506

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal

Application Number:	16443273
Filing Date:	17-Jun-2019
Title of Invention:	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING
First Named Inventor/Applicant Name:	Brandon N. Hinderliter
Filer:	Taylor P. Evans/Tina Fluharty
Attorney Docket Number:	047158.100042

Filed as Large Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
SUBMISSION- INFORMATION DISCLOSURE STMT	1806	1	260	260
		Total in USD ($)		**260**

Electronic Acknowledgement Receipt

EFS ID:	42928286
Application Number:	16443273
International Application Number:	
Confirmation Number:	1069
Title of Invention:	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING
First Named Inventor/Applicant Name:	Brandon N. Hinderliter
Customer Number:	132858
Filer:	Taylor P. Evans/Tina Fluharty
Filer Authorized By:	Taylor P. Evans
Attorney Docket Number:	047158.100042
Receipt Date:	08-JUN-2021
Filing Date:	17-JUN-2019
Time Stamp:	14:11:40
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$260
RAM confirmation Number	E202168E11574481
Deposit Account	501349
Authorized User	Tina Fluharty

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.16 (National application filing, search, and examination fees)

37 CFR 1.17 (Patent application and reexamination processing fees)

37 CFR 1.19 (Document supply fees)

37 CFR 1.20 (Post Issuance fees)

37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Form (SB08)	047158-100042-IDS.pdf	69975 fab0311a48ef89c7b2ffb134661032f8dc813053	no	6
Warnings:					
Information:					
This is not an USPTO supplied IDS fillable form					
2	Foreign Reference	CN104117308A.pdf	343198 bf39ac44913e2e686e5355c8296ae27ef8a03527	no	5
Warnings:					
Information:					
3	Foreign Reference	CN104117308-abstract1.pdf	64331 14f0909adf7049d132a89ab533c7a8bc88d73122	no	1
Warnings:					
Information:					
4	Foreign Reference	CN112196508A.pdf	732379 30ced7f991ed4365ce2b0a1e1e77524e1d420fdb	no	10
Warnings:					
Information:					
5	Foreign Reference	CN112196508-abstract1.pdf	100282 62c5b27dd7462b71d3b35da6a23d6c9ed98d12de	no	2
Warnings:					
Information:					
6	Non Patent Literature	ISR-1.pdf	1674393 3801f59777062bd2c70317c77eb0237479296172	no	10
Warnings:					

Information:					
7	Non Patent Literature	ISR-2.pdf	1456669 77029b7a40ff7eddb35a5db66b2c26ce5abc3cc6	no	9
Warnings:					
Information:					
8	Non Patent Literature	ISR-3.pdf	1355519 7e54f14662c9887b8312da5126a8f04f81e2a9bd	no	8
Warnings:					
Information:					
9	Non Patent Literature	ISR-4.pdf	1839650 89588c763f0f710d8d6c8d30d48bb657473e24e7	no	9
Warnings:					
Information:					
10	Non Patent Literature	ISR-5.pdf	1308702 8010ae51bb5905011e3b76ed47e4f1ea4d9b3e12	no	8
Warnings:					
Information:					
11	Non Patent Literature	ISR-6.pdf	1163471 b112e7a0e9a51515be0130c19c48d3a0a4e3c7f2	no	7
Warnings:					
Information:					
12	Fee Worksheet (SB06)	fee-info.pdf	30631 a0742af572625c5f2432cabcf5f8a374ebe92d66	no	2
Warnings:					
Information:					
			Total Files Size (in bytes):	10139200	

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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/443,273	06/17/2019	Brandon N. Hinderliter	047158.100042	1069

132858 7590 04/02/2021

Hogan Lovells US LLP
609 Main Street
Suite 4200
Houston, TX 77002

EXAMINER
COYER, RYAN D

ART UNIT	PAPER NUMBER
2191	

NOTIFICATION DATE	DELIVERY MODE
04/02/2021	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

hlusdocketing@hoganlovells.com
stephanie.mcdonough@hoganlovells.com

Office Action Summary	Application No. 16/443,273	Applicant(s) Hinderliter, Brandon N.	
	Examiner RYAN D COYER	Art Unit 2191	AIA (FITF) Status Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☑ Responsive to communication(s) filed on 3/26/2021.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☑ This action is **FINAL.** 2b) ☐ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5) ☑ Claim(s) 1-20 is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6) ☐ Claim(s) _____ is/are allowed.

7) ☑ Claim(s) 1-20 is/are rejected.

8) ☐ Claim(s) _____ is/are objected to.

9) ☐ Claim(s) _____ are subject to restriction and/or election requirement

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to **PPHfeedback@uspto.gov.**

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☑ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date 11/18/2020; 3/8/2021.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

4) ☐ Other: _____.

DETAILED ACTION

This action is in response to an amendment to application 16/443273, filed on 3/26/2021. Claims 1-20 are pending. The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

Claim Rejections - 35 USC § 103

In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

> A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries for establishing a background for determining obviousness under 35 U.S.C. 103 are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.

3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-4, 6-10, 12-14, and 16-19 are rejected under 35 U.S.C. 103 as being unpatentable over USPGPUB 2016/0105022, hereinafter "Oehring" in view of U.S. Pat. No. 6,765,304, hereinafter "Baten."

Regarding claim 1, Oehring discloses **"A system comprising:**

a first mobile unit; (see, e.g., Oehring, fig. 3, para. 31, 52; "trailerized")

at least one first generator; (see, e.g., Oehring, fig. 5 sec. 222A, 222B & associated text) **and**

at least one switch gear, the at least one first generator coupled to the at least one switch gear on the first mobile unit, the first mobile unit configured to provide power generated by the at least one first generator in electrical buses for loads on one or more external mobile units, the electrical buses common to the loads and adapted to support voltage and combined current requirements of the loads of the at least one first generator and of a second generator of a second mobile unit that is adapted to support load sharing with the at least one first generator of the first mobile unit." (see, e.g., Oehring, para. 45-47, 52).

Oehring does not appear to disclose the underlined portions of the following limitations: **"the at least one first generator coupled to the at least one switch gear and located on the first mobile unit with the at least one switch gear."** However, figure 2 of Baten "shows an example of a main trailer 100 on which a gas turbine and mounting system 125 and a complete generator with lineside and neutral cubicles are mounted. It is preferable that the gas turbine 125 and complete generator with lineside and neutral cubicles 150 are mounted on the same trailer so as to avoid the extensive time and effort that would be required to align a turbine and a generator transported on

separate trailers." Baten 2:12-20. Baten continues, "[a]lso provided in this example are a main turbine terminal box 130; a main generator terminal box 155 and switch gear 160 that is hard wired to the line side cubicle of generator 150." Baten 2:31-34.

Figure 2 (and associated text) of Baten clearly shows a single mobile unit containing a generator coupled to switchgear. Baten and Oehring are directed toward power generation and therefore are analogous art. On or before the effective filing date of the instant application, one of ordinary skill in the art would have deemed it obvious to try to combine the power generation apparatus of Oehring with the colocation feature of Baten, thereby obtaining the claimed invention. A clear and predictable benefit of so combining would have appeared as reducing the complexity and difficulty of onsite setup. (See, e.g., Baten 2:14-19). Accordingly, the instant claim is unpatentable over the combination of Baten and Oehring.

Regarding claim 2, the combination of Oehring and Baten renders obvious **"The system of claim 1, wherein the system is part of a hydraulic fracturing system that consumes the power and that comprises a wellbore and at least one pressuring system to create fractures in a subterranean formation that surrounds the wellbore."** (see, e.g., Oehring, fig. 1 & associated text; para. 19; "hydraulic fracturing operation").

Regarding claim 3, the combination of Oehring and Baten renders obvious **"The system of claim 1, further comprising: at least one fracturing pump (FP) mobile unit of the one or more external mobile units, the at least one FP mobile unit physically external relative to the first mobile unit; and at least one transformer provided between the at least one FP mobile unit and the at least one switch gear**

to condition the power supplied to the at least one FP mobile unit." (see, e.g., Oehring, fig. 1 & associated text; para. 19, 29-33; Baten, figs. 2-3 & associated text).

Regarding claim 4, the combination of Oehring and Baten renders obvious **"The system of claim 1, further comprising: a predetermined number of FP mobile units comprised in the one or more external mobile units, the predetermined number of FP mobile units determined by a maximum of the power available from the at least one first generator and handled by the at least one switch gear."** (see, e.g., Oehring, para. 33-36).

Regarding claim 6, the combination of Oehring and Baten renders obvious **"The system of claim 1, further comprising: the at least one switchgear being physically arranged to replace an electronic equipment room (EER) of at least one of the one or more external mobile units that is designed to comprise the EER."** (see, e.g., Oehring, para. 49-50).

Regarding claim 7, the combination of Oehring and Baten renders obvious **"The system of claim 1, further comprising: at least one Variable Frequency Drive (VFD); and at least one Motor Control Center (MCC), the VFD and the MCC being on individual ones of the one or more external mobile units that is physically external relative to the first mobile unit."** (see, e.g., Oehring, fig. 5 & associated text; Baten, figs. 2-3 & associated text).

Regarding claim 8, the combination of Oehring and Baten renders obvious **"The system of claim 1, further comprising: one or more power cable interconnects configured to couple the mobile unit with the second mobile unit, the second mobile unit having at least one second switch gear in addition to the second**

generator, the one or more power cable interconnects to transmit power in support of redundancy in addition to the load sharing between the first mobile unit and the second mobile unit." (see, e.g., Oehring, para. 22, 33-36, 45-49; Baten, figs. 2-3 & associated text).

Regarding claim 9, the combination of Oehring and Baten renders obvious **"The system of claim 1, further comprising: an interconnect between transformers of the at least two mobile units of the one or more external mobile units, the interconnect for the load sharing between the transformers comprising: at least one load sharing switch gear optionally associated with at least one of the transformers and configured for the load sharing on an incoming side of at least one of the transformers such that the at least one load sharing switch gear, associated bus bars, and associated cable interconnects are sized based at least in part on current available for a voltage output of a secondary side of the of the at least one of the transformers; or the at least one load sharing switch gear configured for the load sharing on an outgoing side of the at least one of the transformers such that the at least one load sharing switch gear, the associated bus bars, and the associated cable interconnects are sized based at least in part on the current available at the secondary side of the at least one of the transformers."** (see, e.g., Oehring, para. 22, 33-36, 45-49; it is inherent to the disclosure of Oehring that all cables and interconnects would be sized and rated appropriately for available current; Baten, figs. 2-3 & associated text).

Regarding claim 10, the combination of Oehring and Baten renders obvious **"The system of claim 1, further comprising: at least one load sharing FP mobile unit**

coupled to share the at least one load of a second FP mobile unit of the one or more external mobile units; and an optional datavan in the one or more external mobile units for control of the at least one load sharing FP mobile unit, the optional datavan offering the control of the at least one load sharing FP mobile unit instead of a second control available from within the first mobile unit." (see, e.g., Oehring, para. 45, 49, 50-51; Baten, figs. 2-3 & associated text).

Regarding claims 12, 13, 14, 16, 17, 18, and 19, the instant claims are equivalents of claims 1, 3, 4, 6, 7, 8, and 10, respectively, and differ only by statutory class. Accordingly, the rejections of claims 1, 3, 4, 6, 7, 8, and 10 apply, *mutatis mutandis*, respectively to claims 12, 13, 14, 16, 17, 18, and 19.

Claim Rejections - 35 USC § 103

In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

> A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103 are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.

3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 5, 11, 15, and 20 are rejected under 35 U.S.C. 103 as being unpatentable over the combination of Oehring and Baten.

Regarding claim 5, the combination of Oehring and Baten renders obvious **"The system of claim 1, further comprising: a predetermined number of first generators comprising the at least one first generator,"** but does not appear to disclose the further limitation **"the predetermined number of first generators having individual power output values that is lesser than a power output of an isolated single generator occupying all available space in an independent mobile unit physically external to the first mobile unit."** Put differently, Oehring does not appear to disclose, explicitly, the claimed arrangement of a predetermined number of generators each having individual power output values that "is lesser than" (sic) a single generator occupying an entire trailer. However, as would have been known in the art before the effective filing date of the instant application, it would have appeared obvious to one of ordinary skill in the art that a single generator occupying an entire trailer would have a "power output value" greater than that of a single generator on an equivalent trailer

containing many generators. Official notice is hereby invoked to that effect.

A clear and predictable benefit of using multiple generators on a trailer (rather than a larger generator occupying the entire trailer) would have been the ability to more finely calibrate the amount of generated power by choosing an appropriate number of smaller, cheaper generators, potentially avoiding the unnecessary expense of buying and maintaining a single larger generator. Accordingly, the claimed arrangement is an obvious addition to the combination of Oehring and Baten and therefore is unpatentable over the combination of Oehring and Baten.

Regarding claim 11, the combination of Oehring and Baten renders obvious **"The system of claim 1,"** but does not appear to disclose the limitations **"further comprising: an isolation transformer in the one or more external mobile units, the isolation transformer being physically external relative to the first mobile unit and being configured for filtering harmonics between the first at least one generator and the loads in the one or more external mobile units."** In other words, the combination of Oehring and Baten does not appear to disclose an isolation transformer configured to filter harmonics occurring between and among generators and loads in a power distribution arrangement. However, such isolation transformers, configured to filter harmonics occurring between and among generators and loads in a power distribution arrangement, were known to those of ordinary skill in the art before the effective filing date of the instant application. Official Notice is hereby invoked to that effect.

Combining the noticed isolation transformer with the power distribution arrangement of the combination of Oehring and Baten, thereby obtaining the invention

of the instant claim, would have appeared to one of ordinary skill in the art, on or before the effective filing date of the instant application, as obvious to try. A clear and predictable benefit of so combining would have appeared as the ability to improve the performance and reliability of the power distribution arrangement of the combination of Oehring and Baten. Accordingly, the instant claim is unpatentable over the combination of Oehring and Baten.

Regarding claims 15 and 20, the instant claims are equivalents of claims 5 and 11, respectively, and differ only by statutory class. Accordingly, the rejections of claims 5 and 11 apply, *mutatis mutandis,* respectively to claims 15 and 20.

Response to Arguments

The foregoing claim rejections have been updated in response to the newly added claim limitations. Applicants assert generally that the cited prior art does not disclose the limitations of the amended claims. Examiner respectfully disagrees and has updated the standing claim rejections accordingly.. Accordingly, all arguments in traversal of the previously standing claim rejections are moot.

Conclusion

Applicant's amendment necessitated any new grounds of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RYAN D. COYER whose telephone number is (571) 270-5306 and whose fax number is (571) 270-6306. The examiner normally can be reached via phone on Monday-Friday 12pm-10pm Eastern Time. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Zhen, can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information

system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ryan D. Coyer/
Primary Examiner, Art Unit 2191

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/443,273	Hinderliter, Brandon N.
	Examiner	**Art Unit**
	RYAN D COYER	2191

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

CLAIMS

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	09/16/2019	03/30/2020	09/28/2020	03/29/2021					
	1	✓	✓	✓	✓					
	2	✓	✓	✓	✓					
	3	✓	✓	✓	✓					
	4	✓	✓	✓	✓					
	5	✓	✓	✓	✓					
	6	✓	✓	✓	✓					
	7	✓	✓	✓	✓					
	8	✓	✓	✓	✓					
	9	✓	✓	✓	✓					
	10	✓	✓	✓	✓					
	11	✓	✓	✓	✓					
	12	✓	✓	✓	✓					
	13	✓	✓	✓	✓					
	14	✓	✓	✓	✓					
	15	✓	✓	✓	✓					
	16	✓	✓	✓	✓					
	17	✓	✓	✓	✓					
	18	✓	✓	✓	✓					
	19	✓	✓	✓	✓					
	20	✓	✓	✓	✓					

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/443,273	Hinderliter, Brandon N.
	Examiner	Art Unit
	RYAN D COYER	2191

CPC - Searched*		
Symbol	**Date**	**Examiner**
G05B15/02 (text-delimited)	09/16/2019	RDC
H02J3/14 (text-delimited)	09/16/2019	RDC
H02J8/066 (text-delimited)	09/16/2019	RDC
E21B43/26 (text-delimited)	09/16/2019	RDC

CPC Combination Sets - Searched*		
Symbol	**Date**	**Examiner**

US Classification - Searched*			
Class	**Subclass**	**Date**	**Examiner**
700	293 (text-delimited)	09/16/2019	RDC

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	**Date**	**Examiner**
EAST Search	09/16/2019	RDC
PLUS Search	09/16/2019	RDC
Inventor Name & Double Patenting Search	09/16/2019	RDC
NPL Search	09/16/2019	RDC
EAST Update Search	09/28/2020	RDC
NPL Update Search	09/28/2020	RDC
EAST Update Search	03/29/2021	RDC
NPL Update Search	03/29/2021	RDC

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	16/443,273	Hinderliter, Brandon N.
	Examiner	Art Unit
	RYAN D COYER	2191

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (02-18)
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16443273
Filing Date	2019-06-17
First Named Inventor	Brandon N. HINDERLITER
Art Unit	2191
Examiner Name	Ryan D. COYER
Attorney Docket Number	047158.100042

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	9506333	B2	2016-11-29	Castillo et al.	
	2	3878884		1975-04-22	Raleigh	
	3	9062545	B2	2015-06-23	Roberts et al.	
	4	5439066		1995-08-08	Gipson	
	5	10221639	B2	2019-03-05	Romer et al.	
	6	10408030	B2	2019-09-10	Oehring et al.	
	7	10408031	B2	2019-09-10	Oehring et al.	
	8	6985750	B1	2006-01-10	Vicknair et al.	

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /RDC/

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	9	10740730	B2	2020-08-11	Altamirano et al.	

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	1	20160326853	A1	2016-11-10	Fred et al.	
	2	20190249527	A1	2019-08-15	Kraynek	
	3	20170082033	A1	2017-03-23	Wu et al.	
	4	20170370639	A1	2017-12-28	Barden et al.	
	5	20180312738	A1	2018-11-01	Rutsch et al.	
	6	20180181830	A1	2018-06-28	Laharuka et al.	
	7	20170212535	A1	2017-07-27	Shelman et al.	
	8	20180298731	A1	2018-10-18	Bishop	

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	9	20110110793	A1	2011-05-11	Leugemors et al.	
	10	20190154020	A1	2019-05-23	Glass	
	11	20080277120	A1	2008-11-13	Hickie	
	12	20180090914	A1	2018-03-29	Johnson et al.	
	13	20180259080	A1	2018-09-13	Dale et al.	
	14	20180284817	A1	2018-10-04	Cook et al.	
	15	20130284455	A1	2013-10-31	Kajaria et al.	
	16	20180266217	A1	2018-09-18	Funkhauser et al.	

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Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2]	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1	2018044307	WO	A1	2018-03-08	Evolution Well Services, LLC		

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	2	2018213925	WO	A1	2018-11-29	Rouse Industries Inc.		
	3	104196613	CN	A	2014-12-10	SJ PETROLEUM MACHINERY CO LTD	English-language abstract	

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Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T5
	1	Morris et al., 62/526,869; Hydration-Blender Transport and Electric Power Distribution for Fracturing Operation; 28 June 2018; USPTO; see entire document	
	2	Final Office Action mailed February 4, 2021 in US 16/597,014	
	3	International Search Report and Written Opinion mailed February 4, 2021 in PCT/US20/59834	
	4	International Search Report and Written Opinion mailed February 2, 2021 in PCT/US20/58906	
	5	International Search Report and Written Opinion mailed February 3, 2021 in PCT/US20/58899	
	6	Non-Final Office Action mailed January 29, 2021 in US 16/564,185	
	7	Final Office Action mailed January 21, 2021 in US 16/458,696	

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	8	Final Office Action mailed January 11, 2021 in US 16/404,283
	9	Non-Final Office Action mailed January 4, 2021 in US 16/522,043
	10	International Search Report and Written Opinion mailed December 14, 2020 in PCT/US2020/53980

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EXAMINER SIGNATURE

Examiner Signature	/Ryan D. Coyer/ (03/29/2021)	Date Considered	03/29/2021

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Art Unit	2191
Examiner Name	Ryan D. COYER
Attorney Docket Number	047158.100042

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☒ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☒ See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Taylor P. Evans/	Date (YYYY-MM-DD)	2021-03-08
Name/Print	Taylor P. Evans	Registration Number	60506

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these record s.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

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Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

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Examiner Name	Ryan D. COYER
Attorney Docket Number	047158-100042

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Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	10695950	B2	2020-06-30	Igo et al.	
	2	9706185	B2	2017-07-11	Ellis	
	3	9482086	B2	2016-11-01	Richardson et al.	
	4	5517822	A	1996-05-21	Haws et al.	
	5	6626646	B2	2003-09-30	Rajewski	
	6	6765304	B2	2004-07-20	Baten et al.	
	7	10627003	B2	2020-04-21	Dale et al.	
	8	8763387	B2	2014-07-01	Schmidt	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16443273
	Filing Date	2019-06-17
	First Named Inventor	Brandon N. HINDERLITER
	Art Unit	2191
	Examiner Name	Ryan D. COYER
	Attorney Docket Number	047158-100042

	9	9051923	B2	2015-06-09	Kuo	
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U.S.PATENT APPLICATION PUBLICATIONS Remove

Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20200047141	A1	2020-02-13	Oehring et al.	
	2	20170138171	A1	2017-05-18	Richards et al.	

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	3	20120152716	A1	2012-06-12	Kikukawa et al.	
	4	20080095644	A1	2008-04-24	Mantei et al.	
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Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2]	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1	3067854	CA	A1	2019-01-03	Morris et al.		

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	Examiner Name	Ryan D. COYER
	Attorney Docket Number	047158-100042

	2	108049999	CN	A	2018-05-18	Kailong High Tech Co. Ltd.	English-Language Translation	
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NON-PATENT LITERATURE DOCUMENTS Remove

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T5
	1	Non-Final Office Mailed October 26, 2020 in US Patent Application 15/356,436	
	2	Non-Final Office Mailed October 5, 2020 in US Patent Application No.16/443,273	
	3	Non-Final Office Action Mailed September 29, 2020 in US Patent Application No. 16/943,727	
	4	Non-Final Office Action Mailed September 2, 2020 in US Patent Application No. 16/356,263	
	5	Non-Final Office Action Mailed August 31, 2020 in US Patent Application No. 16/167,083	
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	7	Canadian Office Action issued September 22, 2020 in Canadian Application No. 2,982,974	

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	Filing Date	2019-06-17
	First Named Inventor	Brandon N. HINDERLITER
	Art Unit	2191
	Examiner Name	Ryan D. COYER
	Attorney Docket Number	047158-100042

	8	International Search Report and Written Opinion Mailed September 3, 2020 in PCT/US2020/36932
	9	"Process Burner" (https://www.cebasrt.com/productsloii-gaslprocess-bumer) 06 September 6, 2018 (06.09.2018), entire document, especially para (Burners for refinery Heaters]
	10	"Water and Glycol Heating Systems• (https://www.heat-inc.com/wg-series-water-glycol-systems/) 18 June 2018 (18.06.2018), entire document, especlally WG Series Water Glycol Systems
	11	"Heat Exchanger" (https://en.wiklpedia.org/w/index.php?title=Heat_exchanger&oldid=89300146) 12-18-19 April 2019 (18.04.2019), entire document, especially para (0001]
	12	Canadian Office Action issued September 8, 2020 in Canadian Patent Application No. 2,928,707
	13	Canadian Office Action issued August 31, 2020 in Canadian Patent Application No. 2,944,980
	14	International Search Report and Written Opinion Mailed August 28, 2020 in PCT/US20/23821

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EXAMINER SIGNATURE

Examiner Signature	/Ryan D. Coyer/ (03/29/2021)	Date Considered	03/29/2021

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16443273
Filing Date	2019-06-17
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Art Unit	2191
Examiner Name	Ryan D. COYER
Attorney Docket Number	047158-100042

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☒ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☒ See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Taylor P. Evans/	Date (YYYY-MM-DD)	2020-11-18
Name/Print	Taylor P. Evans	Registration Number	60506

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

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2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

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Electronic Patent Application Fee Transmittal

Application Number:	16443273
Filing Date:	17-Jun-2019
Title of Invention:	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING
First Named Inventor/Applicant Name:	Brandon N. Hinderliter
Filer:	Sanjiva Kumjula Reddy/Karyn Hines
Attorney Docket Number:	047158.100042

Filed as Large Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension - 3 months with $0 paid	1253	1	1480	1480
Miscellaneous:				
			Total in USD ($)	**1480**

Electronic Acknowledgement Receipt

EFS ID:	42292615
Application Number:	16443273
International Application Number:	
Confirmation Number:	1069
Title of Invention:	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING
First Named Inventor/Applicant Name:	Brandon N. Hinderliter
Customer Number:	132858
Filer:	Sanjiva Kumjula Reddy/Karyn Hines
Filer Authorized By:	Sanjiva Kumjula Reddy
Attorney Docket Number:	047158.100042
Receipt Date:	26-MAR-2021
Filing Date:	17-JUN-2019
Time Stamp:	16:41:38
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$1480
RAM confirmation Number	E20213PG42061992
Deposit Account	501349
Authorized User	Karyn Hines

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.16 (National application filing, search, and examination fees)

37 CFR 1.17 (Patent application and reexamination processing fees)

37 CFR 1.19 (Document supply fees)

37 CFR 1.20 (Post Issuance fees)

37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Amendment/Req. Reconsideration-After Non-Final Reject	047158-100042-Response-to-Non-Final-Office-Action-2021-03-26.pdf	66439 51f935c68d8c73b47d6c53396ed6fef43d144c7a	no	11
Warnings:					
Information:					
2	Fee Worksheet (SB06)	fee-info.pdf	31354 5b531b3e052e0c5e874e03a322d7fa2b54dc6cb3	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	97793		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

I hereby certify that this correspondence is being filed via EFS-Web with the United States Patent and Trademark Office on March 26, 2021.

Hogan Lovells US LLP

By: /Karyn S. Hines/

PATENT
Attorney Docket No.: 047158.100042

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Brandon N. Hinderliter Application No.: 16/443,273 Filed: June 17, 2019 For: INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING Customer No.: 132858	Confirmation No.: 1069 Examiner: COYER, Ryan D. Technology Center/Art Unit: 2191 **AMENDMENT**

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Commissioner:

In response to the Non Final Office Action mailed October 5, 2020, please enter and consider the following.

The Claims, with any amendments, begin on page 2 of this paper.

Remarks/Arguments begin on page 7 of this paper.

The Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

1. (Currently Amended) A system comprising:

a first mobile unit;

at least one first generator; and

at least one switch gear, the at least one first generator coupled to the at least one switch gear and located on the first mobile unit with the at least one switch gear, the first mobile unit configured to provide power generated by the at least one first generator in electrical buses for ~~at least one~~ loads on one or more external mobile units, the electrical buses common to the loads and adapted to support voltage and combined current requirements of the loads of the at least one first generator and of a second generator of a second mobile unit that is adapted to support load sharing with the at least one first generator of the first mobile unit.

2. (Original) The system of claim 1, wherein the system is part of a hydraulic fracturing system that consumes the power and that comprises a wellbore and at least one pressuring system to create fractures in a subterranean formation that surrounds the wellbore.

3. (Currently Amended) The system of claim 1, further comprising:

at least one fracturing pump (FP) mobile unit of the one or more external mobile units, the at least one FP mobile unit physically external relative to the first mobile unit; and

at least one transformer provided between the at least one FP mobile unit and the at least one switch gear to condition the power supplied to the at least one FP mobile unit.

4. (Currently Amended) The system of claim 1, further comprising:

a predetermined number of FP mobile units comprised in the one or more external mobile units, the predetermined number of FP mobile units determined by a maximum of the power available from the at least one first generator and handled by the at least one switch gear.

5. (Currently Amended) The system of claim 1, further comprising:

a predetermined number of first generators comprising the at least one first generator, the predetermined number of first generators having individual power output values that is lesser than a power output of an isolated single generator occupying all available space in an independent mobile unit physically external to the first mobile unit.

6. (Currently Amended) The system of claim 1, further comprising:

the at least one switchgear being physically arranged to replace an electronic equipment room (EER) of at least one ~~mobile unit~~ of the one or more external mobile units that is designed to comprise the EER.

7. (Currently Amended) The system of claim 1, further comprising:

at least one Variable Frequency Drive (VFD); and

at least one Motor Control Center (MCC), the VFD and the MCC being on individual ones of the one or more external mobile units that is physically external relative to the first mobile unit.

8. (Currently Amended) The system of claim 1, further comprising:

one or more power cable interconnects configured to couple the mobile unit with [[a]] the second mobile unit ~~of the one or more external mobile units~~, the second mobile unit having ~~at least one second generator and~~ at least one second switch gear in addition to the second generator, the one or more power cable interconnects to transmit power in support of redundancy [[or]] in addition to the load sharing between the first mobile unit and the second mobile unit.

9. (Currently Amended) The system of claim 1, further comprising:

an interconnect between transformers of the at least two mobile units of the one or more external mobile units, the interconnect for the load sharing between the transformers comprising:

at least one load sharing switch gear optionally associated with at least one of the transformers and configured for the load sharing on an incoming side of [[the]] at least one of the transformers such that the at least one load sharing switch gear, associated bus bars, and associated cable interconnects are sized based at least in part on current available for a voltage output of a secondary side of the of the at least one of the transformers; or

the at least one load sharing switch gear configured for the load sharing on an outgoing side of the at least one of the transformers such that the at least one load sharing switch gear, the associated bus bars, and the associated cable interconnects are sized based at least in part on the current available at the secondary side of the at least one of the transformers.

10. (Currently Amended) The system of claim 1, further comprising:

at least one load sharing FP mobile unit coupled to share the at least one load of a second FP mobile unit of the one or more external mobile units; and

an optional datavan in the one or more external mobile units for control of the at least one load sharing FP mobile unit, the optional datavan offering the control of the at least one load sharing FP mobile unit instead of a second control available from within the first mobile unit.

11. (Currently Amended) The system of claim 1, further comprising:

an isolation transformer in ~~one of~~ the one or more external mobile units, the isolation transformer being physically external relative to the first mobile unit and being configured for filtering harmonics between the at least one first generator and the ~~at least one~~ loads in the one or more external mobile units.

12. (Currently Amended) A method comprising:

providing a first mobile unit with at least one first generator and at least one switchgear located together in the first mobile unit, the at least one first generator coupled to the at least one switch gear on the first mobile unit;

generating power from the at least one generator;

providing the power [[in]] using electrical buses for ~~at least one~~ loads in one or more external mobile units, the electrical buses common to the loads and adapted to support voltage and combined current requirements of the loads of the at least one first generator and of a second generator of a second mobile unit that is adapted to support load sharing with the at least one first generator of the first mobile unit.

13. (Currently Amended) The method of claim 12, further comprising:

providing at least one fracturing pump (FP) mobile unit of the one or more external mobile units that is physically external relative to the first mobile unit; and

conditioning the power supplied to the at least one FP mobile unit using at least one transformer provided between the at least one FP mobile unit and the at least one switch gear.

14. (Currently Amended) The method of claim 12, further comprising:

determining a number of FP mobile units for the one or more external mobile units based at least in part on a maximum of the power available from the at least one first generator and handled by the at least one switch gear.

15. (Currently Amended) The method of claim 12, further comprising:

determining a number of generators for the at least one first generator based at least in part on the number of first generators having individual power output values that is lesser than a power output of an isolated single generator occupying all available space in an independent mobile unit physically external to the first mobile unit.

16. (Currently Amended) The method of claim 12, further comprising:

physically arranging the at least one switch gear to replace an electronic equipment room (EER) of at least one ~~mobile unit~~ of the one or more external mobile units that is designed to comprise the EER.

17. (Currently Amended) The method of claim 12, further comprising:

providing at least one Variable Frequency Drive (VFD); and

providing at least one Motor Control Center (MCC), the VFD and the MCC being on individual ones of the one or more external mobile units that is physically external relative to the first mobile unit.

18. (Currently Amended) The method of claim 12, further comprising:

coupling the first mobile unit with [[a]] the second mobile unit ~~of the one or more external mobile units~~ using one or more power cable interconnects, the second mobile unit having ~~at least one second generator and~~ at least one second switch gear in addition to the second generator, the one or more power cable interconnects to transmit power in support of redundancy [[or]] in addition to the load sharing between the first mobile unit and the second mobile unit.

19. (Currently Amended) The method of claim 12, further comprising:

coupling at least one load sharing FP mobile unit to share the at least one load of a second FP mobile unit of the one or more external mobile units; and

controlling, via an optional datavan in the one or more external mobile units, the at least one load sharing FP mobile unit, the optional datavan offering the control of the at least one load sharing FP mobile unit instead of a second control available from within the first mobile unit.

20. (Currently Amended) The method of claim 12, further comprising:

filtering harmonics between the at least one first generator and the ~~at least one~~ loads in the one or more external mobile units using an isolation transformer that is in ~~one of~~ the one or more external mobile units, the isolation transformer being physically external relative to the first mobile unit.

REMARKS

Before entry of this paper, claims 1-20 were pending, with claims 1 and 12 being independent. The Office Action rejects claims 1-20.

The Office Action rejects claims 1 – 20 under section 102 for allegedly being unpatentable in view of a combination of *Oehring* (U.S. Publication 20160105022) and *Baten* (U.S. Patent 6,765,304). Applicant traverses these rejections.

In the interest of prosecution economy and without acquiescing in the characterization of the claims and the reference, Applicant amends claims 1 and 3-20 in this paper. The amendments are fully supported through the filed Specification, including at least in paragraphs 0022, 0023, 0031, and 0038. Claims 1-20 remain pending and no claim are added, leaving claims 1-20 for examination. In view of the following remarks, reconsideration of the claims is respectfully requested.

I. CLAIMS 1-20 ARE ALLOWABLE OVER THE ART

As also noted in the Remarks above, the Office Action rejects claims 1 – 20 under section 102 for allegedly being unpatentable in view of a combination of *Oehring* (U.S. Publication 20160105022) and *Baten* (U.S. Patent 6,765,304).

A decision on whether a claim is invalid under 35 U.S.C. § 103 requires a determination that the evidence as a whole shows that a legal determination sought to be proved (*i.e.*, the reference teachings establish a *prima facie* case of obviousness) is more probable than not. M.P.E.P. § 2142. Accordingly, "the key to supporting any rejection under 35 U.S.C. § 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious." M.P.E.P. § 2142; *see KSR International Co. v. Teleflex, Inc.*, 550 U.S.398 (2007).

A. Independent Claim 1 Is Allowable

Independent claim 1, as amended, recites:

> A system comprising:
> a first mobile unit;
> at least one first generator; and
> at least one switch gear, the at least one first generator coupled to the at least one switch gear and located on the first mobile unit with the at least one switch gear, the first mobile unit configured to provide power generated by the at least one first generator in electrical buses for loads on

> one or more external mobile units, the electrical buses common to the loads and adapted to support voltage and combined current requirements of the loads of the at least one first generator and of a second generator of a second mobile unit that is adapted to support load sharing with the at least one first generator of the first mobile unit.

Such subject matter as recited by claim 1, as amended, is not disclosed by the cited combination. For example, the cited combination fails to disclose at least a feature for "at least one switch gear, the at least one first generator coupled to the at least one switch gear and located on the first mobile unit with the at least one switch gear, the first mobile unit configured to provide power generated by the at least one first generator in electrical buses for loads on one or more external mobile units, the electrical buses common to the loads and adapted to support voltage and combined current requirements of the loads of the at least one first generator and of a second generator of a second mobile unit that is adapted to support load sharing with the at least one first generator of the first mobile unit," as partly recited in claim 1.

> The Office Action alleges from *Oehring* as to the above-referenced feature:
>
> Oehring does not appear to disclose the underlined portions of the following limitations: "the at least one generator coupled to the at least one switch gear and located on the mobile unit with the at least one switch gear." However, figure 2 of Baten "shows an example of a main trailer 100 on which a gas turbine and mounting system 125 and a complete generator with lineside and neutral cubicles are mounted. It is preferable that the gas turbine 125 and complete generator with lineside and neutral cubicles 150 are mounted on the same trailer so as to avoid the extensive time and effort that would be required to align a turbine and a generator transported on separate trailers." Baten 2:12-20. Baten continues, [a]lso provided in this example are a main turbine terminal box 130; a main generator terminal box 155 and switch gear 160 that is hard wired to the line side cubicle of generator 150." Baten 2:31-34.

Office Action, 3. However, the Office Action does not apply to claim 1, as amended. The cited combination is different than claim 1, as amended, because there is no discussion of a at least one first generator coupled to the at least one switch gear and located on the first mobile unit that also has electrical buses common to loads on one or more external mobile units. Further, Applicant's electrical busses are also adapted to support voltage and combined current requirements of the loads of the at least one first generator and of a second generator of a second mobile unit that is adapted to support load sharing with the at least one first generator of the first

mobile unit. For instance, this enables load sharing without complexity of dealing with changing out equipment, for instance. E.g., Specification, 0031, 0038. Such teachings are not in the cited combination.

For failing to disclose each and every limitation, the cited combination does not render obvious claim 1 and the rejection must be withdrawn. Applicant respectfully request reconsideration of the rejection to claim 1.

B. Independent Claim 12 Is Similarly Allowable

Applicant respectfully submits that claim 12 is allowable at least for similar reasons as those discussed above with respect to claim 1. Section I.A, *supra*. For example, as in the case of claim 1, the Office Action is not directed to claim 12, as amended. So considered, claim 12, as amended includes variation from the amending in claim 1:

> providing the power using electrical buses for at least one loads in one or more external mobile units, the electrical buses common to the loads and adapted to support voltage and combined current requirements of the loads of the at least one first generator and of a second generator of a second mobile unit that is adapted to support load sharing with the at least one first generator of the first mobile unit. . . .

Applicant respectfully submits that claim 12, as amended, is patentable over the cited combination asserted under section 103. Accordingly, Applicant respectfully requests reconsideration of the rejection under section 103 to this claim.

C. Dependent Claims 2-11 And 13-20 Are Also Allowable

Each of claims 2-11 and 13-20 depends, directly or indirectly, from one of independent claims 1 and 12, and thus incorporates each feature of one of the aforementioned independent claims. Applicant therefore respectfully submits that claims 2-11 and 13-20, by virtue of at least their dependencies from an allowable base claim, are at least patentable over the cited reference or modification alleged to the cited reference under section 102 or 103, as asserted in the Office Action. Furthermore, these claims include limitations that are independently patentable over the cited references for reasons similar to those discussed with respect to claims 1 and 12. For example, these claims may further described the features already identified as absent in the reference or modification alleged to the reference.

For all these reasons, reconsideration and withdrawal of the rejections of dependent claims 2-11 and 13-20 are respectfully requested.

II. AMENDMENTS TO THE CLAIMS

Unless otherwise specified or addressed in the remarks section, amendments to the claims are made for purposes of clarity, and are not intended to alter the scope of the claims or limit any equivalents thereof. The amendments are supported by the specification and do not add new matter. In addition, by focusing on specific claims and claim elements in the discussion above, Applicant does not imply that other claim elements are disclosed or suggested by the references. In addition, any characterizations of claims and/or cited art are being made to facilitate expeditious prosecution of this application. Applicant reserves the right to pursue at a later date any other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by another prosecution. Accordingly, reviewers of this or any child or related prosecution history shall not reasonably infer that Applicant has made any disclaimers or disavowals of any subject matter supported by the present disclosure.

CONCLUSION

In view of the foregoing, Applicant believes all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

Further, the Commissioner is hereby authorized to charge any additional fees or credit any overpayment in connection with this paper to Deposit Account No. 50-1349.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 212-918-3209.

Respectfully submitted,

/Sanjiva K. Reddy/
Sanjiva K. Reddy
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PTO/SB/06 (09-11)
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 16/443,273	Filing Date 06/17/2019	☐ To be Mailed

ENTITY: ☑ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A		N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*		x $100 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*		x $460 =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).				
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))					
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT	03/26/2021	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0		x $100 =	0
	Independent (37 CFR 1.16(h))	* 2	Minus	*** 3	= 0		x $480 =	0
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	0

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=		x $0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x $0 =	
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.	LIE
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".	/FREDERICK E BRISCOE/
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(Not for submission under 37 CFR 1.99)

Application Number	16443273
Filing Date	2019-06-17
First Named Inventor	Brandon N. HINDERLITER
Art Unit	2191
Examiner Name	Ryan D. COYER
Attorney Docket Number	047158.100042

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	9506333	B2	2016-11-29	Castillo et al.	
	2	3878884		1975-04-22	Raleigh	
	3	9062545	B2	2015-06-23	Roberts et al.	
	4	5439066		1995-08-08	Gipson	
	5	10221639	B2	2019-03-05	Romer et al.	
	6	10408030	B2	2019-09-10	Oehring et al.	
	7	10408031	B2	2019-09-10	Oehring et al.	
	8	6985750	B1	2006-01-10	Vicknair et al.	

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	Examiner Name	Ryan D. COYER
	Attorney Docket Number	047158.100042

	9	10740730	B2	2020-08-11	Altamirano et al.	

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	1	20160326853	A1	2016-11-10	Fred et al.	
	2	20190249527	A1	2019-08-15	Kraynek	
	3	20170082033	A1	2017-03-23	Wu et al.	
	4	20170370639	A1	2017-12-28	Barden et al.	
	5	20180312738	A1	2018-11-01	Rutsch et al.	
	6	20180181830	A1	2018-06-28	Laharuka et al.	
	7	20170212535	A1	2017-07-27	Shelman et al.	
	8	20180298731	A1	2018-10-18	Bishop	

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	Art Unit	2191
	Examiner Name	Ryan D. COYER
	Attorney Docket Number	047158.100042

	9	20110110793	A1	2011-05-11	Leugemors et al.	
	10	20190154020	A1	2019-05-23	Glass	
	11	20080277120	A1	2008-11-13	Hickie	
	12	20180090914	A1	2018-03-29	Johnson et al.	
	13	20180259080	A1	2018-09-13	Dale et al.	
	14	20180284817	A1	2018-10-04	Cook et al.	
	15	20130284455	A1	2013-10-31	Kajaria et al.	
	16	20180266217	A1	2018-09-18	Funkhauser et al.	

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Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1	2018044307	WO	A1	2018-03-08	Evolution Well Services, LLC		

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	Application Number	16443273
	Filing Date	2019-06-17
	First Named Inventor	Brandon N. HINDERLITER
	Art Unit	2191
	Examiner Name	Ryan D. COYER
	Attorney Docket Number	047158.100042

	2	2018213925	WO	A1	2018-11-29	Rouse Industries Inc.		
	3	104196613	CN	A	2014-12-10	SJ PETROLEUM MACHINERY CO LTD	English-language abstract	

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	1	Morris et al., 62/526,869; Hydration-Blender Transport and Electric Power Distribution for Fracturing Operation; 28 June 2018; USPTO; see entire document	
	2	Final Office Action mailed February 4, 2021 in US 16/597,014	
	3	International Search Report and Written Opinion mailed February 4, 2021 in PCT/US20/59834	
	4	International Search Report and Written Opinion mailed February 2, 2021 in PCT/US20/58906	
	5	International Search Report and Written Opinion mailed February 3, 2021 in PCT/US20/58899	
	6	Non-Final Office Action mailed January 29, 2021 in US 16/564,185	
	7	Final Office Action mailed January 21, 2021 in US 16/458,696	

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	Filing Date	2019-06-17
	First Named Inventor	Brandon N. HINDERLITER
	Art Unit	2191
	Examiner Name	Ryan D. COYER
	Attorney Docket Number	047158.100042

	8	Final Office Action mailed January 11, 2021 in US 16/404,283
	9	Non-Final Office Action mailed January 4, 2021 in US 16/522,043
	10	International Search Report and Written Opinion mailed December 14, 2020 in PCT/US2020/53980

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	Application Number	16443273
	Filing Date	2019-06-17
	First Named Inventor	Brandon N. HINDERLITER
	Art Unit	2191
	Examiner Name	Ryan D. COYER
	Attorney Docket Number	047158.100042

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

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OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☒ See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Taylor P. Evans/	Date (YYYY-MM-DD)	2021-03-08
Name/Print	Taylor P. Evans	Registration Number	60506

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EFS ID:	42117332
Application Number:	16443273
International Application Number:	
Confirmation Number:	1069
Title of Invention:	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING
First Named Inventor/Applicant Name:	Brandon N. Hinderliter
Customer Number:	132858
Filer:	Taylor P. Evans/Tina Fluharty
Filer Authorized By:	Taylor P. Evans
Attorney Docket Number:	047158.100042
Receipt Date:	08-MAR-2021
Filing Date:	17-JUN-2019
Time Stamp:	15:49:02
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Form (SB08)	047158-100042-IDS.pdf	1035887 534e0c0c4e95c8533ae3495a04106190f2014ab4	no	7

Warnings:

Information:					
2	Foreign Reference	047158-CN104196613A.pdf	602165 640d7c784711f7b9e6dfbf72a3aeb1df5136d9a3	no	10
Warnings:					
Information:					
3	Foreign Reference	047158-CN104196613A-abstract1.pdf	69377 bb4adb4e13a78bdbe9dd9e4f27f41d4e4117fd10	no	1
Warnings:					
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4	Non Patent Literature	047158-FOA-100048.pdf	1870514 1c2bc074a5b87b3cb70af7afb8408c72e41b5c7c	no	20
Warnings:					
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5	Non Patent Literature	047158-FOA-100054.pdf	719596 5e7347f833aa8a4816966894e6b26d5d23c372f5	no	8
Warnings:					
Information:					
6	Non Patent Literature	047158-FOA-100058.pdf	1483347 0d7a4a73f3d8edde25a7652ff8c34d1a61a550ad	no	14
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10	Non Patent Literature	047158-ISR-WO-500068.pdf	506844 03abdbbfb19f9f16d6d919f01c00776b87a398a5	no	8
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11	Non Patent Literature	047158-Morris.pdf	1066638 57894cc17802012c9ed66f63a5dd012e7b23cf9a	no	18
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Warnings:					
Information:					
13	Non Patent Literature	047158-NFOA-100062.pdf	577049 50dcf34b7a3467d53f7dc3deb395e8f5dbec8334	no	6
Warnings:					
Information:					
14	Foreign Reference	047158-WO2018044307A1.pdf	2913956 98ae95d003b5c43bedd7b5bd50e596652f7c597a	no	55
Warnings:					
Information:					
15	Foreign Reference	047158-WO2018213925A1.pdf	1032780 be122de12e0e40296ab3a82a07c7cf370bb66d41	no	30
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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
16/443,273	06/17/2019	2191	1880	047158.100042	20	2

CONFIRMATION NO. 1069

REPLACEMENT FILING RECEIPT

132858
Hogan Lovells US LLP
609 Main Street
Suite 4200
Houston, TX 77002

OC000000122393150

Date Mailed: 01/13/2021

Receipt is acknowledged of this non-provisional utility patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF FIRST INVENTOR, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection.

Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please submit a written request for a corrected Filing Receipt, including a properly marked-up ADS showing the changes with strike-through for deletions and underlining for additions. If you received a "Notice to File Missing Parts" or other Notice requiring a response for this application, please submit any request for correction to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections provided that the request is grantable.

Inventor(s)

Brandon N. Hinderliter, Houston, TX;

Applicant(s)

U.S. Well Services, LLC, Houston, TX

Assignment For Published Patent Application

U.S. Well Services, LLC, Houston, TX

Power of Attorney: The patent practitioners associated with Customer Number 132858

Domestic Priority data as claimed by applicant

This appln claims benefit of 62/685,797 06/15/2018

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see http://www.uspto.gov for more information.) - None.
Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

Permission to Access Application via Priority Document Exchange: Yes

Permission to Access Search Results: Yes

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

If Required, Foreign Filing License Granted: 06/25/2019

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 16/443,273**

Projected Publication Date: Not Applicable

Non-Publication Request: No

Early Publication Request: No

Title

INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING

Preliminary Class

700

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).

LICENSE FOR FOREIGN FILING UNDER

Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

GRANTED

The applicant has been granted a license under 35 U.S.C. 184, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" followed by a date appears on this form. Such licenses are issued in all applications where the conditions for issuance of a license have been met, regardless of whether or not a license may be required as set forth in 37 CFR 5.15. The scope and limitations of this license are set forth in 37 CFR 5.15(a) unless an earlier license has been issued under 37 CFR 5.15(b). The license is subject to revocation upon written notification. The date indicated is the effective date of the license, unless an earlier license of similar scope has been granted under 37 CFR 5.13 or 5.14.

This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign AssetsControl, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

NOT GRANTED

No license under 35 U.S.C. 184 has been granted at this time, if the phrase "IF REQUIRED, FOREIGN FILING LICENSE GRANTED" DOES NOT appear on this form. Applicant may still petition for a license under 37 CFR 5.12, if a license is desired before the expiration of 6 months from the filing date of the application. If 6 months has lapsed from the filing date of this application and the licensee has not received any indication of a secrecy order under 35 U.S.C. 181, the licensee may foreign file the application pursuant to 37 CFR 5.15(b).

SelectUSA

The United States represents the largest, most dynamic marketplace in the world and is an unparalleled location for business investment, innovation, and commercialization of new technologies. The U.S. offers tremendous resources and advantages for those who invest and manufacture goods here. Through SelectUSA, our nation works to promote and facilitate business investment. SelectUSA provides information assistance to the international investor community; serves as an ombudsman for existing and potential investors; advocates on behalf of U.S. cities, states, and regions competing for global investment; and counsels U.S. economic development organizations on investment attraction best practices. To learn more about why the United States is the best country in the world to develop technology, manufacture products, deliver services, and grow your business, visit http://www.SelectUSA.gov or call +1-202-482-6800.

Doc Code: R46C.REQ
Document Description: Request under 37 CFR 1.46(c) to correct, update or change the applicant.

PTO/AIA/41 (04-15)
Approved for use through 11/30/2020. OMB 0651-0031
U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it displays a valid OMB control number.

REQUEST TO CORRECT OR UPDATE THE NAME OF THE APPLICANT UNDER 37 CFR 1.46(c)(1), OR CHANGE THE APPLICANT UNDER 37 CFR 1.46(c)(2)

(FOR USE ONLY IN APPLICATIONS FILED ON OR AFTER SEPTEMBER 16, 2012)

Application Number	16/443,273
Filing Date	2019-06-17
First Named Inventor	Brandon N. Hinderliter
Art Unit	2191
Examiner Name	Ryan D. Coyer
Practitioner Docket Number	047158.100042

To: Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Applicant hereby **requests that the name of the applicant be corrected or updated under 37 CFR 1.46(c)(1), or that the applicant be changed under 37 CFR 1.46(c)(2),** in the above-identified application. **Requests under 37 CFR 1.46(c)(1) or (c)(2) cannot be submitted after payment of the issue fee or if the application has been patented.**

Please check the applicable box(es) below.

☒ 1. This request is to **correct or update the name of the applicant** (**under 37 CFR 1.46(c)(1)**) and includes:

☒ An application data sheet (ADS) in accordance with 37 CFR 1.76(c) with the corrected or updated information shown with markings (*e.g.*, underlining for insertions, strikethrough for deletions). A Corrected Web-based ADS may be used.

Note: Requests under 37 CFR 1.46(c)(1) may be filed to correct typographical errors in the name of the § 1.46 applicant, or for updating the name of the § 1.46 applicant (*i.e.*, where there is no change in the applicant itself but just in the applicant's name). See the Manual of Patent Examining Procedure (MPEP) section 605.01.

☐ 2. This request is to **change the applicant** (**under 37 CFR 1.46(c)(2)**) and includes:

☐ An application data sheet (ADS) in accordance with 37 CFR 1.76(c) that identifies the changes with proper markings (underlining for insertions and strikethrough for deletions). A Corrected Web-based ADS may be used.

☐ A Statement Under 37 CFR 3.73(c) (Form PTO/AIA/96 or equivalent). See MPEP 325.

I am the

☐ applicant* ☒ attorney or agent of record Registration number 60,506 ☐ attorney or agent acting under 37 CFR 1.34 Registration number _____

Signature /Taylor P. Evans/

Typed or printed name Taylor P. Evans

Date January 6, 2021

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. *Juristic entities must be represented by a patent practitioner (See 37 CFR 1.31, applicable to any paper filed on or after September 16, 2012 that is presented on behalf of a juristic entity, regardless of application filing date). Submit multiple forms if more than one signature is required, see below**.

☐ ** Total of _____ forms are submitted.

This collection of information is required by 37 CFR 1.36. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

SUPPLEMENTAL APPLICATION DATA SHEET

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	047158.100042
	Application Number	16/443,273
Title of Invention	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING	

The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76.
This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.

Secrecy Order 37 CFR 5.2:

☐ Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)

Inventor Information:

Inventor 1

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Brandon	N.	Hinderliter	

Residence Information (Select One) ◉ US Residency ○ Non US Residency ○ Active US Military Service

City	Houston	State/Province	TX	Country of Residence	US

Mailing Address of Inventor:

Address 1	c/o ~~U.S. Well Services, Inc.~~ U.S. Well Services, LLC
Address 2	1360 Post Oak Boulevard, Suite 1800

City	Houston	State/Province	TX
Postal Code	77056	Country	US

All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the **Add** button. Add

Correspondence Information:

Enter either Customer Number or complete the Correspondence Information section below.
For further information see 37 CFR 1.33(a).

☐ **An Address is being provided for the correspondence Information of this application.**

Customer Number	132858		
Email Address	hlusdocketing@hoganlovells.com	Add Email	Remove Email

Application Information:

Title of the Invention	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING		
Attorney Docket Number	047158.100042	Small Entity Status Claimed	☐
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)	11	Suggested Figure for Publication (if any)	

PTO/AIA/14 (08-15)
Approved for use through 04/30/2017. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

SUPPLEMENTAL APPLICATION DATA SHEET

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	047158.100042
	Application Number	16/443,273
Title of Invention	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING	

Filing By Reference:

Only complete this section when filing an application by reference under 35 U.S.C. 111(c) and 37 CFR 1.57(a). Do not complete this section if application papers including a specification and any drawings are being filed. Any domestic benefit or foreign priority information must be provided in the appropriate section(s) below (i.e., "Domestic Benefit/National Stage Information" and "Foreign Priority Information").

For the purposes of a filing date under 37 CFR 1.53(b), the description and any drawings of the present application are replaced by this reference to the previously filed application, subject to conditions and requirements of 37 CFR 1.57(a).

Application number of the previously filed application	Filing date (YYYY-MM-DD)	Intellectual Property Authority or Country

Publication Information:

☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)

☐ **Request Not to Publish.** I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application **has not and will not** be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32).
Either enter Customer Number or complete the Representative Name section below. If both sections are completed the customer Number will be used for the Representative Information during processing.

Please Select One:	◉ Customer Number	○ US Patent Practitioner	○ Limited Recognition (37 CFR 11.9)
Customer Number	132858		

Prefix	**Given Name**	Middle Name	**Family Name**	Suffix	
					Remove
Registration Number					
Prefix	**Given Name**	Middle Name	**Family Name**	Suffix	
					Remove
Registration Number					

Additional Representative Information blocks may be generated within this form by selecting the **Add** button.

PTO/AIA/14 (08-15)
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SUPPLEMENTAL APPLICATION DATA SHEET

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	047158.100042
	Application Number	16/443,273
Title of Invention	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING	

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, 365(c), or 386(c) or indicate National Stage entry from a PCT application. Providing benefit claim information in the Application Data Sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78.
When referring to the current application, please leave the "Application Number" field blank.

Prior Application Status	Pending	Remove	
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
	Claims benefit of provisional	62685797	2018-06-15

Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the **Add** button.

Foreign Priority Information:

This section allows for the applicant to claim priority to a foreign application. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55. When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX) the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(i)(1) and (2). Under the PDX program, applicant bears the ultimate responsibility for ensuring that a copy of the foreign application is received by the Office from the participating foreign intellectual property office, or a certified copy of the foreign priority application is filed, within the time period specified in 37 CFR 1.55(g)(1).

Application Number	Country	Filing Date (YYYY-MM-DD)	Access Code (if applicable)

Additional Foreign Priority Data may be generated within this form by selecting the **Add** button.

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

☐ This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013.
NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	047158.100042
	Application Number	16/443,273
Title of Invention	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING	

Authorization or Opt-Out of Authorization to Permit Access:

When this Application Data Sheet is properly signed and filed with the application, applicant has provided written authority to permit a participating foreign intellectual property (IP) office access to the instant application-as-filed (see paragraph A in subsection 1 below) and the European Patent Office (EPO) access to any search results from the instant application (see paragraph B in subsection 1 below).

Should applicant choose not to provide an authorization identified in subsection 1 below, applicant **must opt-out** of the authorization by checking the corresponding box A or B or both in subsection 2 below.

NOTE: This section of the Application Data Sheet is **ONLY** reviewed and processed with the **INITIAL** filing of an application. After the initial filing of an application, an Application Data Sheet cannot be used to provide or rescind authorization for access by a foreign IP office(s). Instead, Form PTO/SB/39 or PTO/SB/69 must be used as appropriate.

1. Authorization to Permit Access by a Foreign Intellectual Property Office(s)

A. Priority Document Exchange (PDX) - Unless box A in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the State Intellectual Property Office of the People's Republic of China (SIPO), the World Intellectual Property Organization (WIPO), and any other foreign intellectual property office participating with the USPTO in a bilateral or multilateral priority document exchange agreement in which a foreign application claiming priority to the instant patent application is filed, access to: (1) the instant patent application-as-filed and its related bibliographic data, (2) any foreign or domestic application to which priority or benefit is claimed by the instant application and its related bibliographic data, and (3) the date of filing of this Authorization. See 37 CFR 1.14(h)(1).

B. Search Results from U.S. Application to EPO - Unless box B in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the EPO access to the bibliographic data and search results from the instant patent application when a European patent application claiming priority to the instant patent application is filed. See 37 CFR 1.14(h)(2).

The applicant is reminded that the EPO's Rule 141(1) EPC (European Patent Convention) requires applicants to submit a copy of search results from the instant application without delay in a European patent application that claims priority to the instant application.

2. Opt-Out of Authorizations to Permit Access by a Foreign Intellectual Property Office(s)

☐ A. Applicant **DOES NOT** authorize the USPTO to permit a participating foreign IP office access to the instant application-as-filed. If this box is checked, the USPTO will not be providing a participating foreign IP office with any documents and information identified in subsection 1A above.

☐ B. Applicant **DOES NOT** authorize the USPTO to transmit to the EPO any search results from the instant patent application. If this box is checked, the USPTO will not be providing the EPO with search results from the instant application.

NOTE: Once the application has published or is otherwise publicly available, the USPTO may provide access to the application in accordance with 37 CFR 1.14.

PTO/AIA/14 (08-15)
Approved for use through 04/30/2017. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

SUPPLEMENTAL APPLICATION DATA SHEET

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	047158.100042
	Application Number	16/443,273
Title of Invention	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING	

Applicant Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Applicant 1

If the applicant is the inventor (or the remaining joint inventor or inventors under 37 CFR 1.45), this section should not be completed. The information to be provided in this section is the name and address of the legal representative who is the applicant under 37 CFR 1.43; or the name and address of the assignee, person to whom the inventor is under an obligation to assign the invention, or person who otherwise shows sufficient proprietary interest in the matter who is the applicant under 37 CFR 1.46. If the applicant is an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest) together with one or more joint inventors, then the joint inventor or inventors who are also the applicant should be identified in this section.

Clear

○ Assignee	○ Legal Representative under 35 U.S.C. 117	○ Joint Inventor
◉ Person to whom the inventor is obligated to assign.	○ Person who shows sufficient proprietary interest	

If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:

Name of the Deceased or Legally Incapacitated Inventor:

If the Applicant is an Organization check here. ☒

Organization Name ~~U.S. Well Services, Inc.~~ U.S. Well Services, LLC

Mailing Address Information For Applicant:

Address 1	1360 Post Oak Boulevard, Suite 1800		
Address 2			
City	Houston	**State/Province**	TX
Country [i]	US	Postal Code	77056
Phone Number		Fax Number	
Email Address			

Additional Applicant Data may be generated within this form by selecting the Add button.

PTO/AIA/14 (08-15)
Approved for use through 04/30/2017. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

SUPPLEMENTAL APPLICATION DATA SHEET

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	047158.100042
	Application Number	16/443,273
Title of Invention	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING	

Assignee Information including Non-Applicant Assignee Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Assignee 1

Complete this section if assignee information, including non-applicant assignee information, is desired to be included on the patent application publication. An assignee-applicant identified in the "Applicant Information" section will appear on the patent application publication as an applicant. For an assignee-applicant, complete this section only if identification as an assignee is also desired on the patent application publication.

If the Assignee or Non-Applicant Assignee is an Organization check here. ☒

Organization Name	~~U.S. Well Services, Inc.~~ U.S. Well Services, LLC

Mailing Address Information For Assignee including Non-Applicant Assignee:

Address 1	1360 Post Oak Boulevard, Suite 1800		
Address 2			
City	Houston	**State/Province**	TX
Country	US	Postal Code	77056
Phone Number		Fax Number	
Email Address			

Additional Assignee or Non-Applicant Assignee Data may be generated within this form by selecting the Add button.

PTO/AIA/14 (08-15)
Approved for use through 04/30/2017. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE

SUPPLEMENTAL APPLICATION DATA SHEET

Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	047158.100042
	Application Number	16/443,273
Title of Invention	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING	

Signature:

NOTE: This Application Data Sheet must be signed in accordance with 37 CFR 1.33(b). **However, if this Application Data Sheet is submitted with the INITIAL filing of the application and either box A or B is not checked in subsection 2 of the "Authorization or Opt-Out of Authorization to Permit Access" section, then this form must also be signed in accordance with 37 CFR 1.14(c).**

This Application Data Sheet **must** be signed by a patent practitioner if one or more of the applicants is a **juristic entity** (e. g., corporation or association). If the applicant is two or more joint inventors, this form must be signed by a patent practitioner, **all** joint inventors who are the applicant, or one or more joint inventor-applicants who have been given power of attorney (e.g., see USPTO Form PTO/AIA/81) on behalf of **all** joint inventor-applicants.

See 37 CFR 1.4(d) for the manner of making signatures and certifications.

Signature	/Taylor P. Evans/			Date (YYYY-MM-DD)	2021-01-06
First Name	Taylor P.	Last Name	Evans	Registration Number	60506

Additional Signature may be generated within this form by selecting the Add button.

PTO/AIA/01 (06-12)
Approved for use through 11/30/2020. OMB 0651-0032
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DECLARATION (37 CFR 1.63) FOR UTILITY OR DESIGN APPLICATION USING AN APPLICATION DATA SHEET (37 CFR 1.76)

Title of Invention	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING

As the below named inventor, I hereby declare that:

This declaration is directed to:

☐ The attached application, or

☒ United States application or PCT international application number 16/443,273

filed on June 17, 2019.

The above-identified application was made or authorized to be made by me.

I believe that I am the original inventor or an original joint inventor of a claimed invention in the application.

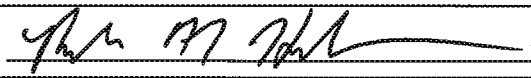
I hereby acknowledge that any willful false statement made in this declaration is punishable under 18 U.S.C. 1001 by fine or imprisonment of not more than five (5) years, or both.

WARNING:

Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization form PTO-2038 submitted for payment purposes) is never required by the USPTO to support a petition or an application. If this type of personal information is included in documents submitted to the USPTO, petitioners/applicants should consider redacting such personal information from the documents before submitting them to the USPTO. Petitioner/applicant is advised that the record of a patent application is available to the public after publication of the application (unless a non-publication request in compliance with 37 CFR 1.213(a) is made in the application) or issuance of a patent. Furthermore, the record from an abandoned application may also be available to the public if the application is referenced in a published application or an issued patent (see 37 CFR 1.14). Checks and credit card authorization forms PTO-2038 submitted for payment purposes are not retained in the application file and therefore are not publicly available.

LEGAL NAME OF INVENTOR

Inventor: Brandon N. Hinderliter Date (Optional): 01/06/21

Signature: 

Note: An application data sheet (PTO/SB/14 or equivalent), including naming the entire inventive entity, must accompany this form or must have been previously filed. Use an additional PTO/AIA/01 form for each additional inventor.

This collection of information is required by 35 U.S.C. 115 and 37 CFR 1.63. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 1 minute to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
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6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal

Application Number:	16443273
Filing Date:	17-Jun-2019
Title of Invention:	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING
First Named Inventor/Applicant Name:	Brandon N. Hinderliter
Filer:	Taylor P. Evans/Stephanie McDonough
Attorney Docket Number:	047158.100042

Filed as Large Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
PROCESSING FEE, EXCEPT PROV. APPLS.	1830	1	140	140
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension-of-Time:				
Miscellaneous:				
			Total in USD ($)	**140**

Electronic Acknowledgement Receipt

EFS ID:	41570159
Application Number:	16443273
International Application Number:	
Confirmation Number:	1069
Title of Invention:	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING
First Named Inventor/Applicant Name:	Brandon N. Hinderliter
Customer Number:	132858
Filer:	Taylor P. Evans/Stephanie McDonough
Filer Authorized By:	Taylor P. Evans
Attorney Docket Number:	047158.100042
Receipt Date:	06-JAN-2021
Filing Date:	17-JUN-2019
Time Stamp:	13:57:37
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$140
RAM confirmation Number	E202116D58011221
Deposit Account	501349
Authorized User	Stephanie McDonough

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.16 (National application filing, search, and examination fees)

37 CFR 1.17 (Patent application and reexamination processing fees)

37 CFR 1.19 (Document supply fees)

37 CFR 1.20 (Post Issuance fees)

37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Miscellaneous Incoming Letter	047158-100042_Change-of-Applicant.pdf	204655 f8f8f8790e2a7015d7950fc52d7d8cdac7d471e9	no	2
Warnings:					
Information:					
2	Application Data Sheet	047158-100042_Supplemental_ADS.pdf	1235960 29e497e03092ad9ba05702a37ef6e160a2cbcc0c	no	7
Warnings:					
Information:					
This is not an USPTO supplied ADS fillable form					
3	Oath or Declaration filed	047158-100042_Declaration.pdf	127009 24fb3df9ea689d4926d36ef084045615f0ae55f5	no	2
Warnings:					
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4	Fee Worksheet (SB06)	fee-info.pdf	30853 6fab66d183dbddce1e9f6e8d36ca6760632c91e2	no	2
Warnings:					
Information:					
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This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/08a (02-18)
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16443273
Filing Date	2019-06-17
First Named Inventor	Brandon N. HINDERLITER
Art Unit	2191
Examiner Name	Ryan D. COYER
Attorney Docket Number	047158-100042

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	10695950	B2	2020-06-30	Igo et al.	
	2	9706185	B2	2017-07-11	Ellis	
	3	9482086	B2	2016-11-01	Richardson et al.	
	4	5517822	A	1996-05-21	Haws et al.	
	5	6626646	B2	2003-09-30	Rajewski	
	6	6765304	B2	2004-07-20	Baten et al.	
	7	10627003	B2	2020-04-21	Dale et al.	
	8	8763387	B2	2014-07-01	Schmidt	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	First Named Inventor	Brandon N. HINDERLITER
	Art Unit	2191
	Examiner Name	Ryan D. COYER
	Attorney Docket Number	047158-100042

	9	9051923	B2	2015-06-09	Kuo	
	10	10711576	B2	2020-07-14	Bishop	
	11	10669471	B2	2020-06-02	Schmidt et al.	
	12	10184465	B2	2019-01-22	Enis et al.	
	13	8795525	B2	2014-08-05	McGinnis et al.	
	14	9739546	B2	2017-08-22	Bertilsson et al.	
	15	8506267	B2	2013-08-13	Gambier et al.	

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Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20200047141	A1	2020-02-13	Oehring et al.	
	2	20170138171	A1	2017-05-18	Richards et al.	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	Art Unit	2191
	Examiner Name	Ryan D. COYER
	Attorney Docket Number	047158-100042

	3	20120152716	A1	2012-06-12	Kikukawa et al.	
	4	20080095644	A1	2008-04-24	Mantei et al.	
	5	20130255271	A1	2013-10-03	Yu et al.	
	6	20160273456	A1	2016-09-22	Zhang et al.	
	7	20170043280	A1	2017-02-16	Vankouwenberg	
	8	20170074076	A1	2017-03-16	Joseph et al.	
	9	20200088152	A1	2020-03-19	Allion et al.	
	10	20130189629	A1	2013-07-25	Chandler	

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Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1	3067854	CA	A1	2019-01-03	Morris et al.		

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16443273
	Filing Date	2019-06-17
	First Named Inventor	Brandon N. HINDERLITER
	Art Unit	2191
	Examiner Name	Ryan D. COYER
	Attorney Docket Number	047158-100042

	2	108049999	CN	A	2018-05-18	Kailong High Tech Co. Ltd.	English-Language Translation	
	3	205986303	CN	U	2017-02-22	Zhenjiang Daqo Secheron Traction Power Co. Ltd.	English-Language Abstract	

If you wish to add additional Foreign Patent Document citation information please click the Add button Add

NON-PATENT LITERATURE DOCUMENTS Remove

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1	Non-Final Office Mailed October 26, 2020 in US Patent Application 15/356,436	
	2	Non-Final Office Mailed October 5, 2020 in US Patent Application No.16/443,273	
	3	Non-Final Office Action Mailed September 29, 2020 in US Patent Application No. 16/943,727	
	4	Non-Final Office Action Mailed September 2, 2020 in US Patent Application No. 16/356,263	
	5	Non-Final Office Action Mailed August 31, 2020 in US Patent Application No. 16/167,083	
	6	ALBONE, "Mobile Compressor Stations for Natural Gas Transmission Service," ASME 67-GT-33, Turbo Expo, Power for Land, Sea and Air, Vol. 79887, p. 1-10, 1967	
	7	Canadian Office Action issued September 22, 2020 in Canadian Application No. 2,982,974	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16443273
	Filing Date	2019-06-17
	First Named Inventor	Brandon N. HINDERLITER
	Art Unit	2191
	Examiner Name	Ryan D. COYER
	Attorney Docket Number	047158-100042

	8	International Search Report and Written Opinion Mailed September 3, 2020 in PCT/US2020/36932
	9	"Process Burner" (https://www.cebasrt.com/productsloii-gaslprocess-bumer) 06 September 6, 2018 (06.09.2018), entire document, especially para (Burners for refinery Heaters]
	10	"Water and Glycol Heating Systems• (https://www.heat-inc.com/wg-series-water-glycol-systems/) 18 June 2018 (18.06.2018), entire document, especlally WG Series Water Glycol Systems
	11	"Heat Exchanger" (https://en.wiklpedia.org/w/index.php?title=Heat_exchanger&oldid=89300146) 12-18-19 April 2019 (18.04.2019), entire document, especially para (0001]
	12	Canadian Office Action issued September 8, 2020 in Canadian Patent Application No. 2,928,707
	13	Canadian Office Action issued August 31, 2020 in Canadian Patent Application No. 2,944,980
	14	International Search Report and Written Opinion Mailed August 28, 2020 in PCT/US20/23821

If you wish to add additional non-patent literature document citation information please click the Add button Add

EXAMINER SIGNATURE

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16443273
	Filing Date	2019-06-17
	First Named Inventor	Brandon N. HINDERLITER
	Art Unit	2191
	Examiner Name	Ryan D. COYER
	Attorney Docket Number	047158-100042

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☒ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☒ See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Taylor P. Evans/	Date (YYYY-MM-DD)	2020-11-18
Name/Print	Taylor P. Evans	Registration Number	60506

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

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6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

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9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Acknowledgement Receipt

EFS ID:	41162386
Application Number:	16443273
International Application Number:	
Confirmation Number:	1069
Title of Invention:	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING
First Named Inventor/Applicant Name:	Brandon N. Hinderliter
Customer Number:	132858
Filer:	Taylor P. Evans/Tina Fluharty
Filer Authorized By:	Taylor P. Evans
Attorney Docket Number:	047158.100042
Receipt Date:	18-NOV-2020
Filing Date:	17-JUN-2019
Time Stamp:	17:56:30
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Form (SB08)	047158-100042-IDS.pdf	1036238 39cc4d54ae8cad1bb7d3507fd74811052fb b71fc	no	7

Warnings:

Information:					
2	Non Patent Literature	047158-Albone.pdf	1396726 bbd859d44be87e93222b2b583fe22a836e27bbac	no	10
Warnings:					
Information:					
3	Non Patent Literature	100004-10-26-OA.pdf	2443242 20ed78f7caa9767a7862137477895ff2d0a8d254	no	23
Warnings:					
Information:					
4	Non Patent Literature	100042-10-5-OA.pdf	1374522 a3189c1831306a7b9b6c1406336dc89e974ac9f1	no	13
Warnings:					
Information:					
5	Non Patent Literature	100045_NFOA-8-31.pdf	1722845 252f0108f1d61a283a066f67d4749ff8192fda4a	no	17
Warnings:					
Information:					
6	Non Patent Literature	100049-NFOA_9-2.pdf	1511401 ad5ba89045499f89890195bd43029c8bc38e3d55	no	16
Warnings:					
Information:					
7	Non Patent Literature	100064-NFOA-9-29.pdf	757321 b313343e240a98ef9f73f4cd7c5f4c91e5e2c0aa	no	8
Warnings:					
Information:					
8	Non Patent Literature	200016_CA_OA-9-8.pdf	193975 e638c576839738e603405ad2a00cb0d3716bd689	no	1
Warnings:					
Information:					

9	Non Patent Literature	200021_CA_OA-9-8.pdf	228003 e09fc05687c419eaab1cd8f89a26f6419a7251ec	no	4
Warnings:					
Information:					
10	Non Patent Literature	200026_CA_OA-9-22.pdf	234025 1a834aca6b04616717005984b6d24c4df73b41ec	no	3
Warnings:					
Information:					
11	Non Patent Literature	500057-ISR-9-3.pdf	1412702 608c570fa6f979f26354da4f6be8712056bd3bc0	no	17
Warnings:					
Information:					
12	Foreign Reference	CA3067854A1.pdf	6548759 f17b2834c269650df633c55e00d183cb56067588	no	57
Warnings:					
Information:					
13	Foreign Reference	CN108049999-withtranslation.pdf	893380 d80f908eb0904e5ea1bcae367049481cf120b799	no	10
Warnings:					
Information:					
14	Foreign Reference	CN205986303-abstract.pdf	95862 059dff68770d26488cf683bc7d457b0d6ab88590	no	1
Warnings:					
Information:					
15	Foreign Reference	CN205986303U.pdf	611846 d9f5d439e4e0ab642a6eeff9104efcfce9b1c12b	no	5
Warnings:					
Information:					

16	Non Patent Literature	Heat-Exchanger.pdf	1924692 eee7c9a98f567d0a4f81f9b5e185f51ce6ec5745	no	21
Warnings:					
Information:					
17	Non Patent Literature	ProcessBurner.pdf	367215 52eb9b1076f9a0eafbecd4167089cc24a77db2d6	no	4
Warnings:					
Information:					
18	Non Patent Literature	Water-and-Glycol-Systems.pdf	88128 855baf8281709289d6b388450788ed8d3ed9fe2b	no	1
Warnings:					
Information:					
			Total Files Size (in bytes):	22840882	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/443,273	06/17/2019	Brandon N. Hinderliter	047158.100042	1069

132858 7590 10/05/2020

Hogan Lovells US LLP
609 Main Street
Suite 4200
Houston, TX 77002

EXAMINER	
COYER, RYAN D	

ART UNIT	PAPER NUMBER
2191	

NOTIFICATION DATE	DELIVERY MODE
10/05/2020	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

hlusdocketing@hoganlovells.com
stephanie.mcdonough@hoganlovells.com

Office Action Summary	Application No. 16/443,273	Applicant(s) Hinderliter, Brandon N.	
	Examiner RYAN D COYER	Art Unit 2191	AIA (FITF) Status Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☑ Responsive to communication(s) filed on the amendment filed 9/24/2020.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☐ This action is **FINAL.** 2b) ☑ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5) ☑ Claim(s) 1-20 is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6) ☐ Claim(s) _____ is/are allowed.

7) ☑ Claim(s) 1-20 is/are rejected.

8) ☐ Claim(s) _____ is/are objected to.

9) ☐ Claim(s) _____ are subject to restriction and/or election requirement

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to **PPHfeedback@uspto.gov.**

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☑ Notice of References Cited (PTO-892)

2) ☑ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date 5/13/2020; 6/19/2020; 9/1/2020.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

4) ☐ Other: _____.

DETAILED ACTION

This action is in response to an amendment to application 16/443273, filed on 9/24/2020. Claims 1-20 are pending. The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

Claim Rejections - 35 USC § 103

In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

> A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries for establishing a background for determining obviousness under 35 U.S.C. 103 are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.

3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-4, 6-10, 12-14, and 16-19 are rejected under 35 U.S.C. 103 as being unpatentable over USPGPUB 2016/0105022, hereinafter "Oehring" in view of U.S. Pat. No. 6,765,304, hereinafter "Baten."

Regarding claim 1, Oehring discloses **"A system comprising:**

a mobile unit; (see, e.g., Oehring, fig. 3, para. 31, 52; "trailerized")

at least one generator; (see, e.g., Oehring, fig. 5 sec. 222A, 222B & associated text) **and**

at least one switch gear, the at least one generator coupled to the at least one switch gear on the mobile unit, the mobile unit configured to provide power generated by the at least one generator in electrical buses for at least one load on one or more external mobile units." (see, e.g., Oehring, para. 45-47, 52).

Oehring does not appear to disclose the underlined portions of the following limitations: **"the at least one generator coupled to the at least one switch gear and located on the mobile unit with the at least one switch gear."** However, figure 2 of Baten "shows an example of a main trailer 100 on which a gas turbine and mounting system 125 and a complete generator with lineside and neutral cubicles are mounted. It is preferable that the gas turbine 125 and complete generator with lineside and neutral cubicles 150 are mounted on the same trailer so as to avoid the extensive time and effort that would be required to align a turbine and a generator transported on separate trailers." Baten 2:12-20. Baten continues, "[a]lso provided in this example are a main turbine terminal box 130; a main generator terminal box 155 and switch gear 160 that is hard wired to the line side cubicle of generator 150." Baten 2:31-34.

Figure 2 (and associated text) of Baten clearly shows a single mobile unit

containing a generator coupled to switchgear. Baten and Oehring are directed toward power generation and therefore are analogous art. On or before the effective filing date of the instant application, one of ordinary skill in the art would have deemed it obvious to try to combine the power generation apparatus of Oehring with the colocation feature of Baten, thereby obtaining the claimed invention. A clear and predictable benefit of so combining would have appeared as reducing the complexity and difficulty of onsite setup. (See, e.g., Baten 2:14-19). Accordingly, the instant claim is unpatentable over the combination of Baten and Oehring.

Regarding claim 2, the combination of Oehring and Baten renders obvious **"The system of claim 1, wherein the system is part of a hydraulic fracturing system that consumes the power and that comprises a wellbore and at least one pressuring system to create fractures in a subterranean formation that surrounds the wellbore."** (see, e.g., Oehring, fig. 1 & associated text; para. 19; "hydraulic fracturing operation").

Regarding claim 3, the combination of Oehring and Baten renders obvious **"The system of claim 1, further comprising: at least one fracturing pump (FP) mobile unit of the one or more external mobile units, the at least one FP mobile unit physically external relative to the mobile unit; and at least one transformer provided between the at least one FP mobile unit and the at least one switch gear to condition the power supplied to the at least one FP mobile unit."** (see, e.g., Oehring, fig. 1 & associated text; para. 19, 29-33; Baten, figs. 2-3 & associated text).

Regarding claim 4, the combination of Oehring and Baten renders obvious **"The system of claim 1, further comprising: a predetermined number of FP mobile**

units comprised in the one or more external mobile units, the predetermined number of FP mobile units determined by a maximum of the power available from the at least one generator and handled by the at least one switch gear." (see, e.g., Oehring, para. 33-36).

Regarding claim 6, the combination of Oehring and Baten renders obvious **"The system of claim 1, further comprising: the at least one switchgear being physically arranged to replace an electronic equipment room (EER) of at least one mobile unit of the one or more external mobile units that is designed to comprise the EER."** (see, e.g., Oehring, para. 49-50).

Regarding claim 7, the combination of Oehring and Baten renders obvious **"The system of claim 1, further comprising: at least one Variable Frequency Drive (VFD); and at least one Motor Control Center (MCC), the VFD and the MCC being on individual ones of the one or more external mobile units that is physically external relative to the mobile unit."** (see, e.g., Oehring, fig. 5 & associated text; Baten, figs. 2-3 & associated text).

Regarding claim 8, the combination of Oehring and Baten renders obvious **"The system of claim 1, further comprising: one or more power cable interconnects configured to couple the mobile unit with a second mobile unit of the one or more external mobile units, the second mobile unit having at least one second generator and at least one second switch gear, the one or more power cable interconnects to transmit power in support of redundancy or load sharing between the mobile unit and the second mobile unit."** (see, e.g., Oehring, para. 22, 33-36, 45-49; Baten, figs. 2-3 & associated text).

Regarding claim 9, the combination of Oehring and Baten renders obvious **"The system of claim 1, further comprising: an interconnect between transformers of the at least two mobile units of the one or more external mobile units, the interconnect for load sharing between the transformers comprising: at least one load sharing switch gear optionally associated with at least one of the transformers and configured for load sharing on an incoming side of the at least one of the transformers such that the at least one load sharing switch gear, associated bus bars, and associated cable interconnects are sized based at least in part on current available for a voltage output of a secondary side of the of the at least one of the transformers; or the at least one load sharing switch gear configured for load sharing on an outgoing side of the at least one of the transformers such that the at least one load sharing switch gear, the associated bus bars, and the associated cable interconnects are sized based at least in part on the current available at the secondary side of the transformer."** (see, e.g., Oehring, para. 22, 33-36, 45-49; it is inherent to the disclosure of Oehring that all cables and interconnects would be sized and rated appropriately for available current; Baten, figs. 2-3 & associated text).

Regarding claim 10, the combination of Oehring and Baten renders obvious **"The system of claim 1, further comprising: at least one load sharing FP mobile unit coupled to share the at least one load of a second FP mobile unit of the one or more external mobile units; and an optional datavan in the one or more external mobile units for control of the at least one load sharing FP mobile unit, the optional datavan offering the control of the at least one load sharing FP mobile**

unit instead of a second control available from within the mobile unit." (see, e.g., Oehring, para. 45, 49, 50-51; Baten, figs. 2-3 & associated text).

Regarding claims 12, 13, 14, 16, 17, 18, and 19, the instant claims are equivalents of claims 1, 3, 4, 6, 7, 8, and 10, respectively, and differ only by statutory class. Accordingly, the rejections of claims 1, 3, 4, 6, 7, 8, and 10 apply, *mutatis mutandis*, respectively to claims 12, 13, 14, 16, 17, 18, and 19.

Claim Rejections - 35 USC § 103

In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

> A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103 are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.

3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 5, 11, 15, and 20 are rejected under 35 U.S.C. 103 as being unpatentable over the combination of Oehring and Baten.

Regarding claim 5, the combination of Oehring and Baten renders obvious **"The system of claim 1, further comprising: a predetermined number of generators comprising the at least one generator,"** but does not appear to disclose the further limitation **"the predetermined number of generators having individual power output values that is lesser than a power output of an isolated single generator occupying all available space in an independent mobile unit physically external to the mobile unit."** Put differently, Oehring does not appear to disclose, explicitly, the claimed arrangement of a predetermined number of generators each having individual power output values that "is lesser than" (sic) a single generator occupying an entire trailer. However, as would have been known in the art before the effective filing date of the instant application, it would have appeared obvious to one of ordinary skill in the art that a single generator occupying an entire trailer would have a "power output value" greater than that of a single generator on an equivalent trailer containing many generators. Official notice is hereby invoked to that effect.

A clear and predictable benefit of using multiple generators on a trailer (rather than a larger generator occupying the entire trailer) would have been the ability to more finely calibrate the amount of generated power by choosing an appropriate number of smaller, cheaper generators, potentially avoiding the unnecessary expense of buying

and maintaining a single larger generator. Accordingly, the claimed arrangement is an obvious addition to the combination of Oehring and Baten and therefore is unpatentable over the combination of Oehring and Baten.

Regarding claim 11, the combination of Oehring and Baten renders obvious **"The system of claim 1,"** but does not appear to disclose the limitations **"further comprising: an isolation transformer in one of the one or more external mobile units, the isolation transformer being physically external relative to the mobile unit and being configured for filtering harmonics between the at least one generator and the at least one load in the one or more external mobile units."** In other words, the combination of Oehring and Baten does not appear to disclose an isolation transformer configured to filter harmonics occurring between and among generators and loads in a power distribution arrangement. However, such isolation transformers, configured to filter harmonics occurring between and among generators and loads in a power distribution arrangement, were known to those of ordinary skill in the art before the effective filing date of the instant application. Official Notice is hereby invoked to that effect.

Combining the noticed isolation transformer with the power distribution arrangement of the combination of Oehring and Baten, thereby obtaining the invention of the instant claim, would have appeared to one of ordinary skill in the art, on or before the effective filing date of the instant application, as obvious to try. A clear and predictable benefit of so combining would have appeared as the ability to improve the performance and reliability of the power distribution arrangement of the combination of Oehring and Baten. Accordingly, the instant claim is unpatentable over the combination

of Oehring and Baten.

Regarding claims 15 and 20, the instant claims are equivalents of claims 5 and 11, respectively, and differ only by statutory class. Accordingly, the rejections of claims 5 and 11 apply, *mutatis mutandis,* respectively to claims 15 and 20.

Response to Arguments

The foregoing claim rejections are new. Accordingly, all arguments in traversal of the previously standing claim rejections are moot.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RYAN D. COYER whose telephone number is (571) 270-5306 and whose fax number is (571) 270-6306. The examiner normally can be reached via phone on Monday-Friday 12pm-10pm Eastern Time. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Zhen, can be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ryan D. Coyer/
Primary Examiner, Art Unit 2191

Notice of References Cited	Application/Control No. 16/443,273	Applicant(s)/Patent Under Reexamination Hinderliter, Brandon N.	
	Examiner RYAN D COYER	Art Unit 2191	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
*	A	US-6765304-B2	07-2004	Baten; Robert Allen	F02B63/04	290/1A
	B					
	C					
	D					
	E					
	F					
	G					
	H					
	I					
	J					
	K					
	L					
	M					

FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/443,273	Hinderliter, Brandon N.
	Examiner	Art Unit
	RYAN D COYER	2191

CPC - Searched*		
Symbol	**Date**	**Examiner**
G05B15/02 (text-delimited)	09/16/2019	RDC
H02J3/14 (text-delimited)	09/16/2019	RDC
H02J8/066 (text-delimited)	09/16/2019	RDC
E21B43/26 (text-delimited)	09/16/2019	RDC

CPC Combination Sets - Searched*		
Symbol	**Date**	**Examiner**

US Classification - Searched*			
Class	**Subclass**	**Date**	**Examiner**
700	293 (text-delimited)	09/16/2019	RDC

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	**Date**	**Examiner**
EAST Search	09/16/2019	RDC
PLUS Search	09/16/2019	RDC
Inventor Name & Double Patenting Search	09/16/2019	RDC
NPL Search	09/16/2019	RDC
EAST Update Search	09/28/2020	RDC
NPL Update Search	09/28/2020	RDC

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/443,273	Hinderliter, Brandon N.
	Examiner	Art Unit
	RYAN D COYER	2191

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/443,273	Hinderliter, Brandon N.
	Examiner	**Art Unit**
	RYAN D COYER	2191

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

CLAIMS

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	09/16/2019	03/30/2020	09/28/2020						
	1	✓	✓	✓						
	2	✓	✓	✓						
	3	✓	✓	✓						
	4	✓	✓	✓						
	5	✓	✓	✓						
	6	✓	✓	✓						
	7	✓	✓	✓						
	8	✓	✓	✓						
	9	✓	✓	✓						
	10	✓	✓	✓						
	11	✓	✓	✓						
	12	✓	✓	✓						
	13	✓	✓	✓						
	14	✓	✓	✓						
	15	✓	✓	✓						
	16	✓	✓	✓						
	17	✓	✓	✓						
	18	✓	✓	✓						
	19	✓	✓	✓						
	20	✓	✓	✓						

Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (02-18)
Approved for use through 11/30/2020. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16443273
Filing Date	2019-06-17
First Named Inventor	Brandon N. Hinderliter
Art Unit	2191
Examiner Name	Ryan D. Coyer
Attorney Docket Number	047158.100042

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	9324049		2016-04-26	Thomeer	
	2	10415332		2019-09-17	Morris	
	3	10669804		2020-06-02	Kotrla	
	4	3055682		1962-09-25	Bacher	
	5	9513055		2016-12-06	Seal	
	6	9061223		2015-06-23	Winborn	
	7	8091928		2012-01-10	Carrier	
	8	6719900		2004-04-13	Hawkins	

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /RDC/

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16443273
	Filing Date	2019-06-17
	First Named Inventor	Brandon N. Hinderliter
	Art Unit	2191
	Examiner Name	Ryan D. Coyer
	Attorney Docket Number	047158.100042

	9	5433243		1995-07-18	Griswold	
	10	5230366		1993-07-27	Marandi	
	11	2610741		1952-09-16	Schmid	
	12	10337308		2019-07-02	Broussard	
	13	5004400		1991-04-02	Handke	
	14	9260253		2016-02-16	Naizer	
	15	9340353		2016-05-17	Oren	
	16	9499335		2016-11-22	McIver	
	17	9909398		2018-03-06	Pham	
	18	8997904		2015-04-07	Cryer	
	19	8774972		2014-07-08	Rusnak	

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /RDC/

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16443273
	Filing Date	2019-06-17
	First Named Inventor	Brandon N. Hinderliter
	Art Unit	2191
	Examiner Name	Ryan D. Coyer
	Attorney Docket Number	047158.100042

	20	9051822		2015-06-09	Ayan	
	21	7170262		2007-01-30	Pettigrew	
	22	5025861		1991-06-25	Huber	

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	1	20160258267		2016-09-08	Payne	
	2	20130180722		2013-07-18	Olarte Caro	
	3	20130299167		2013-11-14	Fordyce	
	4	20110052423		2011-03-03	Gambier	
	5	20030079875		2003-05-01	Weng	
	6	20170226838		2017-08-10	Ciezobka	

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	Art Unit	2191
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	Attorney Docket Number	047158.100042

	7	20170096885		2017-04-06	Oehring	
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	First Named Inventor	Brandon N. Hinderliter
	Art Unit	2191
	Examiner Name	Ryan D. Coyer
	Attorney Docket Number	047158.100042

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	19	20200232454		2020-07-23	Chretien	
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	25	20130306322		2013-11-21	Sanborn	

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	1	International Search Report and Written Opinion mailed June 2, 2020 in corresponding PCT Application No. PCT/US20/23809	☒
	2	International Search Report and Written Opinion mailed June 23, 2020 in corresponding PCT Application No. PCT/US20/23912	☒
	3	International Search Report and Written Opinion mailed July 22, 2020 in corresponding PCT Application No. PCT/US20/00017	☒
	4	Office Action mailed August 4, 2020 in related U.S. Patent Application No. 16/385,070	☒
	5	Office Action mailed June 29, 2020 in related U.S. Patent Application No. 16/404,283	☒
	6	Office Action mailed June 29, 2020 in related U.S. Patent Application No. 16/728,359	☒
	7	Office Action mailed June 22, 2020 in related U.S. Patent Application No. 16/377,861	☒
	8	Canadian Office Action mailed August 18, 2020 in related CA Patent Application No. 2,933,444	☒
	9	Canadian Office Action mailed August 17, 2020 in related CA Patent Application No. 2,944,968	☒

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Attorney Docket Number	047158.100042

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☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

X See attached certification statement.

X The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Taylor P. Evans/	Date (YYYY-MM-DD)	2020-09-01
Name/Print	Taylor P. Evans	Registration Number	60506

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Glass: Remote monitoring of embedded systems in **power** engineering

R Ilschner, C Pommerell... - IEEE Internet ..., 1998 - ieeexplore.ieee.org

... While getting to a site, **mobile** crews should learn in advance all details on the ... However, limitations in field- bus bandwidth and in the controller's computing **power** and memory preclude ... However, since all three applications are **portable** and communicate only via TCP/IP sock ...

☆ 99 Cited by 92 Related articles All 10 versions »

Installation [Signalling **power** supplies]

T Stretton, N Holt - 2006 - IET

... DNO incoming supply and **mobile** DG set isolator ... There is no traction bonding. • FSP includes Kelman Signet **Unit**, distribution isolators ... 59 Page 10. Signalling **Power** Supplies • Route 7 South of Manchester [Cheadle Hulme – Bramhall] the signalling **power** supplies were ...

☆ 99 All 3 versions »

A unique approach to powering HFC networks that combines high reliability with low maintenance costs

D Elms - ... of Intelec'96-International Telecommunications Energy ..., 1996 - ieeexplore.ieee.org

... Whether the approach chosen is Hybrid Fiber Coax (HFiC), **Switched** Digital Video (SVI)), Fiber to the Curb (FTTC) or ... Modern high voltage AC UPS **units** are available from a number of quality suppliers, as are batteries, **switchgear** ... Connector I Fuse Holder **Portable Power** Input ...

☆ 99 »

Mobile networking in the Internet

CE Perkins - **Mobile** Networks and Applications, 1998 - Springer

... The impetus for all this change is the burgeoning mar- ket for **mobile** and **portable** computers and ... needed to contact an essential subset of its neighboring nodes, it can set its **power** level accord ... nity for offering the benefits of **mobile** computing to a new population of **mobile** users ...

☆ 99 Cited by 120 Related articles All 26 versions

Building a test platform for agents in **power** system control: Experience from SYSLAB

O Gehrke, H Bindner - ... Systems Applications to Power Systems, 2007 - ieeexplore.ieee.org

... and a photovoltaic array), loads (one stationary and three **mobile** resistive loads, a **mobile** capacitor bank ... computer, local disk storage, analog measurement hardware, fieldbus interfaces, status display, backup **power** and an eth- ernet **switch** inside a **portable** rack (Figure 3 ...

☆ 99 Cited by 19 Related articles All 6 versions

Flashback: Immersive virtual reality on **mobile** devices via rendering memoization

K Boos, D Chu, E Cuervo - ... Annual International Conference on Mobile ..., 2016 - dl.acm.org

... the above properties — low latency, high framerate and graphical quality — simultane- ously at low **power** ... followed by a larger-sized RAM, and finally a massive secondary storage **unit** ... having largely identical blocks, and then decompressed (decoded) on the **mobile** device in ...

☆ 99 Cited by 70 Related articles All 2 versions »

Satellite-aided **mobile** communications: Experiments, applications, and prospects

RE Anderson, RL Frey, JR Lewis... - IEEE Transactions on ..., 1981 - ieeexplore.ieee.org

... As a **mobile** moves from one cell to another, the computer control directs the handover from one fixed transmitter-receiver to he other and commands the **mobile unit** to change to an assigned ... It may be necessary to reduce **mobile** transmitter **power** when operating ...

☆ 99 Cited by 20 Related articles All 8 versions

Co-Located Augmented and Virtual Reality Systems

C DeFanti - 2019 - pdfs.semanticscholar.org

... Starting in 2014, a growing interest in VR coupled with innovations in optics and **mobile** technology led to the release of several 360 video HMDs, such as ... demonstrated the **power** of VR as an emerging technology ... a maximum transmission **unit** (MTU) size of 1,500 bytes ...

☆ 99 Related articles All 2 versions »

The datacenter as a computer: An introduction to the design of warehouse-scale machines

LA Barroso, U Hölzle - Synthesis lectures on computer …, 2009 - morganclaypool.com

… Those datacenters host hardware and software for multiple orga- nizational **units** or even different … or aggregation of servers itself and needs to be considered as a single computing **unit** … Fault behavior and **power** and energy considerations have a more sig- nificant impact in the …

☆ 99 Cited by 1474 Related articles All 10 versions »

Power electronics and motor drives in electric, hybrid electric, and plug-in hybrid electric vehicles

A Emadi, YJ Lee, K Rajashekara - IEEE Transactions on …, 2008 - ieeexplore.ieee.org

… enable to incorporate features such as electric **power** steering, electric HVAC, electric valve trains, **mobile** ac **power** … A novel way of cooling the entire **unit** needs to be examined to quickly take-away the … techniques are inadequate to dissipate heat in high-**power** density systems …

☆ 99 Cited by 1213 Related articles All 3 versions

Assessing the financial feasibility of utility-provided backup **power** during project site planning

KR Grosskopf, WJ Shepherd... - Journal of energy ..., 2006 - ascelibrary.org

... flow and offer dedicated capacity at a lower cost than a comparable size backup **unit** ... flow subsidies, the utility may offer purchase or lease options for more traditional backup **power** ... More **mobile** and versatile, the terms and conditions of backup **power** contracts can be shorter ...

☆ 99 Cited by 1 Related articles All 6 versions

Identification of Non-Safety Systems to Withstand Beyond Design Basis Events

J Nygaard, P Wan, D Chan ... - International ..., 2012 - asmedigitalcollection.asme.org

... **Portable power** supplies and pumps and even fluid tanks can be staged in remote on-site or off-site locations ... Table 5 Multi-**Unit** Radiation Level Impacts [6 ... materials transported near a site cannot be a static analysis performed once during licensing of the nuclear **power** plant or ...

☆ 99 Related articles »

Containerized **power** and cooling modules for data centers

D Bouley, W Torell - Whitepaper, 2012 - continuitycentral.com

... shell cost savings included • No white space infrastructure included (air distribution, **power** distribution **units**, racks) • Identical ... Once in place, electrical **power** is connected to the main **switchgear**, to the cooling facility ... Containerized **Power** and Cooling Modules for Data Centers ...

☆ 99 Cited by 6 Related articles All 12 versions

Satellite telephony for field and **mobile** applications

PS Aston - ... IEEE Aerospace Conference. Proceedings (Cat. No ..., 2000 - ieeexplore.ieee.org

... at 101 OW, has an eleven-year life expectancy and emits 550,000 watts of **power** (EIRP ... A call originating from the Iridium Satellite **Unit** (ISU) is transmitted up to the closest satellite and is ... If any of the fishing boats are within the American **Mobile** footprint for a good percentage of ...

☆ 99 Cited by 12 Related articles All 2 versions

Interactive dirt: increasing **mobile** work performance with a wearable projector-camera system

DC McFarlane, SM Wilder - ... of the 11th international conference on ..., 2009 - dl.acm.org

... A first step solution powered the projector with a lightweight **portable** electric generator and a long cable ... The second step investigated battery **power** ... literature does not give clear generalizable guidance about which type of interaction approach is best for **mobile** interaction with ...

☆ 99 Cited by 49 Related articles All 4 versions »

IoT: Green Data Center Strategies."

A Mujawar, SS Krishnan, S Kumar, A Sawant - 2020 - ijfrcse.org

... 2012 to 2040 [6]. Furthermore, with the increasing generation of huge amounts of data by various pervasive and ubiquitous things or objects (eg, **mobile** phones, sensors ... The reducing energy waste in the **power** infrastructure (**power** distribution **unit**, UPS, building ...

☆ 99 Cited by 1 Related articles »

Mobile arm supports: history, application, and work in progress

S Landsberger, P Leung, V Vargas... - Topics in Spinal ..., 2005 - meridian.allenpress.com

... **Mobile** Arm Supports 81 ... may find that the MAS allows them to engage in tabletop pursuits and hand-to-face activities and to drive a **power** wheelchair with ... has been that well-trained users demonstrate long-term use of the device and reported high satisfaction with the MAS **unit** ...

☆ 99 Cited by 25 Related articles All 4 versions »

Analysis of energy efficiency of operating modes of electrical systems with the traction loads

VO Bondarenko, IV Domanskyi... - Электротехника и ..., 2017 - cyberleninka.ru

... 232 stationary (78 % of the total) and 10 **mobile** traction substations are working ... in the phase A or B. To ensure the compensation (decompensation) of reactive **power** and filtering of ... The basis of this system is the semiconductor converter **unit** which includes optothyristors with ...

☆ 99 Cited by 1 Related articles All 5 versions »

Team RoboSimian: semi-autonomous **mobile** manipulation at the 2015 DARPA robotics challenge finals

S Karumanchi, K Edelberg, I Baldwin ... - Journal of Field ..., 2017 - Wiley Online Library

... Team RoboSimian: Semi-autonomous **Mobile** Manipulation at the 2015 DARPA Robotics Challenge Finals. Sisir Karumanchi Corresponding Author ... The robot minimized risk, **power** consumption, and maximized execution speed by adapting its form to suit different tasks ...

☆ 99 Cited by 63 Related articles All 4 versions

National transportable telecommunications capability-Commercial satellite and cellular communications for emergency preparedness

K BOHEIM, R COUNCIL - 14th International Communication Satellite ..., 1992 - arc.aiaa.org

... The base station is connected to the MTSO, interacts with the **mobile/portable** cellular telephones and is made up of transceivers, **power** amplifiers, transmitter combiners, re- ceiver multicouplers, a cell site control interface, a master oscillator, and an alarm and control **unit** ...

☆ 99 Cited by 1 Related articles All 4 versions »

Power consumption prediction and **power**-aware packing in consolidated environments

J Choi, S Govindan, J Jeong... - IEEE Transactions ..., 2010 - ieeexplore.ieee.org

... two) at the higher levels, multiple servers are con- solidated within a **Power** Delivery **Unit** (PDU ... in a **power** profile to be the **power** consumption throughout the tp time **units** preceding it ... Similar observations apply to the behavior of sustained **power** consumed by a set of **colocated** ...

☆ 99 Cited by 42 Related articles All 14 versions

Discrete-event simulation for efficient and stable resource allocation in collaborative **mobile** cloudlets

S Bohez, T Verbelen, P Simoens, B Dhoedt - Simulation Modelling Practice ..., 2015 - Elsevier

... Not only are they **portable** and always-connected, but they have access to hundreds of ... kind of applications due to their inherent limitations on resources such as processing **power**, memory and ... Either the **mobile** application is executed entirely in the dedicated VM, such as in the ...

☆ 99 Cited by 23 Related articles All 6 versions

Directions for future cellular **mobile** network architecture

BJJ Kim, PS Henry - First Monday, 2012 - journals.uic.edu

... They fail hard, recover slowly, require large memories and processing **power**, and are difficult to interoperate ... also requires session continuity while the user device moves to a new RAN **unit** C or ... A layer–2 approach for mobility and transport in the **mobile** backhaul," International ...

☆ 99 Cited by 19 Related articles All 3 versions »

Virtualizing **power** distribution in datacenters

D Wang, C Ren, A Sivasubramaniam - Proceedings of the 40th Annual ..., 2013 - dl.acm.org

... mainly studied (eg [4, 41]) in the context of embedded and **mobile** devices, where the ... includes the capacities of all the **power** equipment (**switchgear**, transformers, UPS **units**, PDUs, and ... also interfaces with the **power** distribution network to monitor (measure **power** draw, battery ...

☆ 99 Cited by 55 Related articles All 5 versions

Design challenges and guidelines for social interaction using **mobile** telepresence robots

KM Tsui, HA Yanco - Reviews of Human Factors and ..., 2013 - journals.sagepub.com

... Download Citation. Download article citation data for: Design Challenges and Guidelines for Social Interaction Using **Mobile** Telepresence Robots. Katherine M. Tsui and Holly A. Yanco. Reviews of Human Factors and Ergonomics 2013 9:1, 227-301. Download Citation ...

☆ 99 Cited by 36 Related articles All 2 versions »

The datacenter as a computer: An introduction to the design of warehouse-scale machines

LA Barroso, J Clidaras, U Hölzle - Synthesis lectures on ..., 2013 - morganclaypool.com

... and storage are moving from PC-like clients to smaller, often **mobile** devices, combined ... or aggregation of servers itself and needs to be considered as a single computing **unit** ... In addition, fault behavior and **power** and energy considerations have a more significant impact in the ...

☆ 99 Cited by 995 Related articles All 5 versions »

Survey of Collision Avoidance and Ranging Sensors for **Mobile** Robots. Revision 1

HR Everett, DE DeMuth, EH Stilz - 1992 - ... CENTER RDT AND E DIV SAN ...

☆ 99 Cited by 6 Related articles All 2 versions

Navigating the purchasing **power** gap in new product development in multinational corporations

Y Liu - R&D Management, 2019 - Wiley Online Library

... **power** gap between developed and emerging markets is significant (Govindarajan and Ramamurti, 2011; Ray and Ray, 2011). Many companies encountered setbacks when serving both developed and emerging markets. For example, Apple sells standardized **mobile** phones ...

☆ 99 Cited by 1 Related articles All 3 versions »

Distributed generation: a nontechnical guide

A Chambers, B Schnoor, S Hamilton - 2001 - books.google.com

... With dis- tributed generation, a small **power** generation **unit** can be placed on-site, or ... all the needs in a home." Using a permanent transfer system makes a **portable** generator safer ... They are available at many home improve- ment, hardware or outdoor **power** equipment retailers ...

☆ 99 Cited by 116 Related articles »

The use of ICT in TNCs: A Swedish perspective on the location of corporate functions

S Lorentzon - Regional Studies, 1995 - rsa.tandfonline.com

... At ABB the number of telephone calls (all except within the **switchgear** and **mobile** telephones) totalled about ... Locally efforts are made to strengthen the competitive **power** of the county ... Another similarity is the fact that both **units** are plants and parts oflarger production systems ...

☆ 99 Cited by 19 Related articles All 4 versions »

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PTO/SB/08a (02-18)
Approved for use through 11/30/2020. OMB 0651-0031
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First Named Inventor	Brandon N. Hinderliter
Art Unit	2191
Examiner Name	Ryan Coyer
Attorney Docket Number	047158.100042

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	1	20150300336	A1	2015-10-22	Hernandez et al.	
	2	20170314979	A1	2017-11-02	Ye et al.	

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	1	Non-Final Office Action mailed March 31, 2020 issued in US Patent Application No. 15/356,436	
	2	Final Office Action mailed March 3, 2020 issued in US Patent Application No. 16/152,695	

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Examiner Signature	/Ryan D. Coyer/ (09/28/2020)	Date Considered	09/28/2020

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16443273
Filing Date	2019-06-17
First Named Inventor	Brandon N. Hinderliter
Art Unit	2191
Examiner Name	Ryan Coyer
Attorney Docket Number	047158.100042

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

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☒ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

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SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Taylor P. Evans/	Date (YYYY-MM-DD)	2020-05-13
Name/Print	Taylor P. Evans	Registration Number	60506

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6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

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Examiner Name	Ryan D. COYER
Attorney Docket Number	047158-100042

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	2	20130180722	A1	2013-07-18	Olarte Caro et al.	
	3	20130299167	A1	2013-11-14	Fordyce et al.	
	4	20110052423	A1	2011-03-03	Gambier et al.	
	5	20030079875	A1	2003-01-05	Weng	

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	6	20170226838	A1	2017-08-10	Ceizobka et al.	

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	1	Non-Final Office Action issued in US Patent Application No. 14/881,535 mailed May 20, 2020	
	2	Non-Final Office Action issued in US Patent Application No. 15/145,443 mailed May 8, 2020	
	3	Non-Final Office Action issued in US Patent Application No. 16/458,696 mailed May 22, 2020	
	4	International Search Report and Written Opinion issued in PCT/US2020/023809 mailed June 2, 2020	
	5	KARIN, "Duel Fuel Diesel Engines," (2015), Taylor & Francis, pp 62-63, Retrieved from https://app.knovel.com/hotlink/toc/id:kpDFDE0001/dual-fueal-diesel-engines/duel-fuel-diesel-engines (Year 2015)	

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	Attorney Docket Number	047158-100042

	6	GOODWIN, "High-voltage auxilliary switchgear for power stations," Power Engineering Journal, 1989, 10 pg. (Year 1989)	

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Patents

(mobile power unit) (switch gear) (colocated) before:priority:20180615

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Cloud RAN for **mobile** networks—A technology overview

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Published 2014
.. OPEX covers the cost needed to operate the network, ie, site rental, leased line, **electricity**, operation and maintenance .. 5: C-RAN LTE **mobile** network ... baseband functionalities Problem it addresses Problems it causes Traditional base station Co-located in one **unit** - High **power** ...

Cabin monitoring system for a vehicle

WO EP US AU · US9843777B2 · Kenneth Schofield · Magna Electronics Inc
Priority 2000-03-02 · Filed 2017-05-01 · Granted 2017-12-12 · Published 2017-12-12
wherein said illumination device comprises at least one light emitting diode operable to emit near infrared radiation; wherein said illumination device and said camera assembly are **co-located** at the ceiling of the cabin of the equipped vehicle; wherein said illumination device, when operated, ...

Locating a mobile station using a plurality of wireless networks and ...

US · US6853218B2 · Charles L Kan · Trueposition, Llc
Priority 1996-09-09 · Filed 2001-03-28 · Granted 2005-10-04 · Published 2005-10-04
... includes information indicative of the mobile station M 1,1 traveling into or out of a designated area. 217. The method of claim 17 , further including receiving a communication of control data for controlling one or more devices **co-located** with the mobile station M 1,1 . 218. The method of claim 17

Use of radio access technology diversity for location

WO EP US CN JP KR AU BR CA IL MX · CN102210168B · 软件技术-G-卡塔 · 高通股份公司
Priority 2008-11-11 · Filed 2009-10-29 · Granted 2015-05-27 · Published 2015-05-27
the graphic depiction shown in Fig. 1, multimode LMU 113 and multimode (possible multiband) base station 119,120,121 **colocated**.Illustratively property example, single representational single mode LMU 118 is illustrated as and single mode single band base station 122 **colocated**, and base station 122 ...

Vehicle middleware

WO US EP · US20170023943A1 · Christopher P. Ricci · Autoconnect Holdings Llc
Priority 2011-11-16 · Filed 2016-10-06 · Published 2017-03-30
Furthermore, while the exemplary aspects, embodiments, and/or configurations illustrated herein show the various components of the system **collocated**, certain components of the system can be located remotely, at distant portions of a distributed network, such as a LAN and/or the Internet, or within ...

Handheld or vehicle-mounted platform stabilization system

US · US8179627B2 · Adam D. Sidman · Sidman Adam D
Priority 2005-04-27 · Filed 2009-12-06 · Granted 2012-05-15 · Published 2012-05-15
by means of the roll pivot assembly 80 as illustrated in FIG. 2A . Roll pivot assembly 80 includes a roll axis seesaw actuator 82 A-B, a **collocated** roll sensor 84 (which is rigidly coupled to stabilized platform 22) and a central roll axle 86 oriented with roll axis 52 . Operating in cooperation with ...

Wireless location using location estimators

WO US CA GB · US9277525B2 · Dennis J. Dupray · Trueposition, Llc
Priority 1996-09-09 · Filed 2013-03-15 · Granted 2016-03-01 · Published 2016-03-01
4. The method of claim 1 , wherein at least one of the obtaining the first location estimate and obtain the second location estimate is performed at a site not **co-located** with the mobile unit M. 5. The method of claim 1 , wherein the outputting includes transmitting said resulting location estimate ...

Methods and systems for data storage in an industrial internet of things data ...

US · US20180234755A1 · Charles Howard Cella · StrongForce IoT Portfolio 2016, LLC
Priority 2016-05-09 · Filed 2018-05-07 · Published 2018-10-04
, further comprising an expert system circuit structured to self-organize, based on at least one parameter of the group of parameters comprising: utilization, yield, sensors **co-located** on a common piece of equipment, and sensors **co-located** on distinct pieces of equipment having common properties, at ...

Temporal filtering techniques for image signal processing

WO EP US CN JP KR AU TW · CN102640184B · G 科特 · 苹果公司
Priority 2009-10-20 · Filed 2010-10-12 · Granted 2015-04-08 · Published 2015-04-08
7. the method for claim 1, wherein determine that the time-domain filtering output valve of current pixel comprises: Determine the difference of the value of current pixel and the value of **co-located** reference pixel; This difference is multiplied by the second filter factor, to obtain the first ...

Beam power for local receivers

WO CN KR · CN104467906B · 罗德恩克-A-高顿 · 爱阿科学基金有限责任公司
Priority 2008-09-30 · Filed 2009-09-30 · Granted 2017-05-17 · Published 2017-05-17

First beam guiding mechanism can be set to dynamically adjust the direction of power beam to follow mobile power receiver.Positioning unit Can with power emitting unit or with the first beam guiding mechanism **colocated**.Power emitting unit can be set in closing space Transmission power, and power ...

The auto-focusing with the image statistics data of rough and meticulous auto- ...

WO EP US CN AU BR HK IN MX RU TW • CN102572228BB • G·科泰 • 苹果公司

Priority 2010-09-01 • Filed 2011-09-01 • Granted 2016-02-24 • Published 2016-02-24

Then, in step 331, can use motion delta value d (t), from former frame correspond to locus (j, i) motion history input value h (t-1) (such as corresponding to the reference pixel r (t-1) of **co-located**) and the gain be associated with the color of current pixel, determine that motion table searches ..

Application computation offloading for mobile edge computing



US • US10440096B2 • Dario Sabella • Intel IP Corporation

Priority 2016-12-28 • Filed 2017-12-27 • Granted 2019-10-08 • Published 2019-10-08

... the term "network element" may be considered synonymous to and/or referred to as a networked computer, networking hardware, network **equipment, router** .. identify network characteristics of individual access nodes (ANs) of a plurality of ANs, wherein the individual ANs are **co-located** with a ...

Co-locate the distributed edge processing of the internet of things equipment ...

WO EP US CN JP AU BR CA SG • CN108141717A • V·圣普勒亚贝永 • 环球互连及数据中心公司

Priority 2016-01-11 • Filed 2016-12-30 • Published 2018-06-08

The corresponding multiple edge calculations systems **co-located** in facility are **co-located** at, each facility that co-locates is by single common Location facilities supplier disposes and management, wherein at least one of the multiple limbic system limbic system is configured as selecting Selected ...

Scheduling the same resource in radio access networks

WO EP US CN AU CA • AU2015273857Z01 • Sassan Ahmadi • Airvana Lp

Priority 2014-06-09 • Filed 2015-06-09 • Granted 2019-10-24 • Published 2019-10-24

Specifically, the left-most 2 RUs 3101 are assigned to the 2-antenna CSI-RS, CSI-2.0 3102, the next (middle) 2 RUs 3103 are assigned to 2-antenna port CSI-RS 2.1, 3104, and so forth. In this example, all antenna ports in a given CSI-RS are **co-located**. In this CSI configuration, when the UE crosses ...

Flexible color space selection for auto-white balance processing

WO EP US CN AU BR HK MX RU TW • CN102845052B • G·科泰 • 苹果公司

Priority 2010-09-01 • Filed 2011-09-01 • Granted 2014-09-24 • Published 2014-09-24

Then, in step 331, can use increment of motion value d (t), from former frame corresponding to locus (j, i) motion history input value h (t-1) the reference pixel r (t-1) of **co-located** (for example corresponding to) and the gain being associated with the color of current pixel, determine that ..

There is the integrating security system of parallel processing architecture

WO EP CN AU • CN102834848B • 列扎·拉吉 • 阿森网络技术股份有限公司

Priority 2009-09-28 • Filed 2010-09-28 • Granted 2017-03-08 • Published 2017-03-08

The SUI display element of embodiment is as described in detail later, including but not limited to spherical icon, text outline, safety **switch**, ... Once using touch screen collection Become, the security panel of building safety system and touch screen just become physically to be **co-located** in an ...

Noninvasive measurements of chemical substances

WO EP US CN JP AT AU CA DK • CN101686835B • 马尔西奥·马克·阿布雷乌 • 马尔西奥·马克·阿布雷乌

Priority 2001-02-23 • Filed 2001-08-20 • Granted 2014-07-23 • Published 2014-07-23

Because the vessel position of conjunctiva is very shallow, fluid arrives ocular surface only needs the distance by several microns, therefore blood plasma seepage continuously from conjunctiva blood vessel, and the diagnostic system that then fluid is **collocated** in the ICL of the present invention ...

Image encoding method, image encoding device, image decoding method, image ...

WO EP US CN JP KR AU CA MX SG TW • CN103563385B • 杉尾敏康 • 太阳专利托管公司

Priority 2011-05-31 • Filed 2012-05-29 • Granted 2017-04-19 • Published 2017-04-19

In above-mentioned embodiment 7, no matter picture decoding apparatus **co-located** merges whether block is to merge candidate, As long as it is that **co-located** merges block to merge block candidate, always just Jia 1, determined to conjunction using the merged candidate number for calculating The bit ...

Wireless location routing applications and architecture therefor



US • US8072936B2 • Dennis Jay Dupray • Tracbeam Llc

Priority 2001-05-22 • Filed 2008-01-28 • Granted 2011-12-20 • Published 2011-12-20

140 and one or more wireless infrastructure base stations 122 . Note, this step may only be performed if the gateway provides such measurements to a FOM (e.g., a FOM **co-located** therewith); (23.2) filtering the received signal transmission characteristics (by a signal processing subsystem 1220

On board vehicle networking module



US • US9116786B2 • Christopher R. Bloo • Flextronics Ap, Llc

Priority 2011-11-16 • Filed 2013-03-14 • Granted 2015-08-25 • Published 2015-08-25

Furthermore, while the exemplary aspects, embodiments, and/or configurations illustrated herein show the various components of the system **collocated**, certain components of the system can be located remotely, at distant portions of a distributed network, such as a LAN and/or the Internet, or within ...

Companion robot for personal interaction



WO EP US JP AT · EP2281667B1 · Matthew Cross · iRobot Corporation
Priority 2005-09-30 · Filed 2006-09-29 · Granted 2013-04-17 · Published 2013-04-17
... at the point of intersection, as used in cliff sensors. Diffuse-Parallel 966, 962A, 962B are **colocated** emitter/detector pairs preferably providing a 30° field of view (+/- 15°), detecting objects at distances between (for example) about 2cm and 20cm, depending upon the reflectivity of such objects.

Magnetic random access memory

US CN JP KR DE TW · TWI603332B · 金成豪 · 三星電子股份有限公司
Priority 2012-05-17 · Filed 2013-01-29 · Granted 2017-10-21 · Published 2017-10-21
The 3-bit A2:A0 is used to provide a CA **co-located** function of the MRAM 12. The CA co-location supports the parity calculation of a command signal and an address signal. Disable one of the preset states of the CA **co-located** bit. CA co-location is enabled by stylizing a non-zero value to the CA **co**- ...

Power supply for a data center

WO EP US CN KR DE DK HK · CN101803148B · 塞尔希特·摩赫德·宾克 · 谷歌公司
Priority 2007-07-18 · Filed 2008-07-18 · Granted 2014-06-11 · Published 2014-06-11
in some embodiments, one or two in generator 210,215 can provide peak load to unload negative (shedding) ability.For example, can during the demand peak period of expection every day, use the generator 215 of **colocated**.In some cases, this can allow to obtain preferential ower rate from electric ...

Method and apparatus for detecting distortion or damage of mobile communication ...



WO EP US CN KR AU CA · KR102035470B1 · 제프리 아르망슨 하슨 · 비아비 솔루션즈 아이엔씨
Priority 2016-01-18 · Filed 2017-01-18 · Granted 2019-10-24 · Published 2019-10-24
b. Measuring unit located at the macro site c. PIM caused by intermodulation of signals between different **co-located** mobile network operators. If the antenna for the other operator is close enough and the PIM product is operating at a frequency that can land at a difficult frequency (i.e. where the ...

Services and applications for a communications network



US · US10684350B2 · Dennis J. Dupray · Trackbeam Llc
Priority 2000-06-02 · Filed 2013-03-15 · Granted 2020-06-16 · Published 2020-06-16
(vi) a sixth technique for estimating a location of said mobile unit, wherein the immediately following (a)-(e) are performed: (a) receiving, in a receiver **co-located** with the mobile unit, a wireless signal, WS, from at least one satellite of a satellite positioning system; (b) transmitting cell ...

Response mobile electronic device is **co-located** and deposits the method and ...

WO EP US CN JP TW · CN101583279Z2B · 李吉良 · 联发科技股份有限公司
Priority 2008-09-05 · Filed 2009-09-03 · Granted 2013-03-12 · Published 2013-03-12
It is **co-located** and deposit the method and communication device of request that the present invention provides a kind of response mobile electronic device.First radio module provides the first radio communication service and in accordance with the first agreement and the first communication ...

Method, apparatus and computer-readable medium for realizing more radio-cell ...

WO EP US CN JP KR IN · CN104168027B · S·文恩泰克斯纳 · 高通股份有限公司
Priority 2012-03-07 · Filed 2013-02-08 · Granted 2018-11-13 · Published 2018-11-13
It shall also be noted that the solution and aspect described in present disclosure are not limited to· Mitigate at least two It is latent on single WLAN radio-cells or chip that kind of pattern is operated or the WLAN radio-cells or chip that are **co-located** It is interfering.Specifically, the ...

Controller area network bus



US · US20160286266A1 · Christopher P. Ricci · Autoconnect Holdings Llc
Priority 2011-11-16 · Filed 2016-03-18 · Published 2016-10-20
Furthermore, while the exemplary aspects, embodiments, and/or configurations illustrated herein show the various components of the system **colocated**, certain components of the system can be located remotely, at distant portions of a distributed network, such as a LAN and/or the Internet, or within a ...

On board vehicle installation supervisor



US · US9134986B2 · Christopher P. Ricci · Flextronics Ap, Llc
Priority 2011-11-16 · Filed 2014-09-12 · Granted 2015-09-15 · Published 2015-09-15
Furthermore, while the exemplary aspects, embodiments, and/or configurations illustrated herein show the various components of the system **collocated**, certain components of the system can be located remotely, at distant portions of a distributed network, such as a LAN and/or the Internet, or within ...

Monitoring state-of-health of processing modules in vehicles



US · US20130282238A1 · Christopher P. Ricci · Flextronics Ap, Llc
Priority 2011-11-16 · Filed 2013-03-14 · Published 2013-10-24
Furthermore, while the exemplary aspects, embodiments, and/or configurations illustrated herein show the various components of the system **collocated**, certain components of the system can be located remotely, at distant portions of a distributed network, such as a LAN and/or the Internet, or within ...

Duplicated processing in vehicles

US · US9031685B2 · Christopher P. Ricci · Flextronics Ap, Llc
Priority 2011-11-16 · Filed 2013-03-14 · Granted 2015-07-14 · Published 2015-07-14



Furthermore, while the exemplary aspects, embodiments, and/or configurations illustrated herein show the various components of the system **collocated**, certain components of the system can be located remotely, at distant portions of a distributed network, such as a LAN and/or the Internet, or within ...

System and Method for an Improved Control of Data Stream Management in a ...



US • US20190349453A1 • Christopher Ricci • Autoconnect Holdings Llc
Priority 2011-11-16 • Filed 2019-05-14 • Published 2019-11-14
Furthermore, while the exemplary aspects, embodiments, and/or configurations illustrated herein show the various components of the system **collocated**, certain components of the system can be located remotely, at distant portions of a distributed network, such as a LAN and/or the Internet, or within ...

Dynamic image encoding method, dynamic image encoding device, dynamic image ...

WO EP US CN JP KR CA MX RU TW • CN103563385B • 杉尾敏康 • 太陽专利托管公司
Priority 2011-05-27 • Filed 2012-05-25 • Granted 2017-09-08 • Published 2017-09-08
in above-mentioned embodiment 3, no matter whether **co-located** blocks are predictable candidate to moving image decoding apparatus, only It is **co-located** blocks to want prediction block candidate, just always Jia 1, and is determined using the predictable candidate's number thus calculated to ...

Occupant sharing of displayed content in vehicles



US • US9008906B2 • Christopher P. Ricci • Flextronics Ap, Llc
Priority 2011-11-16 • Filed 2013-03-14 • Granted 2015-04-14 • Published 2015-04-14
Furthermore, while the exemplary aspects, embodiments, and/or configurations illustrated herein show the various components of the system **collocated**, certain components of the system can be located remotely, at distant portions of a distributed network, such as a LAN and/or the Internet, or within ...

System, method, and apparatus for powering intelligent lighting networks



US • US20160183351A1 • David M. Snyder • Ndsap Holdings Llc
Priority 2013-03-25 • Filed 2016-02-25 • Published 2016-06-23
Each FPLS smart fixture can be IP addressable, and include integrated modular ports for communications, sensors, cameras, RFID interrogators, etc. Communication systems that can be **co-located** with a FPLS fixture include, Wi-Fi, Bluetooth 4.0, cellular network femto-cells, etc. Sensors that may be ...

Network selector in a vehicle infotainment system



US • US20160286275A1 • Christopher P. Ricci • Autoconnect Holdings Llc
Priority 2011-11-16 • Filed 2016-04-20 • Published 2016-09-01
Furthermore, while the exemplary aspects, embodiments, and/or configurations illustrated herein show the various components of the system **collocated**, certain components of the system can be located remotely, at distant portions of a distributed network, such as a LAN and/or the Internet, or within ...

On board vehicle media controller



US • US20130205412A1 • Christopher P. Ricci • Flextronics Ap, Llc
Priority 2011-11-16 • Filed 2013-03-14 • Published 2013-08-08
Furthermore, while the exemplary aspects, embodiments, and/or configurations illustrated herein show the various components of the system **collocated**, certain components of the system can be located remotely, at distant portions of a distributed network, such as a LAN and/or the Internet, or within ...

On board vehicle media controller



US • US9338170B2 • Christopher P. Ricci • Autoconnect Holdings Llc
Priority 2011-11-16 • Filed 2013-03-13 • Granted 2016-05-10 • Published 2016-05-10
Furthermore, while the exemplary aspects, embodiments, and/or configurations illustrated herein show the various components of the system **collocated**, certain components of the system can be located remotely, at distant portions of a distributed network, such as a LAN and/or the Internet, or within ...

On board vehicle presence reporting module



US • US20130225400A1 • Christopher P. Ricci • Flextronics Ap, Llc
Priority 2011-11-16 • Filed 2013-03-14 • Published 2013-08-08
Furthermore, while the exemplary aspects, embodiments, and/or configurations illustrated herein show the various components of the system **collocated**, certain components of the system can be located remotely, at distant portions of a distributed network, such as a LAN and/or the Internet, or within ...

Method for encoding images, picture coding device, picture decoding method, ...

WO EP US CN JP KR BR CA DK ES MX PL RU TW • CN103518376B • 杉尾敏康 • 太陽专利托管公司
Priority 2011-05-27 • Filed 2012-05-24 • Granted 2017-08-22 • Published 2017-08-22
For example, in above-mentioned embodiment 5, because the maximum N for merging block candidate's number is 5（Adjacent block A, adjacent block B, **Co-located** merges block, adjacent block C, adjacent block D）, so picture coding device can also always pairing blocking candidate list Size sets 5 and ...

Services and applications for a communications network

US • US10841861B2 • Dennis J. Dupray • Dennis J. Dupray
Priority 2000-06-02 • Filed 2011-02-28 • Granted 2020-05-05 • Published 2020-05-05



Moreover, regarding the plurality of wireless location techniques (embodiments thereof also denoted herein as "location estimators") for which activation may be requested by the gateway, these techniques may be **co-located** with the gateway, accessible via a network including: (i) local area networks ...

On board vehicle remote control module



US · US20160114745A1 · Christopher P. Ricci · Autoconnect Holdings Llc
Priority 2011-11-16 · Filed 2015-10-05 · Published 2016-04-28
Furthermore, while the exemplary aspects, embodiments, and/or configurations illustrated herein show the various components of the system **collocated**, certain components of the system can be located remotely, at distant portions of a distributed network, such as a LAN and/or the Internet, or within ...

On board vehicle networking module



US · US9055022S2 · Christopher P. Ricci · Flextronics Ap, Llc
Priority 2011-11-16 · Filed 2013-03-14 · Granted 2015-06-09 · Published 2015-06-09
Furthermore, while the exemplary aspects, embodiments, and/or configurations illustrated herein show the various components of the system **collocated**, certain components of the system can be located remotely, at distant portions of a distributed network, such as a LAN and/or the Internet, or within ...

On board vehicle diagnostic module



US · US9043078B2 · Christopher P. Ricci · Flextronics Ap, Llc
Priority 2011-11-16 · Filed 2013-03-14 · Granted 2015-05-26 · Published 2015-05-26
Furthermore, while the exemplary aspects, embodiments, and/or configurations illustrated herein show the various components of the system **collocated**, certain components of the system can be located remotely, at distant portions of a distributed network, such as a LAN and/or the Internet, or within ...

On board vehicle network security



US · US9172738B2 · Christopher P. Ricci · Autoconnect Holdings Llc
Priority 2011-11-16 · Filed 2013-03-14 · Granted 2015-10-27 · Published 2015-10-27
Furthermore, while the exemplary aspects, embodiments, and/or configurations illustrated herein show the various components of the system **collocated**, certain components of the system can be located remotely, at distant portions of a distributed network, such as a LAN and/or the Internet, or within ...

Media filter in a vehicle infotainment system



US · US20130205026A1 · Christopher P. Ricci · Flextronics Ap, Llc
Priority 2011-11-16 · Filed 2013-03-14 · Published 2013-08-08
Furthermore, while the exemplary aspects, embodiments, and/or configurations illustrated herein show the various components of the system **collocated**, certain components of the system can be located remotely, at distant portions of a distributed network, such as a LAN and/or the Internet, or within ...

Method for encoding images, picture coding device, picture decoding method, ...

WO EP US CN JP KR AU CA DK ES *HK HU MX NO PL PT SG TR TW* · CN107534784B · 松尾雅彦 · 太陽专利信託公司
Priority 2011-05-24 · Filed 2012-05-21 · Granted 2017-07-07 · Published 2017-07-07
So, merge block candidate be **co-located** merge block in the case of, no matter **co-located** merge block be can Merging candidate still can not merge candidate, and merging block candidate calculating part 114 can all merge candidate's number and plus 1.Thus, even in the case that the information of **co** ...

A device to increase fuel economy

WO EP US CA · CA2838869C · Peter YORKE · Peter YORKE
Priority 2011-12-15 · Filed 2012-12-13 · Granted 2020-02-25 · Published 2020-02-25
If the device and communicator are not **co-located** in the same package, the two components may communicate wirelessly (e.g. Bluetooth, Wi-Fi, etc.) or by using a cable connection. [00184] The Switch: The communicator can optionally engage in one way or two-way communication with a hardware switch (e ...

Distributed antenna system and power supply apparatus for distributing electric ...

WO EP US CN · CN203804532U · 伊斯布贝尔林 · 康宁光缆系统有限责任公司
Priority 2011-02-21 · Filed 2012-02-16 · Granted 2014-03-26 · Published 2014-03-26
... location place of foundation structure of building 70.Base station transmitting-receiving station (BTS) 88 can for example, be provided by second party (, cellular service provider), and described BTS88 is connected to HEE12 and can or be independent of described HEE12 location with HEE12 **colocated** ...

For the method, apparatus and product in the equipment with optional power mode

WO EP US CN JP KR · CN104272813B · M·L·默特莫恩 · 高通股份有限公司
Priority 2011-12-16 · Filed 2012-12-11 · Granted 2018-09-28 · Published 2018-09-28
frame 408, in some instances, **equipment can switch** back into lower power mode it Before (for example, being at least partially based on one or more ... is in the higher-wattage pattern. At least two phases are obtained from least two signals sent by least two not **co-located** ground transmitters Value;

Intelligence disinfecting equipment

CN · CN204810193U · 陈国荣 · 陈国荣
Priority 2015-04-12 · Filed 2015-04-12 · Granted 2015-12-30 · Published 2015-12-30

8, locating module GPS module can be located automatically, gather, store data acquisition and the storage of current work more specific location information, also can by GPS and the Big Dipper separately and/or **co-located** determine sterilize orientation and particular location. 9, the Internet ...

Teleoperated robotic system



WO EP US CN JP • JP2012275333A • メディーダン・レー・ノェイロプセン・レイセオン カンパニー Raytheon Company

Priority 2011-04-29 • Filed 2019-10-01 • Published 2019-12-26

... the master control arm, and around a ground. And a mobile platform steerable within the operating environment, adapted to provide on-board support for the user, wherein the master control arm and the slave arm are **co-located** around the mobile platform to provide mobile remote control functionality.

Apparatus and method for scalable power distribution



WO EP US CN AU DK RU • US8610316B2 • James S. Spinaels • Schneider Electric It Corporation

Priority 2009-12-03 • Filed 2012-07-02 • Granted 2013-12-17 • Published 2013-12-17

C may support connections to single phase or multi-phase (e.g. three phase) systems. This embodiment can provide for increased flexibility in supplying power to utilization equipment that may or may not be **co-located** with one another, e.g., in the same equipment rack. Thus, this embodiment may ...

Connect to virtualized mobile core network

WO EP US CN JP KR • JP2019515581A • グレゴリー エム. スタンバーグ, • ロンヴィーダヴァイヤレス, エルエルシー

Priority 2016-05-12 • Filed 2017-05-12 • Published 2019-06-06

.. query for the identifier of the UE may be SISF It can resolve the identification. For non-3GPP RATs, SIS F 2024 will either be **co-located** with the RAT interface function, or will be within ULN 2004. For the non-3GPP RAT, one way in which SIS F 2024 may present itself to UE 2006 is as a DHCP server.

Apparatus and method for scalable power distribution



US • US7619338B2 • James Spinaels • American Power Conversion Corporation

Priority 2006-06-16 • Filed 2007-06-21 • Granted 2009-11-17 • Published 2009-11-17

C may support connections to single phase or multi-phase (e.g. three phase) systems. This embodiment can provide for increased flexibility in supplying power to utilization equipment that may or may not be **co-located** with one another, e.g., in the same equipment rack. Thus, this embodiment may ...

Apparatus and method for scalable power distribution



US • US8504314B2 • James Spinaels • Schneider Electric It Corporation

Priority 2007-06-21 • Filed 2011-05-09 • Granted 2013-08-06 • Published 2013-08-06

C may support connections to single phase or multi-phase (e.g. three phase) systems. This embodiment can provide for increased flexibility in supplying power to utilization equipment that may or may not be **co-located** with one another, e.g., in the same equipment rack. Thus, this embodiment may ..

Low power magnetic resonance imaging methods and apparatus



WO EP US CN JP KR AU BR CA IL MX TW • US10641852B2 • Michael Stephen Poole • Hyperfine Research, Inc.

Priority 2016-11-22 • Filed 2019-04-16 • Granted 2020-05-05 • Published 2020-05-05

3680 to control one or more fans (e.g., fans 3682 a , 3682 b , 3682 c) to provide air to cool power components of the system that are **co-located** in electronics enclosure 3602 and/or the magnetics components of the system. An enclosure 3606 for fan controller 3780 may be located outside electronics ..

System and method for monitoring and control of appliances



WO EP US CN JP AU • US10700549B2 • Spyridon Livadaras • Carbontrack Pty Ltd

Priority 2013-02-13 • Filed 2014-02-13 • Granted 2020-06-30 • Published 2020-06-30

13. A method of controlling power supplied to at least one appliance, the method comprising the steps of: providing at least one interface device geographically **co-located** with the at least one appliance and monitoring power consumption of the at least one appliance, the at least one interface ..

The system and method that dynamic coordinate Radio Resource is used in ...

WO EP US CN CA TW • CN103119978B • 华为技术有限公司 • 华为技术有限公司

Priority 2010-09-23 • Filed 2011-05-02 • Granted 2017-08-04 • Published 2017-08-04

In some implementations, filter/concentrator function can be mobile network's base Stand, the component of base station controller or access point.in a further implementation, filter/concentrator can be and sensing unit or COLD The function that server or mobile device are **co-located**.In some cases, ...

Systems and methods for detecting and controlling transmission devices



US • US10419997B1 • Joseph S. Noonan • Binj Laboratories, Inc.

Priority 2005-07-14 • Filed 2016-10-07 • Granted 2019-09-17 • Published 2019-09-17

Although not shown, it would be recognized that the receiving and/or the transmitting antennas and/or the processing systems may be **co-located** or may be geographically distributed. When a plurality of receiving antennas are employed and geographically distributed, it would be recognized that ...

Systems and methods for detecting and controlling transmission devices

US • US10009888B2 • Joseph S. Noonan • Binj Laboratories, Inc.

Priority 2005-07-14 • Filed 2014-01-12 • Granted 2018-06-19 • Published 2018-06-19

Although not shown, it would be recognized that the receiving and/or the transmitting antennas and/or the processing systems may be **co-located** or may be geographically distributed. When a plurality of receiving



antennas are employed and geographically distributed, it would be recognized that ..

Femto-cell location by direct methods

WO EP US CN JP KR AU BR CA IL MX • CN102210163B • 罗伯特·J·安德森 • 高通股份有限公司

Priority 2008-11-11 • Filed 2009-10-14 • Granted 2015-01-28 • Published 2015-01-28

... on the request of the triggering from link monitoring system (LMS) 711 or the base station controller (BSC) from Lb interface to infrastructure manufacturer (or be in some cases MSC) as Ls interface.SMLC 712 generally by the BSC place of **colocated** in operator, but also can remotely be distributed.

Digital data services and/or power distribution in optical fiber-based ...



US • US9252888B2 • Hubert Blair Beamon • Corning Optical Communications LLC

Priority 2010-05-02 • Filed 2011-02-11 • Granted 2016-12-20 • Published 2016-12-20

, wherein the at least one power output is not **co-located** with the at least one distribution module. 34. The system of claim 31 , further comprising a power supply not **co-located** with the at least one distribution module configured to provide power to the at least one power output in of the at least ..

Environmental control system retrofittable with multiple types of boiler-based ...



EP US • EP2924532B1 • Anthony M. Fadell • Google LLC

Priority 2014-03-28 • Filed 2015-03-27 • Granted 2019-02-06 • Published 2019-02-06

is the bifurcation of the boiler control functions between the programmer 420 and the thermostat 404. In order to adjust the boiler schedule, the user needs to adjust the schedule on the programmer 420. Because the programmer 420 is usually **co-located** with the boiler 416, the user is less likely to ...

Mounting stand for multi-sensing environmental control device



US • US9581342B2 • Eric B. Daniels • Google Inc.

Priority 2014-03-28 • Filed 2014-03-28 • Granted 2017-02-28 • Published 2017-02-28

416 , may be relocated throughout the enclosure 400 depending on various factors. For example, the zone valves 504 may be **co-located** with the boiler 416 , or they may be distributed throughout the enclosure, such as in the floor, in a closet, and/or the like. FIG. 5B illustrates a boiler-based ...

Platform and applications for wireless location and other complex services



US • US8135413B2 • Dennis J. Dupray • Trapbeam Llc

Priority 1998-11-24 • Filed 2007-08-13 • Granted 2012-03-13 • Published 2012-03-13

(vi) a sixth technique for estimating a location of said mobile unit M using an ST model, wherein the following steps (vi-a)-(vi-e) are performed: (vi-a) receiving, in a SPS receiver **co-located** with the mobile unit M, SPS signals from at least one SPS satellite, (vi-b) transmitting cell based ...

Facilitating radio frequency communications among environmental control system ...



US • US9599492B2 • Daniel A. Warren • Google Inc.

Priority 2014-03-28 • Filed 2014-03-28 • Granted 2017-03-28 • Published 2017-03-28

416 , may be relocated throughout the enclosure 400 depending on various factors. For example, the zone valves 504 may be **co-located** with the boiler 416 , or they may be distributed throughout the enclosure, such as in the floor, in a closet, and/or the like. FIG. 5B illustrates a boiler-based ...

Rfid system and related operating method

WO EP US CN • CN103229192B • L·肖 • 联发科技公司

Priority 2010-11-23 • Filed 2011-10-28 • Granted 2016-06-08 • Published 2016-06-08

Described by Fig. 7 and 8, example tag location technology adopts fixing RFID reader and having to be attached to itself or the mobile equipment of reference RFID tag that is otherwise **co-located** with it. By contrast, possible alternative as described herein adopts the first RFID reader (it can be ...

User-relocatable self-learning environmental control device capable of adapting ...



US • US20180032046A1 • Yoky Matsuoka • Google Llc

Priority 2014-03-28 • Filed 2017-10-05 • Published 2018-02-01

416 , may be relocated throughout the enclosure 400 depending on various factors. For example, the zone valves 504 may be **co-located** with the boiler 416 , or they may be distributed throughout the enclosure, such as in the floor, in a closet, and/or the like. FIG. 5B illustrates a boiler-based ..

Mobile computing device and the method according to network density management ...

WO EP US CN • CN102714883B • 奥斯卡·贝尔塞斯 • 高通公司

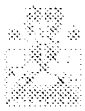
Priority 2009-12-18 • Filed 2010-12-17 • Granted 2016-04-20 • Published 2016-04-20

can reduce from the power consumption in the **power supply of mobile** computing device 110.Sweep speed can represent radio module 106, and within the ... Network density be often referred to troop in the geographic area limited, in groups, be **co-located** or multiple Radio Resources of otherwise ..

Radio access networks

US • US20190075576A1 • Vedat Eyuboglu • Commscope Technologies Llc

Priority 2013-02-07 • Filed 2018-11-06 • Published 2019-03-07



.. a separate Virtual Local Area Network (VLAN) and high-priority QoS (Quality of Service) can be assigned to the VLAN to control latency. In the example shown in FIG. 3 , the CUs 124 are connected to a **co-located** Ethernet switch 132 (in the same room 126). In some implementations, the connection 134

Device, system, and method of wireless network selection and handover

WO EP US CN KR BR TW • CN101822034B • マイクロソフト • 英特尔公司

Priority 2008-02-26 • Filed 2009-02-26 • Granted 2013-09-25 • Published 2013-09-25

Device, system, and method of wireless network selection and handover are disclosed. For example, a multi-transceiver wireless device includes: at least first and second **co-located** wireless transceivers; one or more firmware modules to handle network selection of at least one of the first and ...

Systems and applications of lighter-than-air (LTA) platforms



WO EP US CN AU BR CA MX • US9346529B2 • Gerald M. Knobloch • Space Data Corporation

Priority 1999-06-29 • Filed 2016-11-03 • Granted 2016-05-03 • Published 2016-05-03

.. compatible with FLEX (one-way pagers) and also REFLEX (two-way pagers) without modification to the pagers. The launch facilities, whether **co-located** with NWS launch facilities or separately located at other selected ground locations, may consist of a fully automated launcher and ground terminal.

Autonomous surface cleaning robot for wet and dry cleaning



WO EP US JP KR AP AU DE DK ES • US9445702B2 • Andrew Ziegler • Irobot Corporation

Priority 2005-02-18 • Filed 2014-06-11 • Granted 2016-09-20 • Published 2016-09-20

In still other embodiments, the method includes smearing the cleaning fluid across the cleaning width using a smearing element or spreader brush attached to the chassis aft of the **colocated** position of the first nozzle and the second nozzle, said smearing element extending across the cleaning width ...

Coordinating video delivery with radio frequency conditions



US • US9774894B2 • Ashish Dalela • Cisco Technology, Inc.

Priority 2012-03-13 • Filed 2012-03-13 • Granted 2017-09-26 • Published 2017-09-26

162 to adapt the streaming data to the radio link conditions between the remote radio head and the user equipment. In some embodiments, data stream processing can be **co-located** with the baseband unit. This can allow nearly real-time adaptations to streams based on RF information in the RAN cloud. ...

Indication of co-location of csi-rs and dmrs

WO EP US JP DK ES IN • DK2901607T3 • Stefano Sorrentino • ERICSSON TELEFON AB L M (publ)

Priority 2012-09-28 • Filed 2013-09-19 • Granted 2017-02-13 • Published 2017-02-13

[0075] In the example of table 1, the Composite UE Behaviours are indicated by the "Transmission modes" (TM) that are configured for the user equipment 10. In this example Behaviour A may represent a non-CoMP behaviour, different RSs are **colocated**, while behaviour B represents a CoMP behaviour, at ...

Diversity time and frequency location receiver

WO EP US CN JP KR AU BR CA IL MX • CN102272618B • 苏希里·卡布尔 • 高通股份有限公司

Priority 2009-07-24 • Filed 2010-06-08 • Granted 2013-07-03 • Published 2013-07-03

Illustrative example-GNSS deception device detects and the location In another illustrative example, have the LMU network that distributes on the geography of the broadband of **colocated** and GPS receiver and can be used to according to disclosure location GNSS deception device. GNSS deception ...

Method and apparatus for local data caching

WO EP US CN JP KR • CN103733595B • 中兴 • 交互数字专利控股公司

Priority 2011-04-07 • Filed 2012-04-06 • Granted 2017-02-15 • Published 2017-02-15

This can be realized by the execution functional subset of PCEF at base station 1010.Example described above can be by Modification is to place content server 1050 closer to S-GW1015.Content server 1050 can also be with base station 1010 or S- GW1015 is **co-located**.In another example, there is the ...

High numerical aperture telemicroscopy apparatus

WO EP US CN • CN101952776B • 丹尼尔·麦莱姆 • 加利福尼亚大学董事会

Priority 2008-01-02 • Filed 2008-12-31 • Granted 2012-11-28 • Published 2012-11-28

.. camera as detecting element, wherein said system comprises aperture diaphragm, the built-in lens of itself and mobile phone camera are **colocated** not. ... element to come the optical system that sample is thrown light on equably. 20. have optical system by the light source of **mobile phone power supply**. ...

A kind of distributed intelligence blind controller system and its method based ...

CN • CN108243033B • 朱武孝 • 上海展电检测科技有限公司

Priority 2016-05-17 • Filed 2016-05-17 • Granted 2018-11-23 • Published 2018-11-23

High speed, timely, a large amount of data communication, Mei Geyun are carried out using data/address bus between communication unit and arithmetic element It calculates unit and is all **collocated** with a corresponding communication unit, mainly complete signal, parameter, the transmission of ..

Environmental control system

WO EP US CN JP AU BR CA CL CO MX • JP2018510550A • ダイソン・テクノロジー・リミテッド • Dyson Technology Limited

Priority 2015-04-08 • Filed 2015-05-29 • Granted 2018-05-24



. . , the first panel of the intelligent switch 1410 is It may be attached at the same time as the simplification switch 1420. Examples of the above connections are as follows: one or more intelligent switches 1410, one or more simplified switches 1420, and one or more mobile devices 1430 join the **co**- ...

Long term evolution radio access network



WO EP US CN JP BR CA HK MX 24 • US10492211B2 • Ashraf M. Dahod • Athostar Networks, Inc.
Priority 2013-02-12 • Filed 2018-06-25 • Granted 2019-11-26 • Published 2019-11-26
... can be a handover command ("Handover Command") to the user equipment coming from the source eNodeB to the user equipment to inform the user **equipment** .. If the source eNodeB is a macro cell and its iRRH is **co-located** with the iBBU, then the "Meas Result" and "Handover Command (to UE)" messages can ...

Life cycle assessment of ICT: Carbon footprint and operational **electricity** use from the operator, national, and subscriber perspective in Sweden

Google Scholar • www.cstjean.qc.ca • Malmodin J • Journal of Industrial Ecology
Published 2014
.. The functional **unit** was 1 year of network operation .. In use, Average long, **Electricity** consumption, Total **electricity** in, .. with Swedish–global. (million), time **power** (W), (kWh/year), Sweden... (GWh/year), mix (kt CO 2 -eq/year) ... **Mobile** phone, 10.5, 0.3, 2.7, 28, 2 to 17 ...

Method and system for vehicle data collection regarding traffic



US • US20160189544A1 • Christopher P. Ricci • Autoconnect Holdings Llc
Priority 2011-11-16 • Filed 2015-12-22 • Published 2016-06-30
Furthermore, while the exemplary aspects, embodiments, and/or configurations illustrated herein show the various components of the system **collocated**, certain components of the system can be located remotely, at distant portions of a distributed network, such as a LAN and/or the Internet, or within ...

Apparatus and methods for moving relay interference mitigation in mobile e.g. ...



WO EP US CN IN SG • US10560885B2 • Yaakov Shoshan • Elta Systems Ltd.
Priority 2012-04-22 • Filed 2013-04-22 • Granted 2020-02-11 • Published 2020-02-11
A system for multicarrier cellular communication in a cellular network including a multiplicity of nodes, the system comprising, at an individual moving relay from among the multiplicity of nodes, an rBS having downlink communication, according to a protocol, with UEs served thereby, and a **co**- ..

Slicing architecture for wireless communication



US TW • US10057777B2 • Qian Li • Intel IP Corporation
Priority 2015-09-11 • Filed 2017-08-07 • Granted 2018-08-21 • Published 2018-08-21
4. The one or more non-transitory computer-readable storage mediums of claim 1 , wherein the RAN control entity is **collocated** with a macro base station (BS), and the RAN control entity only manages vertical or horizontal slices, or portions thereof, that are under coverage of the macro BS. 5. The ...

Multi-level data center consolidated power control



WO US • US9880608B2 • Denis Kouroussis • Virtual Power Systems, Inc.
Priority 2013-10-28 • Filed 2014-10-28 • Granted 2017-10-24 • Published 2017-10-24
Multi-level data center consolidated power is disclosed. One or more controllers communicate with one or more power supplies and sensors to adapt to dynamic load requirements and to distribute DC-power efficiently across multiple IT racks. The distributed DC-power includes one or more DC-voltages.

Tracking power consumption and payment



US • US9964415B2 • Christopher P. Ricci • Nio Usa, Inc.
Priority 2015-11-13 • Filed 2016-09-30 • Granted 2018-05-08 • Published 2018-05-08
Furthermore, while the exemplary embodiments illustrated herein show the various components of the system **collocated**, certain components of the ... park, neutral, reverse, and/or drive positions, etc.), throttle control pedal or mechanism, brake control pedal or mechanism, power control **switch**, ...

Downlink signal reception method and user equipment, downlink signal ...



WO EP US CN JP • JP2016506656A • ヒャンソン ヨ • エルジー エレクトロニクス インコーポレイティド
Priority 2012-12-17 • Filed 2013-12-17 • Published 2016-03-03
For this reason, the concept of a quasi-**colocated** antenna port is introduced for a mode in which a plurality of nodes may participate in communication (hereinafter referred to as CoMP mode). The terms "quasi-**co-located** (QCL)" or "quasi-co-location (QCL)" can be defined in terms of antenna ports as ..

Coordinate switching in the LTE biconnectivity situation that secondary link is ...

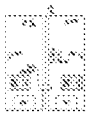
WO EP US CN JP KR • CN106131918B • 小米移动软件 • 北京小米移动软件有限公司
Priority 2015-05-06 • Filed 2014-05-06 • Granted 2019-09-17 • Published 2019-09-17
In some examples of this method, identifying the coupling between the first RAT and the 2nd RAT may include the first RAT of mark At least one carrier wave and the 2nd RAT at least one carrier wave carrier aggregation, or determine network equipment include be **co-located** Element associated with the ...

For the method and apparatus distributing electric power on the communications ...

WO EP US CN KR • CN102823192B • 小米公司 • 小米科技有限责任公司
Priority 2010-04-02 • Filed 2011-03-24 • Granted 2016-11-09 • Published 2016-11-09

.. For allowing apply on the cable of such as CAT x cable and control electric power.Although Figure 14 illustrates list unit 1414 and 1416 is **co-located** in element 1404, and unit 1420 and 1422 is **co-located** at unit in part 1406, any described unit may be located in single position or parts.

Systems and methods for detecting and controlling transmission devices



US • US10757753B1 • Joseph S. Noonan • Bing Laboratories, Inc.
Priority 2005-07-14 • Filed 2015-11-29 • Granted 2020-08-25 • Published 2020-08-25
Although not shown, it would be recognized that the receiving and/or the transmitting antennas and/or the processing systems may be **co-located** or may be geographically distributed. When a plurality of receiving antennas are employed and geographically distributed, it would be recognized that ..

Method and device for relocating a serving gateway

WO EP US CN JP KR AU MX TW • TWI587678B • 華碩電腦股份有限公司 • 內數位專利控股公司
Priority 2011-04-01 • Filed 2012-04-02 • Granted 2017-06-11 • Published 2017-06-11
The apparatus of claim 10, wherein the processor is further configured to verify that an area gateway provides the session to an evolved Node B (eNode-B). The device of claim 10, wherein the second SGW is **co-located** with an area gateway. The device of claim 10, wherein the processor is further ...

Wireless location using network centric location estimators



US • US9134398B2 • Dennis J. Dupray • Tracbeam Llc
Priority 1996-09-09 • Filed 2011-12-12 • Granted 2015-09-15 • Published 2015-09-15
(9.5) Additionally, note that this architecture need not have all modules **co-located**. In particular, it is an additional aspect of the present disclosure that various modules can be remotely located from one another and communicate with one another via telecommunication transmissions such as ...

Dynamic image encoding method, dynamic image encoding device, dynamic image ...

WO EP US CN JP KR AR BR CA ES MX PL RU TW • CN103444181B • 松尾英彰 • 太陽專利信託公司
Priority 2011-04-12 • Filed 2012-02-28 • Granted 2018-04-20 • Published 2018-04-20
Merge block candidate calculating part 111 and use the motion vector and reference picture used in the adjacent block of coded object block The colPic information of index and the motion vector of **co-located** blocks that is stored in colPic memories 112 etc., determines to close And the merging ...

Self-configuring vehicle console application store



US • US20333972B2 • Christopher P. Ricci • Flextronics Ap, Llc
Priority 2012-03-14 • Filed 2013-08-09 • Granted 2015-08-04 • Published 2015-08-04
Furthermore, while the exemplary aspects, embodiments, and/or configurations illustrated herein show the various components of the system **collocated**, certain components of the system can be located remotely, at distant portions of a distributed network, such as a LAN and/or the Internet, or within ...

Radio access networks



US • US10264972B2 • Vedat Eyuboglu • Commscope Technologies Llc
Priority 2013-02-07 • Filed 2016-06-22 • Granted 2018-08-28 • Published 2018-08-28
.. a separate Virtual Local Area Network (VLAN) and high-priority QoS (Quality of Service) can be assigned to the VLAN to control latency. In the example shown in FIG. 3 , the CUs 124 are connected to a **co-located** Ethernet switch 132 (in the same room 126). In some implementations, the connection 134

User equipment and communication method



WO EP US CN JP • EP3132634B1 • Naoki Kusashima • Sharp Kabushiki Kaisha
Priority 2014-04-28 • Filed 2015-04-24 • Granted 2020-08-19 • Published 2020-08-19
.. device 1 receives PDSCH data transmission according to Transmission Modes 1 to 9 through the higher layer signalling and is configured such that the terminal device 1 monitors the EPDCCH, the terminal device 1 assumes that the antenna ports 0 to 3 and 107 to 110 of the serving cell are quasi **co-** ...

Multiple-input multiple-output (mimo) communication system



US • US20180212670A1 • Luis Alberto Campos • Cable Television Laboratories, Inc.
Priority 2013-02-15 • Filed 2018-03-20 • Published 2018-07-26
and the front end 712 , one non-limiting aspect of the present invention contemplates having them **co-located**, optionally with a Joint Electron Device Engineering Council (JEDEC) specification (JESD207) interface 716 or an equivalent or otherwise sufficient interface as a connection piece to a ...

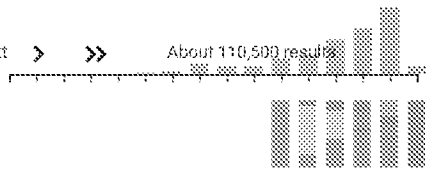
Radio access networks



US • US20180295591A1 • Vedat Eyuboglu • Commscope Technologies Llc
Priority 2013-02-07 • Filed 2018-03-30 • Published 2018-10-11
.. a separate Virtual Local Area Network (VLAN) and high-priority QoS (Quality of Service) can be assigned to the VLAN to control latency. In the example shown in FIG. 3 , the CUs 124 are connected to a **co-located** Ethernet switch 132 (in the same room 126). In some implementations, the connection 134

Top 1000 results by filing date

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Assignees	Inventors	CPCs
高通股份有限公司		6.2%
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Onlive Inc		2.2%
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维沃移动通信有限公司		1.7%

Expand

Doc code: RCEX
Doc description: Request for Continued Examination (RCE)

PTO/SB/30EFS (07-09)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

REQUEST FOR CONTINUED EXAMINATION(RCE)TRANSMITTAL
(Submitted Only via EFS-Web)

Application Number	16443273	Filing Date	2019-06-17	Docket Number (if applicable)	047158-100042	Art Unit	2191
First Named Inventor	Brandon N. HINDERLITER			Examiner Name	Ryan D. COYER		

This is a Request for Continued Examination (RCE) under 37 CFR 1.114 of the above-identified application.
Request for Continued Examination (RCE) practice under 37 CFR 1.114 does not apply to any utility or plant application filed prior to June 8, 1995, or to any design application. The Instruction Sheet for this form is located at WWW.USPTO.GOV

SUBMISSION REQUIRED UNDER 37 CFR 1.114

Note: If the RCE is proper, any previously filed unentered amendments and amendments enclosed with the RCE will be entered in the order in which they were filed unless applicant instructs otherwise. If applicant does not wish to have any previously filed unentered amendment(s) entered, applicant must request non-entry of such amendment(s).

☐ Previously submitted. If a final Office action is outstanding, any amendments filed after the final Office action may be considered as a submission even if this box is not checked.

- ☐ Consider the arguments in the Appeal Brief or Reply Brief previously filed on _____
- ☐ Other _____

☒ Enclosed

- ☒ Amendment/Reply
- ☐ Information Disclosure Statement (IDS)
- ☐ Affidavit(s)/ Declaration(s)
- ☐ Other _____

MISCELLANEOUS

☐ Suspension of action on the above-identified application is requested under 37 CFR 1.103(c) for a period of months _____ (Period of suspension shall not exceed 3 months; Fee under 37 CFR 1.17(i) required)

☐ Other _____

FEES

☒ **The RCE fee under 37 CFR 1.17(e) is required by 37 CFR 1.114 when the RCE is filed.**
The Director is hereby authorized to charge any underpayment of fees, or credit any overpayments, to Deposit Account No 501349

SIGNATURE OF APPLICANT, ATTORNEY, OR AGENT REQUIRED

☒ Patent Practitioner Signature

Applicant Signature

PTO/SB/30EFS (07-09)
Approved for use through 07/31/2012. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
Under the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number.

Signature of Registered U.S. Patent Practitioner			
Signature	/Sanjiva K. Reddy/	Date (YYYY-MM-DD)	2020-09-24
Name	Sanjiva K. Reddy	Registration Number	70816

This collection of information is required by 37 CFR 1.114. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450.

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these records.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal

Application Number:	16443273
Filing Date:	17-Jun-2019
Title of Invention:	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING
First Named Inventor/Applicant Name:	Brandon N. Hinderliter
Filer:	Sanjiva Kumjula Reddy/Karyn Hines
Attorney Docket Number:	047158.100042

Filed as Large Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Extension - 3 months with $0 paid	1253	1	1400	1400
Miscellaneous:				
RCE- 1ST REQUEST	1801	1	1300	1300
		Total in USD ($)		**2700**

Electronic Acknowledgement Receipt

EFS ID:	40659910
Application Number:	16443273
International Application Number:	
Confirmation Number:	1069
Title of Invention:	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING
First Named Inventor/Applicant Name:	Brandon N. Hinderliter
Customer Number:	132858
Filer:	Sanjiva Kumjula Reddy/Karyn Hines
Filer Authorized By:	Sanjiva Kumjula Reddy
Attorney Docket Number:	047158.100042
Receipt Date:	24-SEP-2020
Filing Date:	17-JUN-2019
Time Stamp:	16:06:48
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$2700
RAM confirmation Number	E20209NG07171806
Deposit Account	501349
Authorized User	Karyn Hines

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.16 (National application filing, search, and examination fees)

37 CFR 1.17 (Patent application and reexamination processing fees)

37 CFR 1.19 (Document supply fees)

37 CFR 1.20 (Post Issuance fees)

37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Request for Continued Examination (RCE)	047158-100042-RCE-2020-09-24.pdf	697611 1df0b91f7155446ed1ff61d6ffbdf3194c6102a2	no	3
Warnings:					
Information:					
2	Amendment Submitted/Entered with Filing of CPA/RCE	047158-100042-Response-to-Final-OA-2020-09-24.pdf	67508 133c1ac5a1dbcb8ab33e1f894d431f059ed46cd9	no	10
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	32904 91f82bd613c6ee3292f2db787f7f465b31cd98db	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	798023		

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

I hereby certify that this correspondence is being filed via EFS-Web with the United States Patent and Trademark Office on September 24, 2020.

Hogan Lovells US LLP

By: /Karyn Hines/

PATENT
Attorney Docket No.: 047158.100042

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of: Brandon N. Hinderliter Application No.: 16/443,273 Filed: June 17, 2019 For: INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING Customer No.: 132858	Confirmation No.: 1069 Examiner: COYER, Ryan D. Technology Center/Art Unit: 2191 **AMENDMENT**

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Commissioner:

In response to the Final Office Action mailed April 2, 2020, please enter and consider the following amendments and remarks.

The Claims, with any amendments, begin on page 2 of this paper.

Remarks/Arguments begin on page 6 of this paper.

A **Request for Continued Examination (RCE)** accompanies this paper.

The Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

1. (Currently Amended) A system comprising:

a mobile unit;

at least one generator; and

at least one switch gear, the at least one generator coupled to the at least one switch gear and located on the mobile unit with the at least one switch gear, the mobile unit configured to provide power generated by the at least one generator in electrical buses for at least one load on one or more external mobile units.

2. (Original) The system of claim 1, wherein the system is part of a hydraulic fracturing system that consumes the power and that comprises a wellbore and at least one pressuring system to create fractures in a subterranean formation that surrounds the wellbore.

3. (Original) The system of claim 1, further comprising:

at least one fracturing pump (FP) mobile unit of the one or more external mobile units, the at least one FP mobile unit physically external relative to the mobile unit; and

at least one transformer provided between the at least one FP mobile unit and the at least one switch gear to condition the power supplied to the at least one FP mobile unit.

4. (Original) The system of claim 1, further comprising:

a predetermined number of FP mobile units comprised in the one or more external mobile units, the predetermined number of FP mobile units determined by a maximum of the power available from the at least one generator and handled by the at least one switch gear.

5. (Original) The system of claim 1, further comprising:

a predetermined number of generators comprising the at least one generator, the predetermined number of generators having individual power output values that is lesser than a power output of an isolated single generator occupying all available space in an independent mobile unit physically external to the mobile unit.

6. (Original) The system of claim 1, further comprising:

the at least one switchgear being physically arranged to replace an electronic equipment room (EER) of at least one mobile unit of the one or more external mobile units that is designed to comprise the EER.

7. (Original) The system of claim 1, further comprising:

at least one Variable Frequency Drive (VFD); and

at least one Motor Control Center (MCC), the VFD and the MCC being on individual ones of the one or more external mobile units that is physically external relative to the mobile unit.

8. (Original) The system of claim 1, further comprising:

one or more power cable interconnects configured to couple the mobile unit with a second mobile unit of the one or more external mobile units, the second mobile unit having at least one second generator and at least one second switch gear, the one or more power cable interconnects to transmit power in support of redundancy or load sharing between the mobile unit and the second mobile unit.

9. (Previously Presented) The system of claim 1, further comprising:

an interconnect between transformers of the at least two mobile units of the one or more external mobile units, the interconnect for load sharing between the transformers comprising:

at least one load sharing switch gear optionally associated with at least one of the transformers and configured for load sharing on an incoming side of the at least one of the transformers such that the at least one load sharing switch gear, associated bus bars, and associated cable interconnects are sized based at least in part on current available for a voltage output of a secondary side of the of the at least one of the transformers; or

the at least one load sharing switch gear configured for load sharing on an outgoing side of the at least one of the transformers such that the at least one load sharing switch gear, the associated bus bars, and the associated cable interconnects are sized based at least in part on the current available at the secondary side of the transformer.

10. (Original) The system of claim 1, further comprising:

at least one load sharing FP mobile unit coupled to share the at least one load of a second FP mobile unit of the one or more external mobile units; and

an optional datavan in the one or more external mobile units for control of the at least one load sharing FP mobile unit, the optional datavan offering the control of the at least one load sharing FP mobile unit instead of a second control available from within the mobile unit.

11. (Original) The system of claim 1, further comprising:

an isolation transformer in one of the one or more external mobile units, the isolation transformer being physically external relative to the mobile unit and being configured for filtering harmonics between the at least one generator and the at least one load in the one or more external mobile units.

12. (Currently Amended) A method comprising:

providing a mobile unit with at least one generator and at least one switchgear located together in the mobile unit, the at least one generator coupled to the at least one switch gear on the mobile unit;

generating power from the at least one generator;

providing the power in electrical buses for at least one load in one or more external mobile units.

13. (Original) The method of claim 12, further comprising:

providing at least one fracturing pump (FP) mobile unit of the one or more external mobile units that is physically external relative to the mobile unit; and

conditioning the power supplied to the at least one FP mobile unit using at least one transformer provided between the at least one FP mobile unit and the at least one switch gear.

14. (Original) The method of claim 12, further comprising:

determining a number of FP mobile units for the one or more external mobile units based at least in part on a maximum of the power available from the at least one generator and handled by the at least one switch gear.

15. (Original) The method of claim 12, further comprising:

determining a number of generators for the at least one generator based at least in part on the number of generators having individual power output values that is lesser than a

power output of an isolated single generator occupying all available space in an independent mobile unit physically external to the mobile unit.

16. (Original) The method of claim 12, further comprising:

physically arranging the at least one switch gear to replace an electronic equipment room (EER) of at least one mobile unit of the one or more external mobile units that is designed to comprise the EER.

17. (Original) The method of claim 12, further comprising:

providing at least one Variable Frequency Drive (VFD); and

providing at least one Motor Control Center (MCC), the VFD and the MCC being on individual ones of the one or more external mobile units that is physically external relative to the mobile unit.

18. (Original) The method of claim 12, further comprising:

coupling the mobile unit with a second mobile unit of the one or more external mobile units using one or more power cable interconnects, the second mobile unit having at least one second generator and at least one second switch gear, the one or more power cable interconnects to transmit power in support of redundancy or load sharing between the mobile unit and the second mobile unit.

19. (Original) The method of claim 12, further comprising:

coupling at least one load sharing FP mobile unit to share the at least one load of a second FP mobile unit of the one or more external mobile units; and

controlling, via an optional datavan in the one or more external mobile units, the at least one load sharing FP mobile unit, the optional datavan offering the control of the at least one load sharing FP mobile unit instead of a second control available from within the mobile unit.

20. (Original) The method of claim 12, further comprising:

filtering harmonics between the at least one generator and the at least one load in the one or more external mobile units using an isolation transformer that is in one of the one or more external mobile units, the isolation transformer being physically external relative to the mobile unit.

REMARKS

Before entry of this paper, claims 1-20 were pending, with claims 1 and 12 being independent. The Office Action rejects claims 1-20.

The Office Action rejects claims 1-4, 6-10, 12-14, and 16-19 under section 102 for allegedly being unpatentable in view of *Oehring* (U.S. Publication 20160105022). Applicant notes that the Office Action appears to inadvertently omit claims 2 and 9 from its Summary at p. 2 of the Office Action. Correction is requested.

The Office Action rejects claims 5, 11, 15, and 20 under section 103 for allegedly being unpatentable in view of *Oehring* alone. Applicant traverses these rejections.

In the interest of prosecution economy and without acquiescing in the characterization of the claims and the reference, Applicant amends claims 1 and 12 in this paper. The amendments are fully supported through the filed Specification, including at least in paragraphs 0022, 0023, and as agreed upon in the Examiner Interview. Claims 1-20 remain pending and no claim are added, leaving claims 1-20 for examination. In view of the following remarks, reconsideration of the claims is respectfully requested.

I. EXAMINER INTERVIEW

Applicant thanks Examiner Coyer for the courtesies extended in granting and conducting an Examiner Interview with the undersigned Applicant's representative on September 17, 2020. The rejections under the section 102 reference were discussed in detail. Agreement was reached that distinctions are apparent between the cited reference and the claims. Such distinctions are further evident in the claims, as amended; and the amendments are supported fully in the filed specification, as discussed in the Examiner Interview. Applicant appreciates the Examiner's feedback and Examiner's consideration of the references and the claims, in detail, and presents this response to memorialize the discussion in the Examiner Interview.

II. CLAIMS 1-20 ARE ALLOWABLE OVER THE ART

As also noted in the Remarks above, there are multiple art-based rejections of different scopes. The Office Action rejects claims 1-4, 6-10, 12-14, and 16-19 under section 102 for allegedly being unpatentable in view of *Oehring* (U.S. Publication 20160105022). The Office

Action rejects claims 5, 11, 15, and 20 under section 103 for allegedly being unpatentable in view of *Oehring* alone.

A decision on whether a claim is invalid under 35 U.S.C. § 102 requires a determination that "each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (CAFC 1987).

A decision on whether a claim is invalid under 35 U.S.C. § 103 requires a determination that the evidence as a whole shows that a legal determination sought to be proved (*i.e.*, the reference teachings establish a *prima facie* case of obviousness) is more probable than not. M.P.E.P. § 2142. Accordingly, "the key to supporting any rejection under 35 U.S.C. § 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious." M.P.E.P. § 2142; *see KSR International Co. v. Teleflex, Inc.*, 550 U.S.398 (2007).

A. Independent Claim 1 Is Allowable

Independent claim 1, as amended, recites:

> A system comprising:
> a mobile unit;
> at least one generator; and
> at least one switch gear, the at least one generator coupled to the at least one switch gear and located on the mobile unit with the at least one switch gear, the mobile unit configured to provide power generated by the at least one generator in electrical buses for at least one load on one or more external mobile units.

As discussed and agreed upon in the Examiner Interview, such subject matter as recited by claim 1, as amended, is not disclosed by *Oehring*. For example, the cited reference fails to disclose at least a feature for "at least one switch gear, the at least one generator coupled to the at least one switch gear and located on the mobile unit with the at least one switch gear, the mobile unit configured to provide power generated by the at least one generator in electrical buses for at least one load on one or more external mobile units. . .," as partly recited in claim 1.

The Office Action alleges from *Oehring* as to the above-referenced feature:

> Applicants argue that the cited Oehring reference "reports providing generators . , and separately, switchgears" and that the reference therefore fails to disclose "the at least one generator coupled to the at least one switch gear on the mobile unit" as claimed, (Remarks filed 12/20/2019,

> pg. 7-8, emphasis added). Examiner respectfully disagrees. Figure 5, sec. 222A and 2226 of Oehrng are cited in the rejections as disclosing the claimed generator. Paragraph 50 of Oehring. which describes figure 5, recites "[t]he power from the generators 222A of group A goes to switchgear 235A." It is indisputable that the "generators 222A" are coupled' to the "switchgear 235A" as described in figure 5 of Oehring. Applicants' arguments' in traversal therefore are not persuasive and the traversed rejections are maintained.

Office Action, 8, 9. However, as agreed upon in the Examiner Interview, *Oehring* is different than claim 1 and the Office Action fails to address at least that "the at least one generator coupled to the at least one switch gear and located on the mobile unit with the at least one switch gear. . . ."

For instance, *Oehring* reports providing generators (e.g., generators 222) in a respective trailers, skids, or vehicles, and separately, switchgears (e.g., switchgear 235) on respective trailers, skids, or vehicles:

> The different generators 222A for group A are all phase synced together. The power from the generators 222A of group A goes to switchgear 235A.

Lee, 0050; see also, 0051 and FIG. 5 and:

> Each group A, B of generators 222A, 222B is connected in turn to separate and distinct groups of transformers 223A, 223B and pumps 210A, 210B, as well as separate and distinct auxiliary trailers 225A, 225B, each including its own ancillary equipment, such as, for example, data vans 227A, 227B, sand equipment 229A, 229B, blenders 234A, 234B, and hydration units 232A, 232B.

Id., 0045; and:

> Referring back to FIG. 1, also included in the equipment is a plurality of electric generators 22 that are connected to, and provide power to, the electric motors 14 on the vehicles 12.

Id., 0027; and FIG. 1. In view of the above, the cited reference at least fails to disclose "the at least one generator coupled to the at least one switch gear and located on the mobile unit with the at least one switch gear," as partly recited in the above-referenced limitation in claim 1.

For failing to disclose each and every limitation, *Oehring* does not anticipate claim 1 and the rejection must be withdrawn. *Verdegaal Bros.*, 631 (CAFC 1987). Applicant respectfully request reconsideration of the rejection to claim 1.

B. Independent Claim 12 Is Similarly Allowable

Applicant respectfully submits that claim 12 is allowable at least for similar reasons as those discussed above with respect to claim 1. Section II.A, *supra*. For example, as in the case of claim 1, the Office Action fails to consider that *Oehring* is distinct from claim 12 for also failing to disclose:

> providing a mobile unit with at least one generator and at least one switchgear located together in the mobile unit, the at least one generator coupled to the at least one switch gear on the mobile unit. . . .

Applicant respectfully submits that claim 12 is patentable over the cited reference under section 102. Accordingly, Applicant respectfully requests reconsideration of the rejection under section 102 to this claim. *Verdegaal Bros.*, 631 (CAFC 1987).

C. Dependent Claims 2-11 And 13-20 Are Also Allowable

Each of claims 2-11 and 13-20 depends, directly or indirectly, from one of independent claims 1 and 12, and thus incorporates each feature of one of the aforementioned independent claims. Applicant therefore respectfully submits that claims 2-11 and 13-20, by virtue of at least their dependencies from an allowable base claim, are at least patentable over the cited reference or modification alleged to the cited reference under section 102 or 103, as asserted in the Office Action. Furthermore, these claims include limitations that are independently patentable over the cited references for reasons similar to those discussed with respect to claims 1 and 12. For example, these claims may further described the features already identified as absent in the reference or modification alleged to the reference.

For all these reasons, reconsideration and withdrawal of the rejections of dependent claims 2-11 and 13-20 are respectfully requested.

III. AMENDMENTS TO THE CLAIMS

Unless otherwise specified or addressed in the remarks section, amendments to the claims are made for purposes of clarity, and are not intended to alter the scope of the claims or limit any equivalents thereof. The amendments are supported by the specification and do not add new matter. In addition, by focusing on specific claims and claim elements in the discussion above, Applicant does not imply that other claim elements are disclosed or suggested by the references. In addition, any characterizations of claims and/or cited art are being made to

facilitate expeditious prosecution of this application. Applicant reserves the right to pursue at a later date any other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by another prosecution. Accordingly, reviewers of this or any child or related prosecution history shall not reasonably infer that Applicant has made any disclaimers or disavowals of any subject matter supported by the present disclosure.

CONCLUSION

In view of the foregoing, Applicant believes all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

Further, the Commissioner is hereby authorized to charge any additional fees or credit any overpayment in connection with this paper to Deposit Account No. 50-1349.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 212-918-3209.

Respectfully submitted,

/Sanjiva K. Reddy/
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Registration No. 70,816

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PTO/SB/06 (09-11)
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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 16/443,273	Filing Date 06/17/2019	☐ To be Mailed

ENTITY: ☑ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A		N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*		x $100 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*		x $460 =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).				
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))					
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT	09/24/2020	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0		x $100 =	0
	Independent (37 CFR 1.16(h))	* 2	Minus	*** 3	= 0		x $460 =	0
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	0

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=		x $0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x $0 =	
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.	SLIE
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".	/ADRIENE D. SELLMAN/
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".	
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.	

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/443,273	06/17/2019	Brandon N. Hinderliter	047158.100042	1069

132858 7590 09/23/2020

Hogan Lovells US LLP
609 Main Street
Suite 4200
Houston, TX 77002

EXAMINER	
COYER, RYAN D	

ART UNIT	PAPER NUMBER
2191	

NOTIFICATION DATE	DELIVERY MODE
09/23/2020	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

hlusdocketing@hoganlovells.com
stephanie.mcdonough@hoganlovells.com

Applicant-Initiated Interview Summary	**Application No.** 16/443,273	**Applicant(s)** Hinderliter, Brandon N.	
	Examiner RYAN D COYER	**Art Unit** 2191	**AIA (FITF) Status** Yes

All participants (applicant, applicants representative, PTO personnel):

(1) RYAN D. COYER. (3) _____.

(2) Sanjiva Reddy (Reg. No. 70,816). (4) _____.

Date of Interview: 17 September 2020.

Type: ☑ Telephonic ☐ Video Conference
☐ Personal [copy given to: ☐ applicant ☐ applicant's representative]

Exhibit shown or demonstration conducted: ☐ Yes ☑ No.
If Yes, brief description: _____.

Issues Discussed ☐101 ☐112 ☑102 ☐103 ☐Others
(For each of the checked box(es) above, please describe below the issue and detailed description of the discussion)

Claim(s) discussed: 1.

Identification of prior art discussed: Oehring.

Substance of Interview
(For each issue discussed, provide a detailed description and indicate if agreement was reached. Some topics may include: identification or clarification of a reference or a portion thereof, claim interpretation, proposed amendments, arguments of any applied references etc...)

Mr. Reddy requested an interview to discuss the standing rejections and potential avenues for claim amendment. Please see the attached agenda for more information. No agreement as to patentability was reached..

Applicant recordation instructions: The formal written reply to the last Office action must include the substance of the interview. (See MPEP section 713.04). If a reply to the last Office action has already been filed, applicant is given a non-extendable period of the longer of one month or thirty days from this interview date, or the mailing date of this interview summary form, whichever is later, to file a statement of the substance of the interview.

Examiner recordation instructions: Examiners must summarize the substance of any interview of record. A complete and proper recordation of the substance of an interview should include the items listed in MPEP 713.04 for complete and proper recordation including the identification of the general thrust of each argument or issue discussed, a general indication of any other pertinent matters discussed regarding patentability and the general results or outcome of the interview, to include an indication as to whether or not agreement was reached on the issues raised.

☑ Attachment

/Ryan D. Coyer/ Primary Examiner, Art Unit 2191	

Summary of Record of Interview Requirements

Manual of Patent Examining Procedure (MPEP), Section 713.04, Substance of Interview Must be Made of Record
A complete written statement as to the substance of any face-to-face, video conference, or telephone interview with regard to an application must be made of record in the application whether or not an agreement with the examiner was reached at the interview.

Title 37 Code of Federal Regulations (CFR) 1.133 Interviews
Paragraph (b)

In every instance where reconsideration is requested in view of an interview with an examiner, a complete written statement of the reasons presented at the interview as warranting favorable action must be filed by the applicant. An interview does not remove the necessity for reply to Office action as specified in §§ 1.111, 1.135. (35 U.S.C. 132)

37 CFR §1.2 Business to be transacted in writing.
All business with the Patent or Trademark Office should be transacted in writing. The personal attendance of applicants or their attorneys or agents at the Patent and Trademark Office is unnecessary. The action of the Patent and Trademark Office will be based exclusively on the written record in the Office. No attention will be paid to any alleged oral promise, stipulation, or understanding in relation to which there is disagreement or doubt.

The action of the Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews.

It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file, unless the examiner indicates he or she will do so. It is the examiners responsibility to see that such a record is made and to correct material inaccuracies which bear directly on the question of patentability.

Examiners must complete an Interview Summary Form for each interview held where a matter of substance has been discussed during the interview by checking the appropriate boxes and filling in the blanks. Discussions regarding only procedural matters, directed solely to restriction requirements for which interview recordation is otherwise provided for in Section 812.01 of the Manual of Patent Examining Procedure, or pointing out typographical errors or unreadable script in Office actions or the like, are excluded from the interview recordation procedures below. Where the substance of an interview is completely recorded in an Examiners Amendment, no separate Interview Summary Record is required.

The Interview Summary Form shall be given an appropriate Paper No., placed in the right hand portion of the file, and listed on the "Contents" section of the file wrapper. In a personal interview, a duplicate of the Form is given to the applicant (or attorney or agent) at the conclusion of the interview. In the case of a telephone or video-conference interview, the copy is mailed to the applicants correspondence address either with or prior to the next official communication. If additional correspondence from the examiner is not likely before an allowance or if other circumstances dictate, the Form should be mailed promptly after the interview rather than with the next official communication.

The Form provides for recordation of the following information:
- Application Number (Series Code and Serial Number)
- Name of applicant
- Name of examiner
- Date of interview
- Type of interview (telephonic, video-conference, or personal)
- Name of participant(s) (applicant, attorney or agent, examiner, other PTO personnel, etc.)
- An indication whether or not an exhibit was shown or a demonstration conducted
- An identification of the specific prior art discussed
- An indication whether an agreement was reached and if so, a description of the general nature of the agreement (may be by attachment of a copy of amendments or claims agreed as being allowable). Note: Agreement as to allowability is tentative and does not restrict further action by the examiner to the contrary.
- The signature of the examiner who conducted the interview (if Form is not an attachment to a signed Office action)

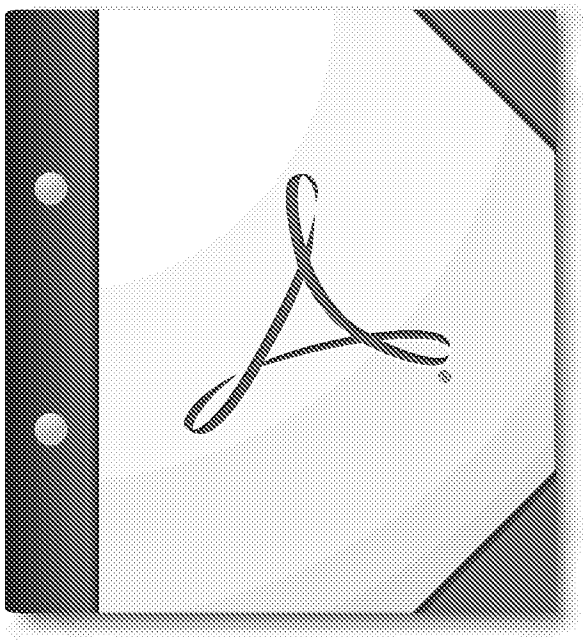
It is desirable that the examiner orally remind the applicant of his or her obligation to record the substance of the interview of each case. It should be noted, however, that the Interview Summary Form will not normally be considered a complete and proper recordation of the interview unless it includes, or is supplemented by the applicant or the examiner to include, all of the applicable items required below concerning the substance of the interview.

A complete and proper recordation of the substance of any interview should include at least the following applicable items:
1) A brief description of the nature of any exhibit shown or any demonstration conducted,-
2) an identification of the claims discussed,
3) an identification of the specific prior art discussed,
4) an identification of the principal proposed amendments of a substantive nature discussed, unless these are already described on the Interview Summary Form completed by the Examiner,
5) a brief identification of the general thrust of the principal arguments presented to the examiner,
(The identification of arguments need not be lengthy or elaborate. A verbatim or highly detailed description of the arguments is not required. The identification of the arguments is sufficient if the general nature or thrust of the principal arguments made to the examiner can be understood in the context of the application file. Of course, the applicant may desire to emphasize and fully describe those arguments which he or she feels were or might be persuasive to the examiner.)
6) a general indication of any other pertinent matters discussed, and
7) if appropriate, the general results or outcome of the interview unless already described in the Interview Summary Form completed by the examiner.

Examiners are expected to carefully review the applicants record of the substance of an interview. If the record is not complete and accurate, the examiner will give the applicant an extendable one month time period to correct the record.

Examiner to Check for Accuracy

If the claims are allowable for other reasons of record, the examiner should send a letter setting forth the examiners version of the statement attributed to him or her. If the record is complete and accurate, the examiner should place the indication, Interview Record OK on the paper recording the substance of the interview along with the date and the examiners initials.



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PTO/SB/08a (02-18)
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16443273
Filing Date	2019-06-17
First Named Inventor	Brandon N. Hinderliter
Art Unit	2191
Examiner Name	Ryan D. Coyer
Attorney Docket Number	047158.100042

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	9324049		2016-04-26	Thomeer	
	2	10415332		2019-09-17	Morris	
	3	10669804		2020-06-02	Kotrla	
	4	3055682		1962-09-25	Bacher	
	5	9513055		2016-12-06	Seal	
	6	9061223		2015-06-23	Winborn	
	7	8091928		2012-01-10	Carrier	
	8	6719900		2004-04-13	Hawkins	

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	First Named Inventor	Brandon N. Hinderliter
	Art Unit	2191
	Examiner Name	Ryan D. Coyer
	Attorney Docket Number	047158.100042

	9	5433243		1995-07-18	Griswold	
	10	5230366		1993-07-27	Marandi	
	11	2610741		1952-09-16	Schmid	
	12	10337308		2019-07-02	Broussard	
	13	5004400		1991-04-02	Handke	
	14	9260253		2016-02-16	Naizer	
	15	9340353		2016-05-17	Oren	
	16	9499335		2016-11-22	McIver	
	17	9909398		2018-03-06	Pham	
	18	8997904		2015-04-07	Cryer	
	19	8774972		2014-07-08	Rusnak	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	First Named Inventor	Brandon N. Hinderliter
	Art Unit	2191
	Examiner Name	Ryan D. Coyer
	Attorney Docket Number	047158.100042

	20	9051822		2015-06-09	Ayan	
	21	7170262		2007-01-30	Pettigrew	
	22	5025861		1991-06-25	Huber	

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Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20160258267		2016-09-08	Payne	
	2	20130180722		2013-07-18	Olarte Caro	
	3	20130299167		2013-11-14	Fordyce	
	4	20110052423		2011-03-03	Gambier	
	5	20030079875		2003-05-01	Weng	
	6	20170226838		2017-08-10	Ciezobka	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	Art Unit	2191
	Examiner Name	Ryan D. Coyer
	Attorney Docket Number	047158.100042

	7	20170096885		2017-04-06	Oehring	
	8	20170175516		2017-06-22	Eslinger	
	9	20190010793		2019-01-10	Hinderliter	
	10	20130317750		2013-11-28	Hunter	
	11	20190112910		2019-04-18	Oehring	
	12	20160326854		2016-11-10	Broussard	
	13	20170130743		2017-05-11	Anderson	
	14	20140138079		2014-05-22	Broussard	
	15	20180045331		2018-02-15	Lopez	
	16	20180266412		2018-09-20	Stokkevag	
	17	20180343125		2018-11-29	Clish	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16443273
	Filing Date	2019-06-17
	First Named Inventor	Brandon N. Hinderliter
	Art Unit	2191
	Examiner Name	Ryan D. Coyer
	Attorney Docket Number	047158.100042

	18	20180291713		2018-10-11	Jeanson	
	19	20200232454		2020-07-23	Chretien	
	20	20190119096		2019-04-25	Haile	
	21	20180238147		2018-08-23	Shahri	
	22	20140238683		2014-08-28	Korach	
	23	20130284278		2013-10-31	Winborn	
	24	20060065319		2006-03-30	Csitari	
	25	20130306322		2013-11-21	Sanborn	

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Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1							

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16443273
	Filing Date	2019-06-17
	First Named Inventor	Brandon N. Hinderliter
	Art Unit	2191
	Examiner Name	Ryan D. Coyer
	Attorney Docket Number	047158.100042

NON-PATENT LITERATURE DOCUMENTS			Remove
Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1	International Search Report and Written Opinion mailed June 2, 2020 in corresponding PCT Application No. PCT/US20/23809	☒
	2	International Search Report and Written Opinion mailed June 23, 2020 in corresponding PCT Application No. PCT/US20/23912	☒
	3	International Search Report and Written Opinion mailed July 22, 2020 in corresponding PCT Application No. PCT/US20/00017	☒
	4	Office Action mailed August 4, 2020 in related U.S. Patent Application No. 16/385,070	☒
	5	Office Action mailed June 29, 2020 in related U.S. Patent Application No. 16/404,283	☒
	6	Office Action mailed June 29, 2020 in related U.S. Patent Application No. 16/728,359	☒
	7	Office Action mailed June 22, 2020 in related U.S. Patent Application No. 16/377,861	☒
	8	Canadian Office Action mailed August 18, 2020 in related CA Patent Application No. 2,933,444	☒
	9	Canadian Office Action mailed August 17, 2020 in related CA Patent Application No. 2,944,968	☒

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16443273
	Filing Date	2019-06-17
	First Named Inventor	Brandon N. Hinderliter
	Art Unit	2191
	Examiner Name	Ryan D. Coyer
	Attorney Docket Number	047158.100042

EXAMINER SIGNATURE			
Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16443273
Filing Date	2019-06-17
First Named Inventor	Brandon N. Hinderliter
Art Unit	2191
Examiner Name	Ryan D. Coyer
Attorney Docket Number	047158.100042

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☒ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☒ See attached certification statement.

☒ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Taylor P. Evans/	Date (YYYY-MM-DD)	2020-09-01
Name/Print	Taylor P. Evans	Registration Number	60506

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these record s.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal

Application Number:	16443273
Filing Date:	17-Jun-2019
Title of Invention:	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING
First Named Inventor/Applicant Name:	Brandon N. Hinderliter
Filer:	Taylor P. Evans/Stephanie McDonough
Attorney Docket Number:	047158.100042

Filed as Large Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
SUBMISSION- INFORMATION DISCLOSURE STMT	1806	1	240	240
		Total in USD ($)		**240**

Electronic Acknowledgement Receipt

EFS ID:	40445385
Application Number:	16443273
International Application Number:	
Confirmation Number:	1069
Title of Invention:	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING
First Named Inventor/Applicant Name:	Brandon N. Hinderliter
Customer Number:	132858
Filer:	Taylor P. Evans/Stephanie McDonough
Filer Authorized By:	Taylor P. Evans
Attorney Docket Number:	047158.100042
Receipt Date:	01-SEP-2020
Filing Date:	17-JUN-2019
Time Stamp:	17:00:39
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$240
RAM confirmation Number	E202091H01029406
Deposit Account	501349
Authorized User	Stephanie McDonough

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.16 (National application filing, search, and examination fees)

37 CFR 1.17 (Patent application and reexamination processing fees)

37 CFR 1.19 (Document supply fees)

37 CFR 1.20 (Post Issuance fees)

37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Form (SB08)	047158-100042_IDS.pdf	1036108 0557f66fb8339687f93f7f4eff1ea59949fc6cd8	no	9
Warnings:					
Information:					
2	Other Reference-Patent/App/Search documents	047158-100040.pdf	272909 6713dd00a0bd08ed1c63ffb36150d1101b2d0c83	no	8
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3	Other Reference-Patent/App/Search documents	047158-100050.pdf	264400 1e64f5a5ba4882df1663f08d022315f88b9064ea	no	8
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4	Other Reference-Patent/App/Search documents	047158-100054.pdf	294356 8b4e935944e693768eda4a2c8ce9c54bbc4b6169	no	9
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6	Other Reference-Patent/App/Search documents	047158-500051_ISR.pdf	819292 ce7cb211944228f4d5d3218d796a2cfcf9fd2c72	no	17
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8	Other Reference-Patent/App/Search documents	047158-500056_ISR.pdf	575726 80028a0ff8f35f021afe090c0ace9c33b13b1333	no	13
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Warnings:					
Information:					
10	Other Reference-Patent/App/Search documents	CIPO_Office-Action-2020-08-18-P52026CA00.pdf	178892 410c4d70ab14fc85319f39b44e6a8b410a933e7d	no	4
Warnings:					
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11	Fee Worksheet (SB06)	fee-info.pdf	30752 4e7146dabab1a0a1a8094fe7568022698f54cbc5	no	2
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If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

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If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

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If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/08a (02-18)
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16443273
Filing Date	2019-06-17
First Named Inventor	Brandon N. HINDERLITER
Art Unit	2191
Examiner Name	Ryan D. COYER
Attorney Docket Number	047158-100042

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	10302079	B2	2019-05-28	Kendrick	

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Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20170159654	A1	2017-06-08	Kendrick	
	2	20130180722	A1	2013-07-18	Olarte Caro et al.	
	3	20130299167	A1	2013-11-14	Fordyce et al.	
	4	20110052423	A1	2011-03-03	Gambier et al.	
	5	20030079875	A1	2003-01-05	Weng	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	Filing Date	2019-06-17
	First Named Inventor	Brandon N. HINDERLITER
	Art Unit	2191
	Examiner Name	Ryan D. COYER
	Attorney Docket Number	047158-100042

	6	20170226838	A1	2017-08-10	Ceizobka et al.			

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Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
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NON-PATENT LITERATURE DOCUMENTS Remove

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1	Non-Final Office Action issued in US Patent Application No. 14/881,535 mailed May 20, 2020	
	2	Non-Final Office Action issued in US Patent Application No. 15/145,443 mailed May 8, 2020	
	3	Non-Final Office Action issued in US Patent Application No. 16/458,696 mailed May 22, 2020	
	4	International Search Report and Written Opinion issued in PCT/US2020/023809 mailed June 2, 2020	
	5	KARIN, "Duel Fuel Diesel Engines," (2015), Taylor & Francis, pp 62-63, Retrieved from https://app.knovel.com/hotlink/toc/id:kpDFDE0001/dual-fueal-diesel-engines/duel-fuel-diesel-engines (Year 2015)	

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	First Named Inventor	Brandon N. HINDERLITER
	Art Unit	2191
	Examiner Name	Ryan D. COYER
	Attorney Docket Number	047158-100042

	6	GOODWIN, "High-voltage auxilliary switchgear for power stations," Power Engineering Journal, 1989, 10 pg. (Year 1989)

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EXAMINER SIGNATURE

Examiner Signature		Date Considered	

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CERTIFICATION STATEMENT

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See attached certification statement.

☒ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Taylor P. Evans/	Date (YYYY-MM-DD)	2020-06-19
Name/Print	Taylor P. Evans	Registration Number	60506

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7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

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Electronic Patent Application Fee Transmittal

Application Number:	16443273
Filing Date:	17-Jun-2019
Title of Invention:	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING
First Named Inventor/Applicant Name:	Brandon N. Hinderliter
Filer:	Taylor P. Evans/Tina Fluharty
Attorney Docket Number:	047158.100042

Filed as Large Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
SUBMISSION- INFORMATION DISCLOSURE STMT	1806	1	240	240
		Total in USD ($)		**240**

Electronic Acknowledgement Receipt

EFS ID:	39775524
Application Number:	16443273
International Application Number:	
Confirmation Number:	1069
Title of Invention:	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING
First Named Inventor/Applicant Name:	Brandon N. Hinderliter
Customer Number:	132858
Filer:	Taylor P. Evans/Tina Fluharty
Filer Authorized By:	Taylor P. Evans
Attorney Docket Number:	047158.100042
Receipt Date:	19-JUN-2020
Filing Date:	17-JUN-2019
Time Stamp:	15:27:05
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$240
RAM confirmation Number	E20206IF27243705
Deposit Account	501349
Authorized User	Tina Fluharty

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.16 (National application filing, search, and examination fees)

37 CFR 1.17 (Patent application and reexamination processing fees)

37 CFR 1.19 (Document supply fees)

37 CFR 1.20 (Post Issuance fees)

37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Form (SB08)	047158-100042-IDS.pdf	1035244 c599115784752bbc9409f29bf1a6aa3044425446	no	5
Warnings:					
Information:					
2	Non Patent Literature	047158-OA3.pdf	1402077 200a2829d9c761f9ec16e70bdb148012c61545e1	no	13
Warnings:					
Information:					
3	Non Patent Literature	047158-OA2.pdf	1517850 311251f288e51ea2e54619d0aa9c614a8bb8ff93	no	15
Warnings:					
Information:					
4	Non Patent Literature	047158-OA1.pdf	1272924 928a7e85dd2b734bd6e7e6f165fa2b1934ebc61c	no	13
Warnings:					
Information:					
5	Non Patent Literature	047158-ISR.pdf	819292 995b9739257b4c0cc50ec90ee2654ea72bfc1fd3	no	17
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Information:					
6	Non Patent Literature	047158-Karim.pdf	5055149 f79d8552702a84ed0e231811674de304ae138298	no	23
Warnings:					

Information:					
7	Non Patent Literature	047158-Goodwin.pdf	2052394 445c5d2c928fd40eae7b25406d1755f2bfe8f599	no	10
Warnings:					
Information:					
8	Fee Worksheet (SB06)	fee-info.pdf	30576 a6dcf95837c965b8b9147618f5f21e7579500c0b	no	2
Warnings:					
Information:					
			Total Files Size (in bytes):	13185506	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

PTO/SB/08a (02-18)
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16443273
Filing Date	2019-06-17
First Named Inventor	Brandon N. Hinderliter
Art Unit	2191
Examiner Name	Ryan Coyer
Attorney Docket Number	047158.100042

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Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
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Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20150300336	A1	2015-10-22	Hernandez et al.	
	2	20170314979	A1	2017-11-02	Ye et al.	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (**Not for submission under 37 CFR 1.99)**		
	Application Number	16443273
	Filing Date	2019-06-17
	First Named Inventor	Brandon N. Hinderliter
	Art Unit	2191
	Examiner Name	Ryan Coyer
	Attorney Docket Number	047158.100042

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1	Non-Final Office Action mailed March 31, 2020 issued in US Patent Application No. 15/356,436	
	2	Final Office Action mailed March 3, 2020 issued in US Patent Application No. 16/152,695	

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EXAMINER SIGNATURE

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16443273
	Filing Date	2019-06-17
	First Named Inventor	Brandon N. Hinderliter
	Art Unit	2191
	Examiner Name	Ryan Coyer
	Attorney Docket Number	047158.100042

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☒ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

☒ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Taylor P. Evans/	Date (YYYY-MM-DD)	2020-05-13
Name/Print	Taylor P. Evans	Registration Number	60506

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C. 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether the Freedom of Information Act requires disclosure of these record s.

2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.

3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal

Application Number:	16443273
Filing Date:	17-Jun-2019
Title of Invention:	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING
First Named Inventor/Applicant Name:	Brandon N. Hinderliter
Filer:	Taylor P. Evans/Tina Fluharty
Attorney Docket Number:	047158.100042

Filed as Large Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
SUBMISSION- INFORMATION DISCLOSURE STMT	1806	1	240	240
		Total in USD ($)		**240**

Electronic Acknowledgement Receipt

EFS ID:	39428714
Application Number:	16443273
International Application Number:	
Confirmation Number:	1069
Title of Invention:	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING
First Named Inventor/Applicant Name:	Brandon N. Hinderliter
Customer Number:	132858
Filer:	Taylor P. Evans/Tina Fluharty
Filer Authorized By:	Taylor P. Evans
Attorney Docket Number:	047158.100042
Receipt Date:	13-MAY-2020
Filing Date:	17-JUN-2019
Time Stamp:	13:11:04
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$240
RAM confirmation Number	E20205CD11240687
Deposit Account	501349
Authorized User	Tina Fluharty

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.16 (National application filing, search, and examination fees)

37 CFR 1.17 (Patent application and reexamination processing fees)

37 CFR 1.19 (Document supply fees)

37 CFR 1.20 (Post Issuance fees)

37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Form (SB08)	047158-100042-IDS.pdf	1034539 beffcb508f489b0d07ff5fa89bb03eded8c0c056	no	4
Warnings:					
Information:					
2	Non Patent Literature	100004_FOA.pdf	835009 014f920e2684400b36eb16ff7df2c83fd4e88c28	no	21
Warnings:					
Information:					
3	Non Patent Literature	100029_NFOA.pdf	369686 f29618359b21ec4c59b7a7deb61e37b0e727d7ec	no	11
Warnings:					
Information:					
4	Fee Worksheet (SB06)	fee-info.pdf	30577 a274f8f1a8de5553b4f11fa0f93f9b256285966f	no	2
Warnings:					
Information:					
		Total Files Size (in bytes):	2269811		

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New Applications Under 35 U.S.C. 111

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National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/443,273	06/17/2019	Brandon N. Hinderliter	047158.100042	1069

132858 7590 04/02/2020

Hogan Lovells US LLP
609 Main Street
Suite 4200
Houston, TX 77002

EXAMINER	
COYER, RYAN D	

ART UNIT	PAPER NUMBER
2191	

NOTIFICATION DATE	DELIVERY MODE
04/02/2020	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

hlusdocketing@hoganlovells.com
monica.williams@hoganlovells.com
stephanie.mcdonough@hoganlovells.com

Office Action Summary	Application No. 16/443,273	Applicant(s) Hinderliter, Brandon N.	
	Examiner RYAN D COYER	Art Unit 2191	AIA (FITF) Status Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☑ Responsive to communication(s) filed on 12/20/2019.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☑ This action is **FINAL.** 2b) ☐ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5) ☑ Claim(s) 1-20 is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6) ☐ Claim(s) _____ is/are allowed.

7) ☑ Claim(s) 1-20 is/are rejected.

8) ☐ Claim(s) _____ is/are objected to.

9) ☐ Claim(s) _____ are subject to restriction and/or election requirement

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to **PPHfeedback@uspto.gov.**

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)

2) ☑ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date 10/22/2019; 2/26/2020.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

4) ☐ Other: _____.

DETAILED ACTION

This action is in response to an amendment to application 16/443273, filed on 12/20/2019. Claims 1-20 are pending. The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

Claim Rejections - 35 USC § 102

In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a)(2) the claimed invention was described in a patent issued under section 151, or in an application for patent published or deemed published under section 122(b), in which the patent or application, as the case may be, names another inventor and was effectively filed before the effective filing date of the claimed invention.

Claims 1, 3, 4, 6-8, 10, 12-14, 16-18, and 19 are rejected under 35 U.S.C. 102 as being anticipated by USPGPUB 2016/0105022, hereinafter "Oehring."

Regarding claim 1, Oehring anticipates **"A system comprising:**

a mobile unit; (see, e.g., Oehring, fig. 3, para. 31, 52; "trailerized")

at least one generator; (see, e.g., Oehring, fig. 5 sec. 222A, 222B & associated text) **and**

at least one switch gear, the at least one generator coupled to the at least

one switch gear on the mobile unit, the mobile unit configured to provide power generated by the at least one generator in electrical buses for at least one load on one or more external mobile units." (see, e.g., Oehring, para. 45-47, 52).

Regarding claim 2, Oehring anticipates **"The system of claim 1, wherein the system is part of a hydraulic fracturing system that consumes the power and that comprises a wellbore and at least one pressuring system to create fractures in a subterranean formation that surrounds the wellbore."** (see, e.g., Oehring, fig. 1 & associated text; para. 19; "hydraulic fracturing operation").

Regarding claim 3, Oehring anticipates **"The system of claim 1, further comprising: at least one fracturing pump (FP) mobile unit of the one or more external mobile units, the at least one FP mobile unit physically external relative to the mobile unit; and at least one transformer provided between the at least one FP mobile unit and the at least one switch gear to condition the power supplied to the at least one FP mobile unit."** (see, e.g., Oehring, fig. 1 & associated text; para. 19, 29-33).

Regarding claim 4, Oehring anticipates **"The system of claim 1, further comprising: a predetermined number of FP mobile units comprised in the one or more external mobile units, the predetermined number of FP mobile units determined by a maximum of the power available from the at least one generator and handled by the at least one switch gear."** (see, e.g., Oehring, para. 33-36).

Regarding claim 6, Oehring anticipates **"The system of claim 1, further comprising: the at least one switchgear being physically arranged to replace an electronic equipment room (EER) of at least one mobile unit of the one or more**

external mobile units that is designed to comprise the EER." (see, e.g., Oehring, para. 49-50).

Regarding claim 7, Oehring anticipates **"The system of claim 1, further comprising: at least one Variable Frequency Drive (VFD); and at least one Motor Control Center (MCC), the VFD and the MCC being on individual ones of the one or more external mobile units that is physically external relative to the mobile unit."** (see, e.g., Oehring, fig. 5 & associated text).

Regarding claim 8, Oehring anticipates **"The system of claim 1, further comprising: one or more power cable interconnects configured to couple the mobile unit with a second mobile unit of the one or more external mobile units, the second mobile unit having at least one second generator and at least one second switch gear, the one or more power cable interconnects to transmit power in support of redundancy or load sharing between the mobile unit and the second mobile unit."** (see, e.g., Oehring, para. 22, 33-36, 45-49).

Regarding claim 9, Oehring anticipates **"The system of claim 1, further comprising: an interconnect between transformers of the at least two mobile units of the one or more external mobile units, the interconnect for load sharing between the transformers comprising: at least one load sharing switch gear optionally associated with at least one of the transformers and configured for load sharing on an incoming side of the at least one of the transformers such that the at least one load sharing switch gear, associated bus bars, and associated cable interconnects are sized based at least in part on current available for a voltage output of a secondary side of the of the at least one of the transformers;**

or the at least one load sharing switch gear configured for load sharing on an outgoing side of the at least one of the transformers such that the at least one load sharing switch gear, the associated bus bars, and the associated cable interconnects are sized based at least in part on the current available at the secondary side of the transformer." (see, e.g., Oehring, para. 22, 33-36, 45-49; it is inherent to the disclosure of Oehring that all cables and interconnects would be sized and rated appropriately for available current).

Regarding claim 10, Oehring anticipates **"The system of claim 1, further comprising: at least one load sharing FP mobile unit coupled to share the at least one load of a second FP mobile unit of the one or more external mobile units; and an optional datavan in the one or more external mobile units for control of the at least one load sharing FP mobile unit, the optional datavan offering the control of the at least one load sharing FP mobile unit instead of a second control available from within the mobile unit."** (see, e.g., Oehring, para. 45, 49, 50-51).

Regarding claims 12, 13, 14, 16, 17, 18, and 19, the instant claims are equivalents of claims 1, 3, 4, 6, 7, 8, and 10, respectively, and differ only by statutory class. Accordingly, the rejections of claims 1, 3, 4, 6, 7, 8, and 10 apply, *mutatis mutandis*, respectively to claims 12, 13, 14, 16, 17, 18, and 19.

Claim Rejections - 35 USC § 103

In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of

rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

> A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103 are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.

3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 5, 11, 15, and 20 are rejected under 35 U.S.C. 103 as being unpatentable over Oehring.

Regarding claim 5, Oehring discloses **"The system of claim 1, further comprising: a predetermined number of generators comprising the at least one generator,"** but does not appear to disclose the further limitation **"the predetermined number of generators having individual power output values that is lesser than a power output of an isolated single generator occupying all available space in an independent mobile unit physically external to the mobile unit."** Put differently,

Oehring does not appear to disclose, explicitly, the claimed arrangement of a predetermined number of generators each having individual power output values that "is lesser than" (sic) a single generator occupying an entire trailer. However, as would have been known in the art before the effective filing date of the instant application, it would have appeared obvious to one of ordinary skill in the art that a single generator occupying an entire trailer would have a "power output value" greater than that of a single generator on a trailer containing many generators. Official notice is hereby invoked to that effect. A clear and predictable benefit of using multiple generators on a trailer (rather than a larger generator occupying the entire trailer) would have been the ability to more finely calibrate the amount of generated power by choosing an appropriate number of smaller, cheaper generators, potentially avoiding the unnecessary expense of buying and maintaining a single large generator. Accordingly, the claimed arrangement is an obvious addition to Oehring and therefore is unpatentable over Oehring.

Regarding claim 11, Oehring discloses **"The system of claim 1,"** but does not appear to disclose the limitations **"further comprising: an isolation transformer in one of the one or more external mobile units, the isolation transformer being physically external relative to the mobile unit and being configured for filtering harmonics between the at least one generator and the at least one load in the one or more external mobile units."** In other words, Oehring does not appear to disclose an isolation transformer configured to filter harmonics occurring between and among generators and loads in a power distribution arrangement. However, such isolation transformers, configured to filter harmonics occurring between and among generators

and loads in a power distribution arrangement, were known to those of ordinary skill in the art before the effective filing date of the instant application. Official Notice is hereby invoked to that effect. Combining the noticed isolation transformer with the power distribution arrangement of Oehring, thereby obtaining the invention of the instant claim, would have appeared to one of ordinary skill in the art, before the effective filing date of the instant application, as obvious to try. A clear and predictable benefit of so combining would have appeared as the ability to improve the performance and reliability of Oehring's power distribution arrangement. Accordingly, the instant claim is unpatentable over Oehring.

Regarding claims 15 and 20, the instant claims are equivalents of claims 5 and 11, respectively, and differ only by statutory class. Accordingly, the rejections of claims 5 and 11 apply, *mutatis mutandis,* respectively to claims 15 and 20.

Response to Arguments

Applicants' amendment to claim 9 has overcome the standing informality objection, which is withdrawn. Applicants do not specifically traverse the standing rejections under 35 U.S.C. 103 and those rejections are maintained. Applicants' arguments in traversal of the standing rejections under 35 U.S.C. 102 have been carefully reviewed but are not found persuasive. Applicants argue that the cited Oehring reference "reports providing generators . . . and separately, switchgears" and that the reference therefore fails to disclose "the at least one generator coupled to the at least one switch gear on the mobile unit" as claimed. (Remarks filed 12/20/2019, pg. 7-8, emphasis added). Examiner respectfully disagrees. Figure 5, sec. 222A and 222B of

Oehring are cited in the rejections as disclosing the claimed generator. Paragraph 50 of Oehring, which describes figure 5, recites "[t]he power from the generators 222A of group A goes to switchgear 235A." It is indisputable that the "generators 222A" are 'coupled' to the "switchgear 235A" as described in figure 5 of Oehring. Applicants' arguments' in traversal therefore are not persuasive and the traversed rejections are maintained.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RYAN D. COYER whose telephone number is (571) 270-5306 and whose fax number is (571) 270-6306. The examiner normally can be reached via phone on Monday-Friday 12pm-10pm Eastern Time. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Zhen, can

be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ryan D. Coyer/
Primary Examiner, Art Unit 2191

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/443,273	Hinderliter, Brandon N.
	Examiner	**Art Unit**
	RYAN D COYER	2191

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

CLAIMS

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	09/16/2019	03/30/2020							
	1	✓	✓							
	2	✓	✓							
	3	✓	✓							
	4	✓	✓							
	5	✓	✓							
	6	✓	✓							
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	14	✓	✓							
	15	✓	✓							
	16	✓	✓							
	17	✓	✓							
	18	✓	✓							
	19	✓	✓							
	20	✓	✓							

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/443,273	Hinderliter, Brandon N.
	Examiner	Art Unit
	RYAN D COYER	2191

CPC - Searched*		
Symbol	**Date**	**Examiner**
G05B15/02 (text-delimited)	09/16/2019	RDC
H02J3/14 (text-delimited)	09/16/2019	RDC
H02J8/066 (text-delimited)	09/16/2019	RDC
E21B43/26 (text-delimited)	09/16/2019	RDC

CPC Combination Sets - Searched*		
Symbol	**Date**	**Examiner**

US Classification - Searched*			
Class	**Subclass**	**Date**	**Examiner**
700	293 (text-delimited)	09/16/2019	RDC

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	**Date**	**Examiner**
EAST Search	09/16/2019	RDC
PLUS Search	09/16/2019	RDC
Inventor Name & Double Patenting Search	09/16/2019	RDC
NPL Search	09/16/2019	RDC

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/443,273	Hinderliter, Brandon N.
	Examiner	Art Unit
	RYAN D COYER	2191

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (02-18)
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16443273
Filing Date	2019-06-17
First Named Inventor	Brandon N. Hinderliter
Art Unit	2191
Examiner Name	Ryan Coyer
Attorney Docket Number	047158.100042

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	10280724		2019-05-07	Hinderliter	
	2	10254732		2019-04-09	Oehring	
	3	10232332		2019-03-19	Oehring	
	4	5172009		1992-12-15	Mohan	
	5	6484490		2002-11-26	Olsen	
	6	7581379		2009-09-01	Yoshida	
	7	8616005		2013-12-31	Cousino	
	8	10008880		2018-06-26	Vicknair	

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /RDC/

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	Examiner Name	Ryan Coyer
	Attorney Docket Number	047158.100042

	9	5755096		1998-05-26	Holleyman	

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Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20160105022		2016-04-14	Oehring	
	2	20160265457		2016-09-15	Stephenson	
	3	20140219824		2014-08-07	Burnette	
	4	20160281484		2016-09-29	Lestz	
	5	20190010793		2019-01-10	Hinderliter	
	6	20150211512		2015-07-30	Wiegman	
	7	20170234250		2017-08-17	Janik	
	8	20120049625		2012-03-01	Hopwood	

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	9	20190120024		2019-04-25	Oehring	
	10	20190010793		2019-01-10	Hinderliter	
	11	20180028992		2018-02-01	Stegemoeller	
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	20	20150027712		2015-01-29	Vicknair	
	21	20160290563		2016-10-06	Diggins	
	22	20170159570		2017-06-08	Bickert	
	23	20140255214		2014-09-11	Burnette	
	24	20190245348		2019-08-08	Hinderliter	
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	27	20100038907		2010-02-18	Hunt	
	28	20190162061		2019-05-30	Stephenson	
	29	20190178235		2019-06-13	Coskrey	
	30	20190063309		2019-02-28	Davis	

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	Examiner Name	Ryan Coyer
	Attorney Docket Number	047158.100042

	31	20040167738		2004-08-26	Miller			

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Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2]	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1	2707269	CA		2010-12-09	Kidd		X

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Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1	International Search Report and Written Opinion mailed July 9, 2019 in corresponding PCT Application No. PCT/US2019/027584	X
	2	Office Action mailed June 11, 2019 in corresponding US Application No. 16/210,749	☒
	3	Office Action mailed May 10, 2019 in corresponding US Application No. 16/268,030	☒
	4	Canadian Office Action mailed May 30, 2019 in corresponding CA Application No. 2,833,711	☒
	5	Canadian Office Action mailed June 20, 2019 in corresponding CA Application No. 2,964,597	☒

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	6	Office Action mailed June 7, 2019 in corresponding US Application No. 16/268,030	☒
	7	International Search Report and Written Opinion mailed September 11, 2019 in related PCT Application No. PCT/US2019/037493	☒
	8	Office Action mailed August 19, 2019 in related U.S. Patent Application No. 15/356,436	☒
	9	Office Action mailed October 2, 2019 in related U.S. Patent Application No. 16/152,732	☒
	10	Office Action mailed September 11, 2019 in related U.S. Patent Application No. 16/268,030	☒
	11	Office Action mailed October 11, 2019 in related U.S. Patent Application No. 16/385,070	☒
	12	Office Action mailed September 3, 2019 in related U.S. Patent Application No. 15/994,772	☒
	13	Canadian Office Action mailed October 1, 2019 in related Canadian Patent Application No. 2,936,997	☒

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EXAMINER SIGNATURE

Examiner Signature	/Ryan D. Coyer/ (03/30/2020)	Date Considered	03/30/2020

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Art Unit	2191
Examiner Name	Ryan Coyer
Attorney Docket Number	047158.100042

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

☒ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Taylor P. Evans/	Date (YYYY-MM-DD)	2019-10-22
Name/Print	Taylor P. Evans	Registration Number	60506

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

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First Named Inventor	Brandon N. Hinderliter
Art Unit	2191
Examiner Name	Ryan D. Coyer
Attorney Docket Number	047158.100042

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Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	9119326		2015-08-25	McDonnell	
	2	5050673		1991-09-24	Baldridge	
	3	7308933		2007-12-18	Mayfield	
	4	6273193		2001-08-14	Hermann	
	5	5366324		1994-11-22	Arlt	
	6	8646521		2014-02-11	Bowen	
	7	4759674		1988-07-26	Schroder	
	8	1656861		1928-01-17	Leonard	

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	Examiner Name	Ryan D. Coyer
	Attorney Docket Number	047158.100042

	9	10227854		2019-03-12	Glass	
	10	9932799		2018-04-03	Symchuk	
	11	6936947		2005-08-30	Leijon	
	12	7835140		2010-11-16	Mori	
	13	10393108		2019-08-27	Chong	
	14	10378326		2019-08-13	Morris	
	15	10371012		2019-08-06	Davis	
	16	3302069		1967-01-31	Webster	
	17	9728354		2017-08-08	Skolozdra	
	18	10436026		2019-10-08	Ounadjela	
	19	10246984		2019-04-02	Payne	

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	20	10287873		2019-05-14	Filas	
	21	8800652		2014-08-12	Bartko	
	22	9915128		2018-03-13	Hunter	
	23	10196878		2019-02-05	Hunter	
	24	9963961		2018-05-08	Hardin	
	25	10260327		2019-04-16	Kajaria	
	26	7926562		2011-04-19	Poitzsch	
	27	7082993		2006-08-01	Ayoub	
	28	8096354		2012-01-17	Poitzsch	
	29	9976351		2018-05-22	Randall	
	30	10309205		2019-06-04	Randall	

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	31	10407990		2019-09-10	Oehring	
	32	2407796		1946-09-17	Page	
	33	2416848		1947-03-04	Rothery	
	34	7894757		2011-07-26	Keast	
	35	1656861		1928-01-17	Leonard	

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	1	20150354322		2015-12-10	Vicknair	
	2	20170016433		2017-01-19	Chong	
	3	20050061548		2005-03-24	Hooper	
	4	20150053426		2015-02-26	Smith	

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	5	20120247783		2012-10-04	Berner, Jr.	
	6	20120222865		2012-09-06	Larson	
	7	20090145611		2009-06-11	Pallini Jr.	
	8	20080041596		2008-02-21	Blount	
	9	20170036872		2017-02-09	Wallace	
	10	20180363437		2018-12-20	Coli	
	11	20080017369		2008-01-24	Sarada	
	12	20190203572		2019-07-04	Morris	
	13	20180245428		2018-08-30	Richards	
	14	20190316447		2019-10-17	Oehring	
	15	20190226317		2019-07-25	Payne	

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /RDC/

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16443273
	Filing Date	2019-06-17
	First Named Inventor	Brandon N. Hinderliter
	Art Unit	2191
	Examiner Name	Ryan D. Coyer
	Attorney Docket Number	047158.100042

	16	20190100989		2019-04-04	Stewart	
	17	20190178057		2019-06-13	Hunter	
	18	20180216455		2018-08-02	Andreychuk	
	19	20190203567		2019-07-04	Ross	
	20	20170146189		2017-05-25	Herman	
	21	20190292891		2019-09-26	Kajaria	
	22	20190292866		2019-09-26	Ross	
	23	20190128080		2019-05-02	Ross	
	24	20180363437		2019-12-20	Coli	
	25	20170030177		2017-02-02	Oehring	
	26	20080017369		2008-01-24	Sarada	

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /RDC/

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	Art Unit	2191
	Examiner Name	Ryan D. Coyer
	Attorney Docket Number	047158.100042

	27	20170036872	2017-02-09	Wallace	

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FOREIGN PATENT DOCUMENTS Remove

Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2]	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1	2787814	CA		2014-02-21	Pawlick		×
	2	2978706	CA		2016-09-09	Payne		☒
	3	2945579	CA		2019-10-08	Oehring		☒
	4	2944980	CA		2017-02-12	Oehring		☒
	5	2849825	CA		2018-07-17	Bartko		☒
	6	3000322	CA		2013-04-18	Bartko		☒
	7	2797081	CA		2019-09-10	Hunter		☒
	8	3050131	CA		2011-11-03	Hunter		☒

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	Art Unit	2191
	Examiner Name	Ryan D. Coyer
	Attorney Docket Number	047158.100042

	9	3018485	CA		2017-08-10	Herman		☒
	10	2482943	CA		2011-05-24	Ayoub		☒
	11	2919649	CA		2019-02-26	Randall		☒
	12	2919666	CA		2019-07-16	Randall		☒
	13	3006422	CA		2017-06-01	Green		☒
	14	2406801	CA		2001-11-01	Demetrius		☒

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NON-PATENT LITERATURE DOCUMENTS Remove

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T5
	1	International Search Report and Written Opinion mailed January 2, 2020 in related PCT Application No. PCT/US19/55325	☒
	2	Notice of Allowance mailed January 9, 2020 in related U.S. Patent Application No. 16/570,331	☒
	3	Non-Final Office Action mailed December 23, 2019 in related U.S. Patent Application No. 16/597,008	☒

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /RDC/

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16443273
	Filing Date	2019-06-17
	First Named Inventor	Brandon N. Hinderliter
	Art Unit	2191
	Examiner Name	Ryan D. Coyer
	Attorney Docket Number	047158.100042

	4	Non-Final Office Action mailed January 10, 2020 in related U.S. Patent Application No. 16/597,014	☒
	5	Non-Final Office Action mailed December 6, 2019 in related U.S. Patent Application No. 16/564,186	☒
	6	International Search Report and Written Opinion mailed November 26, 2019 in related PCT Application No. PCT/US19/51018	☒
	7	International Search Report and Written Opinion mailed February 11, 2020 in related PCT Application No. PCT/US2019/055323	☒

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EXAMINER SIGNATURE

Examiner Signature	/Ryan D. Coyer/ (03/30/2020)	Date Considered	03/30/2020

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16443273
Filing Date	2019-06-17
First Named Inventor	Brandon N. Hinderliter
Art Unit	2191
Examiner Name	Ryan D. Coyer
Attorney Docket Number	047158.100042

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☒ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☒ See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Taylor P. Evans/	Date (YYYY-MM-DD)	2020-02-26
Name/Print	Taylor P. Evans	Registration Number	60506

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	58	("10196878" | "10227854" | "10246984" | "10260327" | "10287873" | "10309205" | "10371012" | "10378326" | "10393108" | "10407990" | "10436026" | "1656861" | "20050061548" | "20080017369" | "20080041596" | "20090145611" | "20120222865" | "20120247783" | "20150053426" | "20150354322" | "20170016433" | "20170030177" | "20170036872" | "20170146189" | "20180216455" | "20180245428" | "20180363437" | "20190100989" | "20190128080" | "20190178057" | "20190203567" | "20190203572" | "20190226317" | "20190292866" | "20190292891" | "20190316447" | "2407796" | "2416848" | "3302069" | "4759674" | "5050673" | "5366324" | "6273193" | "6936947" | "7082993" | "7308933" | "7835140" | "7894757" | "7926562" | "8096354" | "8646521" | "8800652" | "9119326" | "9728354" | "9915128" | "9932799" | "9963961" | "9976351").PN.	US-PGPUB; USPAT	OR	ON	2020/03/30 07:14
L2	39	("10008880" | "10232332" | "10254732" | "10280724" | "20030056514" | "20040167738" | "20080264625" | "20100038907" | "20100045109" | "20120049625" | "20140060658" | "20140219824" | "20140255214" | "20150027712" | "20150136043" | "20150211512" | "20160105022" | "20160265457" | "20160281484" | "20160290563" | "20170096885" | "20170159570" | "20170218727" | "20170234250" | "20180028992" | "20190010793" | "20190063309" | "20190112910" | "20190120024" | "20190162061" | "20190169971" | "20190178235" | "20190211661" | "20190245348" | "5172009" | "5755096" | "6484490" | "7581379" | "8616005").PN.	US-PGPUB; USPAT	OR	ON	2020/03/30 07:14
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S2	751	700/293.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/01 21:33
S3	58564	G05B15/02.cpc. E21B43/26.cpc. H02J3/14.cpc. H02J9/066.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/01 21:34
S4	50	(US-20120149610-$).did. or (US-6601648-$ or US-6849581-$ or US-3559855-$ or US-3707945-$ or US-3751576-$ or US-4022279-$ or US-4109964-$ or US-4387770-$ or US-4641709-$ or US-4662440-$ or US-4693382-$ or US-4752014-$ or US-5331155-$ or US-5384085-$ or US-5798469-$ or US-5885471-$ or US-5905939-$ or US-6023841-$ or US-6138760-$ or US-6321473-$ or US-6398798-$ or US-6435277-$ or US-6439310-$ or US-6446729-$ or US-6507095-$ or US-6543538-$).did. or (US-6575242-$ or US-6626241-$ or US-6695057-$ or US-6725934-$ or US-6938693-$ or US-6962203-$ or US-6978832-$ or US-7066257-$ or US-7090153-$ or US-7104320-$ or US-7169691-$ or US-7191833-$ or US-7243723-$ or US-7256160-$ or US-7308934-$ or US-7341103-$ or US-7341116-$ or US-7393984-$ or US-7416022-$ or US-7503404-$ or US-7543635-$ or US-7681635-$ or US-7709772-$).did.	US-PGPUB; USPAT	OR	ON	2017/10/01 21:34
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		4567657-$ or US-4787827-$ or US-4793820-$ or US-4799801-$ or US-4804303-$ or US-4942837-$ or US-5341122-$ or US-5678921-$ or US-5732984-$).did.				
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S7	37	multiple with generator same overload$5 with prevent$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/01 21:35
S8	100	(many several multiple) with generator same overload$5 with prevent$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/01 21:35
S9	1	multiple with generator same overload$5 with shed$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/01 21:37
S10	6	(many several multiple) with generator same overload$5 with shed$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/01 21:38
S11	828	(many several multiple) with generator same (fracking fracturing mining extracting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/01 21:41
S12	226	(many several multiple) with generators same (fracking fracturing mining extracting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/01 21:41
S13	4277	(many several multiple) with (sources generators engines) same (fracking fracturing mining extracting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/01 21:44

S14	1736	(many several multiple) with (sources generators engines) with (fracking fracturing mining extracting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/01 21:44
S15	86	(many several multiple) with (sources generators engines) with (fracking fracturing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/01 21:44
S16	2	"7675189".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/01 21:48
S17	5	"20140096974"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/01 21:49
S18	2	"20120255734".did.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/01 21:51
S19	3	"20140096974".did.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/01 21:54
S20	1533	load with shed$5 same signal	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/01 21:55
S21	14	load with shed$5 same signal same (ma milliamps milliamperes)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/01 21:55
S22	16	(many several multiple) with (generators) with (fracking fracturing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2017/10/02 09:10

			DERWENT; IBM_TDB			
S23	30	(parallel redundant) with (power) with (fracking fracturing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:11
S24	844	(parallel redundant) with (power) with (drilling boring)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:14
S25	6	(parallel redundant) with (power electricity) with (drilling boring) same (overload failover shedding)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:15
S26	4	(parallel redundant) with (power electricity) with (drilling boring) same (failover backup)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:17
S27	3567	(parallel redundant) with (power electricity) with (failover backup)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:18
S28	949	(parallel redundant) with (power electricity) with (generator source) same (failover backup)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:18
S29	24	(parallel redundant) with (power electricity) with (generator source) same (failover backup) and (drilling fracking boring mining)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:18
S30	133	parallel with generator same overload$5 with prevent$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/02 09:24
S31	24	backup with generator same overload$5 with prevent$5	US-PGPUB; USPAT; USOCR;	OR	ON	2017/10/02 09:25

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S32	0	backup with generator same fracking	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/02 09:27
S33	9	backup with generator same fracturing	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/02 09:27
S34	10	backup with generator same5 fracturing	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/02 09:28
S35	131	backup with generator same5 (mining boring drilling)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/02 09:28
S36	36	backup with power same5 fracturing	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/02 09:30
S37	20	backup with electric$5 same5 fracturing	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/02 09:32
S38	79	multiple adj independent with turbines	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/02 09:44
S39	0	multiple adj independent with turbines same electricity	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/02 09:44
S40	11	multiple adj independent with turbines	US-PGPUB;	OR	ON	2017/10/02

		same power	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			09:44
S41	98	multiple adj independent with generator same power	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/02 09:45
S42	4	multiple adj independent with generator same power same backup	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/02 09:46
S43	146	multiple adj independent with generators	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:46
S44	0	multiple adj independent with generators same backup	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:47
S45	1	multiple adj independent with generators same redundant	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:47
S46	2	multiple adj independent with generators same4 redundant	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:47
S47	3	multiple adj independent with generators same4 redundan$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:48
S48	0	multiple adj independent with generators same4 failover	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2017/10/02 09:49

			IBM_TDB			
S49	2	multiple adj independent with generators same4 overload	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:49
S50	0	multiple adj independent with generators same4 sheding	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:50
S51	0	multiple adj independent with generators same4 shedding	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:50
S52	3	multiple adj independent with generators and on-site	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:52
S53	1092	backup adj generator	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:53
S54	5	backup adj generator same load adj shed$6	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:54
S55	0	backup adj generators same load adj shed$6	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:55
S56	11886	second adj generator	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:55
S57	45	second adj generator same backup	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2017/10/02 09:55

			EPO; JPO; DERWENT; IBM_TDB			
S58	5	("20130175038" | "20130175039" | "20140246211" | "20160230525" | "2753940").PN.	US-PGPUB; USPAT	OR	OFF	2018/05/12 18:53
S59	18	("20150068724" | "20150068754" | "20150300145" | "20150314225" | "20160177675" | "20160208593" | "20160208594" | "20160326855" | "20160369609" | "20170036178" | "20170037718" | "20170104389" | "20170259227" | "9121257" | "9475020" | "9475021" | "9534473" | "9562420").PN.	US-PGPUB; USPAT	OR	OFF	2018/05/12 18:54
S60	17	(S58 S59) and generator	US-PGPUB; USPAT	OR	OFF	2018/05/12 18:56
S61	0	(S58 S59) and generator with (fail loss lose lost)	US-PGPUB; USPAT	OR	OFF	2018/05/12 18:56
S62	0	(S58 S59) and generator with (fail?? loss lose lost)	US-PGPUB; USPAT	OR	OFF	2018/05/12 18:56
S63	1	(S58 S59) and generator with second	US-PGPUB; USPAT	OR	OFF	2018/05/12 18:56
S64	183	("20050116541" | "20080208478" | "20090095482" | "20100051272" | "20100146981" | "20100293973" | "20120255734" | "20140138079" | "20140174717" | "20150144336" | "20170037717" | "20170218843" | "20170222409" | "3849662" | "4442665" | "4676063" | "5790972" | "6477852" | "7717193" | "7845413" | "7977824" | "8154419" | "8232892" | "8261528" | "8616274" | "9450385" | "9611728" | "9650879" | "9745840" | "20090200035" | "5736838" | "8692408" | "20030138327" | "20070226089" | "20070278140" | "20090153354" | "20090308602" | "20100250139" | "20120205400" | "20130025706" | "20130199617" | "20160221220" | "20170022788" | "20170028368" | "20170030177" | "20170030178" | "4506982" | "4538916" | "4793386" | "4922463" | "5590976" | "6808303" | "9587649" | "1671436" | "20040000077" | "20070187163" | "20070201305" | "20080112802" | "20080137266" | "20080217024" | "20080264649" | "20090065299" | "20090188181" | "20090260826" | "20100000508" | "20100132949" | "20100303655" | "20100322802" | "20110005757" | "20110017468" | "20110085924" | "20110272158" | "20120018016" | "20120085541" | "20120127635" | "20120205301" | "20130233542" | "20130306322" | "20130341029" | "20140000899" | "20140010671" | "20140096974" | "20140124162" | "20140251623" | "20150083426" | "20150114652" | "20150159911" |	US-PGPUB; USPAT	OR	ON	2018/05/12 18:57

		"20150175013" | "20150176386" | "20150211524" | "20150225113" | "20150252661" | "20160032703" | "20160105022" | "20160177678" | "20160208592" | "20160258267" | "20160273328" | "20160290114" | "20160319650" | "20160326854" | "20160348479" | "20160349728" | "2220622" | "2248051" | "3061039" | "3066503" | "3334495" | "3722595" | "3764233" | "3773140" | "3837179" | "3881551" | "4037431" | "4151575" | "4226299" | "4456092" | "4512387" | "4845981" | "5025861" | "5130628" | "5131472" | "5422550" | "5548093" | "5655361" | "5865247" | "5879137" | "5894888" | "5907970" | "6142878" | "6164910" | "6202702" | "6254462" | "6271637" | "6315523" | "6491098" | "6529135" | "6776227" | "6802690" | "6931310" | "7170262" | "7173399" | "7312593" | "7336514" | "7445041" | "7500642" | "7525264" | "7563076" | "7683499" | "7755310" | "7807048" | "8037936" | "8054084" | "8083504" | "8096891" | "8146665" | "8272439" | "8310272" | "8354817" | "8474521" | "8534235" | "8573303" | "8596056" | "8727068" | "8760657" | "8774972" | "8789601" | "8807960" | "8838341" | "8857506" | "8899940" | "8905056" | "8905138" | "8997904" | "9018881" | "9051822" | "9067182" | "9103193" | "9140110" | "9160168" | "9322239" | "9366114" | "9410410").PN.				
S65	786	700/293.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S66	63795	G05B15/02.cpc. E21B43/26.cpc. H02J3/14.cpc. H02J9/066.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S67	50	(US-20120149610-$).did. or (US-6601648-$ or US-6849581-$ or US-3559855-$ or US-3707945-$ or US-3751576-$ or US-4022279-$ or US-4109964-$ or US-4387770-$ or US-4641709-$ or US-4662440-$ or US-4693382-$ or US-4752014-$ or US-5331155-$ or US-5384085-$ or US-5798469-$ or US-5885471-$ or US-5905939-$ or US-6023841-$ or US-6138760-$ or US-6321473-$ or US-6398798-$ or US-6435277-$ or US-6439310-$ or US-6446729-$ or US-6507095-$ or US-6543538-$).did. or	US-PGPUB; USPAT	OR	ON	2018/05/12 18:57

		(US-6575242-$ or US-6626241-$ or US-6695057-$ or US-6725934-$ or US-6938693-$ or US-6962203-$ or US-6978832-$ or US-7066257-$ or US-7090153-$ or US-7104320-$ or US-7169691-$ or US-7191833-$ or US-7243723-$ or US-7256160-$ or US-7308934-$ or US-7341103-$ or US-7341116-$ or US-7393984-$ or US-7416022-$ or US-7503404-$ or US-7543635-$ or US-7681635-$ or US-7709772-$).did.				
S68	50	(US-20070277978-$ or US-20080035337-$ or US-20120118397-$ or US-20130168484-$ or US-20130284582-$ or US-20130313353-$ or US-20140144623-$ or US-20150144336-$ or US-20150344263-$ or US-20160272877-$ or US-20160369608-$ or US-20170030484-$).did. or (US-5709267-$ or US-5497831-$ or US-5564499-$ or US-4265570-$ or US-4410387-$ or US-4574880-$ or US-4589491-$ or US-4825960-$ or US-4848486-$ or US-4898473-$ or US-4900157-$ or US-4909777-$ or US-5018578-$ or US-5025859-$ or US-5199491-$ or US-5224543-$ or US-5256729-$ or US-5375313-$ or US-5722490-$ or US-5755286-$ or US-6167964-$ or US-9371723-$ or US-9400065-$ or US-9550652-$ or US-5712766-$ or US-4290276-$).did. or (US-4313453-$ or US-4352382-$ or US-4527430-$ or US-4567657-$ or US-4787827-$ or US-4793820-$ or US-4799801-$ or US-4804303-$ or US-4942837-$ or US-5341122-$ or US-5678921-$ or US-5732984-$).did.	US-PGPUB; USPAT	OR	ON	2018/05/12 18:57
S69	0	S67 and S68	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S70	37	multiple with generator same overload$5 with prevent$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S71	100	(many several multiple) with generator same overload$5 with prevent$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S72	1	multiple with generator same overload$5 with shed$5	US-PGPUB; USPAT;	OR	ON	2018/05/12 18:57

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S73	6	(many several multiple) with generator same overload$5 with shed$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S74	884	(many several multiple) with generator same (fracking fracturing mining extracting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S75	235	(many several multiple) with generators same (fracking fracturing mining extracting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S76	4551	(many several multiple) with (sources generators engines) same (fracking fracturing mining extracting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S77	1856	(many several multiple) with (sources generators engines) with (fracking fracturing mining extracting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S78	93	(many several multiple) with (sources generators engines) with (fracking fracturing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S79	2	"7675189".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S80	5	"20140096974"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57

S81	2	"20120255734".did.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S82	3	"20140096974".did.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S83	1602	load with shed$5 same signal	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S84	14	load with shed$5 same signal same (ma milliamps milliamperes)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S85	19	(many several multiple) with (generators) with (fracking fracturing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S86	37	(parallel redundant) with (power) with (fracking fracturing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S87	892	(parallel redundant) with (power) with (drilling boring)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S88	6	(parallel redundant) with (power electricity) with (drilling boring) same (overload failover shedding)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S89	5	(parallel redundant) with (power electricity) with (drilling boring) same (failover backup)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2018/05/12 18:57

			DERWENT; IBM_TDB			
S90	3903	(parallel redundant) with (power electricity) with (failover backup)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S91	1008	(parallel redundant) with (power electricity) with (generator source) same (failover backup)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S92	24	(parallel redundant) with (power electricity) with (generator source) same (failover backup) and (drilling fracking boring mining)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S93	133	parallel with generator same overload$5 with prevent$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S94	24	backup with generator same overload$5 with prevent$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S95	0	backup with generator same fracking	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S96	9	backup with generator same fracturing	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S97	13	backup with generator same5 fracturing	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S98	146	backup with generator same5 (mining boring drilling)	US-PGPUB; USPAT; USOCR;	OR	ON	2018/05/12 18:57

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S99	39	backup with power same5 fracturing	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S100	22	backup with electric$5 same5 fracturing	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S101	87	multiple adj independent with turbines	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S102	0	multiple adj independent with turbines same electricity	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S103	11	multiple adj independent with turbines same power	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S104	101	multiple adj independent with generator same power	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S105	4	multiple adj independent with generator same power same backup	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S106	148	multiple adj independent with generators	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S107	0	multiple adj independent with generators	US-PGPUB;	OR	OFF	2018/05/12

		same backup	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			18:57
S108	1	multiple adj independent with generators same redundant	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S109	3	multiple adj independent with generators same4 redundant	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S110	4	multiple adj independent with generators same4 redundan$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S111	0	multiple adj independent with generators same4 failover	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S112	2	multiple adj independent with generators same4 overload	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S113	0	multiple adj independent with generators same4 sheding	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S114	0	multiple adj independent with generators same4 shedding	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S115	3	multiple adj independent with generators and on-site	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2018/05/12 18:57

			IBM_TDB			
S116	1205	backup adj generator	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S117	6	backup adj generator same load adj shed$6	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S118	0	backup adj generators same load adj shed$6	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S119	12405	second adj generator	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S120	47	second adj generator same backup	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S121	183	("20050116541" | "20080208478" | "20090095482" | "20100051272" | "20100146981" | "20100293973" | "20120255734" | "20140138079" | "20140174717" | "20150144336" | "20170037717" | "20170218843" | "20170222409" | "3849662" | "4442665" | "4676063" | "5790972" | "6477852" | "7717193" | "7845413" | "7977824" | "8154419" | "8232892" | "8261528" | "8616274" | "9450385" | "9611728" | "9650879" | "9745840" | "20090200035" | "5736838" | "8692408" | "20030138327" | "20070226089" | "20070278140" | "20090153354" | "20090308602" | "20100250139" | "20120205400" | "20130025706" | "20130199617" | "20160221220" | "20170022788" | "20170028368" | "20170030177" | "20170030178" | "4506982" | "4538916" | "4793386" | "4922463" | "5590976" | "6808303" | "9587649" | "1671436" | "20040000077" | "20070187163" | "20070201305" | "20080112802" | "20080137266" | "20080217024" | "20080264649" |	US-PGPUB; USPAT	OR	ON	2018/12/13 15:26

		"20090065299" | "20090188181" | "20090260826" | "20100000508" | "20100132949" | "20100303655" | "20100322802" | "20110005757" | "20110017468" | "20110085924" | "20110272158" | "20120018016" | "20120085541" | "20120127635" | "20120205301" | "20130233542" | "20130306322" | "20130341029" | "20140000899" | "20140010671" | "20140096974" | "20140124162" | "20140251623" | "20150083426" | "20150114652" | "20150159911" | "20150175013" | "20150176386" | "20150211524" | "20150225113" | "20150252661" | "20160032703" | "20160105022" | "20160177678" | "20160208592" | "20160258267" | "20160273328" | "20160290114" | "20160319650" | "20160326854" | "20160348479" | "20160349728" | "2220622" | "2248051" | "3061039" | "3066503" | "3334495" | "3722595" | "3764233" | "3773140" | "3837179" | "3881551" | "4037431" | "4151575" | "4226299" | "4456092" | "4512387" | "4845981" | "5025861" | "5130628" | "5131472" | "5422550" | "5548093" | "5655361" | "5865247" | "5879137" | "5894888" | "5907970" | "6142878" | "6164910" | "6202702" | "6254462" | "6271637" | "6315523" | "6491098" | "6529135" | "6776227" | "6802690" | "6931310" | "7170262" | "7173399" | "7312593" | "7336514" | "7445041" | "7500642" | "7525264" | "7563076" | "7683499" | "7755310" | "7807048" | "8037936" | "8054084" | "8083504" | "8096891" | "8146665" | "8272439" | "8310272" | "8354817" | "8474521" | "8534235" | "8573303" | "8596056" | "8727068" | "8760657" | "8774972" | "8789601" | "8807960" | "8838341" | "8857506" | "8899940" | "8905056" | "8905138" | "8997904" | "9018881" | "9051822" | "9067182" | "9103193" | "9140110" | "9160168" | "9322239" | "9366114" | "9410410").PN.				
S122	812	700/293.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S123	73471	G05B15/02.cpc. E21B43/26.cpc. H02J3/14.cpc. H02J9/066.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S124	50	(US-20120149610-$).did. or (US-	US-PGPUB;	OR	ON	2018/12/13

		6601648-$ or US-6849581-$ or US-3559855-$ or US-3707945-$ or US-3751576-$ or US-4022279-$ or US-4109964-$ or US-4387770-$ or US-4641709-$ or US-4662440-$ or US-4693382-$ or US-4752014-$ or US-5331155-$ or US-5384085-$ or US-5798469-$ or US-5885471-$ or US-5905939-$ or US-6023841-$ or US-6138760-$ or US-6321473-$ or US-6398798-$ or US-6435277-$ or US-6439310-$ or US-6446729-$ or US-6507095-$ or US-6543538-$).did. or (US-6575242-$ or US-6626241-$ or US-6695057-$ or US-6725934-$ or US-6938693-$ or US-6962203-$ or US-6978832-$ or US-7066257-$ or US-7090153-$ or US-7104320-$ or US-7169691-$ or US-7191833-$ or US-7243723-$ or US-7256160-$ or US-7308934-$ or US-7341103-$ or US-7341116-$ or US-7393984-$ or US-7416022-$ or US-7503404-$ or US-7543635-$ or US-7681635-$ or US-7709772-$).did.	USPAT			15:26
S125	50	(US-20070277978-$ or US-20080035337-$ or US-20120118397-$ or US-20130168484-$ or US-20130284582-$ or US-20130313353-$ or US-20140144623-$ or US-20150144336-$ or US-20150344263-$ or US-20160272877-$ or US-20160369608-$ or US-20170030484-$).did. or (US-5709267-$ or US-5497831-$ or US-5564499-$ or US-4265570-$ or US-4410387-$ or US-4574880-$ or US-4589491-$ or US-4825960-$ or US-4848486-$ or US-4898473-$ or US-4900157-$ or US-4909777-$ or US-5018578-$ or US-5025859-$ or US-5199491-$ or US-5224543-$ or US-5256729-$ or US-5375313-$ or US-5722490-$ or US-5755286-$ or US-6167964-$ or US-9371723-$ or US-9400065-$ or US-9550652-$ or US-5712766-$ or US-4290276-$).did. or (US-4313453-$ or US-4352382-$ or US-4527430-$ or US-4567657-$ or US-4787827-$ or US-4793820-$ or US-4799801-$ or US-4804303-$ or US-4942837-$ or US-5341122-$ or US-5678921-$ or US-5732984-$).did.	US-PGPUB; USPAT	OR	ON	2018/12/13 15:26
S126	0	S124 and S125	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S127	37	multiple with generator same overload$5 with prevent$5	US-PGPUB; USPAT; USOCR; FPRS;	OR	ON	2018/12/13 15:26

			EPO; JPO; DERWENT; IBM_TDB			
S128	101	(many several multiple) with generator same overload$5 with prevent$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S129	1	multiple with generator same overload$5 with shed$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S130	6	(many several multiple) with generator same overload$5 with shed$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S131	947	(many several multiple) with generator same (fracking fracturing mining extracting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S132	250	(many several multiple) with generators same (fracking fracturing mining extracting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S133	4876	(many several multiple) with (sources generators engines) same (fracking fracturing mining extracting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S134	2001	(many several multiple) with (sources generators engines) with (fracking fracturing mining extracting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S135	111	(many several multiple) with (sources generators engines) with (fracking fracturing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S136	2	"7675189".pn.	US-PGPUB; USPAT;	OR	OFF	2018/12/13 15:26

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S137	5	"20140096974"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S138	2	"20120255734".did.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S139	3	"20140096974".did.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S140	1669	load with shed$5 same signal	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S141	14	load with shed$5 same signal same (ma milliamps milliamperes)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S142	26	(many several multiple) with (generators) with (fracking fracturing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S143	47	(parallel redundant) with (power) with (fracking fracturing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S144	940	(parallel redundant) with (power) with (drilling boring)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26

S145	6	(parallel redundant) with (power electricity) with (drilling boring) same (overload failover shedding)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S146	5	(parallel redundant) with (power electricity) with (drilling boring) same (failover backup)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S147	4255	(parallel redundant) with (power electricity) with (failover backup)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S148	1063	(parallel redundant) with (power electricity) with (generator source) same (failover backup)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S149	26	(parallel redundant) with (power electricity) with (generator source) same (failover backup) and (drilling fracking boring mining)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S150	134	parallel with generator same overload$5 with prevent$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S151	26	backup with generator same overload$5 with prevent$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S152	0	backup with generator same fracking	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S153	10	backup with generator same fracturing	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2018/12/13 15:26

			DERWENT; IBM_TDB			
S154	15	backup with generator same5 fracturing	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S155	167	backup with generator same5 (mining boring drilling)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S156	46	backup with power same5 fracturing	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S157	24	backup with electric$5 same5 fracturing	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S158	92	multiple adj independent with turbines	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S159	0	multiple adj independent with turbines same electricity	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S160	12	multiple adj independent with turbines same power	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S161	104	multiple adj independent with generator same power	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S162	4	multiple adj independent with generator same power same backup	US-PGPUB; USPAT; USOCR;	OR	ON	2018/12/13 15:26

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S163	152	multiple adj independent with generators	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S164	0	multiple adj independent with generators same backup	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S165	1	multiple adj independent with generators same redundant	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S166	3	multiple adj independent with generators same4 redundant	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S167	5	multiple adj independent with generators same4 redundan$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S168	0	multiple adj independent with generators same4 failover	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S169	2	multiple adj independent with generators same4 overload	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S170	0	multiple adj independent with generators same4 sheding	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S171	0	multiple adj independent with generators	US-PGPUB;	OR	OFF	2018/12/13

		same4 shedding	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			15:26
S172	3	multiple adj independent with generators and on-site	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S173	1312	backup adj generator	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S174	7	backup adj generator same load adj shed$6	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S175	0	backup adj generators same load adj shed$6	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S176	12819	second adj generator	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S177	51	second adj generator same backup	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S178	5	("20130175038" | "20130175039" | "20140246211" | "20160230525" | "2753940").PN.	US-PGPUB; USPAT	OR	OFF	2018/12/13 15:26
S179	18	("20150068724" | "20150068754" | "20150300145" | "20150314225" | "20160177675" | "20160208593" | "20160208594" | "20160326855" | "20160369609" | "20170036178" | "20170037718" | "20170104389" | "20170259227" | "9121257" | "9475020" | "9475021" | "9534473" | "9562420").PN.	US-PGPUB; USPAT	OR	OFF	2018/12/13 15:26
S180	17	(S178 S179) and generator	US-PGPUB;	OR	OFF	2018/12/13

			USPAT			15:26
S181	0	(S178 S179) and generator with (fail loss lose lost)	US-PGPUB; USPAT	OR	OFF	2018/12/13 15:26
S182	0	(S178 S179) and generator with (fail?? loss lose lost)	US-PGPUB; USPAT	OR	OFF	2018/12/13 15:26
S183	1	(S178 S179) and generator with second	US-PGPUB; USPAT	OR	OFF	2018/12/13 15:26
S184	183	("20050116541" | "20080208478" | "20090095482" | "20100051272" | "20100146981" | "20100293973" | "20120255734" | "20140138079" | "20140174717" | "20150144336" | "20170037717" | "20170218843" | "20170222409" | "3849662" | "4442665" | "4676063" | "5790972" | "6477852" | "7717193" | "7845413" | "7977824" | "8154419" | "8232892" | "8261528" | "8616274" | "9450385" | "9611728" | "9650879" | "9745840" | "20090200035" | "5736838" | "8692408" | "20030138327" | "20070226089" | "20070278140" | "20090153354" | "20090308602" | "20100250139" | "20120205400" | "20130025706" | "20130199617" | "20160221220" | "20170022788" | "20170028368" | "20170030177" | "20170030178" | "4506982" | "4538916" | "4793386" | "4922463" | "5590976" | "6808303" | "9587649" | "1671436" | "20040000077" | "20070187163" | "20070201305" | "20080112802" | "20080137266" | "20080217024" | "20080264649" | "20090065299" | "20090188181" | "20090260826" | "20100000508" | "20100132949" | "20100303655" | "20100322802" | "20110005757" | "20110017468" | "20110085924" | "20110272158" | "20120018016" | "20120085541" | "20120127635" | "20120205301" | "20130233542" | "20130306322" | "20130341029" | "20140000899" | "20140010671" | "20140096974" | "20140124162" | "20140251623" | "20150083426" | "20150114652" | "20150159911" | "20150175013" | "20150176386" | "20150211524" | "20150225113" | "20150252661" | "20160032703" | "20160105022" | "20160177678" | "20160208592" | "20160258267" | "20160273328" | "20160290114" | "20160319650" | "20160326854" | "20160348479" | "20160349728" | "2220622" | "2248051" | "3061039" | "3066503" | "3334495" | "3722595" | "3764233" | "3773140" | "3837179" | "3881551" | "4037431" | "4151575" | "4226299" | "4456092" | "4512387" | "4845981" | "5025861" | "5130628" | "5131472" | "5422550" | "5548093" | "5655361" | "5865247" | "5879137" | "5894888" | "5907970" | "6142878" |	US-PGPUB; USPAT	OR	ON	2018/12/13 15:26

		"6164910" | "6202702" | "6254462" | "6271637" | "6315523" | "6491098" | "6529135" | "6776227" | "6802690" | "6931310" | "7170262" | "7173399" | "7312593" | "7336514" | "7445041" | "7500642" | "7525264" | "7563076" | "7683499" | "7755310" | "7807048" | "8037936" | "8054084" | "8083504" | "8096891" | "8146665" | "8272439" | "8310272" | "8354817" | "8474521" | "8534235" | "8573303" | "8596056" | "8727068" | "8760657" | "8774972" | "8789601" | "8807960" | "8838341" | "8857506" | "8899940" | "8905056" | "8905138" | "8997904" | "9018881" | "9051822" | "9067182" | "9103193" | "9140110" | "9160168" | "9322239" | "9366114" | "9410410").PN.				
S185	812	700/293.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S186	73471	G05B15/02.cpc. E21B43/26.cpc. H02J3/14.cpc. H02J9/066.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S187	50	(US-20120149610-$).did. or (US-6601648-$ or US-6849581-$ or US-3559855-$ or US-3707945-$ or US-3751576-$ or US-4022279-$ or US-4109964-$ or US-4387770-$ or US-4641709-$ or US-4662440-$ or US-4693382-$ or US-4752014-$ or US-5331155-$ or US-5384085-$ or US-5798469-$ or US-5885471-$ or US-5905939-$ or US-6023841-$ or US-6138760-$ or US-6321473-$ or US-6398798-$ or US-6435277-$ or US-6439310-$ or US-6446729-$ or US-6507095-$ or US-6543538-$).did. or (US-6575242-$ or US-6626241-$ or US-6695057-$ or US-6725934-$ or US-6938693-$ or US-6962203-$ or US-6978832-$ or US-7066257-$ or US-7090153-$ or US-7104320-$ or US-7169691-$ or US-7191833-$ or US-7243723-$ or US-7256160-$ or US-7308934-$ or US-7341103-$ or US-7341116-$ or US-7393984-$ or US-7416022-$ or US-7503404-$ or US-7543635-$ or US-7681635-$ or US-7709772-$).did.	US-PGPUB; USPAT	OR	ON	2018/12/13 15:26
S188	50	(US-20070277978-$ or US-20080035337-$ or US-20120118397-$ or US-20130168484-$ or US-20130284582-$ or US-20130313353-$ or US-20140144623-$ or US-20150144336-$ or	US-PGPUB; USPAT	OR	ON	2018/12/13 15:26

		US-20150344263-$ or US-20160272877-$ or US-20160369608-$ or US-20170030484-$).did. or (US-5709267-$ or US-5497831-$ or US-5564499-$ or US-4265570-$ or US-4410387-$ or US-4574880-$ or US-4589491-$ or US-4825960-$ or US-4848486-$ or US-4898473-$ or US-4900157-$ or US-4909777-$ or US-5018578-$ or US-5025859-$ or US-5199491-$ or US-5224543-$ or US-5256729-$ or US-5375313-$ or US-5722490-$ or US-5755286-$ or US-6167964-$ or US-9371723-$ or US-9400065-$ or US-9550652-$ or US-5712766-$ or US-4290276-$).did. or (US-4313453-$ or US-4352382-$ or US-4527430-$ or US-4567657-$ or US-4787827-$ or US-4793820-$ or US-4799801-$ or US-4804303-$ or US-4942837-$ or US-5341122-$ or US-5678921-$ or US-5732984-$).did.				
S189	0	S187 and S188	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S190	37	multiple with generator same overload$5 with prevent$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S191	101	(many several multiple) with generator same overload$5 with prevent$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S192	1	multiple with generator same overload$5 with shed$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S193	6	(many several multiple) with generator same overload$5 with shed$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S194	947	(many several multiple) with generator same (fracking fracturing mining extracting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2018/12/13 15:26

			DERWENT; IBM_TDB			
S195	250	(many several multiple) with generators same (fracking fracturing mining extracting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S196	4876	(many several multiple) with (sources generators engines) same (fracking fracturing mining extracting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S197	2001	(many several multiple) with (sources generators engines) with (fracking fracturing mining extracting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S198	111	(many several multiple) with (sources generators engines) with (fracking fracturing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S199	2	"7675189".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S200	5	"20140096974"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S201	2	"20120255734".did.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S202	3	"20140096974".did.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S203	1669	load with shed$5 same signal	US-PGPUB; USPAT; USOCR;	OR	OFF	2018/12/13 15:26

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S204	14	load with shed$5 same signal same (ma milliamps milliamperes)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S205	26	(many several multiple) with (generators) with (fracking fracturing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S206	47	(parallel redundant) with (power) with (fracking fracturing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S207	940	(parallel redundant) with (power) with (drilling boring)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S208	6	(parallel redundant) with (power electricity) with (drilling boring) same (overload failover shedding)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S209	5	(parallel redundant) with (power electricity) with (drilling boring) same (failover backup)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S210	4255	(parallel redundant) with (power electricity) with (failover backup)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S211	1063	(parallel redundant) with (power electricity) with (generator source) same (failover backup)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S212	26	(parallel redundant) with (power	US-PGPUB;	OR	OFF	2018/12/13

		electricity) with (generator source) same (failover backup) and (drilling fracking boring mining)	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			15:26
S213	134	parallel with generator same overload$5 with prevent$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S214	26	backup with generator same overload$5 with prevent$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S215	0	backup with generator same fracking	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S216	10	backup with generator same fracturing	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S217	15	backup with generator same5 fracturing	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S218	167	backup with generator same5 (mining boring drilling)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S219	46	backup with power same5 fracturing	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S220	24	backup with electric$5 same5 fracturing	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	ON	2018/12/13 15:26

			IBM_TDB			
S221	92	multiple adj independent with turbines	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S222	0	multiple adj independent with turbines same electricity	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S223	12	multiple adj independent with turbines same power	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S224	104	multiple adj independent with generator same power	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S225	4	multiple adj independent with generator same power same backup	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S226	152	multiple adj independent with generators	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S227	0	multiple adj independent with generators same backup	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S228	1	multiple adj independent with generators same redundant	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S229	3	multiple adj independent with generators same4 redundant	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2018/12/13 15:26

			EPO; JPO; DERWENT; IBM_TDB			
S230	5	multiple adj independent with generators same4 redundan$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S231	0	multiple adj independent with generators same4 failover	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S232	2	multiple adj independent with generators same4 overload	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S233	0	multiple adj independent with generators same4 sheding	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S234	0	multiple adj independent with generators same4 shedding	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S235	3	multiple adj independent with generators and on-site	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S236	1312	backup adj generator	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S237	7	backup adj generator same load adj shed$6	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S238	0	backup adj generators same load adj shed$6	US-PGPUB; USPAT;	OR	OFF	2018/12/13 15:26

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S239	12819	second adj generator	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S240	51	second adj generator same backup	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S241	2	("20160312108" | "20170313499").PN.	US-PGPUB; USPAT	OR	OFF	2018/12/13 15:34
S242	14	("20090078410" | "20100172202" | "20110061855" | "20160160889" | "20170021318" | "20170226842" | "20170314380" | "20170369258" | "4265266" | "7104233" | "7494263" | "8139383" | "9738461" | "9863228").PN.	US-PGPUB; USPAT	OR	OFF	2018/12/13 15:34
S243	3	("20130343858" | "20160186531" | "6138764").PN.	US-PGPUB; USPAT	OR	OFF	2018/12/13 15:34
S244	50	(US-20120181013-$ or US-20120181015-$ or US-20120181016-$ or US-20120181030-$ or US-20120181046-$ or US-20120181785-$ or US-20180347312-$).did. or (US-8469108-$ or US-8474521-$ or US-8496062-$ or US-8656990-$ or US-8813836-$ or US-4476927-$ or US-4589491-$ or US-4840192-$ or US-4898473-$ or US-4938247-$ or US-5318129-$ or US-5476775-$ or US-5551515-$ or US-5785747-$ or US-5813466-$ or US-6167964-$ or US-6387853-$ or US-4262453-$ or US-4305463-$ or US-4441561-$ or US-4583784-$ or US-4607699-$ or US-4803874-$ or US-5247994-$ or US-5282263-$ or US-5335725-$).did. or (US-8110115-$ or US-8506267-$ or US-8944740-$ or US-8997904-$ or US-9334124-$ or US-9395049-$ or US-9428348-$ or US-9499348-$ or US-9534473-$ or US-9562420-$ or US-9579980-$ or US-9758389-$ or US-9937443-$ or US-10008880-$ or US-10166493-$ or US-10323200-$ or US-10358035-$).did.	US-PGPUB; USPAT	OR	ON	2019/08/26 18:09
S245	50	(US-20170314745-$ or US-20050089749-$ or US-20150130346-$ or US-20150269204-$ or US-20010046558-$ or US-20050106574-$ or US-20110003808-$ or US-20020137625-$ or US-20040001966-$ or US-20040069969-	US-PGPUB; USPAT	OR	ON	2019/08/26 18:09

		$ or US-20050106712-$ or US-20060212502-$ or US-20080069735-$ or US-20090015670-$ or US-20100069660-$ or US-20110151019-$ or US-20120147382-$ or US-20130261976-$ or US-20140322337-$ or US-20160215211-$ or US-20170003497-$).did. or (US-9109162-$ or US-9646093-$ or US-4591689-$ or US-5186249-$ or US-7392163-$ or US-5774249-$ or US-5999117-$ or US-6749768-$ or US-6749894-$ or US-8098282-$ or US-8868379-$ or US-3554073-$ or US-3554085-$ or US-3554088-$ or US-3554091-$ or US-3554093-$ or US-3554095-$ or US-3554098-$ or US-3554099-$ or US-3554120-$ or US-3554135-$ or US-3554137-$ or US-3554147-$ or US-3554153-$ or US-3554155-$ or US-3554165-$).did. or (US-3554167-$ or US-3554178-$ or US-3554187-$).did.				
S246	834	700/293.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/08/26 18:09
S247	45369	(H02J3/46 or F01D15/10 or E21B41/0085 or E21B43/16 or E21B43/26).cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/08/26 18:27
S248	215	("10020711" | "10036238" | "10107086" | "10119381" | "10232332" | "10254732" | "10280724" | "1671436" | "20020169523" | "20030138327" | "20040000077" | "20040040746" | "20040102109" | "20050116541" | "20050274508" | "20060052903" | "20070131410" | "20070187163" | "20070201305" | "20070226089" | "20070277982" | "20070278140" | "20080112802" | "20080137266" | "20080208478" | "20080217024" | "20080264649" | "20090045782" | "20090065299" | "20090078410" | "20090093317" | "20090095482" | "20090153354" | "20090188181" | "20090200035" | "20090260826" | "20090308602" | "20100000508" | "20100019574" | "20100051272" | "20100132949" | "20100146981" | "20100172202" | "20100250139" | "20100293973" | "20100303655" | "20100322802" | "20110005757" | "20110017468" | "20110061855" | "20110085924" | "20110166046" | "20110247878" | "20110272158" | "20120018016" | "20120049625" |	US-PGPUB; USPAT	OR	ON	2019/08/26 18:28

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S250	44751	(G05B15/02).cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/08/26 18:35
S251	2	"20160348479"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/09/16 13:20

EAST Search History (Interference)

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PTO/SB/08a (02-18)
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16443273
Filing Date	2019-06-17
First Named Inventor	Brandon N. Hinderliter
Art Unit	2191
Examiner Name	Ryan D. Coyer
Attorney Docket Number	047158.100042

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	9119326		2015-08-25	McDonnell	
	2	5050673		1991-09-24	Baldridge	
	3	7308933		2007-12-18	Mayfield	
	4	6273193		2001-08-14	Hermann	
	5	5366324		1994-11-22	Arlt	
	6	8646521		2014-02-11	Bowen	
	7	4759674		1988-07-26	Schroder	
	8	1656861		1928-01-17	Leonard	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16443273
	Filing Date	2019-06-17
	First Named Inventor	Brandon N. Hinderliter
	Art Unit	2191
	Examiner Name	Ryan D. Coyer
	Attorney Docket Number	047158.100042

	9	10227854		2019-03-12	Glass	
	10	9932799		2018-04-03	Symchuk	
	11	6936947		2005-08-30	Leijon	
	12	7835140		2010-11-16	Mori	
	13	10393108		2019-08-27	Chong	
	14	10378326		2019-08-13	Morris	
	15	10371012		2019-08-06	Davis	
	16	3302069		1967-01-31	Webster	
	17	9728354		2017-08-08	Skolozdra	
	18	10436026		2019-10-08	Ounadjela	
	19	10246984		2019-04-02	Payne	

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
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	20	10287873		2019-05-14	Filas	
	21	8800652		2014-08-12	Bartko	
	22	9915128		2018-03-13	Hunter	
	23	10196878		2019-02-05	Hunter	
	24	9963961		2018-05-08	Hardin	
	25	10260327		2019-04-16	Kajaria	
	26	7926562		2011-04-19	Poitzsch	
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	28	8096354		2012-01-17	Poitzsch	
	29	9976351		2018-05-22	Randall	
	30	10309205		2019-06-04	Randall	

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	31	10407990		2019-09-10	Oehring	
	32	2407796		1946-09-17	Page	
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	1	20150354322		2015-12-10	Vicknair	
	2	20170016433		2017-01-19	Chong	
	3	20050061548		2005-03-24	Hooper	
	4	20150053426		2015-02-26	Smith	

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	Attorney Docket Number	047158.100042

	5	20120247783		2012-10-04	Berner, Jr.	
	6	20120222865		2012-09-06	Larson	
	7	20090145611		2009-06-11	Pallini Jr.	
	8	20080041596		2008-02-21	Blount	
	9	20170036872		2017-02-09	Wallace	
	10	20180363437		2018-12-20	Coli	
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	12	20190203572		2019-07-04	Morris	
	13	20180245428		2018-08-30	Richards	
	14	20190316447		2019-10-17	Oehring	
	15	20190226317		2019-07-25	Payne	

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	16	20190100989		2019-04-04	Stewart	
	17	20190178057		2019-06-13	Hunter	
	18	20180216455		2018-08-02	Andreychuk	
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	Examiner Name	Ryan D. Coyer
	Attorney Docket Number	047158.100042

	27	20170036872		2017-02-09	Wallace			

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Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1	2787814	CA		2014-02-21	Pawlick		☒
	2	2978706	CA		2016-09-09	Payne		☒
	3	2945579	CA		2019-10-08	Oehring		☒
	4	2944980	CA		2017-02-12	Oehring		☒
	5	2849825	CA		2018-07-17	Bartko		☒
	6	3000322	CA		2013-04-18	Bartko		☒
	7	2797081	CA		2019-09-10	Hunter		☒
	8	3050131	CA		2011-11-03	Hunter		☒

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	Attorney Docket Number	047158.100042

	9	3018485	CA		2017-08-10	Herman		☒
	10	2482943	CA		2011-05-24	Ayoub		☒
	11	2919649	CA		2019-02-26	Randall		☒
	12	2919666	CA		2019-07-16	Randall		☒
	13	3006422	CA		2017-06-01	Green		☒
	14	2406801	CA		2001-11-01	Demetrius		☒

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Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1	International Search Report and Written Opinion mailed January 2, 2020 in related PCT Application No. PCT/US19/55325	☓
	2	Notice of Allowance mailed January 9, 2020 in related U.S. Patent Application No. 16/570,331	☒
	3	Non-Final Office Action mailed December 23, 2019 in related U.S. Patent Application No. 16/597,008	☒

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	Application Number	16443273
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	Art Unit	2191
	Examiner Name	Ryan D. Coyer
	Attorney Docket Number	047158.100042

	4	Non-Final Office Action mailed January 10, 2020 in related U.S. Patent Application No. 16/597,014	☒
	5	Non-Final Office Action mailed December 6, 2019 in related U.S. Patent Application No. 16/564,186	☒
	6	International Search Report and Written Opinion mailed November 26, 2019 in related PCT Application No. PCT/US19/51018	☒
	7	International Search Report and Written Opinion mailed February 11, 2020 in related PCT Application No. PCT/US2019/055323	☒

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Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16443273
Filing Date	2019-06-17
First Named Inventor	Brandon N. Hinderliter
Art Unit	2191
Examiner Name	Ryan D. Coyer
Attorney Docket Number	047158.100042

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

☒ That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

☒ See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Taylor P. Evans/	Date (YYYY-MM-DD)	2020-02-26
Name/Print	Taylor P. Evans	Registration Number	60506

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

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EFS ID:	38693987
Application Number:	16443273
International Application Number:	
Confirmation Number:	1069
Title of Invention:	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING
First Named Inventor/Applicant Name:	Brandon N. Hinderliter
Customer Number:	132858
Filer:	Taylor P. Evans/Stephanie McDonough
Filer Authorized By:	Taylor P. Evans
Attorney Docket Number:	047158.100042
Receipt Date:	26-FEB-2020
Filing Date:	17-JUN-2019
Time Stamp:	11:37:04
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Form (SB08)	100042_IDS.pdf	1036704 6721d7e125231c575a83124119c097bd4d040af1	no	11

Warnings:

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2	Other Reference-Patent/App/Search documents	100046_NOA_1-9-2020.pdf	496865 de0736297cae156177c77132fe7a4f3153298155	no	9
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3	Other Reference-Patent/App/Search documents	100047_NFOA_12-23-2019.pdf	504947 e48ecf709c4a1a3c54beca9de2f5cd8a257472b9	no	15
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4	Other Reference-Patent/App/Search documents	100048_NFOA_1-10-2020.pdf	426422 697dd19f949f67bf61f892dcc172c3fc0c122e87	no	12
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5	Other Reference-Patent/App/Search documents	100063_NFOA_12-6-2019.pdf	339700 970ada9ad386e6440793e1bb058678705e9985d1	no	10
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6	Other Reference-Patent/App/Search documents	500046_ISR_11-26-2019.pdf	608590 fb9dc546f5843b3b12fa57939cc323e9fe5c88b1	no	11
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10	Foreign Reference	CA2482943A1.pdf	777005 dbb2976ac9fa8c3d06e6225252a248b7137e2ef9	no	12
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11	Foreign Reference	CA2787814A1.pdf	2377245 633856df9c7e206d9c3773a8089aeb0e232468ab	no	33
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Information:					
14	Foreign Reference	CA2919649A1.pdf	10972314 d7007d5c10a3302315126fb758a39e12b0d9593b	no	131
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17	Foreign Reference	CA2945579A1.pdf	2614379 cfd0c3c497ab708e4aa1a24cbddf466d88ef63fe	no	30
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19	Foreign Reference	CA3000322A1.pdf	3896522 3de54d3f5d2150e39ee81997cfd6345668f53c30	no	43
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20	Foreign Reference	CA3006422A1.pdf	2774965 c6790510cdf308569b86d578ee8c33770f732bc3	no	42
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Information:					

21	Foreign Reference	CA3018485A1.pdf	1431864 b669a867cfad80a69349757b8af3dd5580e3c968	no	23

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If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 16/443,273	Filing Date 06/17/2019	☐ To be Mailed

ENTITY: ☑ LARGE ☐ SMALL ☐ MICRO

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA		RATE ($)	FEE ($)
☐ BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A		N/A	
☐ SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A		N/A	
☐ EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	minus 20 =	*		x $100 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 =	*		x $460 =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).				
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))					
* If the difference in column 1 is less than zero, enter "0" in column 2.				TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT	12/20/2019	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0		x $100 =	0
	Independent (37 CFR 1.16(h))	* 2	Minus	*** 3	= 0		x $460 =	0
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	0

		(Column 1)		(Column 2)	(Column 3)			
AMENDMENT		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		RATE ($)	ADDITIONAL FEE ($)
	Total (37 CFR 1.16(i))	*	Minus	**	=		x $0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=		x $0 =	
	☐ Application Size Fee (37 CFR 1.16(s))							
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							
							TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.	LIE
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".	/ROCHELLE C. GETER/
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I hereby certify that this correspondence is being filed via EFS-Web with the United States Patent and Trademark Office on December 20, 2019.

Hogan Lovells US LLP

By: /Stephanie McDonough/

PATENT
Attorney Docket No.: 047158.100042

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:	Confirmation No.: 1069
Brandon N. Hinderliter	Examiner: COYER, Ryan D.
Application No.: 16/443,273	Technology Center/Art Unit: 2191
Filed: June 17, 2019	
For: INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING	
Customer No.: 132858	**AMENDMENT (TRACK ONE)**

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Commissioner:

In response to the Non-Final Office Action mailed September 20, 2019, please enter and consider the following amendments and remarks.

The Claims, with any amendments, begin on page 2 of this paper.

Remarks/Arguments begin on page 6 of this paper.

Electronic Acknowledgement Receipt

EFS ID:	38098994
Application Number:	16443273
International Application Number:	
Confirmation Number:	1069
Title of Invention:	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING
First Named Inventor/Applicant Name:	Brandon N. Hinderliter
Customer Number:	132858
Filer:	Sanjiva Kumjula Reddy/Stephanie McDonough
Filer Authorized By:	Sanjiva Kumjula Reddy
Attorney Docket Number:	047158.100042
Receipt Date:	20-DEC-2019
Filing Date:	17-JUN-2019
Time Stamp:	10:51:53
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		047158-100042_Response.pdf	64106 4f1ba838c3d7bafd6e284b1ad4cf7e6763e74110	yes	10

	Multipart Description/PDF files in .zip description		
	Document Description	**Start**	**End**
	Applicant Arguments/Remarks Made in an Amendment	6	10
	Claims	2	5
	Amendment/Req. Reconsideration-After Non-Final Reject	1	1
Warnings:			
Information:			
	Total Files Size (in bytes):	64106	

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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

REMARKS

Before entry of this paper, claims 1-20 were pending, with claims 1 and 12 being independent. The Office Action rejects claims 1-20.

The Office Action objects to claim 9 for certain informality in the claim.

The Office Action rejects claims 1-4, 6-10, 12-14, and 16-19 under section 102 for allegedly being unpatentable in view of *Oehring* (U.S. Publication 20160105022).

The Office Action rejects claims 5, 11, 15, and 20 under section 103 for allegedly being unpatentable in view of *Oehring* alone. Applicant traverses these rejections.

Without acquiescing to the Office Action and in the interest of compact and economical prosecution, this paper amends claim 9 to correct informality, but does not add or cancel any claims, leaving for consideration claims 1-20. The amendments do not add new matter. In view of the following remarks, reconsideration of the rejected claims is respectfully requested.

I. CLAIM 9 OVERCOMES THE OBJECTION

As noted in the above Remarks, the Office Action objects to claim 9 for certain informality in the claim. Claim 9 is presently amended. The objection is therefore rendered moot. Reconsideration of the objection to claim 9 is respectfully requested.

II. CLAIMS 1-20 ARE ALLOWABLE OVER THE ART

As also noted in the Remarks above, there are multiple art-based rejections of different scopes. The Office Action rejects claims 1-4, 6-10, 12-14, and 16-19 under section 102 for allegedly being unpatentable in view of *Oehring* (U.S. Publication 20160105022). The Office Action rejects claims 5, 11, 15, and 20 under section 103 for allegedly being unpatentable in view of *Oehring* alone.

A decision on whether a claim is invalid under 35 U.S.C. § 102 requires a determination that "each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 814 F.2d 628, 631 (CAFC 1987).

A decision on whether a claim is invalid under 35 U.S.C. § 103 requires a

determination that the evidence as a whole shows that a legal determination sought to be proved (*i.e.*, the reference teachings establish a *prima facie* case of obviousness) is more probable than not. M.P.E.P. § 2142. Accordingly, "the key to supporting any rejection under 35 U.S.C. § 103 is the clear articulation of the reason(s) why the claimed invention would have been obvious." M.P.E.P. § 2142; *see KSR International Co. v. Teleflex, Inc.*, 550 U.S.398 (2007).

A. Independent Claim 1 Is Allowable

Independent claim 1 recites:

> A system comprising:
> a mobile unit;
> at least one generator; and
> at least one switch gear, the at least one generator coupled to the at least one switch gear on the mobile unit, the mobile unit configured to provide power generated by the at least one generator in electrical buses for at least one load on one or more external mobile units.

Such subject matter as recited by claim 1 is not disclosed by *Oehring*. For example, the cited reference fails to disclose at least a feature for "at least one switch gear, the at least one generator coupled to the at least one switch gear on the mobile unit, the mobile unit configured to provide power generated by the at least one generator in electrical buses for at least one load on one or more external mobile units. . .," as partly recited in claim 1.

The Office Action alleges from *Oehring* as to the above-referenced feature:

> at least one switch gear, the at least one generator coupled to the at least one switch gear on the mobile unit, the mobile unit configured to provide power generated by the at least one generator in electrical buses for at least one load on one or more external mobile units." (see, e.g., Oehring, para. 45-47, 52).

Office Action, 3. However, *Oehring* is different than claim 1.

For instance, *Oehring* reports providing generators (e.g., generators 222) in a respective trailers, skids, or vehicles, and separately, switchgears (e.g., switchgear 235) on respective trailers, skids, or vehicles:

> The different generators 222A for group A are all phase synced together. The power from the generators 222A of group A goes to switchgear 235A.

Lee, 0050; see also, 0051 and FIG. 5 and:

> Each group A, B of generators 222A, 222B is connected in turn to separate and distinct groups of transformers 223A, 223B and pumps 210A, 210B, as well as separate and distinct auxiliary trailers 225A, 225B, each including its own ancillary equipment, such as, for example, data vans 227A, 227B, sand equipment 229A, 229B, blenders 234A, 234B, and hydration units 232A, 232B.

Id., 0045; and:

> Referring back to FIG. 1, also included in the equipment is a plurality of electric generators 22 that are connected to, and provide power to, the electric motors 14 on the vehicles 12.

Id., 0027; and FIG. 1. In view of the above, the cited reference at least fails to disclose "the at least one generator coupled to the at least one switch gear on the mobile unit," as partly recited in the above-referenced limitation in claim 1.

For failing to disclose each and every limitation, *Oehring* does not anticipate claim 1 and the rejection must be withdrawn. *Verdegaal Bros.*, 631 (CAFC 1987). Applicant respectfully request reconsideration of the rejection to claim 1.

B. Independent Claim 12 Is Similarly Allowable

Applicant respectfully submits that claim 12 is allowable at least for similar reasons as those discussed above with respect to claim 1. Section II.A, *supra*. For example, as in the case of claim 1, the Office Action fails to consider that *Oehring* is distinct from claim 12 for also failing to disclose:

> providing a mobile unit with at least one generator and at least one switchgear, the at least one generator coupled to the at least one switch gear on the mobile unit. . . .

Applicant respectfully submits that claim 12 is patentable over the cited reference under section 102. Accordingly, Applicant respectfully requests reconsideration of the rejection under section 102 to this claim. *Verdegaal Bros.*, 631 (CAFC 1987).

C. Dependent Claims 2-11 And 13-20 Are Also Allowable

Each of claims 2-11 and 13-20 depends, directly or indirectly, from one of independent claims 1 and 12, and thus incorporates each feature of one of the aforementioned independent claims. Applicant therefore respectfully submits that claims 2-11 and 13-20, by

virtue of at least their dependencies from an allowable base claim, are at least patentable under section 102 or 103, as asserted in the Office Action, over the cited reference and over any modification alleged to the cited reference. Furthermore, these claims include limitations that are independently patentable over the cited references for reasons similar to those discussed with respect to claims 1 and 12. For example, these claims may further described the features already identified as absent in the reference or modification alleged to the reference.

For all these reasons, reconsideration and withdrawal of the rejections of dependent claims 2-11 and 13-20 are respectfully requested.

III. AMENDMENTS TO THE CLAIMS

Unless otherwise specified or addressed in the remarks section, amendments to the claims are made for purposes of clarity, and are not intended to alter the scope of the claims or limit any equivalents thereof. The amendments are supported by the specification and do not add new matter. In addition, by focusing on specific claims and claim elements in the discussion above, Applicant does not imply that other claim elements are disclosed or suggested by the references. In addition, any characterizations of claims and/or cited art are being made to facilitate expeditious prosecution of this application. Applicant reserves the right to pursue at a later date any other broader or narrower claims that capture any subject matter supported by the present disclosure, including subject matter found to be specifically disclaimed herein or by another prosecution. Accordingly, reviewers of this or any child or related prosecution history shall not reasonably infer that Applicant has made any disclaimers or disavowals of any subject matter supported by the present disclosure.

CONCLUSION

In view of the foregoing, Applicant believes all claims now pending in this Application are in condition for allowance. The issuance of a formal Notice of Allowance at an early date is respectfully requested.

Further, the Commissioner is hereby authorized to charge any additional fees or credit any overpayment in connection with this paper to Deposit Account No. 50-1349.

If the Examiner believes a telephone conference would expedite prosecution of this application, please telephone the undersigned at 212-918-3209.

Respectfully submitted,

/Sanjiva K. Reddy/
Sanjiva K. Reddy
Registration No. 70,816

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390 Madison Avenue,
New York City, NY 10017
Ph.: 212-918-3209
Fax: 212-918-3100

The Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

1. (Original) A system comprising:

a mobile unit;

at least one generator; and

at least one switch gear, the at least one generator coupled to the at least one switch gear on the mobile unit, the mobile unit configured to provide power generated by the at least one generator in electrical buses for at least one load on one or more external mobile units.

2. (Original) The system of claim 1, wherein the system is part of a hydraulic fracturing system that consumes the power and that comprises a wellbore and at least one pressuring system to create fractures in a subterranean formation that surrounds the wellbore.

3. (Original) The system of claim 1, further comprising:

at least one fracturing pump (FP) mobile unit of the one or more external mobile units, the at least one FP mobile unit physically external relative to the mobile unit; and

at least one transformer provided between the at least one FP mobile unit and the at least one switch gear to condition the power supplied to the at least one FP mobile unit.

4. (Original) The system of claim 1, further comprising:

a predetermined number of FP mobile units comprised in the one or more external mobile units, the predetermined number of FP mobile units determined by a maximum of the power available from the at least one generator and handled by the at least one switch gear.

5. (Original) The system of claim 1, further comprising:

a predetermined number of generators comprising the at least one generator, the predetermined number of generators having individual power output values that is lesser than a power output of an isolated single generator occupying all available space in an independent mobile unit physically external to the mobile unit.

6. (Original) The system of claim 1, further comprising:

the at least one switchgear being physically arranged to replace an electronic equipment room (EER) of at least one mobile unit of the one or more external mobile units that is designed to comprise the EER.

7. (Original) The system of claim 1, further comprising:

at least one Variable Frequency Drive (VFD); and

at least one Motor Control Center (MCC), the VFD and the MCC being on individual ones of the one or more external mobile units that is physically external relative to the mobile unit.

8. (Original) The system of claim 1, further comprising:

one or more power cable interconnects configured to couple the mobile unit with a second mobile unit of the one or more external mobile units, the second mobile unit having at least one second generator and at least one second switch gear, the one or more power cable interconnects to transmit power in support of redundancy or load sharing between the mobile unit and the second mobile unit.

9. (Currently Amended) The system of claim 1, further comprising:

an interconnect between transformers of the at least two mobile units of the one or more external mobile units, the interconnect for load sharing between the transformers comprising:

at least one load sharing switch gear optionally associated with at least one of the transformers and configured for load sharing on an incoming side of the at least one of the transformers such that the at least one load sharing switch gear, associated bus bars, and associated cable interconnects are sized based at least in part on current available for a voltage output of a secondary side of the of the at least one of the transformers; or

the at least one load sharing switch gear configured for load sharing on an outgoing side of the at least one of the transformers such that the at least one load sharing switch gear, the associated bus bars, and the associated cable interconnects are sized based at least in part on the current available at the secondary side of the transformer[[;]].

10. (Original) The system of claim 1, further comprising:

at least one load sharing FP mobile unit coupled to share the at least one load of a second FP mobile unit of the one or more external mobile units; and

an optional datavan in the one or more external mobile units for control of the at least one load sharing FP mobile unit, the optional datavan offering the control of the at least one load sharing FP mobile unit instead of a second control available from within the mobile unit.

11. (Original) The system of claim 1, further comprising:

an isolation transformer in one of the one or more external mobile units, the isolation transformer being physically external relative to the mobile unit and being configured for filtering harmonics between the at least one generator and the at least one load in the one or more external mobile units.

12. (Original) A method comprising:

providing a mobile unit with at least one generator and at least one switchgear, the at least one generator coupled to the at least one switch gear on the mobile unit;

generating power from the at least one generator;

providing the power in electrical buses for at least one load in one or more external mobile units.

13. (Original) The method of claim 12, further comprising:

providing at least one fracturing pump (FP) mobile unit of the one or more external mobile units that is physically external relative to the mobile unit; and

conditioning the power supplied to the at least one FP mobile unit using at least one transformer provided between the at least one FP mobile unit and the at least one switch gear.

14. (Original) The method of claim 12, further comprising:

determining a number of FP mobile units for the one or more external mobile units based at least in part on a maximum of the power available from the at least one generator and handled by the at least one switch gear.

15. (Original) The method of claim 12, further comprising:

determining a number of generators for the at least one generator based at least in part on the number of generators having individual power output values that is lesser than a power output of an isolated single generator occupying all available space in an independent mobile unit physically external to the mobile unit.

16. (Original) The method of claim 12, further comprising:

physically arranging the at least one switch gear to replace an electronic equipment room (EER) of at least one mobile unit of the one or more external mobile units that is designed to comprise the EER.

17. (Original) The method of claim 12, further comprising:

providing at least one Variable Frequency Drive (VFD); and

providing at least one Motor Control Center (MCC), the VFD and the MCC being on individual ones of the one or more external mobile units that is physically external relative to the mobile unit.

18. (Original) The method of claim 12, further comprising:

coupling the mobile unit with a second mobile unit of the one or more external mobile units using one or more power cable interconnects, the second mobile unit having at least one second generator and at least one second switch gear, the one or more power cable interconnects to transmit power in support of redundancy or load sharing between the mobile unit and the second mobile unit.

19. (Original) The method of claim 12, further comprising:

coupling at least one load sharing FP mobile unit to share the at least one load of a second FP mobile unit of the one or more external mobile units; and

controlling, via an optional datavan in the one or more external mobile units, the at least one load sharing FP mobile unit, the optional datavan offering the control of the at least one load sharing FP mobile unit instead of a second control available from within the mobile unit.

20. (Original) The method of claim 12, further comprising:

filtering harmonics between the at least one generator and the at least one load in the one or more external mobile units using an isolation transformer that is in one of the one or more external mobile units, the isolation transformer being physically external relative to the mobile unit.

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
16/443,273	06/17/2019	Brandon N. Hinderliter	047158.100042

CONFIRMATION NO. 1069

132858
Hogan Lovells US LLP
609 Main Street
Suite 4200
Houston, TX 77002

PUBLICATION NOTICE

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Title:INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING

Publication No.US-2019-0383123-A1
Publication Date:12/19/2019

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The above-identified application will be electronically published as a patent application publication pursuant to 37 CFR 1.211, et seq. The patent application publication number and publication date are set forth above.

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(Not for submission under 37 CFR 1.99)

Application Number	16443273
Filing Date	2019-06-17
First Named Inventor	Brandon N. Hinderliter
Art Unit	2191
Examiner Name	Ryan Coyer
Attorney Docket Number	047158.100042

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Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	10280724		2019-05-07	Hinderliter	
	2	10254732		2019-04-09	Oehring	
	3	10232332		2019-03-19	Oehring	
	4	5172009		1992-12-15	Mohan	
	5	6484490		2002-11-26	Olsen	
	6	7581379		2009-09-01	Yoshida	
	7	8616005		2013-12-31	Cousino	
	8	10008880		2018-06-26	Vicknair	

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	Examiner Name	Ryan Coyer
	Attorney Docket Number	047158.100042

	9	5755096		1998-05-26	Holleyman	

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	1	20160105022		2016-04-14	Oehring	
	2	20160265457		2016-09-15	Stephenson	
	3	20140219824		2014-08-07	Burnette	
	4	20160281484		2016-09-29	Lestz	
	5	20190010793		2019-01-10	Hinderliter	
	6	20150211512		2015-07-30	Wiegman	
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	8	20120049625		2012-03-01	Hopwood	

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	9	20190120024		2019-04-25	Oehring	
	10	20190010793		2019-01-10	Hinderliter	
	11	20180028992		2018-02-01	Stegemoeller	
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	Attorney Docket Number	047158.100042

	20	20150027712		2015-01-29	Vicknair	
	21	20160290563		2016-10-06	Diggins	
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	First Named Inventor	Brandon N. Hinderliter
	Art Unit	2191
	Examiner Name	Ryan Coyer
	Attorney Docket Number	047158.100042

	31	20040167738		2004-08-26	Miller			

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	1	2707269	CA		2010-12-09	Kidd		×

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	1	International Search Report and Written Opinion mailed July 9, 2019 in corresponding PCT Application No. PCT/US2019/027584	×
	2	Office Action mailed June 11, 2019 in corresponding US Application No. 16/210,749	☒
	3	Office Action mailed May 10, 2019 in corresponding US Application No. 16/268,030	☒
	4	Canadian Office Action mailed May 30, 2019 in corresponding CA Application No. 2,833,711	☒
	5	Canadian Office Action mailed June 20, 2019 in corresponding CA Application No. 2,964,597	☒

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16443273
	Filing Date	2019-06-17
	First Named Inventor	Brandon N. Hinderliter
	Art Unit	2191
	Examiner Name	Ryan Coyer
	Attorney Docket Number	047158.100042

	6	Office Action mailed June 7, 2019 in corresponding US Application No. 16/268,030	☒
	7	International Search Report and Written Opinion mailed September 11, 2019 in related PCT Application No. PCT/US2019/037493	☒
	8	Office Action mailed August 19, 2019 in related U.S. Patent Application No. 15/356,436	☒
	9	Office Action mailed October 2, 2019 in related U.S. Patent Application No. 16/152,732	☒
	10	Office Action mailed September 11, 2019 in related U.S. Patent Application No. 16/268,030	☒
	11	Office Action mailed October 11, 2019 in related U.S. Patent Application No. 16/385,070	☒
	12	Office Action mailed September 3, 2019 in related U.S. Patent Application No. 15/994,772	☒
	13	Canadian Office Action mailed October 1, 2019 in related Canadian Patent Application No. 2,936,997	☒

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EXAMINER SIGNATURE

Examiner Signature		Date Considered	

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16443273
	Filing Date	2019-06-17
	First Named Inventor	Brandon N. Hinderliter
	Art Unit	2191
	Examiner Name	Ryan Coyer
	Attorney Docket Number	047158.100042

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

☒ The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Taylor P. Evans/	Date (YYYY-MM-DD)	2019-10-22
Name/Print	Taylor P. Evans	Registration Number	60506

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

Privacy Act Statement

The Privacy Act of 1974 (P.L. 93-579) requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

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3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).

5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.

6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).

7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal

Application Number:	16443273
Filing Date:	17-Jun-2019
Title of Invention:	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING
First Named Inventor/Applicant Name:	Brandon N. Hinderliter
Filer:	Taylor P. Evans/Stephanie McDonough
Attorney Docket Number:	047158.100042

Filed as Large Entity

Filing Fees for Utility under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
Post-Allowance-and-Post-Issuance:				
Extension-of-Time:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Miscellaneous:				
SUBMISSION- INFORMATION DISCLOSURE STMT	1806	1	240	240
		Total in USD ($)		**240**

Electronic Acknowledgement Receipt

EFS ID:	37522311
Application Number:	16443273
International Application Number:	
Confirmation Number:	1069
Title of Invention:	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING
First Named Inventor/Applicant Name:	Brandon N. Hinderliter
Customer Number:	132858
Filer:	Taylor P. Evans/Stephanie McDonough
Filer Authorized By:	Taylor P. Evans
Attorney Docket Number:	047158.100042
Receipt Date:	22-OCT-2019
Filing Date:	17-JUN-2019
Time Stamp:	11:38:35
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$240
RAM confirmation Number	E20190LB38567004
Deposit Account	501349
Authorized User	Stephanie McDonough

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.16 (National application filing, search, and examination fees)

37 CFR 1.17 (Patent application and reexamination processing fees)

37 CFR 1.19 (Document supply fees)

37 CFR 1.20 (Post Issuance fees)

37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Information Disclosure Statement (IDS) Form (SB08)	047158-100042_IDS.pdf	1035956 b768125522b96e348e1c71e2ce3e19027b204d02	no	8
Warnings:					
Information:					
2	Other Reference-Patent/App/Search documents	COA_2936997.pdf	207755 dae0c06a8119ed9b687e6c7363ba3834e395c7b8	no	3
Warnings:					
Information:					
3	Other Reference-Patent/App/Search documents	15994772_OA.pdf	302630 4a11bc3747e2a87768f2a4a696e19367efe5248b	no	9
Warnings:					
Information:					
4	Other Reference-Patent/App/Search documents	16385070_OA.pdf	242800 128faf4ea2e2bb9488664202e967397494359c4a	no	7
Warnings:					
Information:					
5	Other Reference-Patent/App/Search documents	16268030_OA_9112019.pdf	625568 8b18fa91f4706c88d3310cc571f4983037251328	no	18
Warnings:					
Information:					
6	Other Reference-Patent/App/Search documents	16152732_OA.pdf	474139 46bd3842f2368cd060a4dfa5893632e0a5eb82e3	no	11
Warnings:					
Information:					

7	Other Reference-Patent/App/Search documents	15356436_OA.pdf	929065 47c20f5c953cbc4c306d3c1ddda1fc4da7219f89	no	22
Warnings:					
Information:					
8	Other Reference-Patent/App/Search documents	500042_ISR.pdf	551837 e36f52fe4cd688e3def60e909808fe7624d0cbdd	no	11
Warnings:					
The page size in the PDF is too large. The pages should be 8.5 x 11 or A4. If this PDF is submitted, the pages will be resized upon entry into the Image File Wrapper and may affect subsequent processing					
Information:					
9	Other Reference-Patent/App/Search documents	P53041CA00_OA_as-filed.pdf	277907 6611c7d232b3de98e376b2ddc9f91b176ce8140b	no	4
Warnings:					
Information:					
10	Other Reference-Patent/App/Search documents	P52016CA00_OA_as-filed.pdf	285103 518c95719a4f720bd90ca152af1aa8a15b48ba2d	no	5
Warnings:					
Information:					
11	Foreign Reference	CA2707269A1.pdf	2897967 f7ee72a1a6aa3c4c9649dbde6d1c8668ec9e94d2	no	106
Warnings:					
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Information:					
12	Other Reference-Patent/App/Search documents	500040_ISR.pdf	578182 966b85f87c03a86b8fac975469bf19159f62cd49	no	10
Warnings:					
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13	Other Reference-Patent/App/Search documents	16268030_OA.pdf	534865 8291f2a91518e612a1611fb951691aa5204cce11	no	16
Warnings:					
Information:					
14	Other Reference-Patent/App/Search documents	16210749_OA.pdf	345039 1d1aa5b51ec9f9ebb313e2156cbf6e2c56fed807	no	10
Warnings:					
Information:					
15	Other Reference-Patent/App/Search documents	16170695_OA.pdf	591575 bd196199b20685aab100a344b5dddca208cae1df	no	19
Warnings:					
Information:					
16	Fee Worksheet (SB06)	fee-info.pdf	30754 4711da734969ee96eb0a0c08a7dc28f091b96777	no	2
Warnings:					
Information:					
			Total Files Size (in bytes):	9911142	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

<u>New Applications Under 35 U.S.C. 111</u>
If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.
<u>National Stage of an International Application under 35 U.S.C. 371</u>
If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.
<u>New International Application Filed with the USPTO as a Receiving Office</u>
If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

UNITED STATES PATENT AND TRADEMARK OFFICE

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/443,273	06/17/2019	Brandon N. Hinderliter	047158.100042	1069

132858 7590 09/20/2019

Hogan Lovells US LLP
609 Main Street
Suite 4200
Houston, TX 77002

EXAMINER	
COYER, RYAN D	

ART UNIT	PAPER NUMBER
2191	

NOTIFICATION DATE	DELIVERY MODE
09/20/2019	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

hlusdocketing@hoganlovells.com
monica.williams@hoganlovells.com
stephanie.mcdonough@hoganlovells.com

Office Action Summary	Application No. 16/443,273	Applicant(s) Hinderliter, Brandon N.	
	Examiner RYAN D COYER	Art Unit 2191	AIA (FITF) Status Yes

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTHS FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☑ Responsive to communication(s) filed on 6/17/2019.

☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____.

2a)☐ This action is **FINAL.** 2b) ☑ This action is non-final.

3)☐ An election was made by the applicant in response to a restriction requirement set forth during the interview on _____; the restriction requirement and election have been incorporated into this action.

4)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims*

5) ☑ Claim(s) 1-20 is/are pending in the application.

5a) Of the above claim(s) _____ is/are withdrawn from consideration.

6) ☐ Claim(s) _____ is/are allowed.

7) ☑ Claim(s) 1-20 is/are rejected.

8) ☐ Claim(s) _____ is/are objected to.

9) ☐ Claim(s) _____ are subject to restriction and/or election requirement

* If any claims have been determined allowable, you may be eligible to benefit from the **Patent Prosecution Highway** program at a participating intellectual property office for the corresponding application. For more information, please see http://www.uspto.gov/patents/init_events/pph/index.jsp or send an inquiry to **PPHfeedback@uspto.gov.**

Application Papers

10)☐ The specification is objected to by the Examiner.

11)☑ The drawing(s) filed on 6/17/2019 is/are: a)☑ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

Certified copies:

a)☐ All b)☐ Some** c)☐ None of the:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

** See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☑ Notice of References Cited (PTO-892)

2) ☑ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b) Paper No(s)/Mail Date 8/1/2019; 8/1/2019.

3) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date _____.

4) ☐ Other: _____.

DETAILED ACTION

This action is in response to application 16/443273, filed on 6/17/2019. Claims 1-20 are pending. The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

Claim Objections

Claim 9 is objected to because of the following informalities: it is punctuated by a semicolon, not a period. Appropriate correction is required.

Claim Rejections - 35 USC § 102

In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (a)(2) the claimed invention was described in a patent issued under section 151, or in an application for patent published or deemed published under section 122(b), in which the patent or application, as the case may be, names another inventor and was effectively filed before the effective filing date of the claimed invention.

Claims 1, 3, 4, 6-8, 10, 12-14, 16-18, and 19 are rejected under 35 U.S.C. 102 as being anticipated by USPGPUB 2016/0105022, hereinafter "Oehring."

Regarding claim 1, Oehring anticipates "**A system comprising:**

a mobile unit; (see, e.g., Oehring, fig. 3, para. 31, 52; "trailerized")

at least one generator; (see, e.g., Oehring, fig. 5 sec. 222A, 222B & associated text) **and**

at least one switch gear, the at least one generator coupled to the at least one switch gear on the mobile unit, the mobile unit configured to provide power generated by the at least one generator in electrical buses for at least one load on one or more external mobile units." (see, e.g., Oehring, para. 45-47, 52).

Regarding claim 2, Oehring anticipates **"The system of claim 1, wherein the system is part of a hydraulic fracturing system that consumes the power and that comprises a wellbore and at least one pressuring system to create fractures in a subterranean formation that surrounds the wellbore."** (see, e.g., Oehring, fig. 1 & associated text; para. 19; "hydraulic fracturing operation").

Regarding claim 3, Oehring anticipates **"The system of claim 1, further comprising: at least one fracturing pump (FP) mobile unit of the one or more external mobile units, the at least one FP mobile unit physically external relative to the mobile unit; and at least one transformer provided between the at least one FP mobile unit and the at least one switch gear to condition the power supplied to the at least one FP mobile unit."** (see, e.g., Oehring, fig. 1 & associated text; para. 19, 29-33).

Regarding claim 4, Oehring anticipates **"The system of claim 1, further comprising: a predetermined number of FP mobile units comprised in the one or more external mobile units, the predetermined number of FP mobile units determined by a maximum of the power available from the at least one generator**

and handled by the at least one switch gear." (see, e.g., Oehring, para. 33-36).

Regarding claim 6, Oehring anticipates **"The system of claim 1, further comprising: the at least one switchgear being physically arranged to replace an electronic equipment room (EER) of at least one mobile unit of the one or more external mobile units that is designed to comprise the EER."** (see, e.g., Oehring, para. 49-50).

Regarding claim 7, Oehring anticipates **"The system of claim 1, further comprising: at least one Variable Frequency Drive (VFD); and at least one Motor Control Center (MCC), the VFD and the MCC being on individual ones of the one or more external mobile units that is physically external relative to the mobile unit."** (see, e.g., Oehring, fig. 5 & associated text).

Regarding claim 8, Oehring anticipates **"The system of claim 1, further comprising: one or more power cable interconnects configured to couple the mobile unit with a second mobile unit of the one or more external mobile units, the second mobile unit having at least one second generator and at least one second switch gear, the one or more power cable interconnects to transmit power in support of redundancy or load sharing between the mobile unit and the second mobile unit."** (see, e.g., Oehring, para. 22, 33-36, 45-49).

Regarding claim 9, Oehring anticipates **"The system of claim 1, further comprising: an interconnect between transformers of the at least two mobile units of the one or more external mobile units, the interconnect for load sharing between the transformers comprising: at least one load sharing switch gear optionally associated with at least one of the transformers and configured for**

load sharing on an incoming side of the at least one of the transformers such that the at least one load sharing switch gear, associated bus bars, and associated cable interconnects are sized based at least in part on current available for a voltage output of a secondary side of the of the at least one of the transformers; or the at least one load sharing switch gear configured for load sharing on an outgoing side of the at least one of the transformers such that the at least one load sharing switch gear, the associated bus bars, and the associated cable interconnects are sized based at least in part on the current available at the secondary side of the transformer;" (see, e.g., Oehring, para. 22, 33-36, 45-49; it is inherent to the disclosure of Oehring that all cables and interconnects would be sized and rated appropriately for available current).

Regarding claim 10, Oehring anticipates **"The system of claim 1, further comprising: at least one load sharing FP mobile unit coupled to share the at least one load of a second FP mobile unit of the one or more external mobile units; and an optional datavan in the one or more external mobile units for control of the at least one load sharing FP mobile unit, the optional datavan offering the control of the at least one load sharing FP mobile unit instead of a second control available from within the mobile unit."** (see, e.g., Oehring, para. 45, 49, 50-51).

Regarding claims 12, 13, 14, 16, 17, 18, and 19, the instant claims are equivalents of claims 1, 3, 4, 6, 7, 8, and 10, respectively, and differ only by statutory class. Accordingly, the rejections of claims 1, 3, 4, 6, 7, 8, and 10 apply, *mutatis mutandis*, respectively to claims 12, 13, 14, 16, 17, 18, and 19.

Claim Rejections - 35 USC § 103

In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

> A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103 are summarized as follows:

1. Determining the scope and contents of the prior art.

2. Ascertaining the differences between the prior art and the claims at issue.

3. Resolving the level of ordinary skill in the pertinent art.

4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 5, 11, 15, and 20 are rejected under 35 U.S.C. 103 as being unpatentable over Oehring.

Regarding claim 5, Oehring discloses "**The system of claim 1, further comprising: a predetermined number of generators comprising the at least one**

generator," but does not appear to disclose the further limitation **"the predetermined number of generators having individual power output values that is lesser than a power output of an isolated single generator occupying all available space in an independent mobile unit physically external to the mobile unit."** Put differently, Oehring does not appear to disclose, explicitly, the claimed arrangement of a predetermined number of generators each having individual power output values that "is lesser than" (sic) a single generator occupying an entire trailer. However, as would have been known in the art before the effective filing date of the instant application, it would have appeared obvious to one of ordinary skill in the art that a single generator occupying an entire trailer would have a "power output value" greater than that of a single generator on a trailer containing many generators. Official notice is hereby invoked to that effect. A clear and predictable benefit of using multiple generators on a trailer (rather than a larger generator occupying the entire trailer) would have been the ability to more finely calibrate the amount of generated power by choosing an appropriate number of smaller, cheaper generators, potentially avoiding the unnecessary expense of buying and maintaining a single large generator. Accordingly, the claimed arrangement is an obvious addition to Oehring and therefore is unpatentable over Oehring.

Regarding claim 11, Oehring discloses **"The system of claim 1,"** but does not appear to disclose the limitations **"further comprising: an isolation transformer in one of the one or more external mobile units, the isolation transformer being physically external relative to the mobile unit and being configured for filtering harmonics between the at least one generator and the at least one load in the one**

or more external mobile units." In other words, Oehring does not appear to disclose an isolation transformer configured to filter harmonics occurring between and among generators and loads in a power distribution arrangement. However, such isolation transformers, configured to filter harmonics occurring between and among generators and loads in a power distribution arrangement, were known to those of ordinary skill in the art before the effective filing date of the instant application. Official Notice is hereby invoked to that effect. Combining the noticed isolation transformer with the power distribution arrangement of Oehring, thereby obtaining the invention of the instant claim, would have appeared to one of ordinary skill in the art, before the effective filing date of the instant application, as obvious to try. A clear and predictable benefit of so combining would have appeared as the ability to improve the performance and reliability of Oehring's power distribution arrangement. Accordingly, the instant claim is unpatentable over Oehring.

Regarding claims 15 and 20, the instant claims are equivalents of claims 5 and 11, respectively, and differ only by statutory class. Accordingly, the rejections of claims 5 and 11 apply, *mutatis mutandis*, respectively to claims 15 and 20.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RYAN D. COYER whose telephone number is (571) 270-5306 and whose fax number is (571) 270-6306. The examiner normally can be reached via phone on Monday-Friday 12pm-10pm Eastern Time. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Wei Zhen, can

be reached on 571-272-3708. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Ryan D. Coyer/
Primary Examiner, Art Unit 2191

Notice of References Cited	Application/Control No. 16/443,273	Applicant(s)/Patent Under Reexamination Hinderliter, Brandon N.	
	Examiner RYAN D COYER	Art Unit 2191	Page 1 of 1

U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	CPC Classification	US Classification
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*	B	US-20120232728-A1	09-2012	Karimi; Kamiar J.	H02J3/38	701/22
*	C	US-20020169523-A1	11-2002	Ross, Ricky M.	H02J3/387	700/286
*	D	US-4529887-A	07-1985	Johnson; Kenneth O.	F02C6/18	290/40A
*	E	US-20160105022-A1	04-2016	Oehring; Jared	E21B43/26	700/293
*	F	US-7675189-B2	03-2010	Grenier; Albert J.	F03D15/00	290/54
*	G	US-20100019574-A1	01-2010	Baldassarre; John	H02J3/14	307/23
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*	I	US-20140054965-A1	02-2014	JAIN; Deepak K.	H02J3/46	307/65
*	J	US-20040102109-A1	05-2004	Cratty, William E.	B63H21/17	440/113
*	K	US-20180258746-A1	09-2018	Broussard; Joel N.	E21B43/26	1/1
*	L	US-20190063309-A1	02-2019	Davis; Larry D.	F02B63/047	1/1
*	M	US-20150252661-A1	09-2015	Glass; Cory	E21B43/267	166/308.1

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*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	CPC Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
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*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

Search Notes	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/443,273	Hinderliter, Brandon N.
	Examiner	Art Unit
	RYAN D COYER	2191

CPC - Searched*		
Symbol	Date	Examiner
G05B15/02	09/16/2019	RDC
H02J3/14	09/16/2019	RDC
H02J8/066	09/16/2019	RDC
E21B43/26	09/16/2019	RDC

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner
700	293	09/16/2019	RDC

* See search history printout included with this form or the SEARCH NOTES box below to determine the scope of the search.

Search Notes		
Search Notes	Date	Examiner
EAST Search	09/16/2019	RDC
PLUS Search	09/16/2019	RDC
Inventor Name & Double Patenting Search	09/16/2019	RDC
NPL Search	09/16/2019	RDC

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

Index of Claims	Application/Control No.	Applicant(s)/Patent Under Reexamination
	16/443,273	Hinderliter, Brandon N.
	Examiner	**Art Unit**
	RYAN D COYER	2191

✓	Rejected	-	Cancelled	N	Non-Elected	A	Appeal
=	Allowed	÷	Restricted	I	Interference	O	Objected

CLAIMS

☐ Claims renumbered in the same order as presented by applicant ☐ CPA ☐ T.D. ☐ R.1.47

CLAIM		DATE								
Final	Original	09/16/2019								
	1	✓								
	2	✓								
	3	✓								
	4	✓								
	5	✓								
	6	✓								
	7	✓								
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	18	✓								
	19	✓								
	20	✓								

Doc code: IDS
Doc description: Information Disclosure Statement (IDS) Filed

PTO/SB/08a (02-18)
Approved for use through 11/30/2020. OMB 0651-0031
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16443273
Filing Date	2019-06-17
First Named Inventor	Brandon N. Hinderliter
Art Unit	3672
Examiner Name	Cathleen R. Hutchins
Attorney Docket Number	047158.100042

U.S.PATENTS Remove

Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	10280724		2019-05-07	Hinderliter	
	2	10254732		2019-04-09	Oehring	
	3	10232332		2019-03-19	Oehring	

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Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20170218727		2017-08-03	Oehring	
	2	20150136043		2015-05-21	Shaaban	

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

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Art Unit	3672
Examiner Name	Cathleen R. Hutchins
Attorney Docket Number	047158.100042

	1	2707269	CA		2010-12-09	Kidd		☒

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NON-PATENT LITERATURE DOCUMENTS Remove

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1	Non-Final Office Action issued in corresponding Application No. 16/170,695 dated June 7, 2019	☒
	2	Non-Final Office Action issued in corresponding Application No. 16/268,030 dated May 10, 2019	☒
	3	Final Office Action issued in corresponding Application No. 16/210,749 dated June 11, 2019	☒
	4	Canadian Office Action mailed May 30, 2019 in corresponding CA Application No. 2,833,711	☒
	5	Canadian Office Action mailed June 20, 2019 in corresponding CA Application No. 2,964,597	☒

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EXAMINER SIGNATURE

Examiner Signature	/Ryan D. Coyer/ (08/26/2019)	Date Considered	08/26/2019

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /RDC/

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16443273
Filing Date	2019-06-17
First Named Inventor	Brandon N. Hinderliter
Art Unit	3672
Examiner Name	Cathleen R. Hutchins
Attorney Docket Number	047158.100042

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Taylor P. Evans/	Date (YYYY-MM-DD)	2019-08-01
Name/Print	Taylor P. Evans	Registration Number	60506

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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The information provided by you in this form will be subject to the following routine uses:

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7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

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9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

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Wireline **power** supply during **electric** powered fracturing operations



US · US20160348472A1 · Jared Oehring · Us Well Services Llc

Priority 2012-11-16 · Filed 2016-08-12 · Published 2016-12-01

, where the trailers further contain receptacles for attaching cable to the **hydraulic fracturing** equipment and cables that can sustain the **power** draw of the turbines with three separate plugs for the three phase **power**. 6 . The system of claim 1 , wherein at least one weatherproofed **switchgear** is ...

Wireline **power** supply during **electric** powered fracturing operations

CA · CA2944968A1 · Jared Oehring · Us Well Services Llc

Priority 2015-08-13 · Filed 2016-08-12 · Published 2017-02-13

... claim 4, where the trailers further contain receptacles for attaching cable to the **hydraulic fracturing** equipment and cables that can sustain the **power** draw of the turbines with three separate plugs for the three phase **power**. 6. The system of claim 1, wherein at least one weatherproofed **switchgear** ...

Well fracturing systems with **electrical** motors and methods of use

WO EP US CN CA *MX RU* · WO2016141205A2 · Mark Payne · Stewart & Stevenson, LLC

Priority 2015-03-04 · Filed 2016-03-03 · Published 2016-09-09

[00042] Still referring to FIGS. 1, 2 A, and 2B, the **hydraulic fracturing** fleet further includes a pair of **switchgear** trailers, trucks, or skids 80a, ... wherein operating parameters of each of the plurality of **electrical** motors in step (b) are controlled based upon (i) **hydraulic fracturing** design ...

System for centralized monitoring and control of **electric** powered **hydraulic** ...



US · US20180258746A1 · Joel N. Broussard · U.S. Well Services, LLC

Priority 2012-11-16 · Filed 2018-05-14 · Published 2018-09-13

Upon activation of the EPO 43 , breakers open in the **switchgear** 47 , cutting **power** to the generator 22 . The gas compression will turn off, cutting fuel . . . A system for centralized monitoring and control of a **hydraulic fracturing** operation, comprising: an **electric** powered fracturing fleet, the **electric** ...

System for centralized monitoring and control of **electric** powered **hydraulic** ...

CA · CA2983275A1 · Joel N. Broussard · Us Well Services Llc

Priority 2015-10-15 · Filed 2016-09-27 · Published 2017-04-15

... to disable all equipment and open **switchgear** breakers substantially instantaneously. [0070] In an embodiment, the electrically powered **fracking** fleet .. cut **power** to the generator. 19. A system for centralized monitoring and control of a **hydraulic fracturing** operation, comprising: an **electric** powered ...

Mobile **power** for the **hydraulic fracturing** of underground formations



WO EP US CN JP KR AR AU CA *MX* · JP2018508705A · モリス、ジェフリー、ジー・エヴァンジェリューシェンコ

Priority 2014-12-19 · Filed 2015-12-16 · Published 2018-03-29

19, entitled "underground mobile generator and an **electric hydraulic fracturing** of the formation," U.S. Provisional Patent Application No. 62 / ... Mobile **electric** supply source 102, at least one **switchgear** transportation device 112 (switch gear transport), a plurality of drive **power** transfer ...

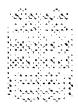
Parallel **power** and blackout protection for **electric hydraulic fracturing**

CA · CA2908275A1 · Jared Oehring · Us Well Services Llc

Priority 2014-10-14 · Filed 2015-10-13 · Published 2016-04-14

13 . A method for preventing failure of an **electric** powered **hydraulic fracturing** system, the method comprising: powering a plurality of primary components of a **hydraulic fracturing** operation by a first generator in **electrical** communication with the primary components through a first **switchgear**; ...

... **power** and blackout protection for **electric** powered **hydraulic fracturing**



US · US20160115822A1 · Jared Oehring · Us Well Services Llc

Priority 2012-11-16 · Filed 2015-10-13 · Published 2016-04-14

13 . A method for preventing failure of an **electric** powered **hydraulic fracturing** system, the method comprising: powering a plurality of primary components of a **hydraulic fracturing** operation by a first generator in **electrical** communication with the primary components through a first **switchgear**; ...

Switchgear load sharing for oil field equipment



US · US20180182213A1 · Jared Oehring · U.S. Well Services, LLC

Priority 2012-11-16 · Filed 2018-02-12 · Published 2018-06-28

... equipment in most situations. Two **switchgear** units "B" can be used to allow either bank to provide **power** to a blender, which allows the **hydraulic fracturing** equipment that is connected to either **power** bank to be self-sufficient and capable of flushing the well bore in event of a generator failure.

Switchgear load sharing for oil field equipment

CA • CA2964593A1 • Jared Oehring • Us Well Services Llc
Priority 2016-04-15 • Filed 2017-04-18 • Published 2017-10-15
SWITCHGEAR LOAD SHARING FOR OIL FIELD EQUIPMENT BACKGROUND [0001] 1. Technical Field [0002] This disclosure relates generally to **hydraulic fracturing** and more particularly to systems and methods for spare turbine **power** generation, which is sometimes referred to as reserve **power**. [0003] 2. Background ...

Dual energy solar thermal **power** plant



US • US9331622B2 • Chang Kuo • Chang Kuo
Priority 2011-10-03 • Filed 2014-03-25 • Granted 2015-06-09 • Published 2015-06-09
If the auxiliary boiler is not added, 0% of solar **power** can be used in this facility. The choice is obvious. Newly developed technology of "**fracking**" ... I. a **switchgear** receiving the **electrical** current from the **electrical** generator, wherein the **switchgear** divides the **electrical** current into two ...

Mobile **power** generation system including integral air conditioning assembly



US • US20190063302A1 • Larry D. Davis • On-Power, Inc.
Priority 2017-08-29 • Filed 2017-08-29 • Published 2019-02-28
.. generation systems, and more specifically to mobile **power** generation systems for operations that may use remotely generated **power**, such as **fracking**. ... . The mobile **power** generation system of claim 7 , wherein the HVAC system is positioned adjacent to a **switchgear** center of a **power** control room at the ...

Mobile **power** generation system including integral air conditioning assembly

WO • WO2019045888A1 • Larry D. Davis • On-Power, Inc.
Priority 2017-08-29 • Filed 2017-08-29 • Published 2019-03-07
.. generation systems, and more specifically to mobile **power** generation systems for operations that may use remotely generated **power**, such as **fracking**. ... 2. The mobile **power** generation system of claim 1, wherein the HVAC system is positioned adjacent to a **switchgear** center of a **power** control room at ...

Hydraulic fracturing equipment with non-hydraulic **power**



WO US CA • US10280724B2 • Brandon N. Hinderliter • U.S. Well Services, Inc.
Priority 2017-07-07 • Filed 2017-07-07 • Granted 2019-05-07 • Published 2019-05-07
-] receive up to about 13.8 kV **power** or more from a **switchgear** trailer and provide a stepped-down voltage of down to about 600V or less to sand ... 1. A **hydraulic fracturing** system for fracturing a subterranean formation comprising: an **electric** pump fluidly connected to a well associated with the ..

Mobile **power** generation system including air filtration

WO • WO2019045609A1 • Larry D. Davis • On-Power, Inc.
Priority 2017-08-29 • Filed 2017-08-29 • Published 2019-03-07
... generation systems, and more specifically to mobile **power** generation systems for operations that may use remotely generated **power**, such as **fracking**. ... [0033] A **power** control room 244 including, among other components, **switchgear**, may be positioned at the rear end 110 of the trailer 104 and may be ...

Mobile **power** generation system including air filtration



US • US20190063340A1 • Larry D. Davis • On-Power, Inc.
Priority 2017-08-29 • Filed 2017-08-29 • Published 2019-02-28
... generation systems, and more specifically to mobile **power** generation systems for operations that may use remotely generated **power**, such as **fracking**. ... 260 may aid to maintain one or more rooms at a desired room temperature, such as the **power** control room 244 including **switchgear** at the rear end 110

Mobile **power** generation system including dual voltage generator

WO • WO2019045631A1 • Larry D. Davis • On-Power, Inc.
Priority 2017-08-29 • Filed 2017-08-29 • Published 2019-03-07
... generation systems, and more specifically to mobile **power** generation systems for operations that may use remotely generated **power**, such as **fracking**. .. [0031] A **power** control room 244 including, among other components, **switchgear**, may be positioned at the rear end 110 of the trailer 104 and may be ...

Mobile **power** generation system including dual voltage generator



US • US20190067991A1 • Larry D. Davis • On-Power, Inc.
Priority 2017-08-29 • Filed 2017-08-29 • Published 2019-02-28
.. generation systems, and more specifically to mobile **power** generation systems for operations that may use remotely generated **power**, such as **fracking**. ... to the rear end 110 . A **power** control room 244 including, among other components, **switchgear**, may be positioned at the rear end 110 of the trailer 104

Mobile **power** generation system including optical alignment

WO • WO2019045889A1 • Larry D. Davis • On-Power, Inc.
Priority 2017-08-29 • Filed 2017-08-29 • Published 2019-03-07
.. generation systems, and more specifically to mobile **power** generation systems for operations that may use remotely generated **power**, such as **fracking**. ... [0032] A **power** control room 244 including, among other components, **switchgear**, may be positioned at the rear end 110 of the trailer 104 and may be ...

Mobile **power** generation system including optical alignment

US • US20190063026A1 • Larry D. Davis • On-Power, Inc.
Priority 2017-08-29 • Filed 2017-08-29 • Published 2019-02-28
... generation systems, and more specifically to mobile **power** generation systems for operations that may use remotely generated **power**, such as **fracking**. ... to the rear end 110 . A **power** control room 244 including,

among other components, **switchgear**, may be positioned at the rear end 110 of the trailer 104



Mobile **power** generation system including fire suppression

US • US20190063308A1 • Larry D. Davis • On-Power, Inc.
Priority 2017-08-29 • Filed 2017-08-29 • Published 2019-02-28



... generation systems, and more specifically to mobile **power** generation systems for operations that may use remotely generated **power**, such as **fracking** ... 260 may aid to maintain one or more rooms at a desired room temperature, such as the **power** control room 244 including **switchgear** at the rear end 110

Mobile **power** generation system including closed cell base structure

US • US20190063326A1 • Larry D. Davis • On-Power, Inc.
Priority 2017-08-29 • Filed 2017-08-29 • Published 2019-02-28



... generation systems, and more specifically to mobile **power** generation systems for operations that may use remotely generated **power**, such as **fracking** ... to the rear end 110 . A **power** control room 244 including, among other components, **switchgear**, may be positioned at the rear end 110 of the trailer 104

Mobile **power** generation system including noise attenuation

WO • WO2019045887A1 • Larry D. Davis • On-Power, Inc.
Priority 2017-08-29 • Filed 2017-08-29 • Published 2019-03-07

... generation systems, and more specifically to mobile **power** generation systems for operations that may use remotely generated **power**, such as **fracking**. .. [0032] A **power** control room 244 including, among other components, **switchgear**, may be positioned at the rear end 110 of the trailer 104 and may be ...

Mobile **power** generation system including noise attenuation

US • US20190063263A1 • Larry D. Davis • On-Power, Inc.
Priority 2017-08-29 • Filed 2017-08-29 • Published 2019-02-28



.. generation systems, and more specifically to mobile **power** generation systems for operations that may use remotely generated **power**, such as **fracking**. ... 260 may aid to maintain one or more rooms at a desired room temperature, such as the **power** control room 244 including **switchgear** at the rear end 110

Mobile **power** generation system including closed cell base structure

WO • WO2019045889A1 • Larry D. Davis • On-Power, Inc.
Priority 2017-08-29 • Filed 2017-08-29 • Published 2019-03-07

.. generation systems, and more specifically to mobile **power** generation systems for operations that may use remotely generated **power**, such as **fracking**. ... [0030] A **power** control room 244 including, among other components, **switchgear**, may be positioned at the rear end 110 of the trailer 104 and may be ...

Mobile **power** generation system including fire suppression

WO • WO2019045884A1 • Larry D. Davis • On-Power, Inc.
Priority 2017-08-29 • Filed 2017-08-29 • Published 2019-03-07

... generation systems, and more specifically to mobile **power** generation systems for operations that may use remotely generated **power**, such as **fracking**. ... [0032] A **power** control room 244 including, among other components, **switchgear**, may be positioned at the rear end 110 of the trailer 104 and may be ...

Mobile **power** generation system including fixture assembly

WO • WO2019045886A1 • Larry D. Davis • On-Power, Inc.
Priority 2017-08-29 • Filed 2017-08-29 • Published 2019-03-07

... generation systems, and more specifically to mobile **power** generation systems for operations that may use remotely generated **power**, such as **fracking**. .. [0031] A **power** control room 244 including, among other components, **switchgear**, may be positioned at the rear end 110 of the trailer 104 and may be ...

Mobile **power** generation system including fixture assembly

US • US20190063262A1 • Larry D. Davis • On-Power, Inc.
Priority 2017-08-29 • Filed 2017-08-29 • Published 2019-02-28



.. generation systems, and more specifically to mobile **power** generation systems for operations that may use remotely generated **power**, such as **fracking**. ... to the rear end 110 . A **power** control room 244 including, among other components, **switchgear**, may be positioned at the rear end 110 of the trailer 104

Mobile **Hydraulic Fracturing** System and Related Methods

US • US20190154022A1 • Cory Glass • Supreme Electrical Services, Inc., dba Lime Instruments
Priority 2014-01-06 • Filed 2019-01-28 • Published 2019-05-23



812 . In some aspects, **power** supply apparatus 900 may further comprise at least one motor control breaker, or **switchgear** 814 (labeled only as **switchgears** 814 a - b in FIG. 8 , for clarity), in the form of a utility grade recloser in order to protect the circuitry of **hydraulic fracturing** system 800 , to ...

High horsepower pumping configuration for an **electric hydraulic fracturing** ...

WO US • US20190169971A1 • Jared Oehring • U.S. Well Services, Inc.
Priority 2017-12-05 • Filed 2018-12-05 • Published 2019-06-06



. . , positioned between the switch gear and at least one **electric** motor, the transformer reducing a voltage output from the at least one **switchgear**. ... Embodiments include a **hydraulic fracturing** system for fracturing a subterranean formation. The system includes an **electric** pump, arranged on a first ...

Electric hydraulic fracturing system



WO US GN CA • US20190211661A1 • Udo Reckels • Dresser-Rand Company
Priority 2016-10-14 • Filed 2017-10-13 • Published 2019-07-11
each quadrant of the system in FIG. 3 eliminates an entire semi-trailer of equipment, i.e., the **switchgear** equipment. In the **hydraulic fracturing** system illustrated in FIG. 3 the **switchgear** equipment is either eliminated or incorporated into the **electric** room 22 that is mounted integrally with the ...

Electric powered pump down



US • US20170314330A1 • Jared Oehring • U.S. Well Services, LLC
Priority 2012-11-16 • Filed 2017-07-18 • Published 2017-11-02
Power can be provided from turbines, to a **switchgear**, then to the auxiliary unit 94 G. The transformer 130 G can be used, for example, to convert **power** .. 16 . The system of claim 15 , wherein the **hydraulic fracturing** pump is driven by an **electric** motor. 17 . The system of claim 15 , wherein one or more of ...

Turbine chilling for oil field **power** generation



US • US9995218B2 • Jared Oehring • U.S. Well Services, LLC
Priority 2012-11-16 • Filed 2017-04-13 • Granted 2018-06-12 • Published 2018-06-12
510 - b , 510 - c provide **electrical power** to **switchgears** 514 - a , 514 - b , which in turn monitor and control **electrical power** provided to transformers 516 - a , .. 1 . A **hydraulic fracturing** system for fracturing a subterranean formation comprising: a plurality of **electric** pumps fluidly connected to a well ...

Electric powered pump down

CA • CA2944281A1 • Jared Oehring • Us Well Services, Llc
Priority 2015-10-15 • Filed 2016-10-14 • Published 2017-04-15
Power can be provided from turbines, to a **switchgear**, then to the auxiliary unit 940. The transformer 1300 can be used, for example, to convert **power** ... and the **electric** motor that drives the **hydraulic fracturing** pump. 17. The system of Claim 15, wherein the **electric** motor is a first **electric** motor and ...

Microgrid **electrical** load management



WO US • US20190245348A1 • Brandon N. Hinderliter • U.S. Well Services, Inc.
Priority 2018-02-05 • Filed 2019-02-05 • Published 2019-08-08
18 . The method of claim 15 , further comprising: distributing **power** from the generator to a **power** grid. 19 . The method of claim 15 , further comprising: distributing **power** between the generator and the plurality of **hydraulic fracturing** equipment components with a **switchgear**. 20 . The method of claim ...

Turbine chilling for oil field **power** generation

CA • CA2954825A1 • Jared Oehring • Us Well Services Llc
Priority 2016-04-15 • Filed 2017-04-18 • Published 2017-10-15
.. unit (not shown) for use in **hydraulic fracturing**. A turbine generator 415-a, 415-b, an electronic equipment room (EER) 430-a, 430-b, and a **switchgear** ... A **hydraulic fracturing** system for fracturing a subterranean formation is disclosed. In an embodiment, the system may include a plurality of **electric** ...

System and process for extracting oil and gas by **hydraulic fracturing**



WO GB GN • US20130306322A1 • Stephen Duane Ganborn • General Electric Company
Priority 2012-05-21 • Filed 2012-12-07 • Published 2013-11-21
A variety of other equipment, tools, and the like, may be on site as well, such as transformers, **power** distribution components, **switchgear** (including ... . A **hydraulic fracturing** system, comprising a) an **electric** motor-driven pumping sub-system, configured to pump a pressurized fracturing fluid into at ..

System for gas compression on **electric hydraulic fracturing** fleets



US CA • US20170145813A1 • Jared Oehring • Us Well Services Llc
Priority 2015-11-20 • Filed 2016-11-18 • Published 2017-05-25
... powered compressors, the system disconnects the **electrical power**, instantly shutting down the compressors. The circuit breakers on the **switchgear** can ... 16 . A method of providing **electric power** to **hydraulic fracturing** equipment, the method comprising: releasing a natural gas stream from a main gas ..

Multi-plunger pumps and associated drive systems



• US20190249775A1 • Jared Oehring • U.S. Well Services, Inc.
Filed 2018-12-05 • Published 2019-08-15
... . When the pumps are being brought online to pump fluids into the well, the **power** may be switched via appropriate **switchgear** to the **electric** motors. ... fluidly connecting a multi-plunger **hydraulic fracturing** pump to a well associated with the subterranean formation such that the multi-plunger pump ..

Multi-plunger pumps and associated drive systems

WO • WO2019113147A1 • Jared Oehring • U.S. Well Services, Inc.
Priority 2017-12-05 • Filed 2018-12-05 • Published 2019-06-13

... . When the pumps are being brought online to pump fluids into the well, the **power** may be switched via appropriate **switchgear** to the **electric** motors. ... 11. A **hydraulic fracturing** system for fracturing a subterranean formation comprising: a multi-plunger **hydraulic fracturing** pump (300) fluidly ...

Slide out pump stand for **hydraulic fracturing** equipment



US • US20170030177A1 • Jared Oehring • Us Well Services Llc
Priority 2012-11-16 • Filed 2016-07-22 • Published 2017-02-02
... cooling units for the turbine air intake. **Switchgears** for **power** distribution can be included, and that may be trailer mounted, on a skid, or truck. ... . A **hydraulic fracturing** system for fracturing a subterranean formation comprising: a plurality of **electric** pumps fluidly connected to the formation, ...

System for reducing noise in a **hydraulic fracturing** fleet



US • US9587649B2 • Jared Oehring • Us Well Services Llc
Priority 2015-01-14 • Filed 2016-01-14 • Granted 2017-03-07 • Published 2017-03-07
... cooling units for the turbine air intake. **Switchgears** for **power** distribution can be included, and that may be trailer mounted, on a skid, or truck. ... Noise generated by a **hydraulic fracturing** system is abated by locating noise reduction equipment at strategic locations, and also by routing inlet ...

Slide out pump stand for **hydraulic fracturing** equipment

CA • CA2938998A1 • Jared Oehring • Us Well Services Llc
Priority 2015-07-24 • Filed 2016-07-22 • Published 2017-01-24
... cooling units for the turbine air intake. **Switchgears** for **power** distribution can be included, and that may be trailer mounted, on a skid, or truck. ... 1. A **hydraulic fracturing** system for fracturing a subterranean formation comprising: a plurality of **electric** pumps fluidly connected to the formation, ..

System for reducing noise in a **hydraulic fracturing** fleet

CA • CA3022114A1 • Jared Oehring • Us Well Services Llc
Priority 2015-01-14 • Filed 2016-01-14 • Published 2016-07-14
... cooling units for the turbine air intake. **Switchgears** for **power** distribution can be included, and that may be trailer mounted, on a skid, or truck. ... 2. The **hydraulic fracturing** system of Claim 1, wherein the intake shroud has an opening facing the upper surface of the mounting surface, and wherein ...

Comprehensive method of drilling, permeability increasing, repairing and gas- ...

CN • CN103016004B • 高瑞成 • 河南理工大学
Priority 2012-11-27 • Filed 2012-11-27 • Granted 2014-12-10 • Published 2014-12-10
... , in order to achieve the purpose of sealing the borehole, again to increase the pressure of the injected water jet nozzle and flow rate, **hydraulic** ... [0035] The mineral water **power** working machine including the host, performing units, water pumping stations, pump stations and **switchgear** cabinet, is ...

Pipe string system for selective regulation of fluid flows with variable speeds ...



EP CN DK MY RU • RU2556116C2 • Брюс Э. ТАННЕР • Брюс Э. ТАННЕР
Priority 2010-03-25 • Filed 2011-03-01 • Granted 2015-07-10 • Published 2015-07-10
If, for example, **hydraulic fracturing** with proppant is carried out using deposits of shale gas first with installing the channel selector at the ... combinations thereof, to supply at least one fluid mixture stream in at least one of the passages, wherein the connection for a submersible **electric** ..

Bottom pump for producing a constant differential of hydraulic pressure.

EP AU CA FR GB NO • FR2705735A1 • Mark A Miller • Exxon Production Research Co
Priority 1993-06-04 • Filed 1994-02-18 • Published 1994-12-14
... 66 of Figure 2 The conduit 55 can then lead directly to the hydraulic systems of the corresponding **switchgear** located at the bottom of the borehole. ... the measurement of seismic energy, for the recording of earthquakes, the determination of the orientation of fractures or the geometry of **hydraulic** ...

Utilizing pulse detonation wave fracturing AR screening method Excavating

CN • CN104863628B • 蔡美峰 • 中国矿业大学
Priority 2015-04-15 • Filed 2015-04-15 • Granted 2017-08-25 • Published 2017-08-25
... wave generated by the high voltage pulse generator (5) in the coal, so that a large amount of coal seam fracture (19); c, broken Ex **switchgear** .. , until the outwardly high voltage pulse generator 6 backward to retreat bottom seam 2, explosion-proof OFF switch 9, and a high pressure **electric** ...

Methods utilizing polyamide-poly(phenylene ether) compositions

US • US20150129207A1 • Brian Bastuba • Sabic Global Technologies B.V.
Priority 2014-12-30 • Filed 2015-01-07 • Published 2015-05-14
furniture and furniture components; and **electrical** components such as switches, **switchgear** boxes, and miniature circuit breakers; automotive ... Recently, polyamide-poly(phenylene ether) blends have been used to form low density proppants for **hydraulic fracturing**. See, for example, U.S. Patent ...

Device for fluid flow modeling of the slot



US RU • RU2617178C1 • Роб Вильям Шлюмбергер Текнолоджи Б.В.
Priority 2014-12-18 • Filed 2015-12-17 • Granted 2017-04-21 • Published 2017-04-21
... of equipment: cylinders / pistons, **power** supplies, piping, valves, frames and fasteners, tools of supply and disposal of samples, motors, **switchgear** ... In the art of **hydraulic fracturing** basic problem hindering the understanding of the physical processes of formation of cracks, flow through the ...

Equipment for efficiently drilling bitumen and crude oil and the method of ...

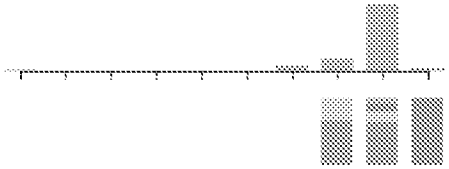
WO CZ · CZ2017718A · Dmitri Anatoljevich LEMENOVSKI · Dmitri Anatoljevich LEMENOVSKI

Priority 2017-09-19 · Filed 2017-09-19 · Published 2019-04-24

... the same container, such as the composition tank A for the composition B, laboratories 20 are provided with space for high and low voltage **switchgear** . . The technology is destined to return probes that have been stimulated by **hydraulic fracturing** or thermal methods (steam, SAGD), or are heavily ...

About 51 results

Top 1000 results by filing date



Relative count of top 5 values

Assignees	Inventors	CPCs
On-Power, Inc F01D15/10 F01D25/00 F01D25 F05D2240/90		31.3%
Us Well Services Llc E21B41/0035 E21B41 E21B41/00 F04B49		23.5%
Jared Oehring		15.6%
U.S. Well Services, Inc. H02P5/00 H02P5/74 F16H H02P5		9.8%
U.S. Well Services, LLC F04B23/00 F04B23 F04B23/04 F04B47/02		7.8%

Expand

About 40 results

Mobile power for the **hydraulic fracturing** of underground formations



WO EP US CN JP KR AR AU CA MX · JP2018508705A · モリス、シェアリー、シー・エヴァリューション

Priority 2014-12-19 · Filed 2015-12-16 · Published 2018-03-29

Figure 2 is a **mobile** crushing system 202, **switchgear** transport device 112 and crushing pump transportation device 108 driving power transfer device ... The present disclosure also includes one or various exemplary embodiments of the control network system many **hydraulic fracturing** equipment than ...

System for centralized monitoring and control of electric powered **hydraulic** ...

US · US20180258746A1 · Joel N. Broussard · U.S. Well Services, LLC

Priority 2012-11-16 · Filed 2018-05-14 · Published 2018-09-13

... of the **mobile** turbines (and in particular, of pressure and temperature), monitoring and control of the electric distribution equipment, **switchgear** ... 23 . A system for centralized monitoring and control of a **hydraulic fracturing** operation, comprising: an electric powered fracturing fleet, the ...

System for centralized monitoring and control of electric powered **hydraulic** ...

CA · CA2943275A1 · Joel N. Broussard · Us Well Services Llc

Priority 2015-10-15 · Filed 2016-09-27 · Published 2017-04-15

... of the **mobile** turbines (and in particular, of pressure and temperature), monitoring and control of the electric distribution equipment, **switchgear** ... 19. A system for centralized monitoring and control of a **hydraulic fracturing** operation, comprising: an electric powered fracturing fleet, the ...

Mobile power generation system including integral air conditioning assembly



US · US20190063309A1 · Larry D. Davis · On-Power, Inc.

Priority 2017-08-29 · Filed 2017-08-29 · Published 2019-02-28

... generation systems, and more specifically to **mobile** power generation systems for operations that may use remotely generated power, such as **fracking**. ... . The **mobile** power generation system of claim 7 , wherein the HVAC system is positioned adjacent to a **switchgear** center of a power control room at the ...

Mobile power generation system including integral air conditioning assembly

WO · WO2019045688A1 · Larry D. Davis · On-Power, Inc.

Priority 2017-08-29 · Filed 2017-08-29 · Published 2019-03-07

... generation systems, and more specifically to **mobile** power generation systems for operations that may use remotely generated power, such as **fracking**. ... 10. The **mobile** power generation system of claim 7, wherein the HVAC system is positioned adjacent to a **switchgear** center of a power control room at ...

Mobile power generation system including closed **cell** base structure



US · US20190063325A1 · Larry D. Davis · On-Power, Inc.

Priority 2017-08-29 · Filed 2017-08-29 · Published 2019-02-28

... generation systems, and more specifically to **mobile** power generation systems for operations that may use remotely generated power, such as **fracking**. ... 110 . A power control room 244 including, among other components, **switchgear**, may be positioned at the rear end 110 of the trailer 104 and may be ...

Mobile power generation system including closed **cell** base structure

WO · WO2019045683A1 · Larry D. Davis · On-Power, Inc.

Priority 2017-08-29 · Filed 2017-08-29 · Published 2019-03-07

[0067] The power control room 244 may include, for example, a **switchgear** center, a motor control center, a unit control panel, a fire system panel ... generation systems, and more specifically to **mobile** power generation systems for operations that may use remotely generated power, such as **fracking**.

Mobile power generation system including noise attenuation

WO · WO2019045687A1 · Larry D. Davis · On-Power, Inc.

Priority 2017-08-29 · Filed 2017-08-29 · Published 2019-03-07

[0069] The power control room 244 may include, for example, a **switchgear** center, a motor control center, a unit control panel, a fire system panel ... generation systems, and more specifically to **mobile** power generation systems for operations that may use remotely generated power, such as **fracking**.

Mobile power generation system including fire suppression



US · US20190063308A1 · Larry D. Davis · On-Power, Inc.

Priority 2017-08-29 · Filed 2017-08-29 · Published 2019-02-28

... generation systems, and more specifically to **mobile** power generation systems for operations that may use remotely generated power, such as **fracking**. ... 110 . A power control room 244 including, among other components, **switchgear**, may be positioned at the rear end 110 of the trailer 104 and may be ...

Mobile power generation system including fire suppression

WO · WO2019045684A1 · Larry D. Davis · On-Power, Inc.

Priority 2017-08-29 • Filed 2017-08-29 • Published 2019-03-07
[0069] The power control room 244 may include, for example, a **switchgear** center, a motor control center, a unit control panel, a fire system panel ... generation systems, and more specifically to **mobile** power generation systems for operations that may use remotely generated power, such as **fracking**.

Mobile power generation system including fixture assembly

WO • WO2019045685A1 • Larry D. Davis • On-Power, Inc.
Priority 2017-08-29 • Filed 2017-08-29 • Published 2019-03-07
[0068] The power control room 244 may include, for example, a **switchgear** center, a motor control center, a unit control panel, a fire system panel ... generation systems, and more specifically to **mobile** power generation systems for operations that may use remotely generated power, such as **fracking**.

Mobile power generation system including air filtration

WO • WO2019045690A1 • Larry D. Davis • On-Power, Inc.
Priority 2017-08-29 • Filed 2017-08-29 • Published 2019-03-07
[0070] The power control room 244 may include, for example, a **switchgear** center, a motor control center, a unit control panel, a fire system panel ... generation systems, and more specifically to **mobile** power generation systems for operations that may use remotely generated power, such as **fracking**.

Mobile power generation system including fixture assembly

US • US20190063262A1 • Larry D. Davis • On-Power, Inc.
Priority 2017-08-29 • Filed 2017-08-29 • Published 2019-02-28
... generation systems, and more specifically to **mobile** power generation systems for operations that may use remotely generated power, such as **fracking**. ... 110 . A power control room 244 including, among other components, **switchgear**, may be positioned at the rear end 110 of the trailer 104 and may be ...

Mobile power generation system including air filtration



US • US20190063341A1 • Larry D. Davis • On-Power, Inc.
Priority 2017-08-29 • Filed 2017-08-29 • Published 2019-02-28
... generation systems, and more specifically to **mobile** power generation systems for operations that may use remotely generated power, such as **fracking**. ... 110 . A power control room 244 including, among other components, **switchgear**, may be positioned at the rear end 110 of the trailer 104 and may be ...

Mobile power generation system including noise attenuation

US • US20190063263A1 • Larry D. Davis • On-Power, Inc.
Priority 2017-08-29 • Filed 2017-08-29 • Published 2019-02-28
... generation systems, and more specifically to **mobile** power generation systems for operations that may use remotely generated power, such as **fracking**. ... 110 . A power control room 244 including, among other components, **switchgear**, may be positioned at the rear end 110 of the trailer 104 and may be ...

Mobile power generation system including dual voltage generator

WO • WO2019045691A1 • Larry D. Davis • On-Power, Inc.
Priority 2017-08-29 • Filed 2017-08-29 • Published 2019-03-07
[0068] The power control room 244 may include, for example, a **switchgear** center, a motor control center, a unit control panel, a fire system panel ... generation systems, and more specifically to **mobile** power generation systems for operations that may use remotely generated power, such as **fracking**.

Mobile power generation system including dual voltage generator

US • US20190067991A1 • Larry D. Davis • On-Power, Inc.
Priority 2017-08-29 • Filed 2017-08-29 • Published 2019-02-28
... generation systems, and more specifically to **mobile** power generation systems for operations that may use remotely generated power, such as **fracking**. ... 110 . A power control room 244 including, among other components, **switchgear**, may be positioned at the rear end 110 of the trailer 104 and may be ...

Mobile power generation system including optical alignment



US • US20190068926A1 • Larry D. Davis • On-Power, Inc.
Priority 2017-08-29 • Filed 2017-08-29 • Published 2019-02-28
... generation systems, and more specifically to **mobile** power generation systems for operations that may use remotely generated power, such as **fracking**. ... 110 . A power control room 244 including, among other components, **switchgear**, may be positioned at the rear end 110 of the trailer 104 and may be ...

Mobile power generation system including optical alignment

WO • WO2019045685A1 • Larry D. Davis • On-Power, Inc.
Priority 2017-08-29 • Filed 2017-08-29 • Published 2019-03-07
[0069] The power control room 244 may include, for example, a **switchgear** center, a motor control center, a unit control panel, a fire system panel ... generation systems, and more specifically to **mobile** power generation systems for operations that may use remotely generated power, such as **fracking**.

Mobile Hydraulic Fracturing System and Related Methods



US • US20190154022A1 • Cory Glass • Supreme Electrical Services, Inc. dba Lime Instruments
Priority 2014-01-06 • Filed 2019-01-28 • Published 2019-05-23
(labeled only as **switchgears** 814 a - b in FIG. 8 , for clarity), in the form of a utility grade recloser in order to protect the circuitry of **hydraulic** ... 4 . The fracturing system of claim 1 , wherein the combined weight of a single **mobile** unit and frame mounted unit is less than 127,600 pounds. 5 . The ...

Switchgear load sharing for oil field equipment



US • US9893550B2 • Jared Oehring • U.S. Well Services, LLC
Priority 2012-11-16 • Filed 2017-04-14 • Granted 2018-02-13 • Published 2018-02-13
... . **Switchgear** trailers can be positioned on **mobile** trailers in some embodiments, or can be body-load or skid mounted units in other embodiments. ... A **hydraulic fracturing** system for fracturing a subterranean formation is disclosed. In an embodiment, the system may include a plurality of electric ...

Switchgear load sharing for oil field equipment

CA • CA2964523A1 • Jared Oehring • Us Well Services Llc
Priority 2016-04-15 • Filed 2017-04-18 • Published 2017-10-15
... . **Switchgear** trailers can be positioned on **mobile** trailers in some embodiments, or can be body-load or skid mounted units in other embodiments. ... A **hydraulic fracturing** system for fracturing a subterranean formation is disclosed. In an embodiment, the system may include a plurality of electric ...

Well fracturing systems with electrical motors and methods of use

WO EP US CN CA *MX PU* • US20190226317A1 • Mark Payne • Stewart & Stevenson, LLC
Priority 2015-03-04 • Filed 2019-04-01 • Published 2019-07-25
... computers and **mobile** phones. The HMI may be connected via a data channel to a distributed programmable automation controller (PAC) on each **hydraulic** ... the **hydraulic fracturing** fleet further includes a pair of **switchgear** trailers, trucks, or skids 80 a , 80 b . The **switchgear** trailers, trucks, or skids

System and process for extracting oil and gas by **hydraulic fracturing**



WO US CN • US20130306322A1 • Stephen Duane Ganzhorn • General Electric Company
Priority 2012-05-21 • Filed 2012-12-07 • Published 2013-11-21
A variety of other equipment, tools, and the like, may be on site as well, such as transformers, power distribution components, **switchgear** (including ... . A process for extracting hydrocarbons from a reservoir rock formation by a **hydraulic fracturing** operation, comprising the step of introducing a ...

Hydraulic fracturing equipment with non-hydraulic power

WO US CA • US10280724B2 • Brandon N. Hinderliter • U.S. Well Services, Inc.
Priority 2017-07-07 • Filed 2017-07-07 • Granted 2019-05-07 • Published 2019-05-07
- j receive up to about 13.8 kV power or more from a **switchgear** trailer and provide a stepped-down voltage of down to about 600V or less to sand ... to the environment, and is heavy, thereby adding to the weight of the **mobile** trailer on which the ancillary equipment is situated at a **hydraulic** ...

Turbine chilling for oil field power generation

US • US9885219B2 • Jared Oehring • U.S. Well Services, LLC
Priority 2012-11-16 • Filed 2017-04-13 • Granted 2018-06-12 • Published 2018-06-12
16. The system of claim 1 , wherein each component of the system is modular and movable to different locations on **mobile** platforms. 11. The system of ... unit (not shown) for use in **hydraulic fracturing**. A turbine generator 415 - a , 415 - b , an electronic equipment room (EER) 430 - a , 430 - b , and a **switchgear** ...

System for gas compression on electric **hydraulic fracturing** fleets

US CA • US20170145918A1 • Jared Oehring • Us Well Services Llc
Priority 2015-11-20 • Filed 2015-11-18 • Published 2017-05-25
The circuit breakers on the **switchgear** can open also ensuring that electrical power is not supplied to the working oilfield equipment. The fire ... power an electric motor, which drives a pump that pumps **hydraulic fracturing** fluid into a well formation. In embodiments, the compressors are **mobile**.

Microgrid electrical load management



WO US • US20190244334A1 • Brandon N. Hinderliter • U.S. Well Services, Inc.
Priority 2018-02-05 • Filed 2019-02-05 • Published 2019-08-08
FIG. 4 illustrates the capabilities of oilfield power generation with a **mobile** microgrid outfitted with a load management software control package. ... 15 , further comprising: distributing power between the generator and the plurality of **hydraulic fracturing** equipment components with a **switchgear**.

High horsepower pumping configuration for an electric **hydraulic fracturing** ...



WO US • US20190169971A1 • Jared Oehring • U.S. Well Services, Inc.
Priority 2017-12-05 • Filed 2018-12-05 • Published 2019-06-06
... , positioned between the switch gear and at least one electric motor, the transformer reducing a voltage output from the at least one **switchgear**. ... Embodiments include a **hydraulic fracturing** system for fracturing a subterranean formation. The system includes an electric pump, arranged on a first ...

Turbine chilling for oil field power generation

CA • CA2964525A1 • Jared Oehring • Us Well Services Llc
Priority 2016-04-15 • Filed 2017-04-18 • Published 2017-10-15
0065] Equipment may be **mobile** and trailer mounted. It is also possible to make **mobile** skid-mounted chiller units or bodyload units where the chilling ... unit (not shown) for use in **hydraulic fracturing**. A turbine generator 415-a, 415-b, an electronic equipment room (EER) 430-a, 430-b, and a **switchgear** ...

Electric powered pump down

US • US20170218730A1 • Jared Oehring • U.S. Well Services, LLC
Priority 2012-11-16 • Filed 2017-04-18 • Published 2017-11-02



. In one embodiment, the elements of the system 10 are **mobile** and can be readily transported to a wellsite adjacent the wellbore 12 , such as on ... a **hydraulic fracturing** pump in communication with the second wellbore, the **hydraulic fracturing** pump pressurizing fluid in the second wellbore to ...

System for reducing noise in a **hydraulic fracturing** fleet



US • US9587649B2 • Jared Oehring • Us Well Services Llc
Priority 2015-01-14 • Filed 2016-01-14 • Granted 2017-03-07 • Published 2017-03-07
... cooling units for the turbine air intake. **Switchgears** for power distribution can be included, and that may be trailer mounted, on a skid, or truck. ... 7. The **hydraulic fracturing** system of claim 5 , further comprising a skirt that extends between the housing and the ground, wherein the skirt ...

Slide out pump stand for **hydraulic fracturing** equipment



US • US20170089177A1 • Jared Oehring • Us Well Services Llc
Priority 2012-11-16 • Filed 2016-07-22 • Published 2017-02-02
... cooling units for the turbine air intake. **Switchgears** for power distribution can be included, and that may be trailer mounted, on a skid, or truck. ... 13 . The **hydraulic fracturing** system of claim 10 , wherein the platform assembly includes a lateral rail assembly, a forward gate, and an aft gate and ...

Comprehensive method of drilling, permeability increasing, repairing and gas- ...

CN • CN103016048B • 齐银波 • 河南理工大学
Priority 2012-11-27 • Filed 2012-11-27 • Granted 2014-12-10 • Published 2014-12-10
... , it is transferred to a portion other than the cave wall, forming a one-way directed load cave in coal, coal by causing lack of support to the **mobile** .. and water pumping stations, performing units, water pumping stations and pump stations are connected through a power cable electrically **switchgear**,

Electric powered pump down

CA • CA2948281A1 • Jared Oehring • Us Well Services, Llc
Priority 2015-10-15 • Filed 2016-10-14 • Published 2017-04-15
Power can be provided from turbines, to a **switchgear**, then to the auxiliary unit 940. The transformer 1300 can be used, for example, to convert power ... a **hydraulic fracturing** pump in communication with a second wellbore that intersects the formation, and that pressurizes fluid in the second wellbore,

Electro-hydrodynamic frac system

WO US CN CA • CN109988809A • 马泰·塞克尔斯 • 能源公司
Priority 2016-10-14 • Filed 2017-10-13 • Published 2019-06-18
... comparison when, the equipment that each quadrant of the system in Fig. 3 eliminates an entire semitrailer disappears in addition to **switchgear** ... , aquation unit 34 and mixed **cell** 16 can be with the hydrofrac fluids in trailer **Hydraulic fracturing** liquid pump on each **hydraulic fracturing** liquid . .

System for reducing noise in a **hydraulic fracturing** fleet

CA • CA2917529A1 • Jared Oehring • Us Well Services Llc
Priority 2015-01-14 • Filed 2016-01-14 • Published 2016-07-14
... cooling units for the turbine air intake. **Switchgears** for power distribution can be included, and that may be trailer mounted, on a skid, or truck. ... 11. The **hydraulic fracturing** system of Claim 1, further comprising a proppant source comprising silos, a dust recovery system having a blower system ...

Slide out pump stand for **hydraulic fracturing** equipment

CA • CA2938929A1 • Jared Oehring • Us Well Services Llc
Priority 2015-07-24 • Filed 2016-07-22 • Published 2017-01-24
... cooling units for the turbine air intake. **Switchgears** for power distribution can be included, and that may be trailer mounted, on a skid, or truck. ... 6. The **hydraulic fracturing** system of Claim 1, wherein the platform assembly comprises a lateral rail assembly on a side that is distal from the pump ...

Equipment for efficient drilling bitumen and crude oil and the method of ...

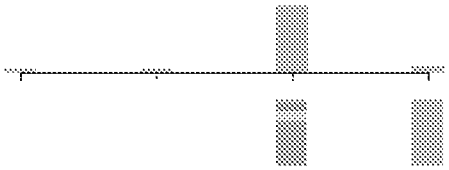
WO CZ • CZ2017552A3 • Dmitri Anatoljevich LEMENOVSKI • Dmitri Anatoljevich LEMENOVSKI
Priority 2017-09-19 • Filed 2017-09-19 • Published 2019-04-24
... the same container, such as the composition tank A for the composition B, laboratories 29 are provided with space for high and low voltage **switchgear** ... The technology is destined to return probes that have been stimulated by **hydraulic fracturing** or thermal methods (steam, SAGD), or are heavily ...

Device for fluid flow modeling of the slot

US RU • RU2617178C1 • Род Виллиам Шеннайн • Шлюмберже Текнолоджи Б.В.
Priority 2014-12-18 • Filed 2015-12-17 • Granted 2017-04-21 • Published 2017-04-21
... of equipment: cylinders / pistons, power supplies, piping, valves, frames and fasteners, tools of supply and disposal of samples, motors, **switchgear** ... test **cell** housing having a first outer surface, a second outer surface and a lumen extending between the first outer surface and second outer surface ...

About 40 results

Top 1000 results by filing date



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Assignees	Inventors	CPCs
On-Power, Inc.		40%
H01D15/10 H01G5 H01G9/08 H05B2240/00		
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CM Meyer - ee.co.za

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CM Meyer - eepublishers.co.za

... As the price of natural gas – and the "unnatural gas" produced by **fracking** – has decreased in the USA, many (28%) ammonia-based fertiliser plants there have shut down, as they can no longer compete with even cheaper products produced overseas, and 50% of nitrogen ...

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AA Bell, WL Angel - 2000 - McGraw-Hill New York, NY

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ML Wald - Health Affairs, 2015 - search.proquest.com

... What is closing nuclear plants now is a revolution in a competing technology: **fracking** and cheap natural gas ... Yes, that happened, but the reactors were already doomed by the loss of the emergency diesels and **switchgear** ...

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Unconventional coal power generation using waste coal

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Vector, published by EE Publishers, is an industry publication covering lighting design and application; switchgear and drives; mechanical technology; and construction, installations and contracting. Vector provides a voice for various industry associations.

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PC Sarker, MR Islam, AK Paul, SK Ghosh - Renewable Energy and the ..., 2018 - Springer

... Moreover, ground water becomes contaminated with **fracking** fluid and gas near the oil and gas wells. 2.3.2 The Detrimental Effects of Nuclear Power Plants ... Step-up power transformer, **switchgear**, monitoring system, and metering are basic elements of solar PV substations ...

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Deepwater Natural Gas Hydrate Innovation Opportunities

MD Max, AH Johnson - Exploration and Production of Oceanic Natural ..., 2019 - Springer

... drilling and new **fracking** methods were applied to exploitation of the shale resource, although we do not envisage **fracking** as being ... Each SPG consists of a pressure-compensated transformer, medium-voltage **switchgear**, variable speed electric drives, and power control and ...

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BL Preston, SN Backhaus, M Ewers... - ORNL, LANL, ANL ..., 2016 - energy.gov

Page 1. Resilience of the US Electricity System: A Multi-Hazard Perspective Benjamin L. Preston (ORNL) Scott N. Backhaus (LANL) Mary Ewers (LANL) Julia A. Phillips (ANL) Cesar A. Silva-Monroy (SNL) Jeffery E. Dagle (PNNL ...

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solutions

SL Malloy, PE Gregorio Estrada - 2012 - amtaorg.com

... instrumentation/SCADA. The cost also considered 50 percent of the Central Electrical Building cost, which houses the MCCs and **switchgear** for the new MBR, as well as the new Headworks and Primary Sedimentation Tanks. This ...

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MD Max, AH Johnson - Exploration and Production of Oceanic Natural ..., 2019 - Springer

... Further 'stretching' involves refracking of an already **fracked** well in which production has declined ... plugs between each stage that dissolve or react with the water after **fracking** ... each consist of a pressure-compensated transformer, a medium-voltage **switchgear**, variable speed ...

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Utility scale compressed air energy storage and clean power using waste heat from thermal power plants plus added protection for nuclear power plants

WH Wattenburg - IEEE Access, 2018 - ieeexplore.ieee.org

... Most critics have simply never tried. **Fracking** unproductive solid strata: **Fracking** unproductive solid strata in wells may be another approach to opening up large volumes for compressed air storage. **Fracking** is used to release oil and gas trapped in productive strata ...

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... **Fracking** presents a number of risks to the public ... The machine controls. • The balance of the electrical system, including cables, **switchgear**, transformers, and, possibly electronic power converters [7]. The turbines under consideration are of utility scale, ranging from 1-6MW ...

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How 24/7 Real-Time Surveillance Increases ESP Run Life and Uptime

LAP Camilleri, J Macdonald - SPE Annual Technical Conference ..., 2010 - onepetro.org

... having ineffective protection. This is often the case in land based fields where **switchgear** is remote and difficult to visit regularly. An alarm is a condition that causes a warning signal to be sent without shutting down the ESP. It is ...

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BK Bose, F Wang - ... in Renewable Energy Systems and Smart ..., 2019 - Wiley Online Library

... It is interesting to note that the recent shale oil and natural gas revolution by hydraulic **fracking** is altering the energy scenario ... and distribution lines, generators (which are both for mechanical to electrical energy conversion and for control), transformers, **switchgears**, inductors or ...

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R Mitchell - 2017 - mountainscholar.org

... A large amount of power is required to drill the wells, pump the **fracking** fluid and provide electrical power to the control stations [14]. The well sites are not typically connected to the utility grid so this power is usually supplied by diesel engines ...

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Bibliographic Data

Application No: 16/443,273

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35 USC 119 (a-d) conditions met: ☐ Yes ☑ No ☐ Met After Allowance

Verified and Acknowledged: /Ryan D. Coyer/ Examiner's Signature | Initials

Title: INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING

FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
06/17/2019	700	2191	047158.100042
RULE			

APPLICANTS

U.S. Well Services, Inc., Houston, TX,

INVENTORS

Brandon N. Hinderliter Houston, TX, UNITED STATES

CONTINUING DATA

This application has PRO of 62685797 06/15/2018

FOREIGN APPLICATIONS

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Application Number	16443273
Filing Date	2019-06-17
First Named Inventor	Brandon N. Hinderliter
Art Unit	3672
Examiner Name	Cathleen R. Hutchins
Attorney Docket Number	047158.100042

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Art Unit	3672
Examiner Name	Cathleen R. Hutchins
Attorney Docket Number	047158.100042

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	Attorney Docket Number	047158.100042

	47	Office Action mailed March 1, 2019 in related Canadian Patent Application No. 2,943,275	☒
	48	International Search Report and Written Opinion mailed April 10, 2019 in corresponding PCT Application No. PCT/US2019/016635	☒
	49	Notice of Allowance mailed April 23, 2019 in corresponding U.S. Patent Application No. 15/635,028	☒
	50	International Search Report and Written Opinion mailed July 9, 2019 in corresponding PCT Application No. PCT/US2019/027584	☒

If you wish to add additional non-patent literature document citation information please click the Add button Add

EXAMINER SIGNATURE

Examiner Signature	/Ryan D. Coyer/ (08/26/2019)	Date Considered	08/26/2019

*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through a citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /RDC/

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16443273
Filing Date	2019-06-17
First Named Inventor	Brandon N. Hinderliter
Art Unit	3672
Examiner Name	Cathleen R. Hutchins
Attorney Docket Number	047158.100042

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Taylor P. Evans/	Date (YYYY-MM-DD)	2019-08-01
Name/Print	Taylor P. Evans	Registration Number	60506

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

ALL REFERENCES CONSIDERED EXCEPT WHERE LINED THROUGH. /RDC/

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3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.

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7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.

8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.

9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

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EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S1	183	("20050116541" | "20080208478" | "20090095482" | "20100051272" | "20100146981" | "20100293973" | "20120255734" | "20140138079" | "20140174717" | "20150144336" | "20170037717" | "20170218843" | "20170222409" | "3849662" | "4442665" | "4676063" | "5790972" | "6477852" | "7717193" | "7845413" | "7977824" | "8154419" | "8232892" | "8261528" | "8616274" | "9450385" | "9611728" | "9650879" | "9745840" | "20090200035" | "5736838" | "8692408" | "20030138327" | "20070226089" | "20070278140" | "20090153354" | "20090308602" | "20100250139" | "20120205400" | "20130025706" | "20130199617" | "20160221220" | "20170022788" | "20170028368" | "20170030177" | "20170030178" | "4506982" | "4538916" | "4793386" | "4922463" | "5590976" | "6808303" | "9587649" | "1671436" | "20040000077" | "20070187163" | "20070201305" | "20080112802" | "20080137266" | "20080217024" | "20080264649" | "20090065299" | "20090188181" | "20090260826" | "20100000508" | "20100132949" | "20100303655" | "20100322802" | "20110005757" | "20110017468" | "20110085924" | "20110272158" | "20120018016" | "20120085541" | "20120127635" | "20120205301" | "20130233542" | "20130306322" | "20130341029" | "20140000899" | "20140010671" | "20140096974" | "20140124162" | "20140251623" | "20150083426" | "20150114652" | "20150159911" | "20150175013" | "20150176386" | "20150211524" | "20150225113" | "20150252661" | "20160032703" | "20160105022" | "20160177678" | "20160208592" | "20160258267" | "20160273328" | "20160290114" | "20160319650" | "20160326854" | "20160348479" | "20160349728" | "2220622" | "2248051" | "3061039" | "3066503" | "3334495" | "3722595" | "3764233" | "3773140" | "3837179" | "3881551" | "4037431" | "4151575" | "4226299" | "4456092" | "4512387" | "4845981" | "5025861" | "5130628" |	US-PGPUB; USPAT	OR	ON	2017/10/01 21:30

		"5131472" | "5422550" | "5548093" | "5655361" | "5865247" | "5879137" | "5894888" | "5907970" | "6142878" | "6164910" | "6202702" | "6254462" | "6271637" | "6315523" | "6491098" | "6529135" | "6776227" | "6802690" | "6931310" | "7170262" | "7173399" | "7312593" | "7336514" | "7445041" | "7500642" | "7525264" | "7563076" | "7683499" | "7755310" | "7807048" | "8037936" | "8054084" | "8083504" | "8096891" | "8146665" | "8272439" | "8310272" | "8354817" | "8474521" | "8534235" | "8573303" | "8596056" | "8727068" | "8760657" | "8774972" | "8789601" | "8807960" | "8838341" | "8857506" | "8899940" | "8905056" | "8905138" | "8997904" | "9018881" | "9051822" | "9067182" | "9103193" | "9140110" | "9160168" | "9322239" | "9366114" | "9410410").PN.				
S2	751	700/293.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/01 21:33
S3	58564	G05B15/02.cpc. E21B43/26.cpc. H02J3/14.cpc. H02J9/066.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/01 21:34
S4	50	(US-20120149610-$).did. or (US-6601648-$ or US-6849581-$ or US-3559855-$ or US-3707945-$ or US-3751576-$ or US-4022279-$ or US-4109964-$ or US-4387770-$ or US-4641709-$ or US-4662440-$ or US-4693382-$ or US-4752014-$ or US-5331155-$ or US-5384085-$ or US-5798469-$ or US-5885471-$ or US-5905939-$ or US-6023841-$ or US-6138760-$ or US-6321473-$ or US-6398798-$ or US-6435277-$ or US-6439310-$ or US-6446729-$ or US-6507095-$ or US-6543538-$).did. or (US-6575242-$ or US-6626241-$ or US-6695057-$ or US-6725934-$ or US-6938693-$ or US-6962203-$ or US-6978832-$ or US-7066257-$ or US-7090153-$ or US-7104320-$ or US-7169691-$ or US-7191833-$ or US-7243723-$ or US-7256160-$ or US-7308934-$ or US-7341103-$ or US-7341116-$ or US-7393984-$ or US-7416022-$ or US-7503404-$ or US-7543635-$ or US-7681635-$ or US-7709772-$).did.	US-PGPUB; USPAT	OR	ON	2017/10/01 21:34
S5	50	(US-20070277978-$ or US-20080035337-$ or US-20120118397-$ or	US-PGPUB; USPAT	OR	ON	2017/10/01 21:34

		US-20130168484-$ or US-20130284582-$ or US-20130313353-$ or US-20140144623-$ or US-20150144336-$ or US-20150344263-$ or US-20160272877-$ or US-20160369608-$ or US-20170030484-$).did. or (US-5709267-$ or US-5497831-$ or US-5564499-$ or US-4265570-$ or US-4410387-$ or US-4574880-$ or US-4589491-$ or US-4825960-$ or US-4848486-$ or US-4898473-$ or US-4900157-$ or US-4909777-$ or US-5018578-$ or US-5025859-$ or US-5199491-$ or US-5224543-$ or US-5256729-$ or US-5375313-$ or US-5722490-$ or US-5755286-$ or US-6167964-$ or US-9371723-$ or US-9400065-$ or US-9550652-$ or US-5712766-$ or US-4290276-$).did. or (US-4313453-$ or US-4352382-$ or US-4527430-$ or US-4567657-$ or US-4787827-$ or US-4793820-$ or US-4799801-$ or US-4804303-$ or US-4942837-$ or US-5341122-$ or US-5678921-$ or US-5732984-$).did.				
S6	0	S4 and S5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/01 21:34
S7	37	multiple with generator same overload$5 with prevent$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/01 21:35
S8	100	(many several multiple) with generator same overload$5 with prevent$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/01 21:35
S9	1	multiple with generator same overload$5 with shed$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/01 21:37
S10	6	(many several multiple) with generator same overload$5 with shed$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/01 21:38
S11	828	(many several multiple) with generator same (fracking fracturing mining	US-PGPUB; USPAT;	OR	ON	2017/10/01 21:41

		extracting)	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S12	226	(many several multiple) with generators same (fracking fracturing mining extracting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/01 21:41
S13	4277	(many several multiple) with (sources generators engines) same (fracking fracturing mining extracting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/01 21:44
S14	1736	(many several multiple) with (sources generators engines) with (fracking fracturing mining extracting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/01 21:44
S15	86	(many several multiple) with (sources generators engines) with (fracking fracturing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/01 21:44
S16	2	"7675189".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/01 21:48
S17	5	"20140096974"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/01 21:49
S18	2	"20120255734".did.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/01 21:51
S19	3	"20140096974".did.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/01 21:54

S20	1533	load with shed$5 same signal	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/01 21:55
S21	14	load with shed$5 same signal same (ma milliamps milliamperes)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/01 21:55
S22	16	(many several multiple) with (generators) with (fracking fracturing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:10
S23	30	(parallel redundant) with (power) with (fracking fracturing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:11
S24	844	(parallel redundant) with (power) with (drilling boring)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:14
S25	6	(parallel redundant) with (power electricity) with (drilling boring) same (overload failover shedding)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:15
S26	4	(parallel redundant) with (power electricity) with (drilling boring) same (failover backup)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:17
S27	3567	(parallel redundant) with (power electricity) with (failover backup)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:18
S28	949	(parallel redundant) with (power electricity) with (generator source) same (failover backup)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2017/10/02 09:18

			DERWENT; IBM_TDB			
S29	24	(parallel redundant) with (power electricity) with (generator source) same (failover backup) and (drilling fracking boring mining)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:18
S30	133	parallel with generator same overload$5 with prevent$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/02 09:24
S31	24	backup with generator same overload$5 with prevent$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/02 09:25
S32	0	backup with generator same fracking	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/02 09:27
S33	9	backup with generator same fracturing	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/02 09:27
S34	10	backup with generator same5 fracturing	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/02 09:28
S35	131	backup with generator same5 (mining boring drilling)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/02 09:28
S36	36	backup with power same5 fracturing	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/02 09:30
S37	20	backup with electric$5 same5 fracturing	US-PGPUB; USPAT; USOCR;	OR	ON	2017/10/02 09:32

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S38	79	multiple adj independent with turbines	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/02 09:44
S39	0	multiple adj independent with turbines same electricity	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/02 09:44
S40	11	multiple adj independent with turbines same power	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/02 09:44
S41	98	multiple adj independent with generator same power	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/02 09:45
S42	4	multiple adj independent with generator same power same backup	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2017/10/02 09:46
S43	146	multiple adj independent with generators	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:46
S44	0	multiple adj independent with generators same backup	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:47
S45	1	multiple adj independent with generators same redundant	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:47
S46	2	multiple adj independent with generators	US-PGPUB;	OR	OFF	2017/10/02

		same4 redundant	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			09:47
S47	3	multiple adj independent with generators same4 redundan$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:48
S48	0	multiple adj independent with generators same4 failover	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:49
S49	2	multiple adj independent with generators same4 overload	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:49
S50	0	multiple adj independent with generators same4 sheding	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:50
S51	0	multiple adj independent with generators same4 shedding	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:50
S52	3	multiple adj independent with generators and on-site	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:52
S53	1092	backup adj generator	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:53
S54	5	backup adj generator same load adj shed$6	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2017/10/02 09:54

			IBM_TDB			
S55	0	backup adj generators same load adj shed$6	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:55
S56	11886	second adj generator	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:55
S57	45	second adj generator same backup	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/10/02 09:55
S58	5	("20130175038" | "20130175039" | "20140246211" | "20160230525" | "2753940").PN.	US-PGPUB; USPAT	OR	OFF	2018/05/12 18:53
S59	18	("20150068724" | "20150068754" | "20150300145" | "20150314225" | "20160177675" | "20160208593" | "20160208594" | "20160326855" | "20160369609" | "20170036178" | "20170037718" | "20170104389" | "20170259227" | "9121257" | "9475020" | "9475021" | "9534473" | "9562420").PN.	US-PGPUB; USPAT	OR	OFF	2018/05/12 18:54
S60	17	(S58 S59) and generator	US-PGPUB; USPAT	OR	OFF	2018/05/12 18:56
S61	0	(S58 S59) and generator with (fail loss lose lost)	US-PGPUB; USPAT	OR	OFF	2018/05/12 18:56
S62	0	(S58 S59) and generator with (fail?? loss lose lost)	US-PGPUB; USPAT	OR	OFF	2018/05/12 18:56
S63	1	(S58 S59) and generator with second	US-PGPUB; USPAT	OR	OFF	2018/05/12 18:56
S64	183	("20050116541" | "20080208478" | "20090095482" | "20100051272" | "20100146981" | "20100293973" | "20120255734" | "20140138079" | "20140174717" | "20150144336" | "20170037717" | "20170218843" | "20170222409" | "3849662" | "4442665" | "4676063" | "5790972" | "6477852" | "7717193" | "7845413" | "7977824" | "8154419" | "8232892" | "8261528" | "8616274" | "9450385" | "9611728" | "9650879" | "9745840" | "20090200035" | "5736838" | "8692408" | "20030138327" | "20070226089" | "20070278140" | "20090153354" | "20090308602" | "20100250139" | "20120205400" | "20130025706" | "20130199617" | "20160221220" |	US-PGPUB; USPAT	OR	ON	2018/05/12 18:57

		"20170022788" | "20170028368" | "20170030177" | "20170030178" | "4506982" | "4538916" | "4793386" | "4922463" | "5590976" | "6808303" | "9587649" | "1671436" | "20040000077" | "20070187163" | "20070201305" | "20080112802" | "20080137266" | "20080217024" | "20080264649" | "20090065299" | "20090188181" | "20090260826" | "20100000508" | "20100132949" | "20100303655" | "20100322802" | "20110005757" | "20110017468" | "20110085924" | "20110272158" | "20120018016" | "20120085541" | "20120127635" | "20120205301" | "20130233542" | "20130306322" | "20130341029" | "20140000899" | "20140010671" | "20140096974" | "20140124162" | "20140251623" | "20150083426" | "20150114652" | "20150159911" | "20150175013" | "20150176386" | "20150211524" | "20150225113" | "20150252661" | "20160032703" | "20160105022" | "20160177678" | "20160208592" | "20160258267" | "20160273328" | "20160290114" | "20160319650" | "20160326854" | "20160348479" | "20160349728" | "2220622" | "2248051" | "3061039" | "3066503" | "3334495" | "3722595" | "3764233" | "3773140" | "3837179" | "3881551" | "4037431" | "4151575" | "4226299" | "4456092" | "4512387" | "4845981" | "5025861" | "5130628" | "5131472" | "5422550" | "5548093" | "5655361" | "5865247" | "5879137" | "5894888" | "5907970" | "6142878" | "6164910" | "6202702" | "6254462" | "6271637" | "6315523" | "6491098" | "6529135" | "6776227" | "6802690" | "6931310" | "7170262" | "7173399" | "7312593" | "7336514" | "7445041" | "7500642" | "7525264" | "7563076" | "7683499" | "7755310" | "7807048" | "8037936" | "8054084" | "8083504" | "8096891" | "8146665" | "8272439" | "8310272" | "8354817" | "8474521" | "8534235" | "8573303" | "8596056" | "8727068" | "8760657" | "8774972" | "8789601" | "8807960" | "8838341" | "8857506" | "8899940" | "8905056" | "8905138" | "8997904" | "9018881" | "9051822" | "9067182" | "9103193" | "9140110" | "9160168" | "9322239" | "9366114" | "9410410").PN.				
S65	786	700/293.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S66	63795	G05B15/02.cpc. E21B43/26.cpc.	US-PGPUB;	OR	ON	2018/05/12

		H02J3/14.cpc. H02J9/066.cpc.	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			18:57
S67	50	(US-20120149610-$).did. or (US-6601648-$ or US-6849581-$ or US-3559855-$ or US-3707945-$ or US-3751576-$ or US-4022279-$ or US-4109964-$ or US-4387770-$ or US-4641709-$ or US-4662440-$ or US-4693382-$ or US-4752014-$ or US-5331155-$ or US-5384085-$ or US-5798469-$ or US-5885471-$ or US-5905939-$ or US-6023841-$ or US-6138760-$ or US-6321473-$ or US-6398798-$ or US-6435277-$ or US-6439310-$ or US-6446729-$ or US-6507095-$ or US-6543538-$).did. or (US-6575242-$ or US-6626241-$ or US-6695057-$ or US-6725934-$ or US-6938693-$ or US-6962203-$ or US-6978832-$ or US-7066257-$ or US-7090153-$ or US-7104320-$ or US-7169691-$ or US-7191833-$ or US-7243723-$ or US-7256160-$ or US-7308934-$ or US-7341103-$ or US-7341116-$ or US-7393984-$ or US-7416022-$ or US-7503404-$ or US-7543635-$ or US-7681635-$ or US-7709772-$).did.	US-PGPUB; USPAT	OR	ON	2018/05/12 18:57
S68	50	(US-20070277978-$ or US-20080035337-$ or US-20120118397-$ or US-20130168484-$ or US-20130284582-$ or US-20130313353-$ or US-20140144623-$ or US-20150144336-$ or US-20150344263-$ or US-20160272877-$ or US-20160369608-$ or US-20170030484-$).did. or (US-5709267-$ or US-5497831-$ or US-5564499-$ or US-4265570-$ or US-4410387-$ or US-4574880-$ or US-4589491-$ or US-4825960-$ or US-4848486-$ or US-4898473-$ or US-4900157-$ or US-4909777-$ or US-5018578-$ or US-5025859-$ or US-5199491-$ or US-5224543-$ or US-5256729-$ or US-5375313-$ or US-5722490-$ or US-5755286-$ or US-6167964-$ or US-9371723-$ or US-9400065-$ or US-9550652-$ or US-5712766-$ or US-4290276-$).did. or (US-4313453-$ or US-4352382-$ or US-4527430-$ or US-4567657-$ or US-4787827-$ or US-4793820-$ or US-4799801-$ or US-4804303-$ or US-4942837-$ or US-5341122-$ or US-5678921-$ or US-5732984-$).did.	US-PGPUB; USPAT	OR	ON	2018/05/12 18:57
S69	0	S67 and S68	US-PGPUB; USPAT; USOCR; FPRS;	OR	ON	2018/05/12 18:57

			EPO; JPO; DERWENT; IBM_TDB			
S70	37	multiple with generator same overload$5 with prevent$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S71	100	(many several multiple) with generator same overload$5 with prevent$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S72	1	multiple with generator same overload$5 with shed$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S73	6	(many several multiple) with generator same overload$5 with shed$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S74	884	(many several multiple) with generator same (fracking fracturing mining extracting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S75	235	(many several multiple) with generators same (fracking fracturing mining extracting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S76	4551	(many several multiple) with (sources generators engines) same (fracking fracturing mining extracting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S77	1856	(many several multiple) with (sources generators engines) with (fracking fracturing mining extracting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S78	93	(many several multiple) with (sources generators engines) with (fracking	US-PGPUB; USPAT;	OR	OFF	2018/05/12 18:57

		fracturing)	USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S79	2	"7675189".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S80	5	"20140096974"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S81	2	"20120255734".did.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S82	3	"20140096974".did.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S83	1602	load with shed$5 same signal	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S84	14	load with shed$5 same signal same (ma milliamps milliamperes)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S85	19	(many several multiple) with (generators) with (fracking fracturing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S86	37	(parallel redundant) with (power) with (fracking fracturing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57

S87	892	(parallel redundant) with (power) with (drilling boring)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S88	6	(parallel redundant) with (power electricity) with (drilling boring) same (overload failover shedding)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S89	5	(parallel redundant) with (power electricity) with (drilling boring) same (failover backup)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S90	3903	(parallel redundant) with (power electricity) with (failover backup)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S91	1008	(parallel redundant) with (power electricity) with (generator source) same (failover backup)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S92	24	(parallel redundant) with (power electricity) with (generator source) same (failover backup) and (drilling fracking boring mining)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S93	133	parallel with generator same overload$5 with prevent$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S94	24	backup with generator same overload$5 with prevent$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S95	0	backup with generator same fracking	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2018/05/12 18:57

			DERWENT; IBM_TDB			
S96	9	backup with generator same fracturing	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S97	13	backup with generator same5 fracturing	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S98	146	backup with generator same5 (mining boring drilling)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S99	39	backup with power same5 fracturing	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S100	22	backup with electric$5 same5 fracturing	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S101	87	multiple adj independent with turbines	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S102	0	multiple adj independent with turbines same electricity	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S103	11	multiple adj independent with turbines same power	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S104	101	multiple adj independent with generator same power	US-PGPUB; USPAT; USOCR;	OR	ON	2018/05/12 18:57

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S105	4	multiple adj independent with generator same power same backup	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/05/12 18:57
S106	148	multiple adj independent with generators	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S107	0	multiple adj independent with generators same backup	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S108	1	multiple adj independent with generators same redundant	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S109	3	multiple adj independent with generators same4 redundant	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S110	4	multiple adj independent with generators same4 redundan$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S111	0	multiple adj independent with generators same4 failover	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S112	2	multiple adj independent with generators same4 overload	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S113	0	multiple adj independent with generators	US-PGPUB;	OR	OFF	2018/05/12

		same4 sheding	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			18:57
S114	0	multiple adj independent with generators same4 shedding	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S115	3	multiple adj independent with generators and on-site	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S116	1205	backup adj generator	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S117	6	backup adj generator same load adj shed$6	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S118	0	backup adj generators same load adj shed$6	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S119	12405	second adj generator	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S120	47	second adj generator same backup	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/05/12 18:57
S121	183	("20050116541" | "20080208478" | "20090095482" | "20100051272" | "20100146981" | "20100293973" | "20120255734" | "20140138079" | "20140174717" | "20150144336" | "20170037717" | "20170218843" |	US-PGPUB; USPAT	OR	ON	2018/12/13 15:26

		"20170222409" | "3849662" | "4442665" | "4676063" | "5790972" | "6477852" | "7717193" | "7845413" | "7977824" | "8154419" | "8232892" | "8261528" | "8616274" | "9450385" | "9611728" | "9650879" | "9745840" | "20090200035" | "5736838" | "8692408" | "20030138327" | "20070226089" | "20070278140" | "20090153354" | "20090308602" | "20100250139" | "20120205400" | "20130025706" | "20130199617" | "20160221220" | "20170022788" | "20170028368" | "20170030177" | "20170030178" | "4506982" | "4538916" | "4793386" | "4922463" | "5590976" | "6808303" | "9587649" | "1671436" | "20040000077" | "20070187163" | "20070201305" | "20080112802" | "20080137266" | "20080217024" | "20080264649" | "20090065299" | "20090188181" | "20090260826" | "20100000508" | "20100132949" | "20100303655" | "20100322802" | "20110005757" | "20110017468" | "20110085924" | "20110272158" | "20120018016" | "20120085541" | "20120127635" | "20120205301" | "20130233542" | "20130306322" | "20130341029" | "20140000899" | "20140010671" | "20140096974" | "20140124162" | "20140251623" | "20150083426" | "20150114652" | "20150159911" | "20150175013" | "20150176386" | "20150211524" | "20150225113" | "20150252661" | "20160032703" | "20160105022" | "20160177678" | "20160208592" | "20160258267" | "20160273328" | "20160290114" | "20160319650" | "20160326854" | "20160348479" | "20160349728" | "2220622" | "2248051" | "3061039" | "3066503" | "3334495" | "3722595" | "3764233" | "3773140" | "3837179" | "3881551" | "4037431" | "4151575" | "4226299" | "4456092" | "4512387" | "4845981" | "5025861" | "5130628" | "5131472" | "5422550" | "5548093" | "5655361" | "5865247" | "5879137" | "5894888" | "5907970" | "6142878" | "6164910" | "6202702" | "6254462" | "6271637" | "6315523" | "6491098" | "6529135" | "6776227" | "6802690" | "6931310" | "7170262" | "7173399" | "7312593" | "7336514" | "7445041" | "7500642" | "7525264" | "7563076" | "7683499" | "7755310" | "7807048" | "8037936" | "8054084" | "8083504" | "8096891" | "8146665" | "8272439" | "8310272" | "8354817" | "8474521" | "8534235" | "8573303" | "8596056" | "8727068" | "8760657" | "8774972" | "8789601" | "8807960" | "8838341" | "8857506" | "8899940" | "8905056" |			

		"8905138" | "8997904" | "9018881" | "9051822" | "9067182" | "9103193" | "9140110" | "9160168" | "9322239" | "9366114" | "9410410").PN.				
S122	812	700/293.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S123	73471	G05B15/02.cpc. E21B43/26.cpc. H02J3/14.cpc. H02J9/066.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S124	50	(US-20120149610-$).did. or (US-6601648-$ or US-6849581-$ or US-3559855-$ or US-3707945-$ or US-3751576-$ or US-4022279-$ or US-4109964-$ or US-4387770-$ or US-4641709-$ or US-4662440-$ or US-4693382-$ or US-4752014-$ or US-5331155-$ or US-5384085-$ or US-5798469-$ or US-5885471-$ or US-5905939-$ or US-6023841-$ or US-6138760-$ or US-6321473-$ or US-6398798-$ or US-6435277-$ or US-6439310-$ or US-6446729-$ or US-6507095-$ or US-6543538-$).did. or (US-6575242-$ or US-6626241-$ or US-6695057-$ or US-6725934-$ or US-6938693-$ or US-6962203-$ or US-6978832-$ or US-7066257-$ or US-7090153-$ or US-7104320-$ or US-7169691-$ or US-7191833-$ or US-7243723-$ or US-7256160-$ or US-7308934-$ or US-7341103-$ or US-7341116-$ or US-7393984-$ or US-7416022-$ or US-7503404-$ or US-7543635-$ or US-7681635-$ or US-7709772-$).did.	US-PGPUB; USPAT	OR	ON	2018/12/13 15:26
S125	50	(US-20070277978-$ or US-20080035337-$ or US-20120118397-$ or US-20130168484-$ or US-20130284582-$ or US-20130313353-$ or US-20140144623-$ or US-20150144336-$ or US-20150344263-$ or US-20160272877-$ or US-20160369608-$ or US-20170030484-$).did. or (US-5709267-$ or US-5497831-$ or US-5564499-$ or US-4265570-$ or US-4410387-$ or US-4574880-$ or US-4589491-$ or US-4825960-$ or US-4848486-$ or US-4898473-$ or US-4900157-$ or US-4909777-$ or US-5018578-$ or US-5025859-$ or US-5199491-$ or US-5224543-$ or US-5256729-$ or US-5375313-$ or US-5722490-$ or US-5755286-$ or US-6167964-$ or US-9371723-$ or US-9400065-$ or US-	US-PGPUB; USPAT	OR	ON	2018/12/13 15:26

		9550652-$ or US-5712766-$ or US-4290276-$).did. or (US-4313453-$ or US-4352382-$ or US-4527430-$ or US-4567657-$ or US-4787827-$ or US-4793820-$ or US-4799801-$ or US-4804303-$ or US-4942837-$ or US-5341122-$ or US-5678921-$ or US-5732984-$).did.				
S126	0	S124 and S125	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S127	37	multiple with generator same overload$5 with prevent$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S128	101	(many several multiple) with generator same overload$5 with prevent$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S129	1	multiple with generator same overload$5 with shed$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S130	6	(many several multiple) with generator same overload$5 with shed$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S131	947	(many several multiple) with generator same (fracking fracturing mining extracting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S132	250	(many several multiple) with generators same (fracking fracturing mining extracting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S133	4876	(many several multiple) with (sources generators engines) same (fracking fracturing mining extracting)	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2018/12/13 15:26

			EPO; JPO; DERWENT; IBM_TDB			
S134	2001	(many several multiple) with (sources generators engines) with (fracking fracturing mining extracting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S135	111	(many several multiple) with (sources generators engines) with (fracking fracturing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S136	2	"7675189".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S137	5	"20140096974"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S138	2	"20120255734".did.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S139	3	"20140096974".did.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S140	1669	load with shed$5 same signal	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S141	14	load with shed$5 same signal same (ma milliamps milliamperes)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S142	26	(many several multiple) with (generators) with (fracking fracturing)	US-PGPUB; USPAT;	OR	OFF	2018/12/13 15:26

			USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			
S143	47	(parallel redundant) with (power) with (fracking fracturing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S144	940	(parallel redundant) with (power) with (drilling boring)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S145	6	(parallel redundant) with (power electricity) with (drilling boring) same (overload failover shedding)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S146	5	(parallel redundant) with (power electricity) with (drilling boring) same (failover backup)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S147	4255	(parallel redundant) with (power electricity) with (failover backup)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S148	1063	(parallel redundant) with (power electricity) with (generator source) same (failover backup)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S149	26	(parallel redundant) with (power electricity) with (generator source) same (failover backup) and (drilling fracking boring mining)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S150	134	parallel with generator same overload$5 with prevent$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26

S151	26	backup with generator same overload$5 with prevent$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S152	0	backup with generator same fracking	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S153	10	backup with generator same fracturing	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S154	15	backup with generator same5 fracturing	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S155	167	backup with generator same5 (mining boring drilling)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S156	46	backup with power same5 fracturing	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S157	24	backup with electric$5 same5 fracturing	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S158	92	multiple adj independent with turbines	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S159	0	multiple adj independent with turbines same electricity	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	ON	2018/12/13 15:26

			DERWENT; IBM_TDB			
S160	12	multiple adj independent with turbines same power	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S161	104	multiple adj independent with generator same power	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S162	4	multiple adj independent with generator same power same backup	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S163	152	multiple adj independent with generators	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S164	0	multiple adj independent with generators same backup	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S165	1	multiple adj independent with generators same redundant	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S166	3	multiple adj independent with generators same4 redundant	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S167	5	multiple adj independent with generators same4 redundan$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S168	0	multiple adj independent with generators same4 failover	US-PGPUB; USPAT; USOCR;	OR	OFF	2018/12/13 15:26

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S169	2	multiple adj independent with generators same4 overload	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S170	0	multiple adj independent with generators same4 sheding	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S171	0	multiple adj independent with generators same4 shedding	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S172	3	multiple adj independent with generators and on-site	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S173	1312	backup adj generator	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S174	7	backup adj generator same load adj shed$6	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S175	0	backup adj generators same load adj shed$6	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S176	12819	second adj generator	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S177	51	second adj generator same backup	US-PGPUB;	OR	OFF	2018/12/13

			USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			15:26
S178	5	("20130175038" | "20130175039" | "20140246211" | "20160230525" | "2753940").PN.	US-PGPUB; USPAT	OR	OFF	2018/12/13 15:26
S179	18	("20150068724" | "20150068754" | "20150300145" | "20150314225" | "20160177675" | "20160208593" | "20160208594" | "20160326855" | "20160369609" | "20170036178" | "20170037718" | "20170104389" | "20170259227" | "9121257" | "9475020" | "9475021" | "9534473" | "9562420").PN.	US-PGPUB; USPAT	OR	OFF	2018/12/13 15:26
S180	17	(S178 S179) and generator	US-PGPUB; USPAT	OR	OFF	2018/12/13 15:26
S181	0	(S178 S179) and generator with (fail loss lose lost)	US-PGPUB; USPAT	OR	OFF	2018/12/13 15:26
S182	0	(S178 S179) and generator with (fail?? loss lose lost)	US-PGPUB; USPAT	OR	OFF	2018/12/13 15:26
S183	1	(S178 S179) and generator with second	US-PGPUB; USPAT	OR	OFF	2018/12/13 15:26
S184	183	("20050116541" | "20080208478" | "20090095482" | "20100051272" | "20100146981" | "20100293973" | "20120255734" | "20140138079" | "20140174717" | "20150144336" | "20170037717" | "20170218843" | "20170222409" | "3849662" | "4442665" | "4676063" | "5790972" | "6477852" | "7717193" | "7845413" | "7977824" | "8154419" | "8232892" | "8261528" | "8616274" | "9450385" | "9611728" | "9650879" | "9745840" | "20090200035" | "5736838" | "8692408" | "20030138327" | "20070226089" | "20070278140" | "20090153354" | "20090308602" | "20100250139" | "20120205400" | "20130025706" | "20130199617" | "20160221220" | "20170022788" | "20170028368" | "20170030177" | "20170030178" | "4506982" | "4538916" | "4793386" | "4922463" | "5590976" | "6808303" | "9587649" | "1671436" | "20040000077" | "20070187163" | "20070201305" | "20080112802" | "20080137266" | "20080217024" | "20080264649" | "20090065299" | "20090188181" | "20090260826" | "20100000508" | "20100132949" | "20100303655" | "20100322802" | "20110005757" | "20110017468" | "20110085924" | "20110272158" | "20120018016" | "20120085541" | "20120127635" | "20120205301" | "20130233542" | "20130306322" | "20130341029" | "20140000899" | "20140010671" |	US-PGPUB; USPAT	OR	ON	2018/12/13 15:26

		"20140096974" | "20140124162" | "20140251623" | "20150083426" | "20150114652" | "20150159911" | "20150175013" | "20150176386" | "20150211524" | "20150225113" | "20150252661" | "20160032703" | "20160105022" | "20160177678" | "20160208592" | "20160258267" | "20160273328" | "20160290114" | "20160319650" | "20160326854" | "20160348479" | "20160349728" | "2220622" | "2248051" | "3061039" | "3066503" | "3334495" | "3722595" | "3764233" | "3773140" | "3837179" | "3881551" | "4037431" | "4151575" | "4226299" | "4456092" | "4512387" | "4845981" | "5025861" | "5130628" | "5131472" | "5422550" | "5548093" | "5655361" | "5865247" | "5879137" | "5894888" | "5907970" | "6142878" | "6164910" | "6202702" | "6254462" | "6271637" | "6315523" | "6491098" | "6529135" | "6776227" | "6802690" | "6931310" | "7170262" | "7173399" | "7312593" | "7336514" | "7445041" | "7500642" | "7525264" | "7563076" | "7683499" | "7755310" | "7807048" | "8037936" | "8054084" | "8083504" | "8096891" | "8146665" | "8272439" | "8310272" | "8354817" | "8474521" | "8534235" | "8573303" | "8596056" | "8727068" | "8760657" | "8774972" | "8789601" | "8807960" | "8838341" | "8857506" | "8899940" | "8905056" | "8905138" | "8997904" | "9018881" | "9051822" | "9067182" | "9103193" | "9140110" | "9160168" | "9322239" | "9366114" | "9410410").PN.				
S185	812	700/293.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S186	73471	G05B15/02.cpc. E21B43/26.cpc. H02J3/14.cpc. H02J9/066.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S187	50	(US-20120149610-$).did. or (US-6601648-$ or US-6849581-$ or US-3559855-$ or US-3707945-$ or US-3751576-$ or US-4022279-$ or US-4109964-$ or US-4387770-$ or US-4641709-$ or US-4662440-$ or US-4693382-$ or US-4752014-$ or US-5331155-$ or US-5384085-$ or US-5798469-$ or US-5885471-$ or US-5905939-$ or US-6023841-$ or US-6138760-$ or US-	US-PGPUB; USPAT	OR	ON	2018/12/13 15:26

		6398798-$ or US-6435277-$ or US-6439310-$ or US-6446729-$ or US-6507095-$ or US-6543538-$).did. or (US-6575242-$ or US-6626241-$ or US-6695057-$ or US-6725934-$ or US-6938693-$ or US-6962203-$ or US-6978832-$ or US-7066257-$ or US-7090153-$ or US-7104320-$ or US-7169691-$ or US-7191833-$ or US-7243723-$ or US-7256160-$ or US-7308934-$ or US-7341103-$ or US-7341116-$ or US-7393984-$ or US-7416022-$ or US-7503404-$ or US-7543635-$ or US-7681635-$ or US-7709772-$).did.				
S188	50	(US-20070277978-$ or US-20080035337-$ or US-20120118397-$ or US-20130168484-$ or US-20130284582-$ or US-20130313353-$ or US-20140144623-$ or US-20150144336-$ or US-20150344263-$ or US-20160272877-$ or US-20160369608-$ or US-20170030484-$).did. or (US-5709267-$ or US-5497831-$ or US-5564499-$ or US-4265570-$ or US-4410387-$ or US-4574880-$ or US-4589491-$ or US-4825960-$ or US-4848486-$ or US-4898473-$ or US-4900157-$ or US-4909777-$ or US-5018578-$ or US-5025859-$ or US-5199491-$ or US-5224543-$ or US-5256729-$ or US-5375313-$ or US-5722490-$ or US-5755286-$ or US-6167964-$ or US-9371723-$ or US-9400065-$ or US-9550652-$ or US-5712766-$ or US-4290276-$).did. or (US-4313453-$ or US-4352382-$ or US-4527430-$ or US-4567657-$ or US-4787827-$ or US-4793820-$ or US-4799801-$ or US-4804303-$ or US-4942837-$ or US-5341122-$ or US-5678921-$ or US-5732984-$).did.	US-PGPUB; USPAT	OR	ON	2018/12/13 15:26
S189	0	S187 and S188	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S190	37	multiple with generator same overload$5 with prevent$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S191	101	(many several multiple) with generator same overload$5 with prevent$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26

S192	1	multiple with generator same overload$5 with shed$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S193	6	(many several multiple) with generator same overload$5 with shed$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S194	947	(many several multiple) with generator same (fracking fracturing mining extracting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S195	250	(many several multiple) with generators same (fracking fracturing mining extracting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S196	4876	(many several multiple) with (sources generators engines) same (fracking fracturing mining extracting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S197	2001	(many several multiple) with (sources generators engines) with (fracking fracturing mining extracting)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S198	111	(many several multiple) with (sources generators engines) with (fracking fracturing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S199	2	"7675189".pn.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S200	5	"20140096974"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2018/12/13 15:26

			DERWENT; IBM_TDB			
S201	2	"20120255734".did.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S202	3	"20140096974".did.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S203	1669	load with shed$5 same signal	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S204	14	load with shed$5 same signal same (ma milliamps milliamperes)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S205	26	(many several multiple) with (generators) with (fracking fracturing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S206	47	(parallel redundant) with (power) with (fracking fracturing)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S207	940	(parallel redundant) with (power) with (drilling boring)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S208	6	(parallel redundant) with (power electricity) with (drilling boring) same (overload failover shedding)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S209	5	(parallel redundant) with (power electricity) with (drilling boring) same (failover backup)	US-PGPUB; USPAT; USOCR;	OR	OFF	2018/12/13 15:26

			FPRS; EPO; JPO; DERWENT; IBM_TDB			
S210	4255	(parallel redundant) with (power electricity) with (failover backup)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S211	1063	(parallel redundant) with (power electricity) with (generator source) same (failover backup)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S212	26	(parallel redundant) with (power electricity) with (generator source) same (failover backup) and (drilling fracking boring mining)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S213	134	parallel with generator same overload$5 with prevent$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S214	26	backup with generator same overload$5 with prevent$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S215	0	backup with generator same fracking	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S216	10	backup with generator same fracturing	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S217	15	backup with generator same5 fracturing	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S218	167	backup with generator same5 (mining	US-PGPUB;	OR	ON	2018/12/13

		boring drilling)	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			15:26
S219	46	backup with power same5 fracturing	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S220	24	backup with electric$5 same5 fracturing	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S221	92	multiple adj independent with turbines	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S222	0	multiple adj independent with turbines same electricity	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S223	12	multiple adj independent with turbines same power	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S224	104	multiple adj independent with generator same power	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S225	4	multiple adj independent with generator same power same backup	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/12/13 15:26
S226	152	multiple adj independent with generators	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT;	OR	OFF	2018/12/13 15:26

			IBM_TDB			
S227	0	multiple adj independent with generators same backup	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S228	1	multiple adj independent with generators same redundant	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S229	3	multiple adj independent with generators same4 redundant	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S230	5	multiple adj independent with generators same4 redundan$5	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S231	0	multiple adj independent with generators same4 failover	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S232	2	multiple adj independent with generators same4 overload	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S233	0	multiple adj independent with generators same4 sheding	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S234	0	multiple adj independent with generators same4 shedding	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S235	3	multiple adj independent with generators and on-site	US-PGPUB; USPAT; USOCR; FPRS;	OR	OFF	2018/12/13 15:26

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S237	7	backup adj generator same load adj shed$6	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S238	0	backup adj generators same load adj shed$6	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S239	12819	second adj generator	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
S240	51	second adj generator same backup	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/12/13 15:26
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S242	14	("20090078410" | "20100172202" | "20110061855" | "20160160889" | "20170021318" | "20170226842" | "20170314380" | "20170369258" | "4265266" | "7104233" | "7494263" | "8139383" | "9738461" | "9863228").PN.	US-PGPUB; USPAT	OR	OFF	2018/12/13 15:34
S243	3	("20130343858" | "20160186531" | "6138764").PN.	US-PGPUB; USPAT	OR	OFF	2018/12/13 15:34
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		6167964-$ or US-6387853-$ or US-4262453-$ or US-4305463-$ or US-4441561-$ or US-4583784-$ or US-4607699-$ or US-4803874-$ or US-5247994-$ or US-5282263-$ or US-5335725-$).did. or (US-8110115-$ or US-8506267-$ or US-8944740-$ or US-8997904-$ or US-9334124-$ or US-9395049-$ or US-9428348-$ or US-9499348-$ or US-9534473-$ or US-9562420-$ or US-9579980-$ or US-9758389-$ or US-9937443-$ or US-10008880-$ or US-10166493-$ or US-10323200-$ or US-10358035-$).did.				
S245	50	(US-20170314745-$ or US-20050089749-$ or US-20150130346-$ or US-20150269204-$ or US-20010046558-$ or US-20050106574-$ or US-20110003808-$ or US-20020137625-$ or US-20040001966-$ or US-20040069969-$ or US-20050106712-$ or US-20060212502-$ or US-20080069735-$ or US-20090015670-$ or US-20100069660-$ or US-20110151019-$ or US-20120147382-$ or US-20130261976-$ or US-20140322337-$ or US-20160215211-$ or US-20170003497-$).did. or (US-9109162-$ or US-9646093-$ or US-4591689-$ or US-5186249-$ or US-7392163-$ or US-5774249-$ or US-5999117-$ or US-6749768-$ or US-6749894-$ or US-8098282-$ or US-8868379-$ or US-3554073-$ or US-3554085-$ or US-3554088-$ or US-3554091-$ or US-3554093-$ or US-3554095-$ or US-3554098-$ or US-3554099-$ or US-3554120-$ or US-3554135-$ or US-3554137-$ or US-3554147-$ or US-3554153-$ or US-3554155-$ or US-3554165-$).did. or (US-3554167-$ or US-3554178-$ or US-3554187-$).did.	US-PGPUB; USPAT	OR	ON	2019/08/26 18:09
S246	834	700/293.ccls.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/08/26 18:09
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EAST Search History (Interference)

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PLUS Search Results for S/N 16443273, Searched Wed Aug 14 17:02:36 EDT 2019

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PLUS Search Results for S/N 16443273, Searched Wed Aug 14 17:02:33 EDT 2019

The Patent Linguistics Utility System (PLUS) is a USPTO automated search system for U.S. Patents from 1971 to the present PLUS is a query-by-example search system which produces a list of patents that are most closely related linguistically to the application searched. This search was prepared by the staff of the Scientific and Technical Information Center, SIRA.

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16443273
Filing Date	2019-06-17
First Named Inventor	Brandon N. Hinderliter
Art Unit	3672
Examiner Name	Cathleen R. Hutchins
Attorney Docket Number	047158.100042

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Examiner Initial*	Cite No	Patent Number	Kind Code[1]	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	10280724		2019-05-07	Hinderliter	
	2	10254732		2019-04-09	Oehring	
	3	10232332		2019-03-19	Oehring	

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Examiner Initial*	Cite No	Publication Number	Kind Code[1]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	20170218727		2017-08-03	Oehring	
	2	20150136043		2015-05-21	Shaaban	

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Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16443273
	Filing Date	2019-06-17
	First Named Inventor	Brandon N. Hinderliter
	Art Unit	3672
	Examiner Name	Cathleen R. Hutchins
	Attorney Docket Number	047158.100042

	1	2707269	CA		2010-12-09	Kidd		☒

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	1	Non-Final Office Action issued in corresponding Application No. 16/170,695 dated June 7, 2019	☒
	2	Non-Final Office Action issued in corresponding Application No. 16/268,030 dated May 10, 2019	☒
	3	Final Office Action issued in corresponding Application No. 16/210,749 dated June 11, 2019	☒
	4	Canadian Office Action mailed May 30, 2019 in corresponding CA Application No. 2,833,711	☒
	5	Canadian Office Action mailed June 20, 2019 in corresponding CA Application No. 2,964,597	☒

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Examiner Signature		Date Considered	

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[1] See Kind Codes of USPTO Patent Documents at www.USPTO.GOV or MPEP 901.04. [2] Enter office that issued the document, by the two-letter code (WIPO Standard ST.3). [3] For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. [4] Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. [5] Applicant is to place a check mark here if English language translation is attached.

INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)		
	Application Number	16443273
	Filing Date	2019-06-17
	First Named Inventor	Brandon N. Hinderliter
	Art Unit	3672
	Examiner Name	Cathleen R. Hutchins
	Attorney Docket Number	047158.100042

CERTIFICATION STATEMENT

Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

OR

☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Taylor P. Evans/	Date (YYYY-MM-DD)	2019-08-01
Name/Print	Taylor P. Evans	Registration Number	60506

This collection of information is required by 37 CFR 1.97 and 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1 hour to complete, including gathering, preparing and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Not for submission under 37 CFR 1.99)

Application Number	16443273
Filing Date	2019-06-17
First Named Inventor	Brandon N. Hinderliter
Art Unit	3672
Examiner Name	Cathleen R. Hutchins
Attorney Docket Number	047158.100042

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	First Named Inventor	Brandon N. Hinderliter
	Art Unit	3672
	Examiner Name	Cathleen R. Hutchins
	Attorney Docket Number	047158.100042

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Examiner Initial*	Cite No	Foreign Document Number[3]	Country Code[2] i	Kind Code[4]	Publication Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear	T[5]
	1	2004264589	JP		2004-09-24	Toshiba KK [TOKE]		X

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	Attorney Docket Number	047158.100042

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	4	2016/144939	WO		2016-09-15	Schlumberger Technologies Corporation		☒
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Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T[5]
	1	UK Power Networks - Transformers to Supply Heat to Tate Modern - from Press Releases May 16, 2013.	☓
	2	Non-Final Office Action issued in corresponding Application No. 15/293,681 dated February 16, 2017.	☒

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	Attorney Docket Number	047158.100042

	3	Non-Final Office Action issued in corresponding Application No. 15/294,349 dated March 14, 2017.	☒
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	5	Non-Final Office Action issued in corresponding Application No. 15/145,443 dated February 7, 2017.	☒
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	Attorney Docket Number	047158.100042

	14	Non-Final Office Action issued in corresponding Application No. 15/217,040 dated November 29, 2016.	☒
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	Art Unit	3672
	Examiner Name	Cathleen R. Hutchins
	Attorney Docket Number	047158.100042

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	Art Unit	3672
	Examiner Name	Cathleen R. Hutchins
	Attorney Docket Number	047158.100042

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Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

That each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(1).

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☐ That no item of information contained in the information disclosure statement was cited in a communication from a foreign patent office in a counterpart foreign application, and, to the knowledge of the person signing the certification after making reasonable inquiry, no item of information contained in the information disclosure statement was known to any individual designated in 37 CFR 1.56(c) more than three months prior to the filing of the information disclosure statement. See 37 CFR 1.97(e)(2).

See attached certification statement.

The fee set forth in 37 CFR 1.17 (p) has been submitted herewith.

☒ A certification statement is not submitted herewith.

SIGNATURE

A signature of the applicant or representative is required in accordance with CFR 1.33, 10.18. Please see CFR 1.4(d) for the form of the signature.

Signature	/Taylor P. Evans/	Date (YYYY-MM-DD)	2019-08-01
Name/Print	Taylor P. Evans	Registration Number	60506

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EFS ID:	36751587
Application Number:	16443273
International Application Number:	
Confirmation Number:	1069
Title of Invention:	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING
First Named Inventor/Applicant Name:	Brandon N. Hinderliter
Customer Number:	132858
Filer:	Taylor P. Evans/Stephanie McDonough
Filer Authorized By:	Taylor P. Evans
Attorney Docket Number:	047158.100042
Receipt Date:	01-AUG-2019
Filing Date:	17-JUN-2019
Time Stamp:	10:23:29
Application Type:	Utility under 35 USC 111(a)

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26	Other Reference-Patent/App/Search documents	NPL-8.pdf	416252 6bff86b8d8538e105e9d4f3205c49e50baaf3eee	no	15
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Information:					
27	Other Reference-Patent/App/Search documents	NPL-9.pdf	460015 887d353bb72ee563ead5fdf4bb5c5253723faeb3	no	13
Warnings:					
Information:					
28	Other Reference-Patent/App/Search documents	NPL-10.pdf	347182 dbf2cca04164a6581210560525f81149f20ef398	no	10
Warnings:					
Information:					

29	Other Reference-Patent/App/Search documents	NPL-11.pdf	319654 1ee46a247454ff0dd9d92bed6222456ebcec32d2	no	9
Warnings:					
Information:					
30	Other Reference-Patent/App/Search documents	NPL-12.pdf	340896 57fa5ec905f2dff11900bae08fe2c1ae7d586cd0	no	11
Warnings:					
Information:					
31	Other Reference-Patent/App/Search documents	NPL-13.pdf	259841 5f66125dc394653d57c51b94ba84af54feb7372d	no	7
Warnings:					
Information:					
32	Other Reference-Patent/App/Search documents	NPL-14.pdf	262664 9c0c180fcc9b33718242d725da4cc0206ab0e2cf	no	8
Warnings:					
Information:					
33	Other Reference-Patent/App/Search documents	NPL-15.pdf	323644 5c824a3955835c2a142fff6c8e89cfe093966fb8	no	10
Warnings:					
Information:					
34	Other Reference-Patent/App/Search documents	NPL-16.pdf	409079 517bae45b327c03f1344ada3b1defb6f3e1dba36	no	10
Warnings:					
Information:					
35	Other Reference-Patent/App/Search documents	NPL-17.pdf	1086569 5d7f47f6f6428d775a89ea76cf6492dfdd7874c7	no	23
Warnings:					
Information:					

36	Other Reference-Patent/App/Search documents	NPL-18.pdf	1060055 7ce3425ddf68db8e6fc813b084b87082f754a370	no	29
Warnings:					
Information:					
37	Other Reference-Patent/App/Search documents	NPL-19.pdf	385598 becc6bd5d8ca95230eaeea9e2053296221b58909	no	10
Warnings:					
Information:					
38	Other Reference-Patent/App/Search documents	NPL-20.pdf	963594 587ec7092f1a781e1aca75366cd4f74f6151709a	no	27
Warnings:					
Information:					
39	Other Reference-Patent/App/Search documents	NPL-21.pdf	1013431 e50c002b6f30f25c398a9eed8967d1a8f7a44dfb	no	28
Warnings:					
Information:					
40	Other Reference-Patent/App/Search documents	NPL-22.pdf	914315 f1ed304e2641d5e0dc060dfcf0f9f3d42ae38736	no	26
Warnings:					
Information:					
41	Other Reference-Patent/App/Search documents	NPL-23.pdf	477768 9097bec4a06bf1a58255709a299ccf572669a5e2	no	14
Warnings:					
Information:					
42	Other Reference-Patent/App/Search documents	NPL-24.pdf	451221 e687ad5f4706b9e03066369dc1420137400f88de	no	8
Warnings:					
Information:					

43	Other Reference-Patent/App/Search documents	NPL-25.pdf	377985 237e2c85af09d19cf7cb543c47313c5a45ddb5ad	no	7
Warnings:					
Information:					
44	Other Reference-Patent/App/Search documents	NPL-26.pdf	1183912 7e1a6ae1483129df3319e86782490d171adcddd6	no	4
Warnings:					
Information:					
45	Other Reference-Patent/App/Search documents	NPL-27.pdf	513370 613846c97d5a97f394676e8db875d38ebbc6a14c	no	14
Warnings:					
Information:					
46	Other Reference-Patent/App/Search documents	NPL-28.pdf	259116 a14d6a19e09f39b424e07487c378c1ff22b9eaab	no	8
Warnings:					
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47	Other Reference-Patent/App/Search documents	NPL-29.pdf	246974 90f86007da0c8c3e09c6f313efbbd8165e8b46c7	no	7
Warnings:					
Information:					
48	Other Reference-Patent/App/Search documents	NPL-30.PDF	1720052 4521f83d51ace785df9c8c364916474f6a0636a2	no	6
Warnings:					
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49	Other Reference-Patent/App/Search documents	NPL-31.pdf	1075045 57b28c6bfb3d0fa629280b4b1901d26504cc2573	no	4
Warnings:					
Information:					

50	Other Reference-Patent/App/Search documents	NPL-32.pdf	219467 aaf00dcfa34bf6fe5e9894a1b1ced293f1b2bbc6	no	7
Warnings:					
Information:					
51	Other Reference-Patent/App/Search documents	NPL-33.pdf	304155 03f600617bb97ec2d345ef87af05ffe83a1f4e55	no	9
Warnings:					
Information:					
52	Other Reference-Patent/App/Search documents	NPL-34.pdf	414424 e98d69001209ae5ac3a6b2472c1e0c3447c49857	no	9
Warnings:					
The page size in the PDF is too large. The pages should be 8.5 x 11 or A4. If this PDF is submitted, the pages will be resized upon entry into the Image File Wrapper and may affect subsequent processing					
Information:					
53	Other Reference-Patent/App/Search documents	NPL-35.pdf	176576 9d704329cec304ab4ecf65ec3669ed96e4e65e2d	no	3
Warnings:					
Information:					
54	Other Reference-Patent/App/Search documents	NPL-36.pdf	214752 faa678d394f7cde3d00109e900e2ee8a3df7a63f	no	7
Warnings:					
Information:					
55	Other Reference-Patent/App/Search documents	NPL-37.pdf	802847 09a6ee9f7678ee3365f1ee4a86703a29c1c6ee60	no	13
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Information:					
56	Other Reference-Patent/App/Search documents	NPL-38.pdf	665357 36b902d632a1627341950fd2f01f5d30c9ebd86d	no	13
Warnings:					
Information:					

57	Other Reference-Patent/App/Search documents	NPL-39.pdf	952437 a028f3c3a8360e2f1ae30b8c076ed95c2155e085	no	14
Warnings:					
Information:					
58	Other Reference-Patent/App/Search documents	NPL-40.pdf	832886 f41c7088830eacd43d5727861d637e53eca5a9fb	no	15
Warnings:					
The page size in the PDF is too large. The pages should be 8.5 x 11 or A4. If this PDF is submitted, the pages will be resized upon entry into the Image File Wrapper and may affect subsequent processing					
Information:					
			Total Files Size (in bytes):	44882253	

This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503.

New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

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United States Patent and Trademark Office
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/443,273	06/17/2019	Brandon N. Hinderliter	047158.100042	1069

132858 7590 07/02/2019

Hogan Lovells US LLP
609 Main Street
Suite 4200
Houston, TX 77002

EXAMINER	
ART UNIT	PAPER NUMBER

NOTIFICATION DATE	DELIVERY MODE
07/02/2019	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

hlusdocketing@hoganlovells.com
monica.williams@hoganlovells.com
stephanie.mcdonough@hoganlovells.com

Decision Granting Request for Prioritized Examination (Track I)	**Application No.** 16/443,273	**Applicant(s)** Hinderliter, Brandon N.	
	Examiner CHERYL P GIBSON BAYLOR	**Art Unit** OPET	**AIA (FITF) Status** Yes

1. THE REQUEST FILED 17 June 2019 IS **GRANTED** .

The above-identified application has met the requirements for prioritized examination

A. ☑ for an original nonprovisional application (Track I).
B. ☐ for an application undergoing continued examination (RCE).

2. **The above-identified application will undergo prioritized examination**. The application will be accorded special status throughout its entire course of prosecution until one of the following occurs:

A. filing a **petition for extension of time** to extend the time period for filing a reply;

B. filing an **amendment to amend the application to contain more than four independent claims, more than thirty total claims** , or a multiple dependent claim;

C. filing a **request for continued examination** ;

D. filing a notice of appeal;

E. filing a request for suspension of action;

F. mailing of a notice of allowance;

G. mailing of a final Office action;

H. completion of examination as defined in 37 CFR 41.102; or

I. abandonment of the application.

Telephone inquiries with regard to this decision should be directed to CHERYL GIBSON BAYLOR at (571)272-3213. In his/her absence, calls may be directed to Petition Help Desk at (571) 272-3282.

/CHERYL GIBSON BAYLOR/ Paralegal Specialist, OPET	

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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
16/443,273	06/17/2019	Brandon N. Hinderliter	047158.100042

CONFIRMATION NO. 1069

132858
Hogan Lovells US LLP
609 Main Street
Suite 4200
Houston, TX 77002

INFORMAL NOTICE

OC000000109193488

Date Mailed: 06/27/2019

INFORMATIONAL NOTICE TO APPLICANT

Applicant is notified that the above-identified application contains the deficiencies noted below. No period for reply is set forth in this notice for correction of these deficiencies. However, if a deficiency relates to the inventor's oath or declaration, the applicant must file an oath or declaration in compliance with 37 CFR 1.63, or a substitute statement in compliance with 37 CFR 1.64, executed by or with respect to each actual inventor no later than the expiration of the time period set in the "Notice of Allowability" to avoid abandonment. See 37 CFR 1.53(f).

The item(s) indicated below are also required and should be submitted with any reply to this notice to avoid further processing delays.

- A properly executed inventor's oath or declaration has not been received for the following inventor(s):
  Brandon N. Hinderliter

Questions about the contents of this notice and the requirements it sets forth should be directed to the Office of Data Management, Application Assistance Unit, at **(571) 272-4000** or **(571) 272-4200** or **1-888-786-0101**.

/cnguyen/

PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number: 16/443,273

APPLICATION AS FILED - PART I

FOR	(Column 1) NUMBER FILED	(Column 2) NUMBER EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY FEE($)
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A			N/A	300
SEARCH FEE (37 CFR 1.16(k), (i), or (m))	N/A	N/A	N/A			N/A	660
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A			N/A	760
TOTAL CLAIMS (37 CFR 1.16(i))	20 minus 20 =	*			OR	x 100 =	0.00
INDEPENDENT CLAIMS (37 CFR 1.16(h))	2 minus 3 =	*				x 460 =	0.00
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is $310 ($155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).						0.00
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))							0.00
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL			TOTAL	1720

APPLICATION AS AMENDED - PART II

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	SMALL ENTITY RATE($)	SMALL ENTITY ADDITIONAL FEE($)	OR	OTHER THAN SMALL ENTITY RATE($)	OTHER THAN SMALL ENTITY ADDITIONAL FEE($)
AMENDMENT A	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE($)	ADDITIONAL FEE($)		RATE($)	ADDITIONAL FEE($)
AMENDMENT B	Total (37 CFR 1.16(i))	*	Minus	**	=	x =		OR	x =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x =		OR	x =	
	Application Size Fee (37 CFR 1.16(s))									
	FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))							OR		
						TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".
The "Highest Number Previously Paid For" (Total or Independent) is the highest found in the appropriate box in column 1.

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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY.DOCKET.NO	TOT CLAIMS	IND CLAIMS
16/443,273	06/17/2019		1880	047158.100042	20	2

CONFIRMATION NO. 1069

FILING RECEIPT

132858
Hogan Lovells US LLP
609 Main Street
Suite 4200
Houston, TX 77002

OC000000109193487

Date Mailed: 06/27/2019

Receipt is acknowledged of this non-provisional utility patent application. The application will be taken up for examination in due course. Applicant will be notified as to the results of the examination. Any correspondence concerning the application must include the following identification information: the U.S. APPLICATION NUMBER, FILING DATE, NAME OF FIRST INVENTOR, and TITLE OF INVENTION. Fees transmitted by check or draft are subject to collection.

Please verify the accuracy of the data presented on this receipt. If an error is noted on this Filing Receipt, please submit a written request for a corrected Filing Receipt, including a properly marked-up ADS showing the changes with strike-through for deletions and underlining for additions. If you received a "Notice to File Missing Parts" or other Notice requiring a response for this application, please submit any request for correction to this Filing Receipt with your reply to the Notice. When the USPTO processes the reply to the Notice, the USPTO will generate another Filing Receipt incorporating the requested corrections provided that the request is grantable.

Inventor(s)

Brandon N. Hinderliter, Houston, TX;

Applicant(s)

U.S. Well Services, Inc., Houston, TX

Assignment For Published Patent Application

U.S. Well Services, Inc., Houston, TX

Power of Attorney: The patent practitioners associated with Customer Number 132858

Domestic Priority data as claimed by applicant

This appln claims benefit of 62/685,797 06/15/2018

Foreign Applications for which priority is claimed (You may be eligible to benefit from the **Patent Prosecution Highway** program at the USPTO. Please see http://www.uspto.gov for more information.) - None.
Foreign application information must be provided in an Application Data Sheet in order to constitute a claim to foreign priority. See 37 CFR 1.55 and 1.76.

Permission to Access Application via Priority Document Exchange: Yes

Permission to Access Search Results: Yes

Applicant may provide or rescind an authorization for access using Form PTO/SB/39 or Form PTO/SB/69 as appropriate.

If Required, Foreign Filing License Granted: 06/25/2019

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 16/443,273**

Projected Publication Date: 12/19/2019

Non-Publication Request: No

Early Publication Request: No
Title

INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING

Preliminary Class

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications: No

PROTECTING YOUR INVENTION OUTSIDE THE UNITED STATES

Since the rights granted by a U.S. patent extend only throughout the territory of the United States and have no effect in a foreign country, an inventor who wishes patent protection in another country must apply for a patent in a specific country or in regional patent offices. Applicants may wish to consider the filing of an international application under the Patent Cooperation Treaty (PCT). An international (PCT) application generally has the same effect as a regular national patent application in each PCT-member country. The PCT process **simplifies** the filing of patent applications on the same invention in member countries, but **does not result** in a grant of "an international patent" and does not eliminate the need of applicants to file additional documents and fees in countries where patent protection is desired.

Almost every country has its own patent law, and a person desiring a patent in a particular country must make an application for patent in that country in accordance with its particular laws. Since the laws of many countries differ in various respects from the patent law of the United States, applicants are advised to seek guidance from specific foreign countries to ensure that patent rights are not lost prematurely.

Applicants also are advised that in the case of inventions made in the United States, the Director of the USPTO must issue a license before applicants can apply for a patent in a foreign country. The filing of a U.S. patent application serves as a request for a foreign filing license. The application's filing receipt contains further information and guidance as to the status of applicant's license for foreign filing.

Applicants may wish to consult the USPTO booklet, "General Information Concerning Patents" (specifically, the section entitled "Treaties and Foreign Patents") for more information on timeframes and deadlines for filing foreign patent applications. The guide is available either by contacting the USPTO Contact Center at 800-786-9199, or it can be viewed on the USPTO website at http://www.uspto.gov/web/offices/pac/doc/general/index.html.

For information on preventing theft of your intellectual property (patents, trademarks and copyrights), you may wish to consult the U.S. Government website, http://www.stopfakes.gov. Part of a Department of Commerce initiative, this website includes self-help "toolkits" giving innovators guidance on how to protect intellectual property in specific countries such as China, Korea and Mexico. For questions regarding patent enforcement issues, applicants may call the U.S. Government hotline at 1-866-999-HALT (1-866-999-4258).

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Title 35, United States Code, Section 184

Title 37, Code of Federal Regulations, 5.11 & 5.15

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This license is to be retained by the licensee and may be used at any time on or after the effective date thereof unless it is revoked. This license is automatically transferred to any related applications(s) filed under 37 CFR 1.53(d). This license is not retroactive.

The grant of a license does not in any way lessen the responsibility of a licensee for the security of the subject matter as imposed by any Government contract or the provisions of existing laws relating to espionage and the national security or the export of technical data. Licensees should apprise themselves of current regulations especially with respect to certain countries, of other agencies, particularly the Office of Defense Trade Controls, Department of State (with respect to Arms, Munitions and Implements of War (22 CFR 121-128)); the Bureau of Industry and Security, Department of Commerce (15 CFR parts 730-774); the Office of Foreign AssetsControl, Department of Treasury (31 CFR Parts 500+) and the Department of Energy.

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Doc Code: PA..
Document Description: Power of Attorney

PTO/AIA/82A (07-13)
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NOTE: This form is to be submitted with the Power of Attorney by Applicant form (PTO/AIA/82B) to identify the application to which the Power of Attorney is directed, in accordance with 37 CFR 1.5, unless the application number and filing date are identified in the Power of Attorney by Applicant form. If neither form PTO/AIA/82A nor form PTO/AIA82B identifies the application to which the Power of Attorney is directed, the Power of Attorney will not be recognized in the application.

Application Number	
Filing Date	2019-06-17
First Named Inventor	Brandon N. Hinderliter
Title	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING
Art Unit	
Examiner Name	
Attorney Docket Number	047158.100042

SIGNATURE of Applicant or Patent Practitioner

Signature	/Taylor P. Evans/	Date (Optional)	2019-06-17
Name	Taylor P. Evans	Registration Number	60506
Title (if Applicant is a juristic entity)	Partner		
Applicant Name (if Applicant is a juristic entity)	U.S. Well Services, Inc.		

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. If more than one applicant, use multiple forms.

☑ *Total of 1 forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Doc Code: PA.
Document Description: Power of Attorney

PTO/AIA/82B (07-13)
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POWER OF ATTORNEY BY APPLICANT

I hereby revoke all previous powers of attorney given in the application identified in either the attached transmittal letter or the boxes below.

Application Number	Filing Date

(Note: The boxes above may be left blank if information is provided on form PTO/AIA/82A.)

☑ I hereby appoint the Patent Practitioner(s) associated with the following Customer Number as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above: 132858

OR

☐ I hereby appoint Practitioner(s) named in the attached list (form PTO/AIA/82C) as my/our attorney(s) or agent(s), and to transact all business in the United States Patent and Trademark Office connected therewith for the patent application referenced in the attached transmittal letter (form PTO/AIA/82A) or identified above. (Note: Complete form PTO/AIA/82C.)

Please recognize or change the correspondence address for the application identified in the attached transmittal letter or the boxes above to:

☑ The address associated with the above-mentioned Customer Number

OR

☐ The address associated with Customer Number:

OR

☐ Firm or Individual Name					
Address					
City		State		Zip	
Country					
Telephone		Email			

I am the Applicant (if the Applicant is a juristic entity, list the Applicant name in the box):

U.S. Well Services, Inc.

☐ Inventor or Joint Inventor (title not required below)

☐ Legal Representative of a Deceased or Legally Incapacitated Inventor (title not required below)

☑ Assignee or Person to Whom the Inventor is Under an Obligation to Assign (provide signer's title if applicant is a juristic entity)

☐ Person Who Otherwise Shows Sufficient Proprietary Interest (e.g., a petition under 37 CFR 1.46(b)(2) was granted in the application or is concurrently being filed with this document) (provide signer's title if applicant is a juristic entity)

SIGNATURE of Applicant for Patent

The undersigned (whose title is supplied below) is authorized to act on behalf of the applicant (e.g., where the applicant is a juristic entity).

Signature		Date (Optional)	
Name	Jared Oshring		
Title	Vice President of Technology		

NOTE: Signature - This form must be signed by the applicant in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. If more than one applicant, use multiple forms.

☑ Total of 1 forms are submitted.

This collection of information is required by 37 CFR 1.131, 1.32, and 1.33. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 3 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

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PTO/AIA/424 (04-14)

CERTIFICATION AND REQUEST FOR PRIORITIZED EXAMINATION UNDER 37 CFR 1.102(e) (Page 1 of 1)

First Named Inventor:	Brandon N. Hinderliter	Nonprovisional Application Number (if known):	
Title of Invention:	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING		

APPLICANT HEREBY CERTIFIES THE FOLLOWING AND REQUESTS PRIORITIZED EXAMINATION FOR THE ABOVE-IDENTIFIED APPLICATION.

1. The processing fee set forth in 37 CFR 1.17(i)(1) and the prioritized examination fee set forth in 37 CFR 1.17(c) have been filed with the request. The publication fee requirement is met because that fee, set forth in 37 CFR 1.18(d), is currently $0. The basic filing fee, search fee, and examination fee are filed with the request or have been already been paid. I understand that any required excess claims fees or application size fee must be paid for the application.

2. I understand that the application may not contain, or be amended to contain, more than four independent claims, more than thirty total claims, or any multiple dependent claims, and that any request for an extension of time will cause an outstanding Track I request to be dismissed.

3. The applicable box is checked below:

I. ☑ Original Application (Track One) - Prioritized Examination under § 1.102(e)(1)

i. (a) The application is an original nonprovisional utility application filed under 35 U.S.C. 111(a). This certification and request is being filed with the utility application via EFS-Web.

---OR---

(b) The application is an original nonprovisional plant application filed under 35 U.S.C. 111(a). This certification and request is being filed with the plant application in paper.

ii. An executed inventor's oath or declaration under 37 CFR 1.63 or 37 CFR 1.64 for each inventor, **or** the application data sheet meeting the conditions specified in 37 CFR 1.53(f)(3)(i) is filed with the application.

II. ☐ Request for Continued Examination - Prioritized Examination under § 1.102(e)(2)

i. A request for continued examination has been filed with, or prior to, this form.
ii. If the application is a utility application, this certification and request is being filed via EFS-Web.
iii. The application is an original nonprovisional utility application filed under 35 U.S.C. 111(a), or is a national stage entry under 35 U.S.C. 371.
iv. This certification and request is being filed prior to the mailing of a first Office action responsive to the request for continued examination.
v. No prior request for continued examination has been granted prioritized examination status under 37 CFR 1.102(e)(2).

Signature /Taylor P. Evans/	Date 2019-06-17
Name (Print/Typed) Taylor P. Evans	Practitioner Registration Number 60506

Note: *This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. Submit multiple forms if more than one signature is required.**

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7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING

RELATED APPLICATION

[0001] The present disclosure is related to and claims priority from United States Provisional Application 62/685,797, titled INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING, filed on June 15, 2018, the entirety of the disclosure of which is incorporated by reference herein.

BACKGROUND

1. Field Of Invention

[0002] The present disclosure generally relates to hydraulic fracturing. In particular, the present disclosure relates to mobile grid assembly for powering an electric hydraulic fracturing pump in limited space environments.

2. Related Technology

[0003] Fracturing, such as hydraulic fracturing, stimulates production from hydrocarbon producing wells. Such a process may utilize mobile systems for injection of fluid into wellbores at pressure to provide subterranean fissures in the area around the wellbores. Such a process relies on fracturing fluid slurry that has been pressurized using high pressure pumps. As this is a mobile process, the high pressure pumps are mounted on mobile surfaces – e.g., truck-beds, trailers, etc. Moreover, the high pressure pumps are powered by mobile power sources, such as diesel engines. However, the components, such as the high pressure pumps and associated power sources have large volume and mass. As such, the mobile surfaces may be heavy duty trailers, trucks, or skids that are used for transporting these components to remote sites where wellbores are being fractured. The components support hydraulic fracturing pumps that draw low pressure fluid slurry (at approximately 100 psi). The discharge of the same fluid slurry, however, is at high pressures of up to 15,000 psi or more. In addition, alternate mobile power sources, such as turbine generators, are available to perform the power functions of the diesel engines. At the remote site, the power sources are electrically connected to power the fracturing components. For example, motors for pressurizing fracturing and hydraulic fluids are connected to the power sources using power buses. Electrical connections may be complex, unsafe, unreliable, and may

include numerous configurations requiring space and time to resolve.

SUMMARY

[0004] Herein disclosed are examples of a hydraulic fracturing system that includes a singular mobile platform of at least one mobile power unit (MPU) and at least one first switch gear that is configured to handle electric power from the MPU. The at least one MPU is configured to generate voltage that matches the requirements of load and an electrical bus of the at least one first switch gear, such that a combined electrical current generated as a result of the generated voltage is provided through the electrical bus to the components of the hydraulic fracturing system. Further, the hydraulic fracturing system may include electrical fracturing equipment with at least one second switch gear to support the at least one first switch gear in handling electric power from the at least one MPU. Automated control software may be included in the system to control load shedding, load sharing, and power distribution for the electrical fracturing equipment comprising the at least one second switch gear. In addition, the switchgear may be separate units or incorporated into the MPUs. Fracturing equipment, including the electrical load, may include specific voltage and current requirements. The electrical bus is, therefore, sized to match the MPU's capabilities based on the load requirements. Electrical buses may be rated in terms of maximum capability before failure, such as a voltage class of 5000V, 15000V, or 25000V, and having a current rating such as 1200A, 2000A, or 3000A.

BRIEF DESCRIPTION OF THE DRAWINGS

[0005] Some of the features and benefits of the present invention having been stated, others will become apparent as the description proceeds when taken in conjunction with the accompanying drawings, in which:

[0006] FIG. 1 is a schematic of an example hydraulic fracturing system in accordance with embodiments of the present disclosure.

[0007] FIG. 2 is an elevation schematic of example portions of an MPU, including at least a turbine, generator, and EER in one or more trailers.

[0008] FIG. 3 is an end perspective view of an example of a mobile platform that includes one

or more mobile power units (MPUs) that is integrated to or with switch gear components, according to embodiments in the present disclosure.

[0009] FIG. 4 is an elevation schematic of portions of the hydraulic fracturing system in accordance with one example configuration of the embodiments herein.

[0010] FIG. 5 is an elevation schematic of portions of a hydraulic fracturing system in accordance with another example configuration of the embodiments herein.

[0011] FIG. 6 is an elevation schematic of portions of a hydraulic fracturing system in accordance with yet another example configuration of the embodiments herein.

[0012] FIG. 7 is an elevation schematic of portions of a hydraulic fracturing system in accordance with further example configurations available using the embodiments herein.

[0013] FIG. 8 is an elevation schematic of portions of a hydraulic fracturing system according to other example configurations of the embodiments herein.

[0014] FIG. 9 is an elevation schematic of portions of a hydraulic fracturing system according to other example configurations of the embodiments herein.

[0015] FIG. 10 is an elevation schematic of portions of a hydraulic fracturing system according to other example configurations of the embodiments herein.

[0016] FIG. 11 is a flowchart of a hydraulic fracturing method using the example configurations of the embodiments herein.

[0017] While the invention will be described in connection with the preferred embodiments, it will be understood that it is not intended to limit the invention to that embodiment. Instead, the preferred embodiments are intended to cover all alternatives, modifications, and equivalents, as may be included within the spirit and scope of the invention as defined by the appended claims

DETAILED DESCRIPTION OF THE DISCLOSURE

[0018] So that the manner in which the features and advantages of the embodiments of hydraulic fracturing system and associated methods, as well as others, which will become

apparent, may be understood in more detail, a more particular description of the embodiments of the present disclosure briefly summarized previously may be had by reference to the embodiments thereof, which are illustrated in the appended drawings, which form a part of this specification. It is to be noted, however, that the drawings illustrate only various embodiments of the disclosure and are therefore not to be considered limiting of the present disclosure's scope, as it may include other effective embodiments as well.

[0019] The method and system of the present disclosure will now be described more fully hereinafter with reference to the accompanying drawings in which embodiments are shown. The method and system of the present disclosure may be in many different forms and should not be construed as limited to the illustrated embodiments set forth herein; rather, these embodiments are provided so that this disclosure will be thorough and complete, and will fully convey its scope to those skilled in the art. Like numbers refer to like elements throughout. In an embodiment, usage of the term "about" includes +/–5% of the cited magnitude. In an embodiment, usage of the term "substantially" includes +/–5% of the cited magnitude.

[0020] It is to be further understood that the scope of the present disclosure is not limited to the exact details of construction, operation, exact materials, or embodiments shown and described, as modifications and equivalents will be apparent to one skilled in the art. In the drawings and specification, there have been disclosed illustrative embodiments and, although specific terms are employed, they are used in a generic and descriptive sense only and not for the purpose of limitation.

[0021] One system and method for powering electrical equipment from a generator uses a physically separate mobile unit with switch gear installed to act as an electrical distribution hub between the MPUs and electric fracturing equipment of a hydraulic fracturing system. The separate mobile unit is, therefore, physically external relative to a mobile unit hosting the generator and switch gear, for instance. In such an implementation, cables are used to supply power from the MPUs to the mobile switch gear unit and between the mobile switch gear unit to the electric fracturing equipment. Here, fleet wide load sharing and load shedding are available, but such an implementation requires more mobile equipment and power cables. Alternatively, another system and method uses a smaller and less versatile Electronic Equipment Room (EER), with switch gear for the generator, to directly power a small amount of electric equipment. Such

a system and method may require lesser physical equipment, but is also electrically limited. For example, such limitations may be for load sharing and load shedding, which may be limited to only the equipment being supplied by a single MPU.

[0022] The present embodiments, by at least an MPU working with the switch gear in a single platform or unit resolves the additional issues noted above with the system and methods for a physically separate (e.g., external) mobile unit and an EER. For example, the present implementation at least ensures that MPUs are configured with adequate bus work to carry the generated voltage and current from the MPU's generator. This is further supported by the single platform or unit with reduced cabling and complexity with the MPU sharing space with the switch gear, for instance. The present implementation works with well sites where space is limited and rapid mobilization and demobilization is required. With integrated components on a single skid, for example, fewer physical connections are needed to be established or stowed during transportation. In an example, mobilization and demobilization of a single MPU are then limited to oilfield functions, such as pump down jobs, injection testing, toe preps, low hydraulic horsepower jobs, or to supplement other equipment types (diesel, dual fuel). In addition, extra MPUs and pumps can be used to perform fracturing jobs with high hydraulic horsepower requirements.

[0023] Furthermore, the use of integrated switch gear with the MPU eliminates the need for a separate switch gear trailer or skid. This allows for fewer trailers and fewer interconnecting cables saving space and time during mobilization/demobilization. With fewer trailers and cables, capital and maintenance costs are also beneficially addressed by the present implementation. The method of equipment deployment, in the present implementation, is also modular and scalable as turbines of the MPU can be added to directly to power the electric fracturing pumps as needed without the need to add additional switch gear trailers or modify existing trailers with additional gear and cable connections. A complexity sought to be addressed herein is a difficulty to implement a common bus where much of the equipment is on the same circuit. As such, the common bus of the present disclosure supports the voltage and combined current requirements of the various equipment loads. At fracturing sites, fracturing pumps may be inoperable because of fluid distribution problems, mechanical problems, communication problems, control problems, pump problems, sensor problems, etc. While these are unrelated to the electric power generation

requirements discussed herein, without a common electrical bus, excess power from a turbine generator cannot be redistributed to other equipment which will limit redundancy in equipment and may cause situations where extra turbines and fracturing pumps will need to be on standby in the event of failures. Other oilfield equipment may be connected to the common electrical bus. In an example, the other oilfield equipment includes intensifier pumps, blenders, dual blenders, hydration units, chemical additive units, data van, sand equipment, lights, CNG equipment, LNG equipment, gas compression, gas filtration, wireline, water transfer, flow back, coil tubing, nitrogen, cementing, dual pumper, drilling rigs, cranes, and workover rigs. There may also be a case where, when a turbine generator fails, the fracturing pumps or other equipment which are electrically tied to it will be rendered inoperable and power will not be available from other generators due to a lack of a common bus for power distribution. As such, the present implementation overcomes these additional issues by load sharing switch gear added to the MPUs in the same trailer or to other connected equipment, but working with the switch gear of the MPUs as discussed throughout this disclosure.

[0024] One of ordinary skill would recognize that there are space constraints of mobile equipment. As such, the turbine engine and generators of the MPU in the present implementation may need to be smaller to accommodate the extra integrated switch gear. The reduction in size and capability can create situations where extra MPUs will be needed on well sites with higher hydraulic horsepower requirements. However, to save space and weight, alternative engines and generators may be used (such as aeroderivative turbines or reciprocating engines). Many light and compact turbines may also struggle to burn wide ranges of fuel gas and may need support equipment if the upper or lower heating values are out of the required range, but with the present implementation, redundancies are widely applied to assist with any of these constraints.

[0025] The present disclosure, in an embodiment, is to a system including a mobile unit, at least one generator; and at least one switch gear. The at least one generator is coupled to the at least one switch gear on the mobile unit forming a singular and integrated mobile unit. The mobile unit is configured to provide power generated by the at least one generator in electrical buses for at least one load on one or more external mobile unit. In another embodiment, a method is disclosed and includes providing a mobile unit with at least one generator and at least one switchgear, such as a system as described above. The at least one generator is coupled to the

at least one switch gear on the mobile unit. The method includes generating power from the at least one generator and providing the power in electrical buses for at least one load in one or more external mobile units. The system may be part of a hydraulic fracturing system that consumes the power and that includes a wellbore and at least one pressuring system to create fractures in a subterranean formation that surrounds the wellbore.

[0026] FIG. 1 is a schematic of an example hydraulic fracturing system 10 in accordance with embodiments of the present disclosure. Such a system may be used for pressurizing a wellbore 12 to create fractures 14 in a subterranean formation 16 that surrounds the wellbore 12. System 10 may include a hydration unit 18 that receives fluid from a fluid source 20 via line 22, and may also receive additives from an additive source 24 via line 26. Additive source 24 can be separate from the hydration unit 18 as a stand-alone unit, or can be included as part of the same unit as the hydration unit 18. The fluid, which in one example is water, is mixed inside of the hydration unit 18 with the additives. The fluid and additives are mixed over a period of time to allow for uniform distribution of the additives within the fluid.

[0027] In the example of FIG. 1, the fluid and additive mixture is transferred to a blender unit 28 via line 30. A proppant source 32 contains proppant, which is delivered to the blender unit 28 as represented by line 34, where line 34 can be a conveyer. Inside the blender unit 28, the proppant and fluid/additive mixture are combined to form a fracturing slurry, which is then transferred to a fracturing pump system 36 via line 38; thus fluid in line 38 includes the discharge of blender unit 28 which is the suction (or boost) for the fracturing pump system 36. Blender unit 28 can have an onboard chemical additive system, such as with chemical pumps and augers (not shown). Optionally, additive source 24 can provide chemicals to blender unit 28; or a separate and standalone chemical additive system (not shown) can be provided for delivering chemicals to the blender unit 28. In an example, the pressure of the slurry in line 38ranges from around 80 psi to around 120 psi. The pressure of the slurry can be increased up to around 15,000 psi by pump system 36. A motor 39, which connects to pump system 36 via connection 40, drives pump system 36 so that it can pressurize the slurry.

[0028] In one example, the motor 39 is controlled by a variable frequency drive ("VFD"). After being discharged from pump system 36, slurry is injected into a wellhead assembly 41; discharge piping 42 connects discharge of pump system 36 with wellhead assembly 41 and

provides a conduit for the slurry between the pump system 36 and the wellhead assembly 41. In an alternative, hoses or other connections can be used to provide a conduit for the slurry between the pump system 36 and the wellhead assembly 41. Optionally, any type of fluid can be pressurized by the fracturing pump system 36 to form a fracturing fluid that is then pumped into the wellbore 12 for fracturing the formation 14, and is not limited to fluids having chemicals or proppant. Examples exist wherein the system 10 includes multiple pumps 36, and multiple motors 39 for driving the multiple pumps 36. Examples also exist wherein the system 10 includes the ability to pump down equipment, instrumentation, or other retrievable items through the slurry into the wellbore.

[0029] FIG. 1 additionally provides an example turbine 44, which receives a combustible fuel from a fuel source 46 via a feed line 48. In an example, the turbine is part of a Mobile Power Unit (MPU) or platform. The MPU may be a trailerized, bodyload, or skid mounted electrical power generation unit which can use the turbine or reciprocating engine for power generation. Such a turbine or reciprocating engine can be fueled by the combustible fuel, such as diesel or natural gas, to function as an electrical generator. The MPU can comprise of one or more trailers, composed of the generator, the electrical switching gear, a prime mover (engine), auxiliary loads (cooling, heating, lubricating, diagnostics and control equipment), and fire suppression equipment. The fire suppression equipment can be located on a single chassis, or each on separate chassis or any combination thereof for mobilization purposes which are mechanically or electrically connected while in operation to act as a single power generation unit.

[0030] In one example, the fuel source 46 can be a natural gas pipeline, CNG, LNG, or a well proximate the turbine 44. Combustion of the fuel in the turbine 44 in turn powers a generator 50 that produces electricity. Shaft 52 connects generator 50 to turbine 44. The combination of the turbine 44, generator 50, and shaft 52 define a turbine generator 53. In another example, gearing can also be used to connect the turbine 44and generator 50. An example of a micro-grid 54 is further illustrated in FIG. 1, and which distributes electricity generated by the turbine generator 53. Included with the micro-grid 54 is an optional transformer 56 for stepping up or down voltage of the electricity generated by the generator 50 to a voltage more compatible for use by electrical powered devices in the hydraulic fracturing system 10.

[0031] A "split bus" (*e.g*, dual or triple, or more microgrid) or "single bus" (*e.g.,* microgrid) electric hydraulic fracturing fleet may be available to function with the present disclosure. As used herein, the microgrid may be an off-utility power grid that is closed circuit and self-contained. For example, the microgrid may include at least one electricity generator, one switch gear component, and one active electrical load. The microgrid may also be synced with the utility power grid and pull additional power from the utility power grid. The utility power may be unable to provide all of the needed power for oilfield hydraulic fracturing, drilling, intervention, and other oilfield services; and the use of the microgrid is to supplement or replace the utility power. The split or single bus use external switch gear trailers which are physically separate from the MPU to provide extra switch gear (*e.g.,* breakers, relays, electrical buses) to allow electrical power to be placed on a common bus (*e.g.,* combining the power of two or more generators). The present disclosure, via at least FIGS. 3 to 9, provide novel packaging of the MPU and at least the switch gear to allow a savings on quantity of trailers and to reduce the complexity of the electrical connections. Such a reduction may be by reducing a number of interconnecting power cables. This reduction in equipment will not reduce functionality but will improve mobilization times and simplicity of interfacing various components of the hydraulic fracturing system 10, while reducing space required on a well site as well as capital cost and maintenance costs. In an example, such equipment may include hydraulic fracturing equipment that represents an electrical load addressed by the MPU of the present disclosure. As such the equipment can include hydraulic fracturing pumps, hydration units, chemical units, blenders, proppant storage, conveyer belts, lights, datavans, cranes, wireline equipment, monitoring equipment, water pumps, compressors, heaters, and other supporting equipment.

[0032] The switch gear may be any gear such as breakers, switches, and relays that are used to control the distribution of electricity. Electrical safety and diagnostics may also be provided by the switch gear. Each MPU may include at least one large breaker for connecting and disconnecting its own generator from the electrical load. The MPUs may be limited in how much switch gear can be integrated into its chassis due to size and weight requirements for mobility. Many times a separate electronic equipment room is used to supplement the generator to provide switch gear support or dedicated switch gear units (trailers, skids, bodyload trucks) are used to provide load sharing and greater distribution.

[0033] In another example, the power generated by the turbine generator and the power utilized by the electrical powered devices in the hydraulic fracturing system 10 are of the same voltage, such as 4160 V so that main power transformers are not needed other than as isolation transformers. In one embodiment, multiple 3500 kVA dry cast coil transformers are utilized. Electricity generated in generator 50 is conveyed to transformer 56 via line 58. In another embodiment, a step-up transformer is provided for transformer 56, where the secondary voltage of the step-up transformer is higher than its primary voltage. Such a usage may be advantageous for remote power transmission to limit transmission losses. In one example, transformer 56 steps the voltage down from 13.8 kV to around 600 V. Other example step down voltages include 4,160 V, 480 V, or other voltages. The output or low voltage side of the transformer 56 connects to a power bus 60, lines 62, 64, 66, 68, 70, and 72 connect to power bus 60 and deliver electricity to electrically powered end users in the system 10. In another example, line 62 connects fluid source 20 to bus 60, line 64 connects additive source 24 to bus 60, line 66 connects hydration unit 18 to bus 60, line 68 connects proppant source 32 to bus 60, line 70 connects blender unit 28 to bus 60, and line 72 connects motor 39to bus 60. In an example, additive source 24 contains ten or more chemical pumps for supplementing the existing chemical pumps on the hydration unit 18 and blender unit 28. Chemicals from the additive source 24 can be delivered via lines 26 to either the hydration unit 18and/or the blender unit 28. In one embodiment, the elements of the system 10 are mobile and can be readily transported to a wellsite adjacent the wellbore 12, such as on trailers or other platforms equipped with wheels or tracks.

[0034] FIG. 2 is an elevation schematic of example portions 200 of the hydraulic fracturing system 10 of FIG. 1. FIG. 1 particularly illustrates some basic components of the hydraulic fracturing system 10 at a wellbore site for providing electrical load sharing. An MPU 200 includes a turbine generator 202 that may be supported by a natural gas turbine engine coupled to a three-phase, 60 hertz (Hz) electric generator to produce power as the turbine engine rotates. In an alternative, the generator can generate electricity at 50 Hz, or at any other frequency useful for hydraulic fracturing fleets. In the illustrated embodiment, the MPU includes components with reference numerals 202, 204, 206, and 210. Reference numeral 202 is a turbine generator mounted within a trailer, for example. However, references to the turbine generator are interchangeably used with reference to a trailer including these components, and the reference

numeral 202. The same applies to reference numeral 204 providing an air intake filter, to reference numeral 206 providing an EER (sometimes referred to as a control trailer), and to reference numeral 210 providing a walk area. As such, the MPU is shown as including an electronic equipment room (EER) 206, which can house wiring, breakers, controls, monitoring systems, fire suppression support, auxiliary transformers, and a battery bank for secondary power when the turbine generator is not operating and there is no other power source. Some of the auxiliary components in the EER, such as the fans, lube motors, valves, *etc.*, as well as some of the support equipment, such as gas compressors, gas heaters, and filtration systems, use lower voltage than what is generated. In an example, such lower voltages may be 120V, 240V, and 480V. The auxiliary transformer, in another example, is smaller than the fracturing pump step down transformers. FIG. 1 also illustrates an air intake filter house 204 that may be positioned on top of or adjacent to the MPU turbine generator arrangement 202, and a walk area 210 that may be connected to the MPU turbine generator arrangement 202 and EER 206 to enable personnel access. The example portions 200 can be taken as an example of an electrical microgrid.

[0035] In an example, the EER 206 may include other components than recited above and may be named differently but performs the general functions noted above. For example, the EER 206 is a support unit that may be part of the MPU and may include communications, switch gear, fire suppression, motor control center (MCC) for auxiliary loads, technician monitoring space, battery backups for critical auxiliary equipment, transformers, air compressors, and data monitoring/recording. The MPU may have a dedicated trailer for these components alone, while other have parts of this may be integrated into the generator spaces of the MPU.

[0036] In some examples, the battery bank of the EER 206 can power lighting, fire suppression, emergency turbine lube pumps, and onboard electronics. A switch gear trailer 208 may provide output 212 for power distribution, high voltage breakers, and "lock-out, tag-out" capabilities. "Lock-out, tag-out" is an understood safety procedure to ensure that dangerous machines are properly shut off and not able to be started up again prior to the completion of maintenance or servicing work.

[0037] FIG. 3 is an end perspective view of an example of a mobile platform 300 that includes one or more mobile power units (MPUs) that is integrated to or with switch gear components, according to embodiments in the present disclosure. As such, the mobile platform 300 includes

switch gear and MPU components within trailer 304. While the drawings provide a single trailer to demonstrate that the MPU components reside within the single trailer with the switch gear components, this is merely for illustrative purposes. The integration may be by components of the switch gear physically or electrically coupled between and throughout the components for the MPUs. As such, the reference to trailer 304 is merely illustrative to indicate at least where the substantial components for these units may be located.

[0038] At least one first switch gear integrated in the MPU provides electrical output connections 302a-c to handle electric power from at least one turbine generator in the trailer 304. The MPUs, therefore, include area for the switch gear, and include the at least one turbine generator that is configured to output a voltage that matches the requirements of load components. In addition, multiple MPUs may be coupled together on a common electrical bus such that a combined electrical current generated as a result of the voltage from the multiple MPUs drives current through the common bus to the components of the hydraulic fracturing system. Example configurations to support such a voltage requirements with current capabilities are provided in FIGS. 4-9. Further, the hydraulic fracturing system of the present disclosure may include electrical fracturing equipment in a separate trailer or on the ground by the wellbore with at least one second switch gear to support the at least one first switch gear providing electrical output connections 302a-c for handling electric power from the MPU in trailer 304, and also, from other MPUs, using a common bus, for instance. A datavan (a separate mobile platform) for data may be included in the system for load shedding, load sharing, and power distribution for the electrical fracturing equipment comprising the at least one second switch gear. As such, a datavan is, herein, referring to a trailer housing communications and controls for all of fracturing system and to enable hydraulic fracturing operations where a focus of the operations is on the wellhead and fluid pumping instead of power generation. The load shedding system may also include load-inhibit functionality to prevent a pump operator from running a pump or system of pumps and other equipment at a higher load level than power can be supplied. In addition, the load shedding system may also take action to drop one or more loads in a predetermined sequence to ensure that the hydraulic fracturing system is not overloaded. In another example, the load shedding system may reduce the rate of pumps and other equipment that are loaded to the hydraulic fracturing system. The reduction of the load in this manner is an alternative to fully shutting off the pumps and the other equipment.

[0039] FIG. 4 is an elevation schematic of portions 400 of a hydraulic fracturing system in accordance with one example configuration of the present disclosure. MPUs 402a-c include single or multiple turbine generators 410a-c and switch gear 412a-c, which are illustrated as directly powering fracturing pump trailers or units (FPs) 404a-f. In this example configuration, separate switch gear equipment or common bus is not provided. Each respective switch gear (breakers or relays) 412a-c is integrated into each respective trailers 402a-c forming integrated MPUs. Power cable connections 408a-c are provided to transmit power from the turbine generators 410a-c integrated with or to the switch gear 412a-c, shown by dotted lines connecting the boxes 410-412. This may be the case in each trailer or mobile platform forming MPU 402 and couple to the respective FPs 404a-f. Even though the drawings provide the MPU as including the turbine generators and the switch gear as two separate reference numerals 410 and 412 for illustrative purposes, a person of ordinary skill would recognize that these are integration in physical layout or connectivity. This is also the case for the other example configurations provided herein. In addition, transformers may be used between each respective FP 404 and switch gear 412 combination of the embodiment in FIG. 4 to condition the power for use by the fracturing equipment.

[0040] Due to the integrated switch gear of this example configuration, the MPUs 402 including the turbine generators 410a-c, may have a smaller power output and can only power a limited number of FPs. Walkways 406a-c are available to access the integrated MPUs and switch gear. The turbine and generator components are downgraded from traditional usage and a single trailer used for the integrated MPU is a heavy duty trailer that includes three or more axles. In example, instead of a traditional four 5.7MW turbine generator configuration, an integrated MPU may use integrated switch gear with five 5MW turbine generators. The integration and elimination of the EER and Switch Gear are beneficial to reduce complexity and to promote reliability of a new configuration as presently disclosed. As such, the at least one switchgear used in any embodiment may be physically arranged to replace an EER of at least one mobile unit that may have been designed to include the EER. In addition, an MPU that is integrated with the switch gear in a single trailer eliminates the requirement for the walkway 406 as well. As such, the present embodiments merely illustrate the walkways for exemplary purposes. Further, MPUs 402, may include multiple turbine generators 410a and switch gear 412a. Without a common bus, power cannot be distributed to or from other MPUs. As such, FIG. 4 illustrates each MPU

402 as powering two separate FPs, but it is possible to power a single FP, or multiple FPs depending on the integrated switch gear and power requirements of each pump (or conversely, the power output of each MPU 402a-c). While the reference to an MPU is generally made, the reference may be to a single MPU of a single trailer 402a, b, or c, or to multiple MPUs in each of the single trailers 402a, b, and c. Different hydraulic horsepower requirements are provided and MPU/FP matches are identified for so that they can be added or removed for a modular set up based on specific needs.

[0041] FIG. 5 is an elevation schematic of portions 500 of a hydraulic fracturing system in accordance with another example configuration of the present disclosure. Here, the example reference numerals are provided for at least one MPU 502a and FPs 504a,b combination, but a person of ordinary skill would recognize that the description supporting the example reference numerals are available to the other combinations of the mobile platforms 502b,c and FPs 404c-f. In this configuration, power cable interconnects 514a,b are provided between the MPUs 502a-c to act as a common bus for load sharing. As in the prior configuration, optional walkways 506 are provided for personnel access. Power cable connections 508 are provided to transmit power from the turbine generator 510 integrated with the switch gear 512 to the respective FPs 504a-f. Extra components (e.g., fuses, switches, etc.) in switch gear 512 and larger internal busses are additionally provided, as required and as discussed herein, to handle higher electrical loads than a single MPU can output. Communications between turbine control systems (computers) are also provided, as required, to support redundancy in this configuration. As such, a configuration as in FIG. 5 allows the switch gear, interconnect cables, and electrical bus bars are sized to handle all of the available electrical current that can be generated by the combined MPUs.

[0042] Alternatively, the sizing is in accordance with a selective use of interconnects for just portions of the system components. Such portions are determined based at least in part on the load ratings provided for the components. In this process, when the selective use is applied, controls are provided to open or close the load sharing switch gear for protection against overcurrent situations. Switches, fuses, and other failsafe components understood to handle overcurrent situations are available in the present disclosure to work with the switch gear. With a common bus 514, it is also possible to apply a load shedding control system which can shutdown (e.g., using a stop command) or which can open a breaker for FPs 504 if the power demand

exceeds the available power production. This can happen if extra fluid rate is needed or if wellhead pressure increases unexpectedly, or if an MPU fails. The present disclosure also anticipates that a turbine can fail and electrical load will need to be lowered immediately to prevent the other MPUs from over loading and shutting down for protection. The additional components of the integrated switch gear supports and resolve such issues.

[0043] FIG. 6 is an elevation schematic of portions 600 of a hydraulic fracturing system in accordance with yet another example configuration of the present disclosure. Here, like the prior example, the reference numerals are only provided for at least one MPU 602a and FPs 604a,b combination, but a person of ordinary skill would recognize that the description supporting the example reference numerals are available to the other combinations of the MPUs 602b,c and FPs 604c-f. In this configuration, power cable interconnects 614a-e are provided between a VFD (Variable Frequency Drive)/MCC (Motor Control Center) compartment of the FP 604a-f instead of on the areas for the turbine generator 610 in each of the MPUs 602a-c. As in the prior configuration, optional walkways 606 are provided for personnel access. Power cable connections 608 are provided to transmit power from the MPUs 602 (with integrated switch gear 612 and turbine generator 610) to the respective FPs 604a-f. Extra components (e.g., fuses, switches, etc.) in switch gear 612 and the VFD/MCC and larger internal busses are additionally provided, as required and as discussed herein, to handle higher electrical loads than a single MPU can output.

[0044] This example configuration bears similarities to the example configuration of FIG. 5. A difference in this example is that extra load sharing switch gear for the common bus 614 will be in a VFD/MCC compartment of the FP 604 instead of in the area for the turbine generator 610 of the MPU 602. Further, it may not be essential for all interconnecting cables to be used, as long as the fracturing pump trailers 604 are in electrical communication with a source of electric power, a single interconnect will suffice. For example, FP 604a,b does not need to have an interconnect 614a, or FP 604e may not need to have an interconnect 608 with MPU 602c in the illustrated mobile platform as long as it can share power from FP 604d or FP 604f. In this and any of the embodiments, at least one VFD at least one MCC is provided on individual ones of the one or more external mobile units of the embodiments, such that these components, via the one or more external mobile units, is therefore, physically external relative to the mobile unit – such

as the MPU 602 – hosting the generator and switchgear. However, extra load sharing switch gear may be in the one or more external mobile units.

[0045] FIG. 7 is an elevation schematic of portions 700 of a hydraulic fracturing system in accordance with further example configurations available in the present disclosure. In this example, a single MPU/FP system is provided. In an example, the FP 704 is a single trailer for fracturing pumps 704a,b . As such, fracturing pumps and fracturing pump trailers are used interchangeably throughout this disclosure. In FIG. 7, the example configuration provides separate transformer skids 706a,b used to step up or step down the voltage for the FP 704a,b. The transformer in transformer skids 706a,b can also be an isolation transformer for filtering out harmonics between the power source (generators) and the load (fracturing equipment in FP 704a,b) with or without changing the voltage. The switch gear 712 is still integrated with the turbine generator 710 and an external switch gear unit may not necessarily be used to act as a common bus or for power distribution. Power cable connections or interconnects 708a,b,c,d are provided to transmit power from the turbine generators 710 that are integrated to the switch gear 712 in the MPU to the respective FPs 704a-f via the transformer skids 706a,b. Interconnects may be implemented in this example as in the examples from FIGS. 5 and 6. A person of ordinary skill would recognize that the embodiments in each of the example configurations may be used interchangeably based on the disclosure herein. As such, one or more power cable interconnects may be configured to couple the mobile unit with a second mobile unit of one or more external mobile units in this and other embodiments. The second mobile unit has at least one second generator and at least one second switch gear and the one or more cable interconnects then enable transmission of power in support of redundancy or load sharing between the mobile unit and the second mobile unit.

[0046] The embodiment of FIG. 7 also supports a second implementation where the MPU 702 includes turbine generator 710 and integrated switch gear 712 so as to provide power to one or more pieces of FP equipment in FP unit 704, but the layout of the equipment may be different from the layout of the prior implementation, above, using FIG. 7. For example, in this second implementation using the layout in FIG. 7, the transformer of transformer skid 706a,b (if required) may include a VFD (Variable Frequency Drive) and possibly an MCC (Motor Control Center). As such, the VFD and MCC are on a different separate trailer than the FP 704. This

design may allow large fluid pumps to be better positioned relative to wellheads on wellsites, when space is limited. These transformer/VFD/MCC support trailers 706 (in such an embodiment) are herein referred to as Auxiliary Trailers.

[0047] FIG. 8 is an elevation schematic of portions 800 of a hydraulic fracturing system according to other example configurations of the present disclosure. This embodiment illustrates load sharing between the transformer skids 806b,c. The remaining reference numerals 802a,b, 810, 812, 808a,b,c,d, 806a, and 804a,b read on similar components or functions from the corresponding reference numerals in FIG. 7 – i.e., 702a,b, 710, 712, 708a,b,c,d 706a, and 704a,b. As such, the same discussion from FIG. 7 applies to these components. In addition, in FIG. 8, extra switch gear will need to be integrated into the transformer skid 806b,c which will create a larger skid and will take up more room, or the transformer in the transformer skid 806b,c will need to be downgraded to be smaller, in effect limiting the horsepower of the attached FP unit 804b,c. In this example, load sharing can be on the incoming side of the transformer or the outgoing side (secondary voltage). When the load sharing takes place on the incoming side, the switch gear, bus bars, and cable interconnects is sized based in part on the current available at the generated voltage. When the load sharing equipment is on the outgoing side (*e.g.,* when it can be stepped up or stepped down) then the switch gear, bus bars, and cable interconnects are sized based in part on the current available on the secondary side of the transformer.

[0048] In an example, when an interconnect is provided between transformers of at least two mobile units of the one or more external mobile units, as in the embodiment of FIG. 8, then the interconnect for load sharing between the transformers can be configured based at least in part on currents available from a secondary side of the transformer. For example, at least one load sharing switch gear is provided that is optionally associated with at least one of the transformers and configured for load sharing on an incoming side of the at least one of the transformers. This arrangement is such that the at least one load sharing switch gear, associated bus bars, and associated cable interconnects are sized based at least in part on current available for a voltage output of a secondary side of the of the at least one of the transformers. In an alternative or together with the above load sharing example, when the at least one load sharing switch gear is configured for load sharing on an outgoing side of the at least one of the transformers, a different

arrangement may be provided. The different arrangement is such that the at least one load sharing switch gear, the associated bus bars, and the associated cable interconnects are sized based at least in part on the current available at the secondary side of the transformer.

[0049] FIG. 9 is an elevation schematic of portions 900 of a hydraulic fracturing system according to further example configurations available in the present disclosure. This embodiment illustrates load sharing taking place on the FP units 904b,c. The remaining reference numerals 902a,b, 910, 912, 908a,b,c,d, 906a, and 904a,b read on similar components or functions from the corresponding reference numerals in FIG. 8 – i.e., 802a,b, 810, 812, 808a,b,c,d 806a, and 804a,b. As such, the same discussion from FIGS. 7 and 8 applies to these components. When the FP 904b,c have onboard VFD/MCC rooms or compartments, it may be possible to add extra switch gear for load sharing in those rooms. The load sharing will be on the secondary side of the transformer in transformer skid 906a-c. For example, if the transformer in transformer skid 906a-c is stepping the voltage down from 13,800V to 600V, the electrical current requirements will be higher than required if this was not the case. While this may not be ideal current requirements, and will require larger load sharing gear, this implementation saves space on the MPUs 902 at the cost of consuming space on the FP 904, which may be preferable in some cases. In this embodiment, a datavan can possibly perform the load shedding control duties instead of the MPUs 910. As previously noted, datavan is a trailer housing communications and controls for all of the FP equipment for hydraulic fracturing operations where the focus is on the wellhead and fluid pumping instead of power generation. All FP equipment communicate with the datavan for control, when load sharing switch gear is onboard the FP 904, it can be controlled from the datavan instead of the MPU 910.

[0050] FIG. 10 is an elevation schematic of portions 1000 of a hydraulic fracturing system according to yet another example configuration available in the present disclosure. In this embodiment, a configuration and associated method is provided for load sharing where the Auxiliary Trailers 1006b,c (such as described in the alternate embodiment of FIG. 7) houses extra load sharing gear. This configuration saves space on the MPUs 1002 and will allow the load sharing to be on the high voltage side of the transformer. The remaining reference numerals 1002a,b, 1010, 1012, 1008a,b,c,d, 1006a,d and 1004a,b read on similar components or functions from the corresponding reference numerals in FIG. 9 – i.e., 902a,b, 910, 912, 908a,b,c,d 906a,

and 904a,b. As such, the same discussion from FIGS. 7, 8, and 9 applies to these components. When a step up transformer is used in this embodiment, the load sharing can take place on the secondary side – similarly discussed with respect to FIG. 7. When a step down transformer is used, the load sharing can take place on the primary side. This process also maintains all of the electrical gear off of the FP trailers 1004. Only one load sharing interconnect 1014 is illustrated for simplicity, but in reality, the Auxiliary Trailers 1006b,c can have as many load sharing breakers as need to form as common bus. In many situations, two interconnects may be sufficient, but it is feasible to maintain more available interconnects to simplify interconnecting cable layouts or to electrically bypass failed equipment. Electrical load sharing may be preferable at higher voltages due to the current (amperage) requirements being smaller, therefore smaller cables and switch gear can be used.

[0051] In addition, many of the above embodiments show additional switch gear integrated into the MPU to allow load sharing between MPUs for a common bus. In these embodiments, a large three phase power cable may be interconnected between the load sharing switch gear to any adjacent MPUs integrated with other load sharing switch gear. However, the extra gear and a larger internal bus that may be needed to carry the higher electrical current will require compensation in the form of the turbine engines and generators being even smaller to allow mobility of the system.

[0052] The above embodiments may be combined in any manner as is readily apparent to a person of ordinary skill reading the present disclosure. In the above embodiments and any combinations therefrom, at least one fracturing pump (FP) mobile unit may be provided as part of one or more external mobile units. The at least one FP mobile unit is physically external relative to the mobile unit having a generator and switch gear for generating power for the at least one FP mobile unit. Further, a predetermined number of FP mobile units include in the one or more external mobile units may be determined for the system described throughout this disclosure. The predetermined number of FP mobile units may be determined by a maximum of the power available from the at least one generator and handled by the at least one switch gear.

[0053] In a further example, a predetermined number of generators including the at least one generator may be determined for the system of the present disclosure. In an aspect, the predetermined number of generators is determined such that each of the predetermined number

of generators has a power output value that is lesser than a power output of an isolated single generator occupying all available space in an independent mobile unit physically external to the mobile unit. As the generator and switch gear are being integrated to a singular and integrated mobile unit, the space is limited and lower rating equipment may be provided instead. Other embodiments to the above embodiments allow for extra integrated switch gear for a common bus integrated into the FP trailers or with an external transformer and/or VFD skids – i.e., in the Auxiliary Trailers. This extra integrated switch gear may require additional space consumption which may force the FP trailer to incorporate equipment with lower hydraulic horsepower rating due to smaller motors/pumps to allow all of these components to fit onto a mobile platform. Further, large three phase cables, or multiple single phase cables can be used for electrical power interconnects. The above embodiments are described as capable of supporting several common voltages, such as 25KV, 13.8KV, 6.6KV, 4160V, 2000V, 600V, 690V, 480V, all at +/- 5%. However, any voltage is feasibly based on the capabilities of the generators used and on the ratings of the components requiring the generated power. For load sharing capabilities, higher voltage may be better appreciated and issues may arise with voltages below 5,000V. While it may not be possible to practically size switch gear, bus bars, and interconnecting cables to be able to handle the electrical current for an entire fracturing fleet at voltages below 5,000V to form a common bus, minor load sharing between two individual pumps (FP units) may still be possible even at low voltages.

[0054] The technology herein can be used for equipment where the voltage is constant, such as when the load operates at the same voltage as the generated voltage. Alternatively, the technology and equipment herein can be used where step up or step transformers are used to alter the voltage for the attached load (FP units). Examples of components in the FP units include blenders, hydration units, chemical units, proppant equipment, lights, auxiliary water pumps, monitoring equipment, data collection offices, personnel trailers, cranes, gas compression equipment, gas filtering equipment, heating equipment, and other third party equipment that is used on well sites.

[0055] FIG. 11 is a flowchart 1100 of a hydraulic fracturing method using to example configurations of the embodiments herein. The method includes a sub-process 1102 for providing a mobile unit with at least one generator and at least one switchgear, such as a system as

described above. The at least one generator is coupled to the at least one switch gear on the mobile unit. The method includes sub-process 1104 for generating power from the at least one generator. The system may be part of a hydraulic fracturing system that consumes the power and that includes a wellbore and at least one pressuring system to create fractures in a subterranean formation that surrounds the wellbore. A verification is performed via sub-process 1106 for the power generated being sufficient to drive at least one load of the one or more external mobile units. When such verification is positive, sub-process 1108 provides the power in electrical busses for at least one load in the one or more external mobile units. Power may be generated via sub-process 1104 till the capacity is achieved if the verification in sub-process 1106 is negative.

[0056] The present invention described herein, therefore, is well adapted to carry out the objects and attain the ends and advantages mentioned, as well as others inherent therein. While a presently preferred embodiment of the invention has been given for purposes of disclosure, numerous changes exist in the details of procedures for accomplishing the desired results. For example, other the recesses can be put into arrangements other than those described, such as all being in a vertical or other arrangement. These and other similar modifications will readily suggest themselves to those skilled in the art, and are intended to be encompassed within the spirit of the present invention disclosed herein and the scope of the appended claims.

[0057] In the various embodiments of the disclosure described, a person having ordinary skill in the art will recognize that alternative arrangements of components, units, conduits, and fibers could be conceived and applied to the present invention.

[0058] The singular forms “a,” “an,” and “the” include plural referents, unless the context clearly dictates otherwise.

[0059] Examples of computer-readable medium used in the datavan and in the communications achieved in the present embodiments can include but are not limited to: one or more nonvolatile, hard-coded type media, such as read only memories (ROMs), CD-ROMs, and DVD-ROMs, or erasable, electrically programmable read only memories (EEPROMs); recordable type media, such as floppy disks, hard disk drives, CD-R/RWs, DVD-RAMs, DVD-R/RWs, DVD+R/RWs, flash drives, memory sticks, and other newer types of memories; and transmission type media such as digital and analog communication links. For example, such media can include operating

instructions, as well as instructions related to the systems and the method steps described previously and can operate on a computer. It will be understood by those skilled in the art that such media can be at other locations instead of, or in addition to, the locations described to store computer program products, e.g., including software thereon. It will be understood by those skilled in the art that the various software modules or electronic components described previously can be implemented and maintained by electronic hardware, software, or a combination of the two, and that such embodiments are contemplated by embodiments of the present disclosure.

CLAIMS

What is claimed is:

1. A system comprising:

a mobile unit;

at least one generator; and

at least one switch gear, the at least one generator coupled to the at least one switch gear on the mobile unit, the mobile unit configured to provide power generated by the at least one generator in electrical buses for at least one load on one or more external mobile units.

2. The system of claim 1, wherein the system is part of a hydraulic fracturing system that consumes the power and that comprises a wellbore and at least one pressuring system to create fractures in a subterranean formation that surrounds the wellbore.

3. The system of claim 1, further comprising:

at least one fracturing pump (FP) mobile unit of the one or more external mobile units, the at least one FP mobile unit physically external relative to the mobile unit; and

at least one transformer provided between the at least one FP mobile unit and the at least one switch gear to condition the power supplied to the at least one FP mobile unit.

4. The system of claim 1, further comprising:

a predetermined number of FP mobile units comprised in the one or more external mobile units, the predetermined number of FP mobile units determined by a maximum of the power available from the at least one generator and handled by the at least one switch gear.

5. The system of claim 1, further comprising:

a predetermined number of generators comprising the at least one generator, the predetermined number of generators having individual power output values that is lesser than a power output of an isolated single generator occupying all available space in an independent mobile unit physically external to the mobile unit.

6. The system of claim 1, further comprising:

the at least one switchgear being physically arranged to replace an electronic equipment room (EER) of at least one mobile unit of the one or more external mobile units that is designed to comprise the EER.

7. The system of claim 1, further comprising:

at least one Variable Frequency Drive (VFD); and

at least one Motor Control Center (MCC), the VFD and the MCC being on individual ones of the one or more external mobile units that is physically external relative to the mobile unit.

8. The system of claim 1, further comprising:

one or more power cable interconnects configured to couple the mobile unit with a second mobile unit of the one or more external mobile units, the second mobile unit having at least one second generator and at least one second switch gear, the one or more power cable interconnects to transmit power in support of redundancy or load sharing between the mobile unit and the second mobile unit.

9. The system of claim 1, further comprising:

an interconnect between transformers of the at least two mobile units of the one or more external mobile units, the interconnect for load sharing between the transformers comprising:

at least one load sharing switch gear optionally associated with at least one of the transformers and configured for load sharing on an incoming side of the at least one of the transformers such that the at least one load sharing switch gear, associated bus bars, and associated cable interconnects are sized based at least in part on current available for a voltage output of a secondary side of the of the at least one of the transformers; or

the at least one load sharing switch gear configured for load sharing on an outgoing side of the at least one of the transformers such that the at least one load sharing switch gear, the associated bus bars, and the associated cable interconnects are sized based at least in part on the current available at the secondary side of the transformer;

10. The system of claim 1, further comprising:

at least one load sharing FP mobile unit coupled to share the at least one load of a second FP mobile unit of the one or more external mobile units; and

an optional datavan in the one or more external mobile units for control of the at least one load sharing FP mobile unit, the optional datavan offering the control of the at least one load sharing FP mobile unit instead of a second control available from within the mobile unit.

11. The system of claim 1, further comprising:

an isolation transformer in one of the one or more external mobile units, the isolation transformer being physically external relative to the mobile unit and being configured for filtering harmonics between the at least one generator and the at least one load in the one or more external mobile units.

12. A method comprising:

providing a mobile unit with at least one generator and at least one switchgear, the at least one generator coupled to the at least one switch gear on the mobile unit;

generating power from the at least one generator;

providing the power in electrical buses for at least one load in one or more external mobile units.

13. The method of claim 12, further comprising:

providing at least one fracturing pump (FP) mobile unit of the one or more external mobile units that is physically external relative to the mobile unit; and

conditioning the power supplied to the at least one FP mobile unit using at least one transformer provided between the at least one FP mobile unit and the at least one switch gear.

14. The method of claim 12, further comprising:

determining a number of FP mobile units for the one or more external mobile units based at least in part on a maximum of the power available from the at least one generator and handled by the at least one switch gear.

15. The method of claim 12, further comprising:

determining a number of generators for the at least one generator based at least in part on the number of generators having individual power output values that is lesser than a

power output of an isolated single generator occupying all available space in an independent mobile unit physically external to the mobile unit.

16. The method of claim 12, further comprising:

physically arranging the at least one switch gear to replace an electronic equipment room (EER) of at least one mobile unit of the one or more external mobile units that is designed to comprise the EER.

17. The method of claim 12, further comprising:

providing at least one Variable Frequency Drive (VFD); and

providing at least one Motor Control Center (MCC), the VFD and the MCC being on individual ones of the one or more external mobile units that is physically external relative to the mobile unit.

18. The method of claim 12, further comprising:

coupling the mobile unit with a second mobile unit of the one or more external mobile units using one or more power cable interconnects, the second mobile unit having at least one second generator and at least one second switch gear, the one or more power cable interconnects to transmit power in support of redundancy or load sharing between the mobile unit and the second mobile unit.

19. The method of claim 12, further comprising:

coupling at least one load sharing FP mobile unit to share the at least one load of a second FP mobile unit of the one or more external mobile units; and

controlling, via an optional datavan in the one or more external mobile units, the at least one load sharing FP mobile unit, the optional datavan offering the control of the at least one load sharing FP mobile unit instead of a second control available from within the mobile unit.

20. The method of claim 12, further comprising:

filtering harmonics between the at least one generator and the at least one load in the one or more external mobile units using an isolation transformer that is in one of the one or more external mobile units, the isolation transformer being physically external relative to the mobile unit.

INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING

ABSTRACT

A hydraulic fracturing system is disclosed as including a singular mobile platform of at least one mobile power unit (MPU) and at least one first switch gear that is configured to handle electric power from the MPU. The MPU is configured to generate voltage that matches the capabilities of an electrical bus from the at least one switch gear such that a combined electrical current generated as a result of the generated voltage and required load is provided to the electrical bus to the components of the hydraulic fracturing system. Further, the hydraulic fracturing system may include electrical fracturing equipment with at least one second switch gear to support the at least one first switch gear in handling electric power from the MPU. A datavan may be included in the system to control load shedding, load sharing, and power distribution for the electrical fracturing equipment comprising the at least one second switch gear.

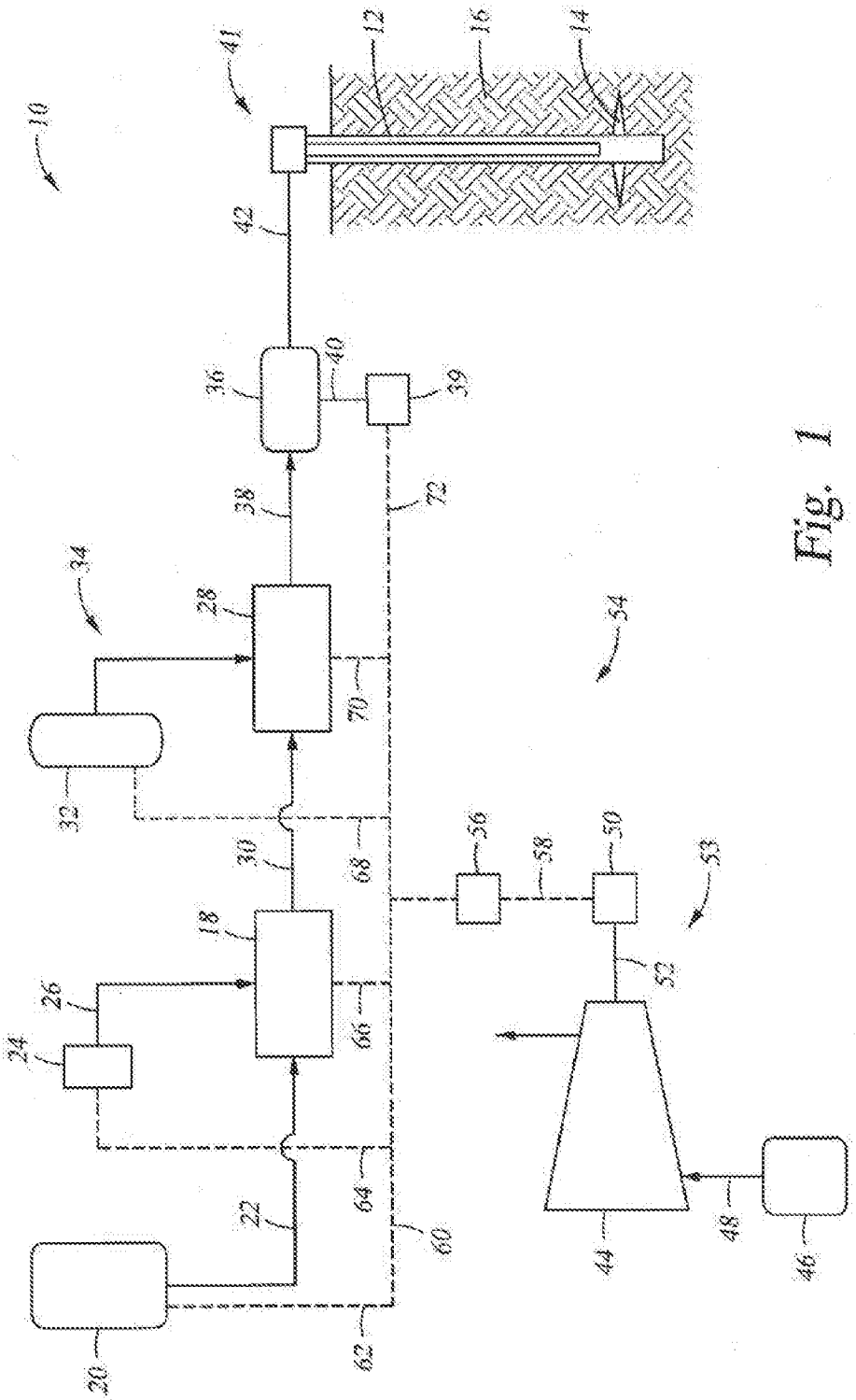

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Fig. 1

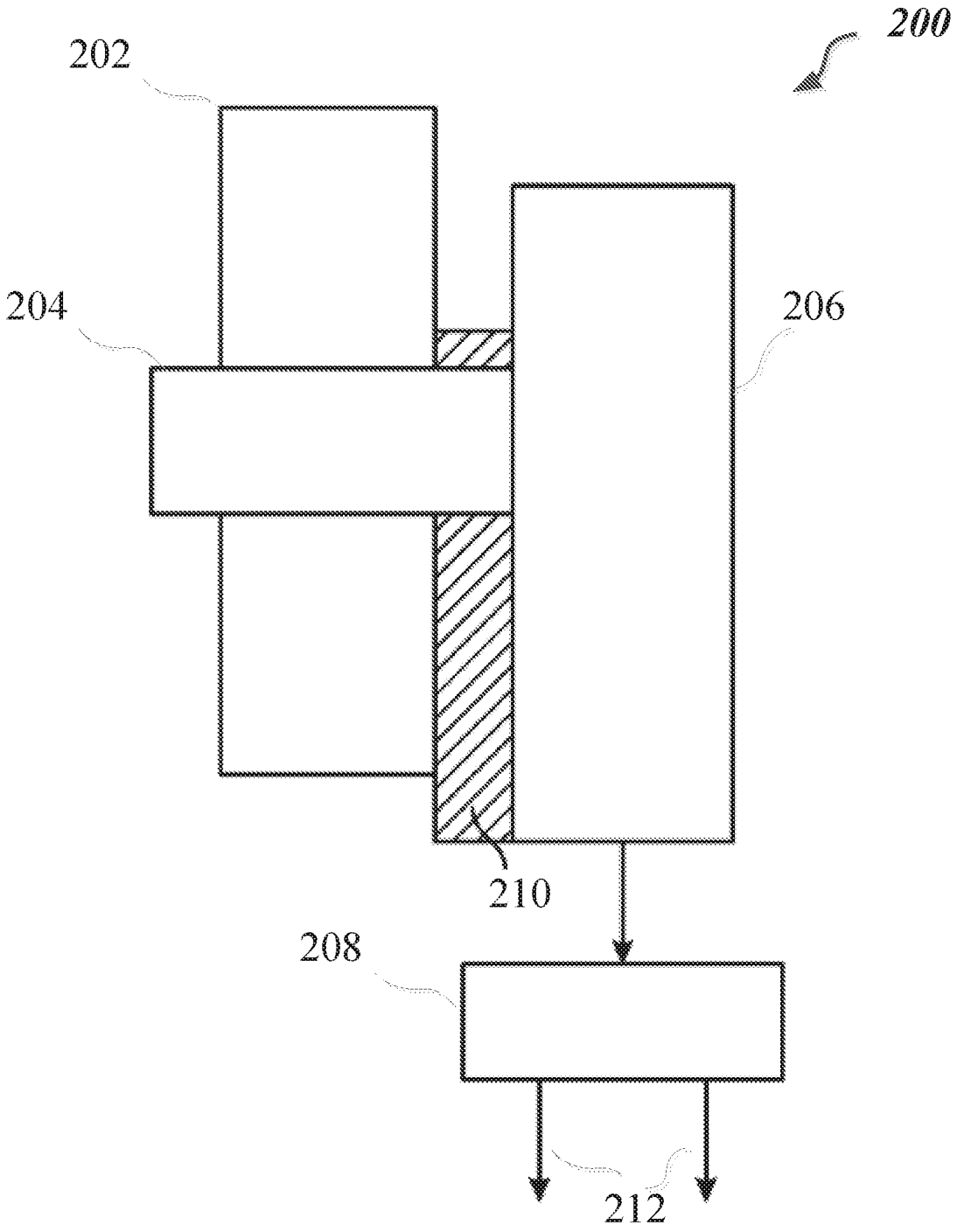


Fig. 2

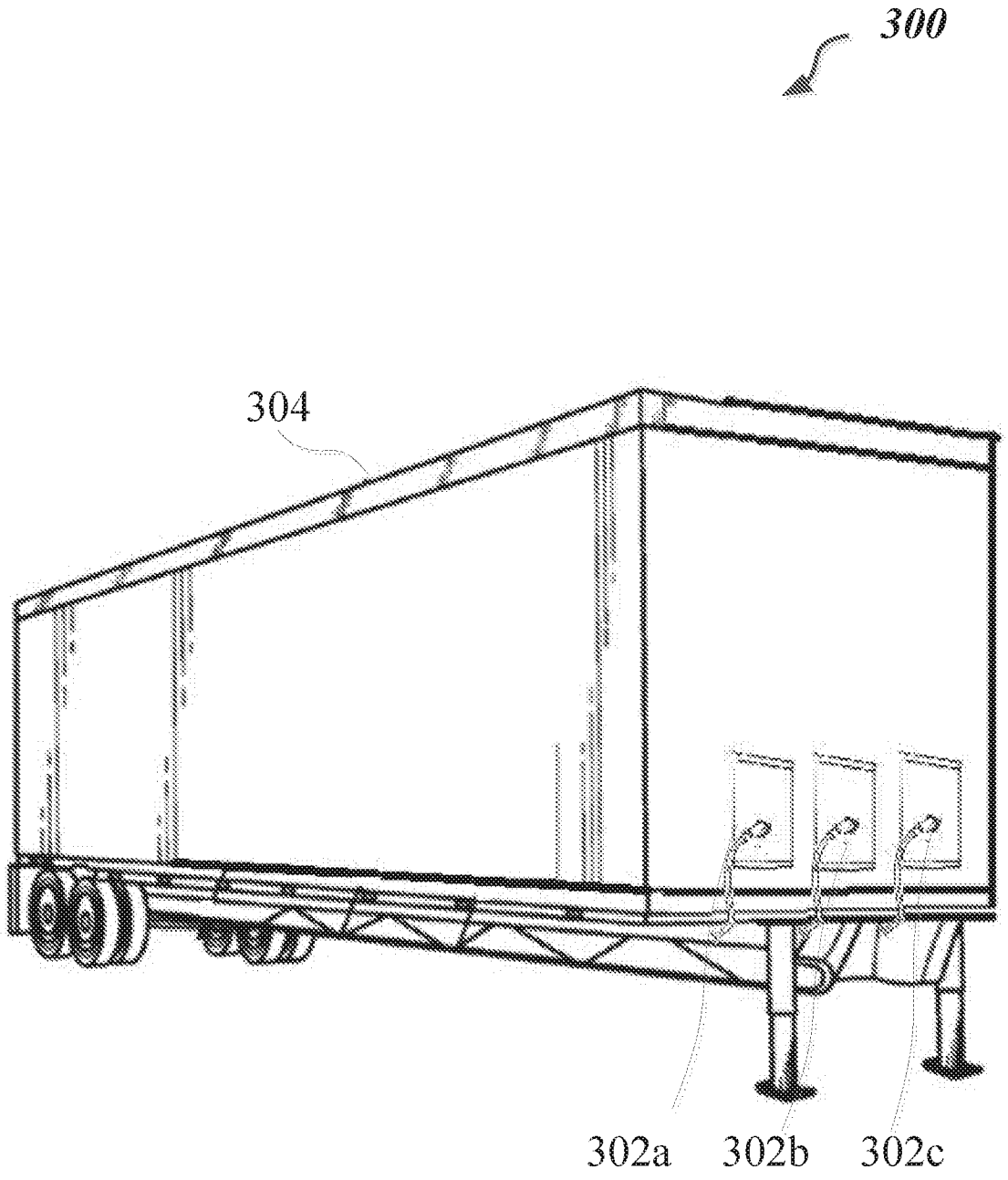


Fig. 3

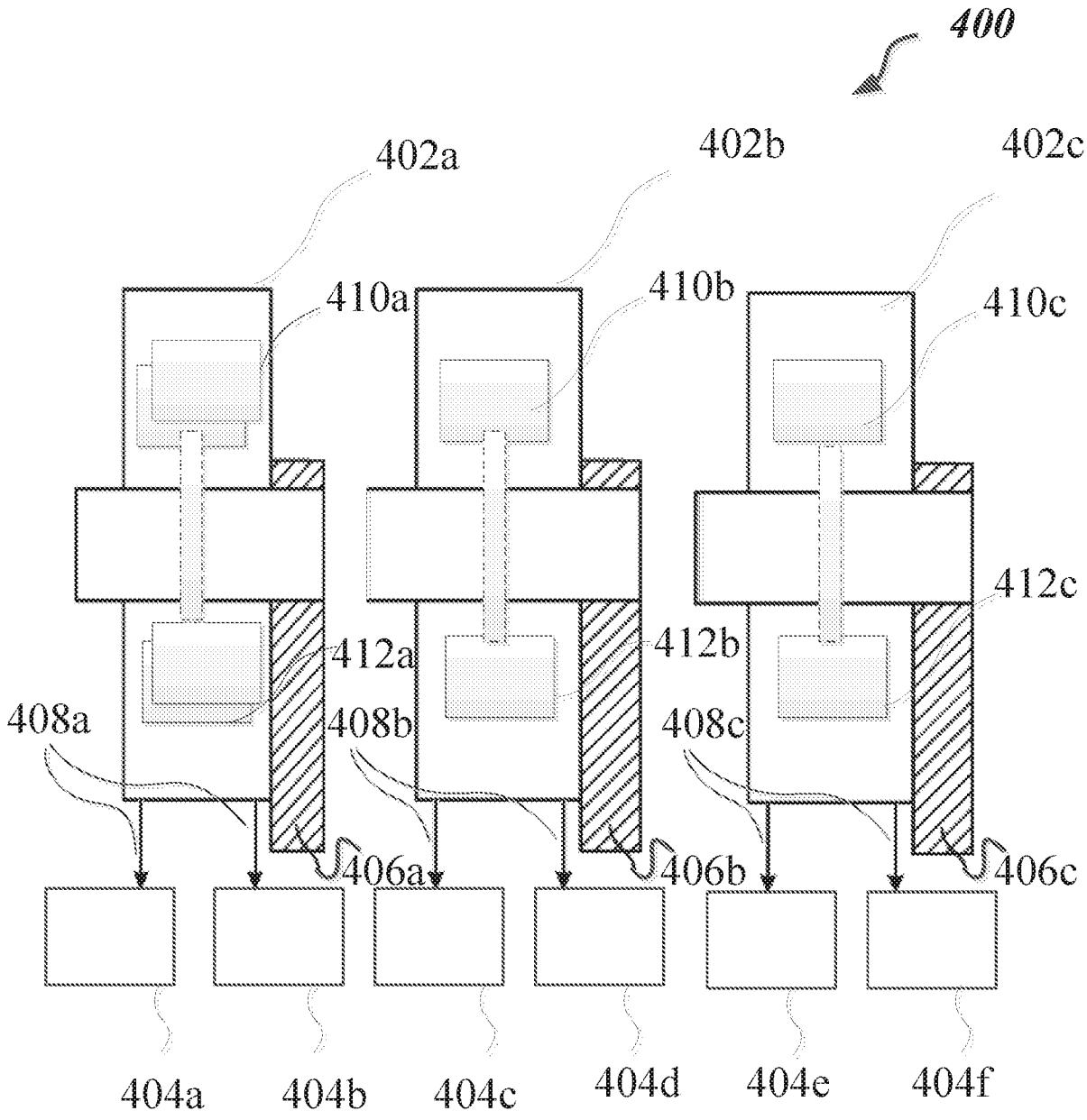

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Fig. 4

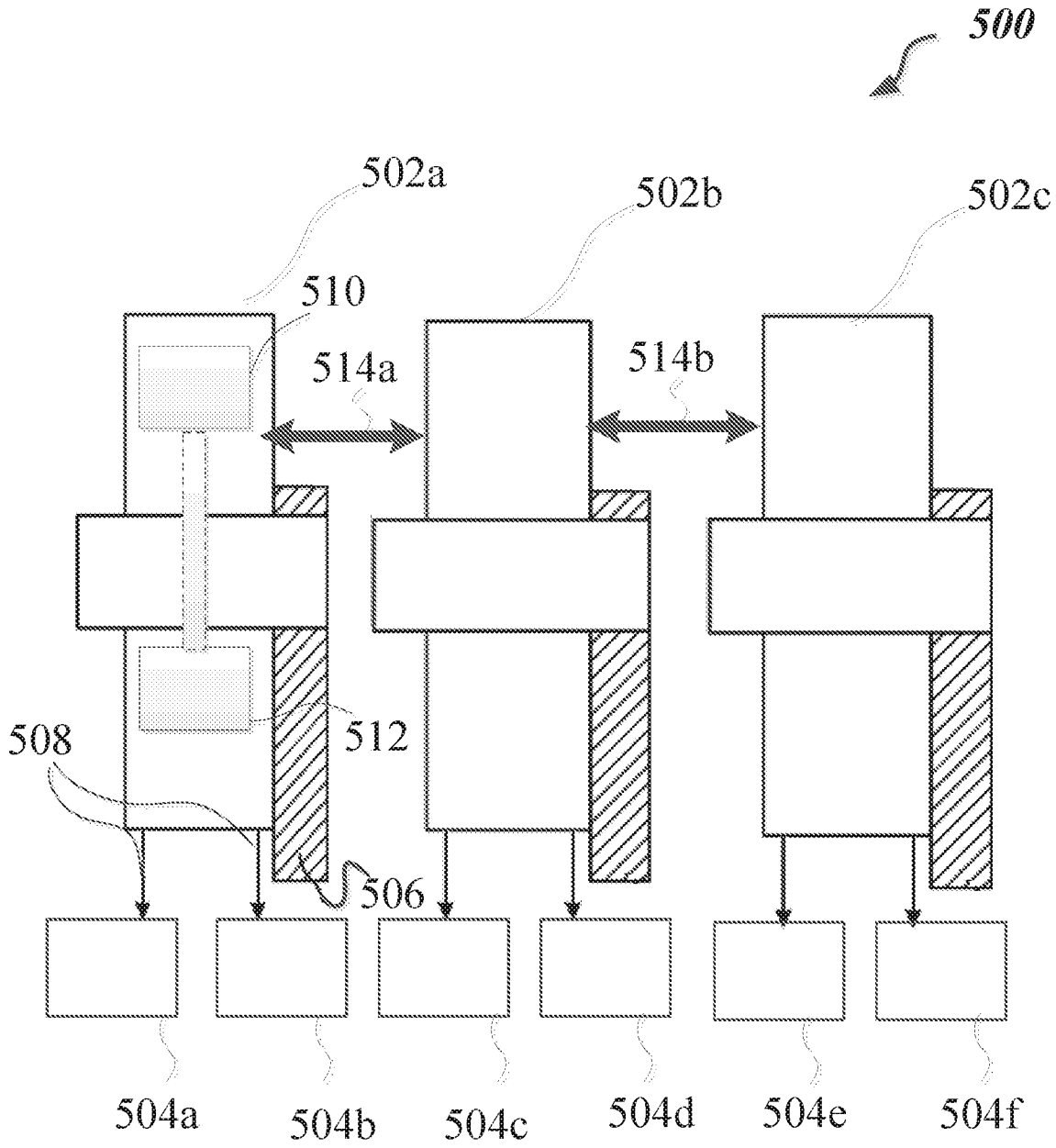

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Fig. 5

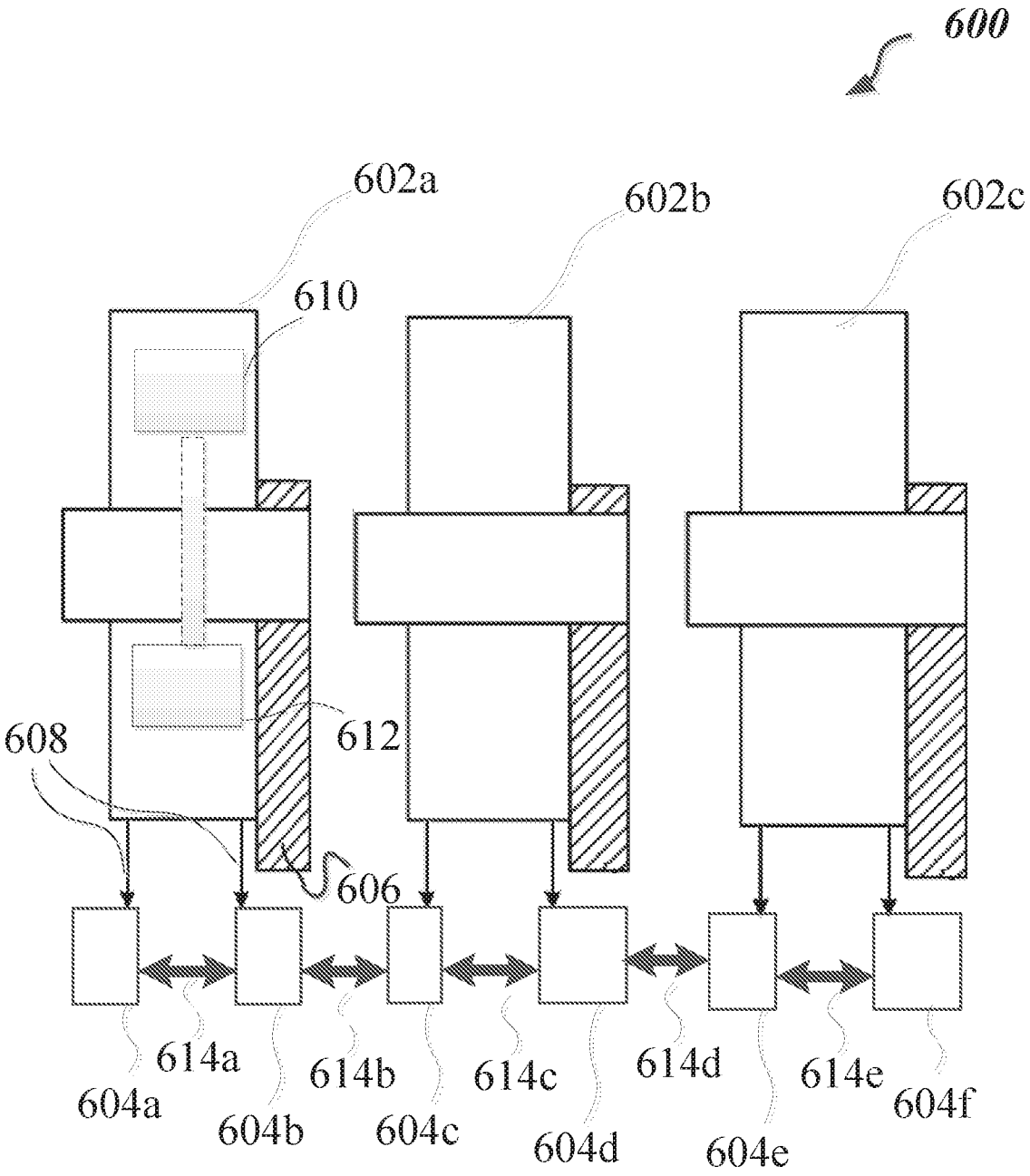

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Fig. 6

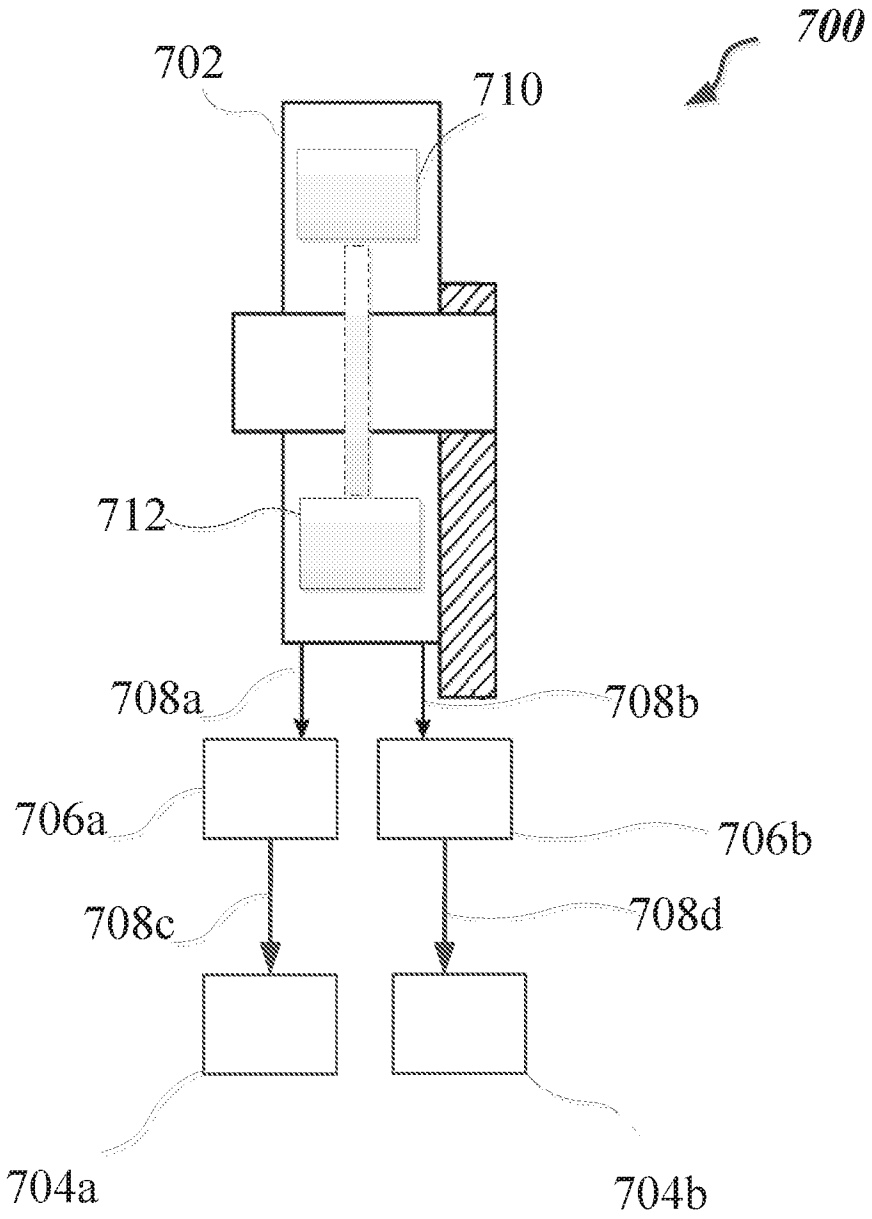


Fig. 7

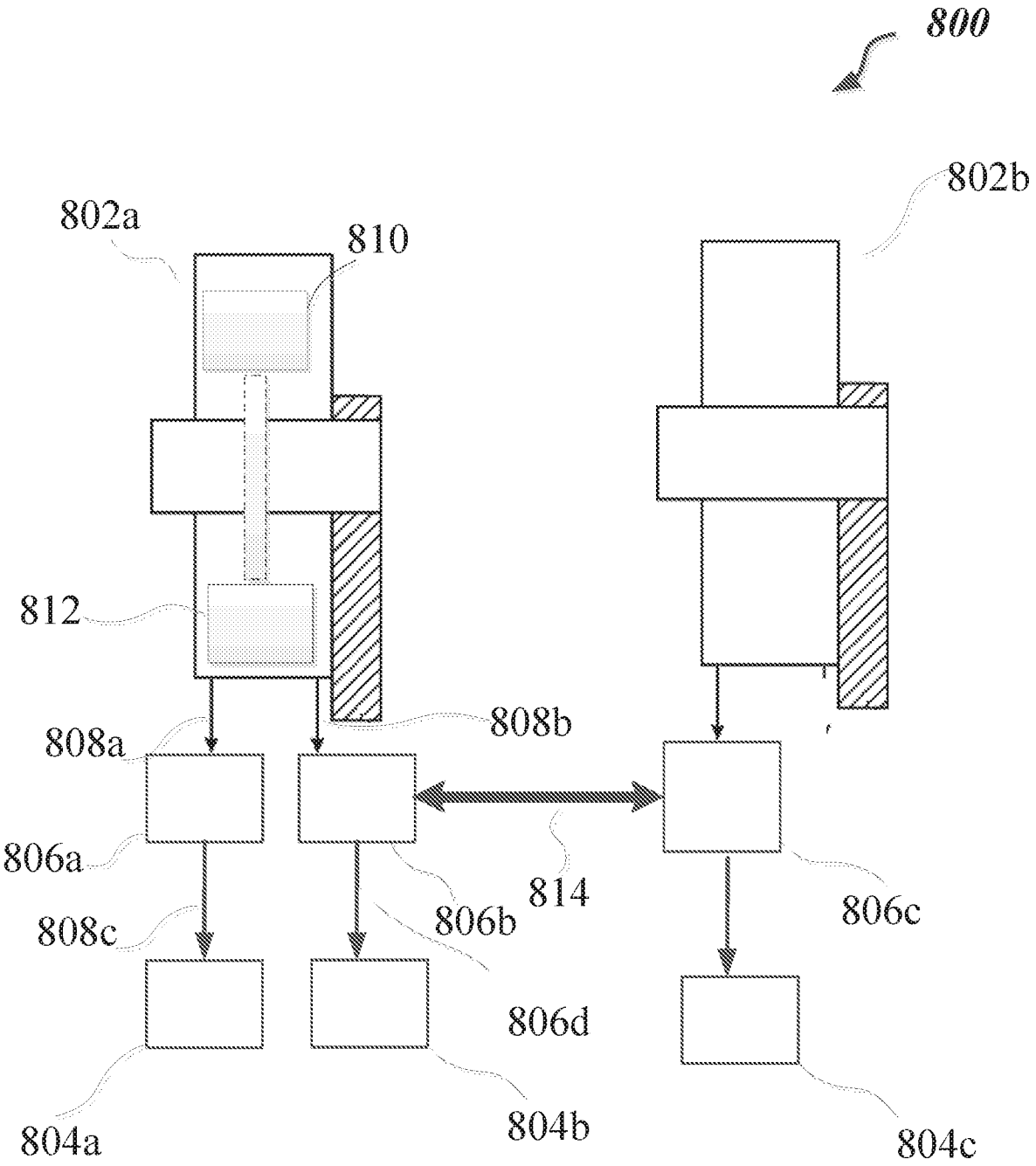

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Fig. 8

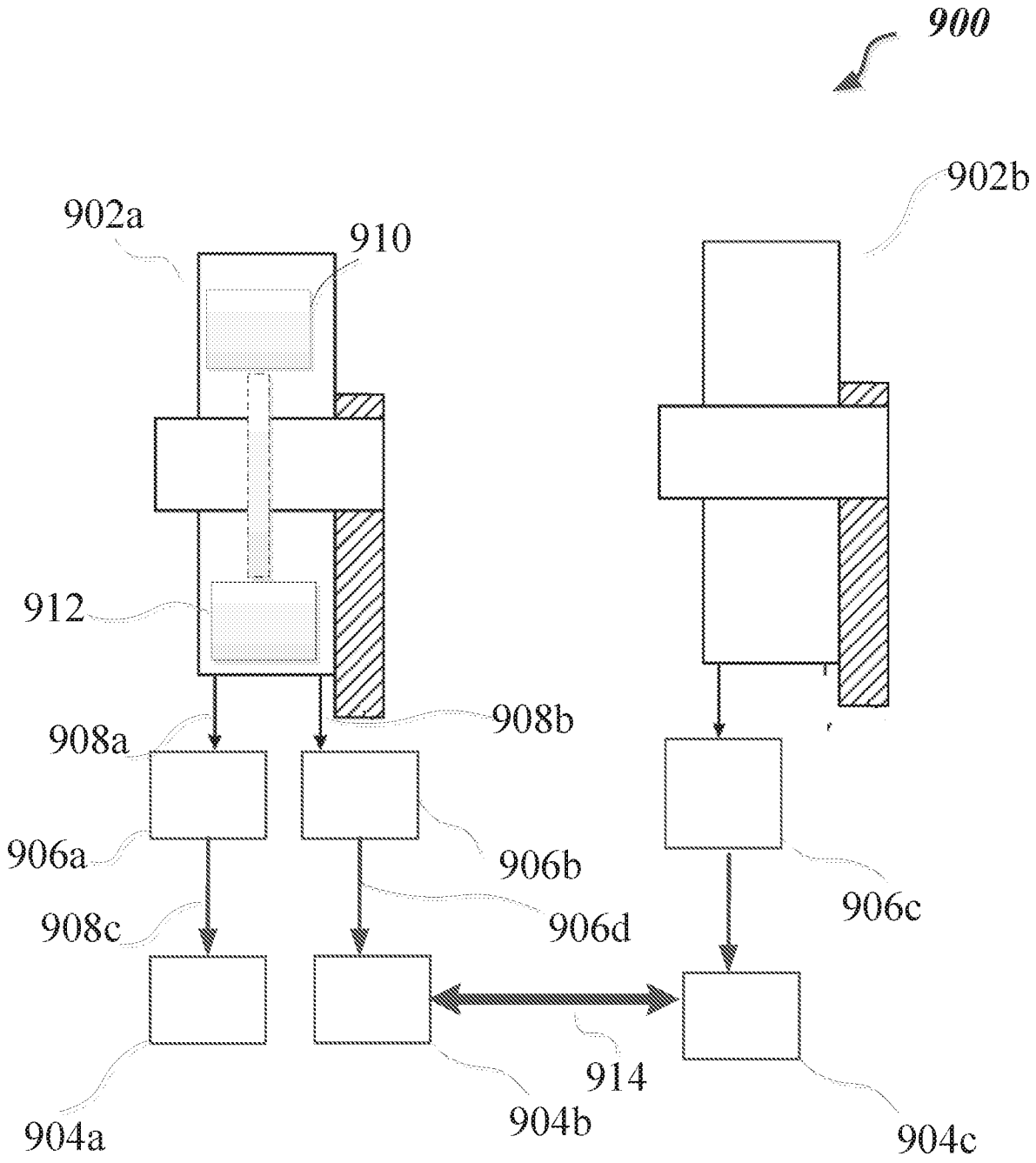

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Fig. 9

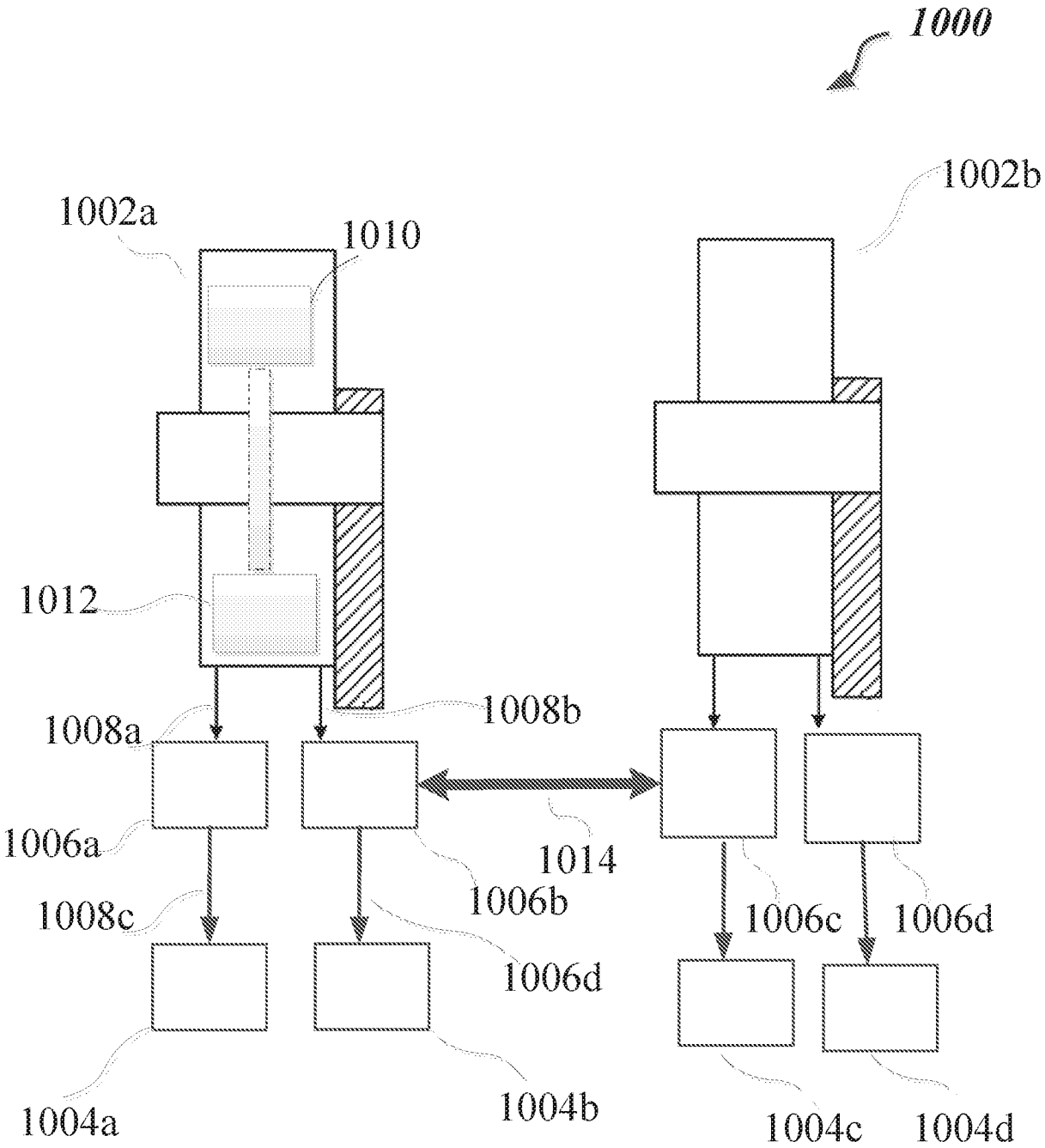

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Fig. 10

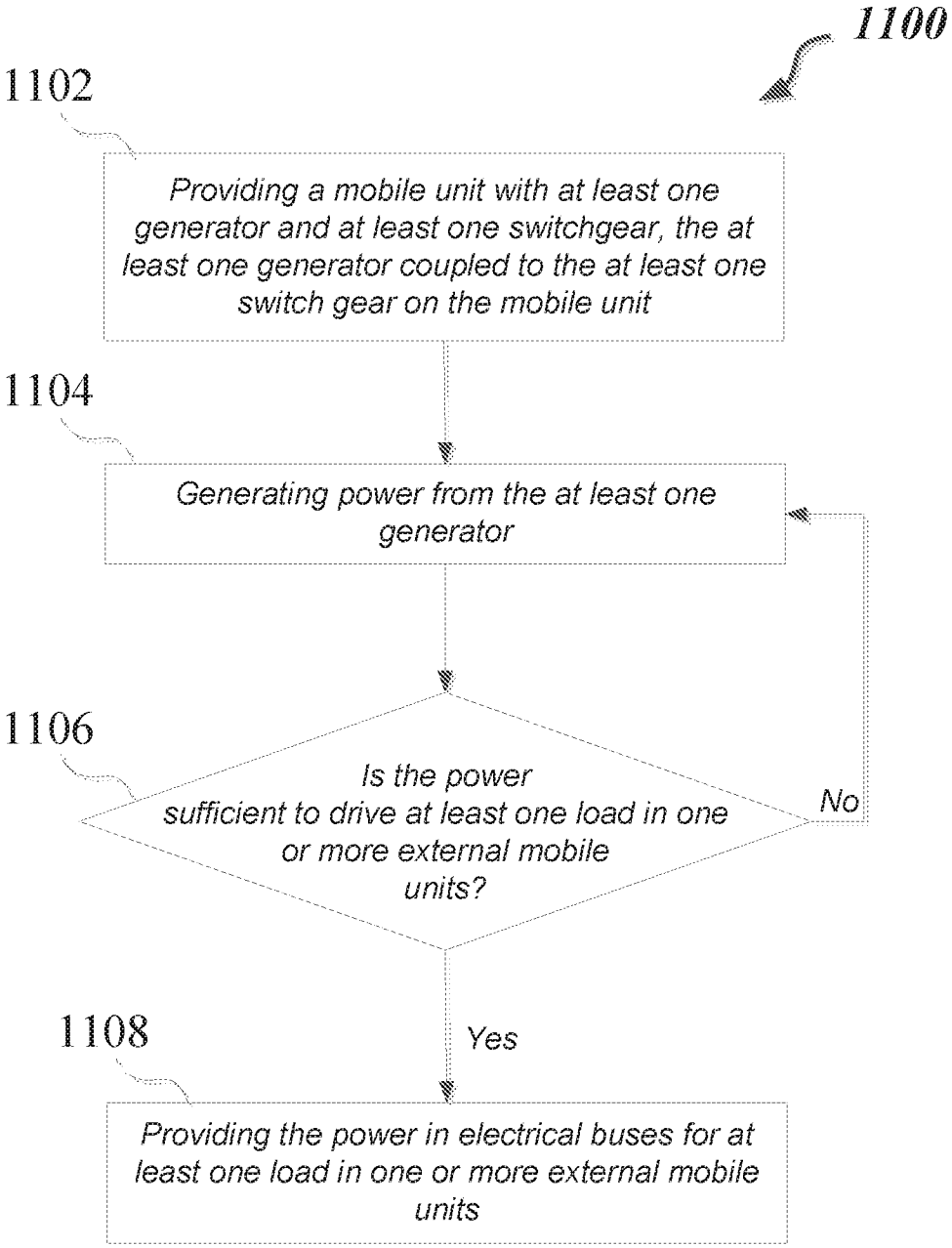

1100
1102
Providing a mobile unit with at least one generator and at least one switchgear, the at least one generator coupled to the at least one switch gear on the mobile unit
1104
Generating power from the at least one generator
1106
Is the power sufficient to drive at least one load in one or more external mobile units?
No
Yes
1108
Providing the power in electrical buses for at least one load in one or more external mobile units

Fig. 11

PTO/AIA/15 (10-17)
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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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UTILITY PATENT APPLICATION TRANSMITTAL

(Only for new nonprovisional applications under 37 CFR 1.53(b))

Attorney Docket No.	047158.100042
First Named Inventor	Brandon N. Hinderliter
Title	INTEGRATED MOBILE POWER UNIT...
Priority Mail Express® Label No.	

APPLICATION ELEMENTS

See MPEP chapter 600 concerning utility patent application contents.

1. [✓] **Fee Transmittal Form** (PTO/SB/17 or equivalent)
2. [ ] **Applicant asserts small entity status.** See 37 CFR 1.27
3. [ ] **Applicant certifies micro entity status.** See 37 CFR 1.29. Applicant must attach form PTO/SB/15A or B or equivalent.
4. [✓] **Specification** [*Total Pages* 27] Both the claims and abstract must start on a new page. *(See MPEP § 608.01(a) for information on the preferred arrangement)*
5. [✓] **Drawing(s)** (35 U.S.C. 113) [*Total Sheets* 11]
6. **Inventor's Oath or Declaration** [*Total Pages*] *(including substitute statements under 37 CFR 1.64 and assignments serving as an oath or declaration under 37 CFR 1.63(e))*
   a. [ ] Newly executed (original or copy)
   b. [ ] A copy from a prior application (37 CFR 1.63(d))
7. [✓] **Application Data Sheet** ** See note below.* See 37 CFR 1.76 (PTO/AIA/14 or equivalent)
8. **CD-ROM or CD-R** in duplicate, large table, or Computer Program (*Appendix*)
   [ ] Landscape Table on CD
9. **Nucleotide and/or Amino Acid Sequence Submission** (*if applicable, items a. – c. are required*)
   a. [ ] Computer Readable Form (CRF)
   b. [ ] Specification Sequence Listing on:
      i. [ ] CD-ROM or CD-R (2 copies); or
      ii. [ ] Paper
   c. [ ] Statements verifying identity of above copies

ADDRESS TO:

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

ACCOMPANYING APPLICATION PAPERS

10. [ ] **Assignment Papers** (cover sheet & document(s))
    Name of Assignee
11. [ ] **37 CFR 3.73(c) Statement** (*when there is an assignee*) [✓] **Power of Attorney**
12. [ ] **English Translation Document** (*if applicable*)
13. [ ] **Information Disclosure Statement** (PTO/SB/08 or PTO-1449)
    [ ] Copies of citations attached
14. [ ] **Preliminary Amendment**
15. [ ] **Return Receipt Postcard** (*MPEP § 503*) (*Should be specifically itemized*)
16. [ ] **Certified Copy of Priority Document(s)** (*if foreign priority is claimed*)
17. [ ] **Nonpublication Request** Under 35 U.S.C. 122(b)(2)(B)(i). Applicant must attach form PTO/SB/35 or equivalent.
18. [✓] **Other:** Track One Request

Note*: (1) Benefit claims under 37 CFR 1.78 and foreign priority claims under 1.55 **must be included in an Application Data Sheet (ADS).
(2) For applications filed under 35 U.S.C. 111, the application must contain an ADS specifying the applicant if the applicant is an assignee, person to whom the inventor is under an obligation to assign, or person who otherwise shows sufficient proprietary interest in the matter. See 37 CFR 1.46(b).

19. CORRESPONDENCE ADDRESS

[✓] The address associated with Customer Number: 132858 **OR** [ ] Correspondence address below

Name					
Address					
City		State		Zip Code	
Country		Telephone		Email	

Signature	/Taylor P. Evans/	Date	2019-06-17
Name (Print/Type)	Taylor P. Evans	Registration No. (Attorney/Agent)	60506

This collection of information is required by 37 CFR 1.53(b). The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.11 and 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.

Privacy Act Statement

The **Privacy Act of 1974 (P.L. 93-579)** requires that you be given certain information in connection with your submission of the attached form related to a patent application or patent. Accordingly, pursuant to the requirements of the Act, please be advised that: (1) the general authority for the collection of this information is 35 U.S.C. 2(b)(2); (2) furnishing of the information solicited is voluntary; and (3) the principal purpose for which the information is used by the U.S. Patent and Trademark Office is to process and/or examine your submission related to a patent application or patent. If you do not furnish the requested information, the U.S. Patent and Trademark Office may not be able to process and/or examine your submission, which may result in termination of proceedings or abandonment of the application or expiration of the patent.

The information provided by you in this form will be subject to the following routine uses:

1. The information on this form will be treated confidentially to the extent allowed under the Freedom of Information Act (5 U.S.C. 552) and the Privacy Act (5 U.S.C 552a). Records from this system of records may be disclosed to the Department of Justice to determine whether disclosure of these records is required by the Freedom of Information Act.
2. A record from this system of records may be disclosed, as a routine use, in the course of presenting evidence to a court, magistrate, or administrative tribunal, including disclosures to opposing counsel in the course of settlement negotiations.
3. A record in this system of records may be disclosed, as a routine use, to a Member of Congress submitting a request involving an individual, to whom the record pertains, when the individual has requested assistance from the Member with respect to the subject matter of the record.
4. A record in this system of records may be disclosed, as a routine use, to a contractor of the Agency having need for the information in order to perform a contract. Recipients of information shall be required to comply with the requirements of the Privacy Act of 1974, as amended, pursuant to 5 U.S.C. 552a(m).
5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
6. A record in this system of records may be disclosed, as a routine use, to another federal agency for purposes of National Security review (35 U.S.C. 181) and for review pursuant to the Atomic Energy Act (42 U.S.C. 218(c)).
7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (*i.e.*, GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspection or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

Electronic Patent Application Fee Transmittal

Application Number:	
Filing Date:	
Title of Invention:	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING
First Named Inventor/Applicant Name:	Brandon N. Hinderliter
Filer:	Taylor P. Evans/Stephanie McDonough
Attorney Docket Number:	047158.100042

Filed as Large Entity

Filing Fees for Track I Prioritized Examination - Nonprovisional Application under 35 USC 111(a)

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
Basic Filing:				
UTILITY APPLICATION FILING	1011	1	300	300
UTILITY SEARCH FEE	1111	1	660	660
UTILITY EXAMINATION FEE	1311	1	760	760
REQUEST FOR PRIORITIZED EXAMINATION	1817	1	4000	4000
Pages:				
Claims:				
Miscellaneous-Filing:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD($)
PUBL. FEE- EARLY, VOLUNTARY, OR NORMAL	1504	1	0	0
PROCESSING FEE, EXCEPT PROV. APPLS.	1830	1	140	140

Petition:	
Patent-Appeals-and-Interference:	
Post-Allowance-and-Post-Issuance:	
Extension-of-Time:	
Miscellaneous:	
Total in USD ($)	**5860**

Electronic Acknowledgement Receipt

EFS ID:	36299907
Application Number:	16443273
International Application Number:	
Confirmation Number:	1069
Title of Invention:	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING
First Named Inventor/Applicant Name:	Brandon N. Hinderliter
Customer Number:	132858
Filer:	Taylor P. Evans/Stephanie McDonough
Filer Authorized By:	Taylor P. Evans
Attorney Docket Number:	047158.100042
Receipt Date:	17-JUN-2019
Filing Date:	
Time Stamp:	16:33:04
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	DA
Payment was successfully received in RAM	$5860
RAM confirmation Number	061819INTEFSW00003445501349
Deposit Account	501349
Authorized User	Stephanie McDonough

The Director of the USPTO is hereby authorized to charge indicated fees and credit any overpayment as follows:

37 CFR 1.16 (National application filing, search, and examination fees)

37 CFR 1.17 (Patent application and reexamination processing fees)

37 CFR 1.19 (Document supply fees)

37 CFR 1.20 (Post Issuance fees)

37 CFR 1.21 (Miscellaneous fees and charges)

File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Application Data Sheet	WebADS.pdf	113709 21fdd5a10fdf2c0d267efa3cb49c8ca24a85b7c6	no	7
Warnings:					
Information:					
2	Power of Attorney	047158-100042_POA.pdf	219601 c04fce07b1c65d2f043b321e0ed09c34b18bc8bf	no	2
Warnings:					
The page size in the PDF is too large. The pages should be 8.5 x 11 or A4. If this PDF is submitted, the pages will be resized upon entry into the Image File Wrapper and may affect subsequent processing					
Information:					
3	TrackOne Request	047158-100042_Track_One.pdf	124739 ec0e34576b6ce439e0aaddfdd0209aa1214a74e4	no	2
Warnings:					
Information:					
4		047158-100042_Specification.pdf	131061 80dead83d8f5d49b2f8b4b3ba92e4f0abc760f5b	yes	27

Multipart Description/PDF files in .zip description

Document Description	Start	End
Specification	1	22
Claims	23	26
Abstract	27	27

Warnings:

Information:

5	Drawings-only black and white line drawings	047158-100042_Figures_as-filed.pdf	503977 f5926d293a4047330bf31349f293bc0c77f4eb4e	no	11
Warnings:					
Information:					
6	Transmittal of New Application	047158-100042_Utility_transmittal.pdf	285301 7705857a5ccc6e6c95f665c96726af5aa89b6c6e	no	2
Warnings:					
Information:					
7	Fee Worksheet (SB06)	fee-info.pdf	40314 7231e8aa7dd4fc73c9200209da54d391b3e9210c	no	2
Warnings:					
Information:					
			Total Files Size (in bytes):	1418702	

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New Applications Under 35 U.S.C. 111

If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application.

National Stage of an International Application under 35 U.S.C. 371

If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course.

New International Application Filed with the USPTO as a Receiving Office

If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.

Application Data Sheet 37 CFR 1.76	Attorney Docket Number	047158.100042
	Application Number	
Title of Invention	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING	

The application data sheet is part of the provisional or nonprovisional application for which it is being submitted. The following form contains the bibliographic data arranged in a format specified by the United States Patent and Trademark Office as outlined in 37 CFR 1.76.
This document may be completed electronically and submitted to the Office in electronic format using the Electronic Filing System (EFS) or the document may be printed and included in a paper filed application.

Secrecy Order 37 CFR 5.2:

☐ Portions or all of the application associated with this Application Data Sheet may fall under a Secrecy Order pursuant to 37 CFR 5.2 (Paper filers only. Applications that fall under Secrecy Order may not be filed electronically.)

Inventor Information:

Inventor 1

Legal Name

Prefix	Given Name	Middle Name	Family Name	Suffix
	Brandon	N.	Hinderliter	

Residence Information (Select One) ◉ US Residency ○ Non US Residency ○ Active US Military Service

City	Houston	State/Province	TX	Country of Residence i	US

Mailing Address of Inventor:

Address 1	c/o U.S. Well Services, Inc.		
Address 2	1360 Post Oak Boulevard, Suite 1800		
City	Houston	**State/Province**	TX
Postal Code	77056	**Country** i	US

All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the **Add** button. Add

Correspondence Information:

Enter either Customer Number or complete the Correspondence Information section below.
For further information see 37 CFR 1.33(a).

☐ **An Address is being provided for the correspondence Information of this application.**

Customer Number	132858		
Email Address	hlusdocketing@hoganlovells.com	Add Email	Remove Email

Application Information:

Title of the Invention	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING		
Attorney Docket Number	047158.100042	**Small Entity Status Claimed**	☐
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)	11	**Suggested Figure for Publication (if any)**	

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	047158.100042
	Application Number	
Title of Invention	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING	

Filing By Reference:

Only complete this section when filing an application by reference under 35 U.S.C. 111(c) and 37 CFR 1.57(a). Do not complete this section if application papers including a specification and any drawings are being filed. Any domestic benefit or foreign priority information must be provided in the appropriate section(s) below (i.e., "Domestic Benefit/National Stage Information" and "Foreign Priority Information").

For the purposes of a filing date under 37 CFR 1.53(b), the description and any drawings of the present application are replaced by this reference to the previously filed application, subject to conditions and requirements of 37 CFR 1.57(a).

Application number of the previously filed application	Filing date (YYYY-MM-DD)	Intellectual Property Authority or Country

Publication Information:

☐ Request Early Publication (Fee required at time of Request 37 CFR 1.219)

☐ **Request Not to Publish.** I hereby request that the attached application not be published under 35 U.S.C. 122(b) and certify that the invention disclosed in the attached application **has not and will not** be the subject of an application filed in another country, or under a multilateral international agreement, that requires publication at eighteen months after filing.

Representative Information:

Representative information should be provided for all practitioners having a power of attorney in the application. Providing this information in the Application Data Sheet does not constitute a power of attorney in the application (see 37 CFR 1.32).
Either enter Customer Number or complete the Representative Name section below. If both sections are completed the customer Number will be used for the Representative Information during processing.

Please Select One:	◉ Customer Number	○ US Patent Practitioner	○ Limited Recognition (37 CFR 11.9)
Customer Number	132858		

Prefix	**Given Name**	Middle Name	**Family Name**	Suffix	
					Remove
Registration Number					
Prefix	**Given Name**	Middle Name	**Family Name**	Suffix	
					Remove
Registration Number					

Additional Representative Information blocks may be generated within this form by selecting the **Add** button.

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	047158.100042
	Application Number	
Title of Invention	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING	

Domestic Benefit/National Stage Information:

This section allows for the applicant to either claim benefit under 35 U.S.C. 119(e), 120, 121, 365(c), or 386(c) or indicate National Stage entry from a PCT application. Providing benefit claim information in the Application Data Sheet constitutes the specific reference required by 35 U.S.C. 119(e) or 120, and 37 CFR 1.78.
When referring to the current application, please leave the "Application Number" field blank.

Prior Application Status	Pending		Remove
Application Number	Continuity Type	Prior Application Number	Filing or 371(c) Date (YYYY-MM-DD)
	Claims benefit of provisional	62685797	2018-06-15

Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the **Add** button.

Foreign Priority Information:

This section allows for the applicant to claim priority to a foreign application. Providing this information in the application data sheet constitutes the claim for priority as required by 35 U.S.C. 119(b) and 37 CFR 1.55. When priority is claimed to a foreign application that is eligible for retrieval under the priority document exchange program (PDX) the information will be used by the Office to automatically attempt retrieval pursuant to 37 CFR 1.55(i)(1) and (2). Under the PDX program, applicant bears the ultimate responsibility for ensuring that a copy of the foreign application is received by the Office from the participating foreign intellectual property office, or a certified copy of the foreign priority application is filed, within the time period specified in 37 CFR 1.55(g)(1).

Application Number	Country	Filing Date (YYYY-MM-DD)	Access Code (if applicable)

Additional Foreign Priority Data may be generated within this form by selecting the **Add** button.

Statement under 37 CFR 1.55 or 1.78 for AIA (First Inventor to File) Transition Applications

☐ This application (1) claims priority to or the benefit of an application filed before March 16, 2013 and (2) also contains, or contained at any time, a claim to a claimed invention that has an effective filing date on or after March 16, 2013.
NOTE: By providing this statement under 37 CFR 1.55 or 1.78, this application, with a filing date on or after March 16, 2013, will be examined under the first inventor to file provisions of the AIA.

PTO/AIA/14 (08-15)
Approved for use through 04/30/2017. OMB 0651-0032
U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE
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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	047158.100042
	Application Number	
Title of Invention	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING	

Authorization or Opt-Out of Authorization to Permit Access:

When this Application Data Sheet is properly signed and filed with the application, applicant has provided written authority to permit a participating foreign intellectual property (IP) office access to the instant application-as-filed (see paragraph A in subsection 1 below) and the European Patent Office (EPO) access to any search results from the instant application (see paragraph B in subsection 1 below).

Should applicant choose not to provide an authorization identified in subsection 1 below, applicant **must opt-out** of the authorization by checking the corresponding box A or B or both in subsection 2 below.

NOTE: This section of the Application Data Sheet is **ONLY** reviewed and processed with the **INITIAL** filing of an application. After the initial filing of an application, an Application Data Sheet cannot be used to provide or rescind authorization for access by a foreign IP office(s). Instead, Form PTO/SB/39 or PTO/SB/69 must be used as appropriate.

1. Authorization to Permit Access by a Foreign Intellectual Property Office(s)

A. Priority Document Exchange (PDX) - Unless box A in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the State Intellectual Property Office of the People's Republic of China (SIPO), the World Intellectual Property Organization (WIPO), and any other foreign intellectual property office participating with the USPTO in a bilateral or multilateral priority document exchange agreement in which a foreign application claiming priority to the instant patent application is filed, access to: (1) the instant patent application-as-filed and its related bibliographic data, (2) any foreign or domestic application to which priority or benefit is claimed by the instant application and its related bibliographic data, and (3) the date of filing of this Authorization. See 37 CFR 1.14(h)(1).

B. Search Results from U.S. Application to EPO - Unless box B in subsection 2 (opt-out of authorization) is checked, the undersigned hereby **grants the USPTO authority** to provide the EPO access to the bibliographic data and search results from the instant patent application when a European patent application claiming priority to the instant patent application is filed. See 37 CFR 1.14(h)(2).

The applicant is reminded that the EPO's Rule 141(1) EPC (European Patent Convention) requires applicants to submit a copy of search results from the instant application without delay in a European patent application that claims priority to the instant application.

2. Opt-Out of Authorizations to Permit Access by a Foreign Intellectual Property Office(s)

☐ A. Applicant **DOES NOT** authorize the USPTO to permit a participating foreign IP office access to the instant application-as-filed. If this box is checked, the USPTO will not be providing a participating foreign IP office with any documents and information identified in subsection 1A above.

☐ B. Applicant **DOES NOT** authorize the USPTO to transmit to the EPO any search results from the instant patent application. If this box is checked, the USPTO will not be providing the EPO with search results from the instant application.

NOTE: Once the application has published or is otherwise publicly available, the USPTO may provide access to the application in accordance with 37 CFR 1.14.

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	047158.100042
	Application Number	
Title of Invention	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING	

Applicant Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Applicant 1

If the applicant is the inventor (or the remaining joint inventor or inventors under 37 CFR 1.45), this section should not be completed. The information to be provided in this section is the name and address of the legal representative who is the applicant under 37 CFR 1.43; or the name and address of the assignee, person to whom the inventor is under an obligation to assign the invention, or person who otherwise shows sufficient proprietary interest in the matter who is the applicant under 37 CFR 1.46. If the applicant is an applicant under 37 CFR 1.46 (assignee, person to whom the inventor is obligated to assign, or person who otherwise shows sufficient proprietary interest) together with one or more joint inventors, then the joint inventor or inventors who are also the applicant should be identified in this section.

Clear

◯ Assignee	◯ Legal Representative under 35 U.S.C. 117	◯ Joint Inventor
◉ Person to whom the inventor is obligated to assign.	◯ Person who shows sufficient proprietary interest	

If applicant is the legal representative, indicate the authority to file the patent application, the inventor is:

Name of the Deceased or Legally Incapacitated Inventor:	

If the Applicant is an Organization check here. ☒

Organization Name	U.S. Well Services, Inc.

Mailing Address Information For Applicant:

Address 1	1360 Post Oak Boulevard, Suite 1800		
Address 2			
City	Houston	**State/Province**	TX
Country[i]	US	Postal Code	77056
Phone Number		Fax Number	
Email Address			

Additional Applicant Data may be generated within this form by selecting the Add button.

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	047158.100042
	Application Number	
Title of Invention	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING	

Assignee Information including Non-Applicant Assignee Information:

Providing assignment information in this section does not substitute for compliance with any requirement of part 3 of Title 37 of CFR to have an assignment recorded by the Office.

Assignee 1

Complete this section if assignee information, including non-applicant assignee information, is desired to be included on the patent application publication. An assignee-applicant identified in the "Applicant Information" section will appear on the patent application publication as an applicant. For an assignee-applicant, complete this section only if identification as an assignee is also desired on the patent application publication.

If the Assignee or Non-Applicant Assignee is an Organization check here. ☒

Organization Name	U.S. Well Services, Inc.

Mailing Address Information For Assignee including Non-Applicant Assignee:

Address 1	1360 Post Oak Boulevard, Suite 1800		
Address 2			
City	Houston	**State/Province**	TX
Country i	US	Postal Code	77056
Phone Number		Fax Number	
Email Address			

Additional Assignee or Non-Applicant Assignee Data may be generated within this form by selecting the Add button.

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Application Data Sheet 37 CFR 1.76	Attorney Docket Number	047158.100042
	Application Number	
Title of Invention	INTEGRATED MOBILE POWER UNIT FOR HYDRAULIC FRACTURING	

Signature:

NOTE: This Application Data Sheet must be signed in accordance with 37 CFR 1.33(b). **However, if this Application Data Sheet is submitted with the INITIAL filing of the application and either box A or B is not checked in subsection 2 of the "Authorization or Opt-Out of Authorization to Permit Access" section, then this form must also be signed in accordance with 37 CFR 1.14(c).**

This Application Data Sheet **must** be signed by a patent practitioner if one or more of the applicants is a **juristic entity** (e. g., corporation or association). If the applicant is two or more joint inventors, this form must be signed by a patent practitioner, **all** joint inventors who are the applicant, or one or more joint inventor-applicants who have been given power of attorney (e.g., see USPTO Form PTO/AIA/81) on behalf of **all** joint inventor-applicants.

See 37 CFR 1.4(d) for the manner of making signatures and certifications.

Signature	/Taylor P. Evans/			Date (YYYY-MM-DD)	
First Name	Taylor P.	Last Name	Evans	Registration Number	60506

Additional Signature may be generated within this form by selecting the Add button.

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