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www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
18/183,734	03/14/2023	Mark J. Sarder	CET1090.104	4292
26629	7590	02/20/2024		
ZIOLKOWSKI PATENT SOLUTIONS GROUP, SC (ZPS)			EXAMINER	
136 S WISCONSIN ST			LATHERS, KEVIN ANTHONY	
PORT WASHINGTON, WI 53074				
			ART UNIT	PAPER NUMBER
			3747	
			NOTIFICATION DATE	DELIVERY MODE
			02/20/2024	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):

info@zpatents.com
jmf@zpatents.com
lje@zpatents.com

APPLICATION NO.	ISSUE DATE	PATENT NO.
18/183,734	20-Feb-2024	11905895

ZIOLKOWSKI PATENT SOLUTIONS GROUP, SC (ZPS)
136 S WISCONSIN ST
PORT WASHINGTON, WI 53074

EGRANT NOTIFICATION

Your electronic patent grant (eGrant) is now available, which can be accessed via Patent Center at <https://patentcenter.uspto.gov>

The electronic patent grant is the official patent grant under 35 U.S.C. 153. For more information, please visit <https://www.uspto.gov/electronicgrants>



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APPLICATION NO.	ISSUE DATE	PATENT NO.	ATTORNEY DOCKET NO.	CONFIRMATION NO.
18/183,734	02/20/2024	11905895	CET1090.104	4292

26629 7590 01/31/2024
ZIOLKOWSKI PATENT SOLUTIONS GROUP, SC (ZPS)
136 S WISCONSIN ST
PORT WASHINGTON, WI 53074

ISSUE NOTIFICATION

The projected patent number and issue date are specified above. The patent will issue electronically. The electronically issued patent is the official patent grant pursuant to 35 U.S.C. § 153. The patent may be accessed on or after the issue date through Patent Center at <https://patentcenter.uspto.gov/>. The patent will be available in both the public and the private sides of Patent Center. Further assistance in electronically accessing the patent, or about Patent Center, is available by calling the Patent Electronic Business Center at 1-888-217-9197.

The USPTO is implementing electronic patent issuance with a transition period, during which period the USPTO will mail a ceremonial paper copy of the electronic patent grant to the correspondence address of record. Additional copies of the patent (i.e., certified and presentation copies) may be ordered for a fee from the USPTO's Certified Copy Center at <https://certifiedcopycenter.uspto.gov/index.html>. The Certified Copy Center may be reached at (800)972-6382.

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 Center (<https://patentcenter.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 Patents Stakeholder Experience (OPSE), Stakeholder Support Division (SSD) at (571)-272-4200.

INVENTOR(s) (Please see PATENT CENTER site <https://patentcenter.uspto.gov> for additional inventors):

Mark J. Sarder, Waukesha, WI;
Aleko D. Sotiriades, Cedarburg, WI;
James J. Dehn, Brookfield, WI;
Leigh Jenison, Hartland, WI;

APPLICANT(s) (Please see PATENT CENTER site <https://patentcenter.uspto.gov> for additional applicants):

Champion Power Equipment, Inc., Santa Fe Springs, CA;

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](https://selectusa.gov).



ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #
18/183,734

RECEIPT DATE / TIME
01/08/2024 10:38:54 AM Z ET

ATTORNEY DOCKET #
CET1090.104

Title of Invention

DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE

Application Information

APPLICATION TYPE Utility - Nonprovisional Application
under 35 USC 111(a)

PATENT # -

CONFIRMATION # 4292

FILED BY Robyn Templin

PATENT CENTER # 63867487

FILING DATE 03/14/2023

CUSTOMER # 26629

FIRST NAMED
INVENTOR Mark J. Sarder

CORRESPONDENCE
ADDRESS -

AUTHORIZED BY Timothy Ziolkowski

Documents

TOTAL DOCUMENTS: 2

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
2024.01.08 Issue Fee.pdf	1	Issue Fee Payment (PTO-85B)	201 KB
2024.01.08 Comments on Reasons.pdf	2	Miscellaneous Incoming Letter	103 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
2024.01.08 Issue Fee.pdf	E1C71F52D6EB7C01F31B99C1B509A4CC3F66AA514C6E65929 7FFD057D74C104DB8DC67A529324E241B6216418798F015316 72573680FE4898A80229EB29BE9D5

2024.01.08 Comments on
Reasons.pdf

9642B32D473FFAA4D47ADE29A40E7EBFEB83AF0B7E4295613
D7A9C83EBAE4063AB762D78E928DED49677F8BD77880ACB7
3EB9383FB9DF0721CAE02C799EFD636

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 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 OFFICEP.O. Box 1450
Alexandria, VA 22313 - 1450
www.uspto.gov

ELECTRONIC PAYMENT RECEIPT

APPLICATION #
18/183,734RECEIPT DATE / TIME
01/08/2024 10:38:54 AM Z ETATTORNEY DOCKET #
CET1090.104

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APPLICATION TYPE Utility - Nonprovisional Application
under 35 USC 111(a)

PATENT # -

CONFIRMATION # 4292

FILED BY Robyn Templin

PATENT CENTER # 63867487

AUTHORIZED BY Timothy Ziolkowski

CUSTOMER # 26629

FILING DATE 03/14/2023

CORRESPONDENCE
ADDRESS -FIRST NAMED
INVENTOR Mark J. Sarder

Payment Information

PAYMENT METHOD
CARD / 8631PAYMENT TRANSACTION ID
E202418A40129302PAYMENT AUTHORIZED BY
Robyn Templin

FEE CODE	DESCRIPTION	ITEM PRICE(\$)	QUANTITY	ITEM TOTAL(\$)
2501	UTILITY ISSUE FEE	480.00	1	480.00
TOTAL AMOUNT:				\$480.00

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Petitioner MWE Investments, LLC, et al.
Exhibit 1002, Page 7

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PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via the USPTO patent electronic filing system.

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 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. **Because electronic patent issuance may occur shortly after issue fee payment, any desired continuing application should preferably be filed prior to payment of this issue fee in order not to jeopardize copendency.**

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

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 the USPTO patent electronic filing system or by facsimile to (571) 273-2885, on the date below.

26629 7590 12/21/2023
ZIOLKOWSKI PATENT SOLUTIONS GROUP, SC (ZPS)
136 S WISCONSIN ST
PORT WASHINGTON, WI 53074

Robyn L. Templin	(Typed or printed name)
/Robyn L. Templin/	(Signature)
January 8, 2024	(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
18/183,734	03/14/2023	Mark J. Sarder	CET1090.104	4292

TITLE OF INVENTION: DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	\$480	\$0.00	\$0.00	\$480	03/21/2024

EXAMINER	ART UNIT	CLASS-SUBCLASS
LATHERS, KEVIN ANTHONY	3747	123-575000

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/AIA/122 or PTO/SB/122) attached.

☐ "Fee Address" indication (or "Fee Address" Indication form PTO/AIA/47 or PTO/SB/47; Rev 03-02 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 Ziolkowski Patent
Solutions Group, SC
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)

Champion Power Equipment, Inc.

Santa Fe Springs, CA

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)

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

☒ Electronic Payment via the USPTO patent electronic filing system ☐ 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 /Timothy J. Ziolkowski/

Date January 8, 2024

Typed or printed name Timothy J. Ziolkowski

Registration No. 38,368

Customer No. 26629
Confirmation No. 4292

Patent
Attorney Docket No. CET1090.104

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Sarder et al.
Serial No. : 18/183,734
Filed : March 14, 2023
For : DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE
Group Art No. : 3747
Examiner : Kevin A. Lathers

CERTIFICATION UNDER 37 C.F.R. §§1.8(a) AND 1.10

I hereby certify that, on the date shown below, this correspondence is being:

Mailing

☐ deposited with the U.S. Postal Service in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

37 C.F.R. §1.8(a)

☐ with sufficient postage as first class mail.

37 C.F.R. §1.10

☐ as "Priority Mail Express® Post Office to Addressee" Mailing Label No.

Transmission

☐ transmitted by facsimile to Fax No. 571-273-8300 addressed to Examiner Kevin A. Lathers at the Patent and Trademark Office.

☒ transmitted by Patent Center addressed to Examiner Kevin A. Lathers at the Patent and Trademark Office.

Date: January 8, 2024

Signature: /Robyn L. Templin/

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

**COMMENTS ON STATEMENT
OF REASONS FOR ALLOWANCE**

Dear Examiner Lathers:

Responsive to the Notice of Allowability mailed December 21, 2023, Applicant submits the following remarks responsive to the Examiner's Statement of Reasons for Allowance.

REMARKS

In response to the Examiner's Reasons for Allowance, Applicant believes that a separate Statement of Reasons for Allowance is unnecessary in the present case as the file history sufficiently sets forth the patentable distinctions of claims 1-21.

The patentability of claims 1-21 lies in each claim as a whole. That is, a single particular element or feature of a claim does not define the claim's patentability, but rather, it is the combination of elements and the interconnection therebetween that define the invention. The claims cannot be considered to be limited in scope based on this brief statement by the Examiner. Applicant stands by its position previously set forth in the file history.

Applicant does not acquiesce to the accuracy of the Examiner's statements in the Reasons for Allowance or the Examiner's partial paraphrasing of the claim elements.

Applicant appreciates entry of these remarks and cordially invites the Examiner to respond, should the Examiner disagree.

Respectfully submitted,

/Timothy J. Ziolkowski/

Timothy J. Ziolkowski
Registration No. 38,368
Direct Dial 262-268-8181
tjz@zpatents.com

Dated: January 8, 2024
Attorney Docket No.: CET1090.104

P.O. ADDRESS:
Ziolkowski Patent Solutions Group, SC
136 South Wisconsin Street
Port Washington, WI 53074
262-268-8100



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NOTICE OF ALLOWANCE AND FEE(S) DUE

26629 7590 12/21/2023
ZIOLKOWSKI PATENT SOLUTIONS GROUP, SC (ZPS)
136 S WISCONSIN ST
PORT WASHINGTON, WI 53074

EXAMINER

LATHERS, KEVIN ANTHONY

ART UNIT

PAPER NUMBER

3747

DATE MAILED: 12/21/2023

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
18/183,734	03/14/2023	Mark J. Sarder	CET1090.104	4292

TITLE OF INVENTION: DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE

APPLN. TYPE	ENTITY STATUS	ISSUE FEE DUE	PUBLICATION FEE DUE	PREV. PAID ISSUE FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	SMALL	\$480	\$0.00	\$0.00	\$480	03/21/2024

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 40% the amount of undiscounted fees, and micro entity fees are 20% the amount of undiscounted 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. 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.

PART B - FEE(S) TRANSMITTAL

Complete and send this form, together with applicable fee(s), by mail or fax, or via the USPTO patent electronic filing system.

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Commissioner for Patents
P.O. Box 1450
Alexandria, Virginia 22313-1450

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

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Certificate of Mailing or Transmission

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

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
18/183,734	03/14/2023	Mark J. Sarder	CET1090.104	4292

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EXAMINER	ART UNIT	CLASS-SUBCLASS
LATHERS, KEVIN ANTHONY	3747	123-575000

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☐ "Fee Address" indication (or "Fee Address" Indication form PTO/AIA/47 or PTO/SB/47; Rev 03-02 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,

1 _____

(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.

2 _____

3 _____

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

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(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)

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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
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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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26629	7590	12/21/2023	EXAMINER	
ZIOLKOWSKI PATENT SOLUTIONS GROUP, SC (ZPS)			LATHERS, KEVIN ANTHONY	
136 S WISCONSIN ST			ART UNIT	
PORT WASHINGTON, WI 53074			PAPER NUMBER	
			3747	
DATE MAILED: 12/21/2023				

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.

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. The United States Patent and Trademark Office (USPTO) collects the information in this record under authority of 35 U.S.C. 2. The USPTO's system of records is used to manage all applicant and owner information including name, citizenship, residence, post office address, and other information with respect to inventors and their legal representatives pertaining to the applicant's/owner's activities in connection with the invention for which a patent is sought or has been granted. The applicable Privacy Act System of Records Notice for the information collected in this form is COMMERCE/PAT-TM-7 Patent Application Files, available in the Federal Register at 78 FR 19243 (March 29, 2013).

<https://www.govinfo.gov/content/pkg/FR-2013-03-29/pdf/2013-07341.pdf>

Routine uses of the information in this record may include disclosure to:

- 1) law enforcement, in the event that the system of records indicates a violation or potential violation of law;
- 2) a federal, state, local, or international agency, in response to its request;
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- 4) the Department of Justice for determination of whether the Freedom of Information Act (FOIA) requires disclosure of the record;
- 5) a Member of Congress submitting a request involving an individual to whom the record pertains, when the individual has requested the Member's assistance with respect to the subject matter of the record;
- 6) a court, magistrate, or administrative tribunal, in the course of presenting evidence, including disclosures to opposing counsel in the course of settlement negotiations;
- 7) the Administrator, General Services Administration (GSA), or their designee, during an inspection of records conducted by GSA under authority of 44 U.S.C. 2904 and 2906, in accordance with the GSA regulations and any other relevant (i.e., GSA or Commerce) directive, where such disclosure shall not be used to make determinations about individuals;
- 8) 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));
- 9) the Office of Personnel Management (OPM) for personnel research purposes; and
- 10) the Office of Management and Budget (OMB) for legislative coordination and clearance.

If you do not furnish the information requested on this form, the USPTO may not be able to process and/or examine your submission, which may result in termination of proceedings, abandonment of the application, and/or expiration of the patent.

Notice of Allowability	Application No. 18/183,734	Applicant(s) Sarder et al.	
	Examiner KEVIN A LATHERS	Art Unit 3747	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 terminal disclaimer filed 12/01/2023.
☐ 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 1-21. 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)	5. ☐ Examiner's Amendment/Comment
2. ☐ Information Disclosure Statements (PTO/SB/08), Paper No./Mail Date _____.	6. ☒ Examiner's Statement of Reasons for Allowance
3. ☐ Examiner's Comment Regarding Requirement for Deposit of Biological Material _____.	7. ☐ Other _____.
4. ☐ Interview Summary (PTO-413), Paper No./Mail Date. _____.	

/KEVIN A LATHERS/ Primary Examiner, Art Unit 3747	
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DETAILED ACTION

Notice of Pre-AIA or AIA Status

1. The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

Allowable Subject Matter

2. Claims 1-21 are allowed.

3. The following is an examiner's statement of reasons for allowance: The closest prior art fails to disclose or make obvious a dual fuel engine (i.e. an engine powered by two different fuels) which makes use of the specified fuel regulator system including an off-board fuel source, the system including a fuel lockout apparatus which can prevent a second fuel source from coupling to the fuel lines on the generator.

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."

4. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN A LATHERS whose telephone number is (571)272-1050. The examiner can normally be reached M-F 10a-6p.

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, Lindsay Low can be reached on 5712721196. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 3747

Information regarding the status of published or unpublished applications may be obtained from Patent Center. Unpublished application information in Patent Center is available to registered users. To file and manage patent submissions in Patent Center, visit: <https://patentcenter.uspto.gov>. Visit <https://www.uspto.gov/patents/apply/patent-center> for more information about Patent Center and <https://www.uspto.gov/patents/docx> for information about filing in DOCX format. For additional questions, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KEVIN A LATHERS/

Primary Examiner, Art Unit 3747

<i>Search Notes</i> 	Application/Control No. 18/183,734	Applicant(s)/Patent Under Reexamination Sarder et al.
	Examiner KEVIN A LATHERS	Art Unit 3747

CPC - Searched*		
Symbol	Date	Examiner
F02D19/0673, 19/0647, 19/0605, 19/0613	09/24/2023	/K.L./

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner

* 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
PE2E Search, EAST search, and Google search	09/24/2023	/K.L./
Applicant and inventor search	09/24/2023	/K.L./
PE2E Search	12/11/2023	/K.L./
Interference search	12/11/2023	/K.L./

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner
F02D	19/0673, 19/0647, 19/0605, 19/0613	12/11/2023	/K.L./

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<i>Index of Claims</i> 	Application/Control No. 18/183,734	Applicant(s)/Patent Under Reexamination Sarder et al.
	Examiner KEVIN A LATHERS	Art Unit 3747

✓	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	09/24/2023	12/11/2023							
	1	✓	=							
	2	✓	=							
	3	✓	=							
	4	✓	=							
	5	✓	=							
	6	✓	=							
	7	✓	=							
	8	✓	=							
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	11	✓	=							
	12	✓	=							
	13	✓	=							
	14	✓	=							
	15	✓	=							
	16	✓	=							
	17	✓	=							
	18	✓	=							
	19	✓	=							
	20	✓	=							
	21		=							

Issue Classification 	Application/Control No. 18/183,734	Applicant(s)/Patent Under Reexamination Sarder et al.
	Examiner KEVIN A LATHERS	Art Unit 3747

CPC						
Symbol					Type	Version
F02D	/	19	/	0613	F	2013-01-01
F02D	/	19	/	0605	I	2013-01-01
F02D	/	19	/	0647	I	2013-01-01
F02D	/	19	/	0673	I	2013-01-01
Y02T	/	10	/	30	A	2013-01-01

CPC Combination Sets					
Symbol				Type	Version
/	/				

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	21	
/KEVIN A LATHERS/ Primary Examiner, Art Unit 3747	11 December 2023	O.G. Print Claim(s)	O.G. Print Figure
(Primary Examiner)	(Date)	1	4A

<i>Issue Classification</i> 	Application/Control No. 18/183,734	Applicant(s)/Patent Under Reexamination Sarder et al.
	Examiner KEVIN A LATHERS	Art Unit 3747

INTERNATIONAL CLASSIFICATION			
CLAIMED			
F02D19/06	/	19	/ 06

NON-CLAIMED			
/	/		

US ORIGINAL CLASSIFICATION	
CLASS	SUBCLASS

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

NONE		Total Claims Allowed:	
(Assistant Examiner)	(Date)	21	
/KEVIN A LATHERS/ Primary Examiner, Art Unit 3747 (Primary Examiner)	11 December 2023 (Date)	O.G. Print Claim(s) 1	O.G. Print Figure 4A

Issue Classification 	Application/Control No. 18/183,734	Applicant(s)/Patent Under Reexamination Sarder et al.
	Examiner KEVIN A LATHERS	Art Unit 3747

☒ 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		10		19										
	2		11		20										
	3		12		21										
	4		13												
	5		14												
	6		15												
	7		16												
	8		17												
	9		18												

NONE (Assistant Examiner) _____ (Date) _____		Total Claims Allowed: 21	
/KEVIN A LATHERS/ Primary Examiner, Art Unit 3747 (Primary Examiner) _____ (Date) 11 December 2023		O.G. Print Claim(s) 1	O.G. Print Figure 4A

PE2E SEARCH - Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	British Equivalents	Time Stamp
L1	57	("3412258" "4287908" "4364370" "4416244" "4489699" "5555873" "5611312" "7954479" "9523497" "20070215223" "20100258099").pn.	(US-PGPUB; USPAT; USOCR; FIT (CN, FR, WO, JP, EP, KR); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/29 01:50 PM
L2	1402	F02D19/0613.cpc.	(US-PGPUB; USPAT; USOCR; FIT (CN, FR, WO, JP, EP, KR); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/29 01:51 PM
L3	2112	F02D19/0605.cpc.	(US-PGPUB; USPAT; USOCR; FIT (CN, FR, WO, JP, EP, KR); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/29 01:51 PM
L4	7150	F02D19/0647.cpc.	(US-PGPUB; USPAT; USOCR; FIT (CN, FR, WO, JP, EP, KR); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/29 01:51 PM
L5	435	F02D19/0673.cpc.	(US-PGPUB; USPAT; USOCR; FIT (CN, FR, WO, JP, EP, KR); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/29 01:51 PM
L6	6	(generator AND fuel AND regulator AND off-board AND stage AND line).clm.	(US-PGPUB; USPAT; USOCR; FIT (CN, FR, WO, JP, EP, KR); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/29 01:52 PM

PE2E SEARCH - Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	British Equivalents	Time Stamp
N1	1316	(L2 L3 L4 L5)	(US-PGPUB; USPAT)	OR	ON	ON	2023/12/11 03:46 PM
N2	4	(fuel ADJ lockout ADJ switch AND dual AND engine AND flow AND regulator AND valve).clm.	(US-PGPUB; USPAT)	OR	ON	ON	2023/12/11 03:46 PM

Bibliographic Data

Application No: 18/183,734

Foreign Priority claimed: ☐ Yes ☒ No

35 USC 119 (a-d) conditions met: ☐ Yes ☐ No ☐ Met After Allowance

Verified and Acknowledged: /KEVIN A LATHERS/

Examiner's Signature

Initials

Title: DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE

FILING or 371(c) DATE	CLASS	GROUP ART UNIT	ATTORNEY DOCKET NO.
03/14/2023	123	3747	
RULE			

APPLICANTS

Champion Power Equipment, Inc., Santa Fe Springs, CA, UNITED STATES

INVENTORS

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James J. Dehn, Brookfield, WI, UNITED STATES

Leigh Jenison, Hartland, WI, UNITED STATES

CONTINUING DATA

This application is a CON of 17937046 09/30/2022 PAT 11840970

17937046 is a CON of 16783455 02/06/2020 PAT 11492985

16783455 is a CON of 16191503 11/15/2018 PAT 11530654

16191503 is a CON of 14738060 06/12/2015 PAT 10221780

FOREIGN APPLICATIONS

IF REQUIRED, FOREIGN LICENSE GRANTED**

04/13/2023

** SMALL ENTITY **

STATE OR COUNTRY

UNITED STATES

ADDRESS

FILING FEE RECEIVED

\$664



ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #
18/183,734

RECEIPT DATE / TIME
12/01/2023 05:38:57 PM Z ET

ATTORNEY DOCKET #
CET1090.104

Title of Invention

DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE

Application Information

APPLICATION TYPE Utility - Nonprovisional Application
under 35 USC 111(a)

PATENT # -

CONFIRMATION # 4292

FILED BY Robyn Templin

PATENT CENTER # 63463318

FILING DATE 03/14/2023

CUSTOMER # 26629

FIRST NAMED INVENTOR Mark J. Sarder

CORRESPONDENCE ADDRESS -

AUTHORIZED BY Jacob Fritz

Documents

TOTAL DOCUMENTS: 3

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
2023.12.01 Response.pdf	8	-	133 KB
2023.12.01 Response-A...pdf	(1-1) 1	Amendment/Request for Reconsideration-After Non-Final Rejection	101 KB
2023.12.01 Response-CLM.pdf	(2-6) 5	Claims	89 KB
2023.12.01 Response-REM.pdf	(7-8) 2	Applicant Arguments/Remarks Made in an Amendment	101 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
2023.12.01 Response.pdf	D8B0089945988ECB637FA134F2F4F611F5868ECA97301C99D3 74E12C06D53FED6848BB932E657A3CB996C9B72C5A2245C3C D440FCD0FAB8C9A64B198DE5A5945
2023.12.01 Response-A....pdf	B5F208850A06A5D3A978A1693AB30800374B764E94A3DB6D4A 0B6DAAE56F4306F61EAF53E16A5B79C7C6F094D7397A6584E 39BE3837FD6F7666BA7CF0499DD25
2023.12.01 Response-CLM.pdf	D123892E6EE7ACF24C2B89B0C933A278BB76EB5ED12C5AB5 5629D003C82D3E44BE6504AA24911C72C65B7B7F009C717904 93B1E3B7FEEB4325EB4876F9FB65A1
2023.12.01 Response-REM.pdf	6B00B4E7AA2D407504AD6532830ED2C630B72A18B654E83DF 9278DD54DA220FD21E264316FF85F009F66A9A78CACAE14B FFE8871F69B48452EBB943AB2AD47A

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 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.

Customer No. 26629
Confirmation No. 4292

Patent
Attorney Docket No. CET1090.104

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Sarder et al.
Serial No. : 18/183,734
Filed : March 14, 2023
For : DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE
Group Art No. : 3747
Examiner : Kevin A. Lathers

CERTIFICATION UNDER 37 C.F.R. §§1.8(a) AND 1.10

I hereby certify that, on the date shown below, this correspondence is being:

Mailing

☐ deposited with the U.S. Postal Service in an envelope addressed to Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450

37 C.F.R. §1.8(a)

37 C.F.R. §1.10

☐ with sufficient postage as first class mail. ☐ as "Priority Mail Express® Post Office to Addressee" Mailing Label No.

Transmission

☐ transmitted by facsimile to Fax No. 571-273-8300 addressed to Examiner Kevin A. Lathers at the Patent and Trademark Office.

☒ transmitted by Patent Center addressed to Examiner Kevin A. Lathers at the Patent and Trademark Office.

Date: December 1, 2023

Signature: /Robyn L. Templin/

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

RESPONSE TO OFFICE ACTION
MAILED SEPTEMBER 28, 2023

Dear Examiner Lathers:

Responsive to the Office Action mailed September 28, 2023, please consider the following
Remarks:

In the Claims

1. (Original) A mechanical fuel lockout switch for a dual fuel engine comprising:
a mechanical fuel valve actuatable between a first position and a second position to selectively control fuel flow to the dual fuel engine from a first fuel source through a first fuel line and a second fuel source through a second fuel line, the mechanical fuel valve configured to:
allow communication between the first fuel source and the dual fuel engine and prevent communication between the second fuel source and the dual fuel engine while in the first position, and
prevent communication between the first fuel source and the dual fuel engine while in the second position; and
a fuel lockout apparatus coupled to the mechanical fuel valve and configured to:
prevent the second fuel source from coupling to the second fuel line while the mechanical fuel valve is in the first position, and
permit the second fuel source to couple to the second fuel line while the mechanical fuel valve is in the second position.
2. (Original) The mechanical fuel lockout switch of claim 1 wherein the fuel lockout apparatus prevents actuation of the mechanical fuel valve to the first position when the second fuel source is in communication with the dual fuel engine.
3. (Original) The mechanical fuel lockout switch of claim 1 wherein the fuel lockout apparatus comprises a flange rigidly coupled to the mechanical fuel valve and configured to:
cover an inlet of the second fuel line while the mechanical fuel valve is in the first position, and
uncover the inlet of the second fuel line while the mechanical fuel valve is in the second position.
4. (Original) The mechanical fuel lockout switch of claim 3 wherein the mechanical fuel valve is configured to rotate between the first position and the second position and the flange is configured to rotate transversely across the inlet of the second fuel line.
5. (Original) The mechanical fuel lockout switch of claim 3 further comprising:

a first end of a quick-disconnect hose coupling attached to the inlet of the second fuel line; and

a second end of the quick-disconnect hose coupling configured to mate with the first end of the quick-disconnect hose coupling to couple the second fuel source to the second fuel line.

6. (Original) The mechanical fuel lockout switch of claim 1 wherein the mechanical fuel valve and the fuel lockout apparatus operate together to ensure that fuel from the first fuel source and fuel from the second fuel source are not simultaneously delivered to the dual fuel engine.

7. (Original) The mechanical fuel lockout switch of claim 6 wherein the mechanical fuel valve is configured to:

provide liquid fuel from a liquid fuel tank of the first fuel source to the dual fuel engine while in the first position, and

provide gaseous fuel from a pressurized fuel container of the second fuel source to the dual fuel engine while in the second position.

8. (Original) A mechanical fuel lockout switch for a dual fuel engine comprising:
a mechanical fuel valve actuatable between a first position and a second position to selectively control fuel flow to the dual fuel engine from a first fuel source through a first fuel line and a second fuel source through a second fuel line, the mechanical fuel valve configured to:

allow communication between the first fuel source and the dual fuel engine and prevent communication between the second fuel source and the dual fuel engine while the first position, and

prevent communication between the first fuel source and the dual fuel engine while in the second position; and

a fuel lockout apparatus coupled to the mechanical fuel valve and configured to prevent actuation of the mechanical fuel valve to the first position when the second fuel source is in communication with the dual fuel engine.

9. (Original) The mechanical fuel lockout switch of claim 8 wherein the fuel lockout apparatus comprises a flange rigidly coupled to the mechanical fuel valve and configured to:

cover an inlet of the second fuel line while the mechanical fuel valve is in the first position, and

uncover the inlet of the second fuel line while the mechanical fuel valve is in the second position.

10. (Original) The mechanical fuel lockout switch of claim 9 wherein the mechanical fuel valve is configured to rotate between the first position and the second position and the flange is configured to rotate transversely across the inlet of the second fuel line.

11. (Original) The mechanical fuel lockout switch of claim 9 further comprising:
a first end of a quick-disconnect hose coupling attached to the inlet of the second fuel line; and

a second end of the quick-disconnect hose coupling configured to mate with the first end of the quick-disconnect hose coupling to couple the second fuel source to the second fuel line.

12. (Original) The mechanical fuel lockout switch of claim 8 wherein the mechanical fuel valve and the fuel lockout apparatus operate together to ensure that fuel from the first fuel source and fuel from the second fuel source are not simultaneously delivered to the dual fuel engine.

13. (Original) The mechanical fuel lockout switch of claim 12 wherein the mechanical fuel valve is configured to:

provide liquid fuel from a liquid fuel tank of the first fuel source to the dual fuel engine while in the first position, and

provide gaseous fuel from a pressurized fuel container of the second fuel source to the dual fuel engine while in the second position.

14. (Original) A dual fuel generator and fuel delivery system comprising:
a dual fuel generator configured to operate on a liquid fuel supplied from a liquid fuel source through a liquid fuel line and a gaseous fuel supplied from a pressurized fuel source through a gaseous fuel line;

a fuel regulator system located off board the dual fuel generator, the fuel regulator system comprising:

a primary pressure regulator couplable to a service valve of the pressurized fuel source and configured to regulate the gaseous fuel supplied from the pressurized fuel source to a reduced pressure, and

a secondary pressure regulator couplable to the primary pressure regulator and configured to regulate the gaseous fuel supplied from the primary pressure regulator to a desired pressure for delivery through the gaseous fuel line to operate the dual fuel generator;

a mechanical fuel valve actuatable between a first position and a second position to selectively control fuel flow to the dual fuel generator from the liquid fuel source through the liquid fuel line and the pressurized fuel source through the gaseous fuel line, the mechanical fuel valve configured to open and close the liquid fuel line to selectively control fuel flow from the liquid fuel source to the dual fuel generator; and

a fuel lockout apparatus coupled to the mechanical fuel valve and configured to:

prevent the pressurized fuel source from coupling to the gaseous fuel line while the liquid fuel line is open, and

permit the pressurized fuel source to couple to the gaseous fuel line while the liquid fuel line is closed by the mechanical fuel valve.

15. (Original) The dual fuel generator and fuel delivery system of claim 14 wherein the fuel lockout apparatus is further configured to prevent the mechanical fuel valve from opening the liquid fuel line while the fuel regulator system is coupled to the gaseous fuel line.

16. (Original) The dual fuel generator and fuel delivery system of claim 14 wherein the fuel lockout apparatus comprises a fuel inlet cover that actuates with the mechanical fuel valve to cover an inlet of the gaseous fuel line while the liquid fuel line is open and to uncover the inlet of the gaseous fuel line when the liquid fuel line is closed.

17. (Original) The dual fuel generator and fuel delivery system of claim 14 further comprising:

a first end of a quick-connect hose coupling coupled to an outlet of the secondary pressure regulator; and

a second end of the quick-connect hose coupling coupled to an inlet of the gaseous fuel line and configured to mate with the first end of the quick-connect hose coupling to couple the secondary pressure regulator to the gaseous fuel line.

18. (Original) The dual fuel generator and fuel delivery system of claim 14 further comprising a regulator mounting device fixed to the pressurized fuel source; and
at least the secondary pressure regulator is mounted on the regulator mounting device.

19. (Original) The dual fuel generator and fuel delivery system of claim 18 wherein the primary pressure regulator is mounted on the regulator mounting device.

20. (Original) The dual fuel generator and fuel delivery system of claim 19 wherein the regulator mounting device is configured to attach onto a collar of a pressurized fuel container of the pressurized fuel source so that the primary and secondary pressure regulators are positioned adjacent each other along an outer periphery of the collar.

21. (Original) The dual fuel generator and fuel delivery system of claim 14 wherein:
the fuel regulator system comprises a dual stage pressure regulator; and
the primary and secondary pressure regulators are integral components of the dual stage pressure regulator.

REMARKS

Claims 1-21¹ are pending in the present application. In the Office Action mailed September 28, 2023, the Examiner provisionally rejected claims 1-21² on the ground of nonstatutory double patenting as being unpatentable over claims 1-52 of copending U.S. Application No. 17/937,046. *Office Action*, 09/28/2023, p. 3.

Responsive to the rejection, a properly executed eTerminal Disclaimer is being filed concurrently herewith to obviate the nonstatutory double patenting rejection. As such, Applicant respectfully requests withdrawal of the double patenting rejection of claims 1-21.

Therefore, in light of at least the foregoing, Applicant respectfully believes that the present application is in condition for allowance. As a result, Applicant respectfully requests timely issuance of a Notice of Allowance for claims 1-21.

Applicant appreciates the Examiner's consideration of these Remarks and cordially invites the Examiner to call the undersigned, should the Examiner consider any matters unresolved.

Respectfully submitted,

/Jacob M. Fritz/

Jacob M. Fritz
Registration No. 71,459
Phone 262-268-8100
jmf@zpatents.com

Dated: December 1, 2023
Attorney Docket No.: CET1090.104

P.O. ADDRESS:

Ziolkowski Patent Solutions Group, SC
136 South Wisconsin Street
Port Washington, WI 53074
262-268-8100

¹ Page 1 of the Office Action incorrectly indicates that claims "1-20" are pending.

² The Office Action only indicates that the double patenting rejection applies to claims "1-20," but on October 31, 2023, the Examiner left a voicemail clarifying that the double patenting rejection applies to claim 21 as well.

General Authorization and Extension of Time

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§1.16-1.17, or credit any overpayment, to Deposit Account No. 50-2623. Should no proper payment be enclosed herewith, as by credit card authorization being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 50-2623. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicant hereby petitions for such extensions under 37 C.F.R. §1.136 and authorizes payment of any such extensions fees to Deposit Account No. 50-2623. Please consider this a general authorization to charge any fee that is due in this case, if not otherwise timely paid, to Deposit Account No. 50-2623.

/Jacob M. Fritz/

Jacob M. Fritz

Registration No. 71,459

Phone 262-268-8100

jmf@zpatents.com

Dated: December 1, 2023

Attorney Docket No.: CET1090.104

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PATENT AND TRADEMARK OFFICE**

Commissioner for Patents
United States Patent and Trademark Office
P.O. Box 1450
Alexandria, VA 22313 - 1450
www.uspto.gov

APPROVAL LETTER

APPLICATION #
18/183,734

FILING DATE
03/14/2023

APPLICANT/PATENT UNDER REEXAMINATION
Mark Sarder

Title of Invention

DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE

Electronic terminal disclaimer filed on 12/01/2023

☒ **Approved**

This patent is subject to a Terminal Disclaimer

Approved / Disapproved by: Electronic Terminal Disclaimer automatically approved

UNITED STATES
PATENT AND TRADEMARK OFFICEP.O. Box 1450
Alexandria, VA 22313 - 1450
www.uspto.gov**ELECTRONIC ACKNOWLEDGEMENT RECEIPT**APPLICATION #
18/183,734RECEIPT DATE / TIME
12/01/2023 05:25:34 PM Z ETATTORNEY DOCKET #
CET1090.104**Title of Invention**

DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE

Application InformationAPPLICATION TYPE Utility - Nonprovisional Application
under 35 USC 111(a)

PATENT # -

CONFIRMATION # 4292

FILED BY Jacob Fritz

PATENT CENTER # 63462928

FILING DATE 03/14/2023

CUSTOMER # 26629

FIRST NAMED
INVENTOR Mark J. SarderCORRESPONDENCE
ADDRESS -

AUTHORIZED BY -

Documents**TOTAL DOCUMENTS: 2**

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
petition-request.pdf	3	Terminal Disclaimer-Filed (Electronic)	49 KB
grantLetter.pdf	1	Terminal Disclaimer-Electronic- Approved	19 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
petition-request.pdf	5BA00D4B921774A930366CAFFDAA2E0CD5D990CF03BD8FBA D99BAD0C2602A55058E090AF68399077594CD64BEA8CAD974E

70DCF2A936B56D2C42ACDF07CBEF673

grantLetter.pdf

D3E20DF899B9EA0EA2F02E1CEAC5AF74F61DAEBF6E7AF471
EFF456B9356FE851ED3C20F4D3BFDE5383D6FEAAA15AEE6C
F7802F334D3EE332F4584A78355D78BD

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 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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TERMINAL DISCLAIMER TO OBVIATE A PROVISIONAL DOUBLE PATENTING REJECTION OVER A PENDING "REFERENCE" APPLICATION

APPLICATION #
18183734

FILING DATE
03/14/2023

FIRST NAMED INVENTOR
Mark Sarder

ATTORNEY DOCKET #
CET1090.104

Title of Invention

DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE



Filing of terminal disclaimer does not obviate requirement for response under 37 CFR 1.111 to outstanding Office Action



This electronic Terminal Disclaimer is not being used for a Joint Research Agreement.

Owner	Percent Interest
Champion Power Equipment, Inc.	100%
Total	100%

The owner(s) of percent interest listed above in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of any patent granted on pending reference Application Number(s)

Application #	Filing Date
17937046	09/30/2022

as the term of any patent granted on said reference application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending reference application. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and any patent

granted on the reference application are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

In making the above disclaimer, the owner does not disclaim the terminal part of any patent granted on the instant application that would extend to the expiration date of the full statutory term of any patent granted on said reference application, "as the term of any patent granted on said reference application may be shortened by any terminal disclaimer filed prior to the grant of any patent on the pending reference application," in the event that any such patent granted on the pending reference application: expires for failure to pay a maintenance fee, is held unenforceable, is found invalid by a court of competent jurisdiction, is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321, has all claims canceled by a reexamination certificate, is reissued, or is in any manner terminated prior to the expiration of its full statutory term as shortened by any terminal disclaimer filed prior to its grant.

The owner(s) of percent interest listed above in the instant application hereby disclaims, except as provided below, the terminal part of the statutory term of any patent granted on the instant application which would extend beyond the expiration date of the full statutory term of prior patent number(s)

Patent #

10221780

11530654

as the term of said prior patent is presently shortened by any terminal disclaimer. The owner hereby agrees that any patent so granted on the instant application shall be enforceable only for and during such period that it and the prior patent are commonly owned. This agreement runs with any patent granted on the instant application and is binding upon the grantee, its successors or assigns.

In making the above disclaimer, the owner does not disclaim the terminal part of the term of any patent granted on the instant application that would extend to the expiration date of the full statutory term of the prior patent, "as the term of said prior patent is presently shortened by any terminal disclaimer," in the event that said prior patent later:

- expires for failure to pay a maintenance fee;
- is held unenforceable;
- is found invalid by a court of competent jurisdiction;
- is statutorily disclaimed in whole or terminally disclaimed under 37 CFR 1.321;
- has all claims canceled by a reexamination certificate;
- is reissued; or
- is in any manner terminated prior to the expiration of its full statutory term as presently shortened by any terminal disclaimer.



Terminal disclaimer fee under 37 CFR 1.20(d) included with Electronic Terminal Disclaimer request.

Applicant claims the following entity status:

Small

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

I certify, in accordance with 37 CFR 1.4(d)(4) that I am: An attorney or agent registered to practice before the Patent and Trademark Office who is of record in this application

Signature	Name	Registration #
/Jacob M. Fritz/	Jacob Fritz	71459

* Statement under 37 CFR 3.73(b) is required if terminal disclaimer is signed by the assignee (owner). Form PTO/SB/96 may be used for making this certification. See MPEP 324.



ELECTRONIC PAYMENT RECEIPT

APPLICATION #
18/183,734

RECEIPT DATE / TIME
12/01/2023 05:25:34 PM Z ET

ATTORNEY DOCKET #
CET1090.104

Title of Invention

DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE

Application Information

APPLICATION TYPE Utility - Nonprovisional Application
under 35 USC 111(a)

PATENT # -

CONFIRMATION # 4292

FILED BY Jacob Fritz

PATENT CENTER # 63462928

AUTHORIZED BY -

CUSTOMER # 26629

FILING DATE 03/14/2023

CORRESPONDENCE
ADDRESS -

FIRST NAMED
INVENTOR Mark J. Sarder

Payment Information

PAYMENT METHOD
CARD / 8631

PAYMENT TRANSACTION ID
E2023B1H26377233

PAYMENT AUTHORIZED BY
Jacob Fritz

FEE CODE	DESCRIPTION	ITEM PRICE(\$)	QUANTITY	ITEM TOTAL(\$)
2814	STATUTORY DISCLAIMER, INCLUDING TERMINAL DISCLAIMER	170.00	1	170.00
TOTAL AMOUNT:				\$170.00

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 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.

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.

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 18/183,734	Filing Date 03/14/2023	☐ To be Mailed
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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 \$40 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 = *		x \$ 192 =	
☐ 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

	12/01/2023	(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) PRESENT EXTRA	RATE (\$)	ADDITIONAL FEE (\$)
AMENDMENT	Total (37 CFR 1.16(i))	* 21	Minus	** 21	= 0	x \$40 =	0
	Independent (37 CFR 1.16(h))	* 3	Minus	*** 3	= 0	x \$ 192 =	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
AMENDMENT		(Column 1) CLAIMS REMAINING AFTER AMENDMENT		(Column 2) HIGHEST NUMBER PREVIOUSLY PAID FOR	(Column 3) 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.						PSS	
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".						/FIKIRTE A GEREMEW/	
*** 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.
18/183,734	03/14/2023	Mark J. Sarder	CET1090.104	4292
26629	7590	09/28/2023		
ZIOLKOWSKI PATENT SOLUTIONS GROUP, SC (ZPS)			EXAMINER	
136 S WISCONSIN ST			LATHERS, KEVIN ANTHONY	
PORT WASHINGTON, WI 53074				
			ART UNIT	PAPER NUMBER
			3747	
			NOTIFICATION DATE	DELIVERY MODE
			09/28/2023	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):

info@zpatents.com
jmf@zpatents.com
lje@zpatents.com

Office Action Summary	Application No. 18/183,734	Applicant(s) Sarder et al.	
	Examiner KEVIN A LATHERS	Art Unit 3747	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 03/14/2023.

☐ 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) See Continuation Sheet 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 03/14/2023 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)

3) ☐ Interview Summary (PTO-413)

Paper No(s)/Mail Date ____.

2) ☐ Information Disclosure Statement(s) (PTO/SB/08a and/or PTO/SB/08b)

4) ☐ Other: ____.

Paper No(s)/Mail Date ____.

Continuation of Disposition of Claims* 7) Claim(s) is/are rejected: /K.A.L/
Primary Examiner, Art Unit 37471-20

DETAILED ACTION

Notice of Pre-AIA or AIA Status

1. The present application, filed on or after March 16, 2013, is being examined under the first inventor to file provisions of the AIA.

Double Patenting

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the “right to exclude” granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on nonstatutory double patenting provided the reference application or patent either is shown to be commonly owned with the examined application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement. See MPEP § 717.02 for applications subject to examination under the first inventor to file provisions of the AIA as explained in MPEP § 2159. See MPEP § 2146 *et seq.* for applications not subject to examination under the first inventor to file provisions of the AIA. A terminal disclaimer must be signed in compliance with 37 CFR 1.321(b).

The filing of a terminal disclaimer by itself is not a complete reply to a nonstatutory double patenting (NSDP) rejection. A complete reply requires that the terminal disclaimer be accompanied by a reply requesting reconsideration of the prior Office action. Even where the NSDP rejection is provisional the reply must be complete. See MPEP § 804, subsection I.B.1. For a reply to a non-final Office action, see 37 CFR 1.111(a). For a reply to final Office action, see 37 CFR 1.113(c). A request for reconsideration while not provided for in 37 CFR 1.113(c) may be filed after final for consideration. See MPEP §§ 706.07(e) and 714.13.

The USPTO Internet website contains terminal disclaimer forms which may be used. Please visit www.uspto.gov/patent/patents-forms. The actual filing date of the application in which the form is filed determines what form (e.g., PTO/SB/25, PTO/SB/26, PTO/AIA/25, or PTO/AIA/26) should be used. A web-based eTerminal Disclaimer may be filled out completely online using web-screens. An eTerminal Disclaimer that meets all requirements is auto-processed and approved immediately upon submission. For more information about eTerminal Disclaimers, refer to www.uspto.gov/patents/apply/applying-online/eterminal-disclaimer.

3. Claim 1-20 are provisionally rejected on the ground of nonstatutory double patenting as being unpatentable over claims 1-52 of copending Application No. 17/937,046 (reference application). Although the claims at issue are not identical, they are not patentably distinct from each other because the claims of the instant invention are fully disclosed within the claims of the copending application. It is noted that the independent claims pertain particularly to the fuel lockout switch of a dual fuel engine, including a mechanical fuel valve and fuel lockout apparatus, of claims 1 and 3-6 of the copending application.

This is a provisional nonstatutory double patenting rejection because the patentably indistinct claims have not in fact been patented.

Conclusion

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure: Pursifull et al (US 2011/0168133) discloses a dual fuel generator and its fuel delivery systems (Fig. 3, shown); and Sugimoto et al (US 2007/0137591) discloses a dual fuel engine delivery system (Fig. 1) which includes external fuel source power (¶ [0002]).

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN A LATHERS whose telephone number is (571)272-1050. The examiner can normally be reached M-F 10a-6p.

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, Lindsay Low can be reached on 5712721196. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of published or unpublished applications may be obtained from Patent Center. Unpublished application information in Patent Center is available to registered users. To file and manage patent submissions in Patent Center, visit: <https://patentcenter.uspto.gov>. Visit <https://www.uspto.gov/patents/apply/patent-center> for more information about Patent Center and <https://www.uspto.gov/patents/docx> for information about filing in DOCX format. For additional questions, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KEVIN A LATHERS/
Primary Examiner, Art Unit 3747

<i>Notice of References Cited</i>	Application/Control No. 18/183,734		Applicant(s)/Patent Under Reexamination Sarder et al.	
	Examiner KEVIN A LATHERS		Art Unit 3747	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-20110168133-A1	07-2011	Pursifull; Ross Dykstra	F02D19/0605	123/495
*	B	US-20070137591-A1	06-2007	Sugimoto; Yasuhiro	F02M21/06	123/527
	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.

<i>Search Notes</i> 	Application/Control No. 18/183,734	Applicant(s)/Patent Under Reexamination Sarder et al.
	Examiner KEVIN A LATHERS	Art Unit 3747

CPC - Searched*		
Symbol	Date	Examiner
F02D19/0673, 19/0647, 19/0605, 19/0613	09/24/2023	/K.L./

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner

* 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
PE2E Search, EAST search, and Google search	09/24/2023	/K.L./
Applicant and inventor search	09/24/2023	/K.L./

Interference Search			
US Class/CPC Symbol	US Subclass/CPC Group	Date	Examiner

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PE2E SEARCH - Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	British Equivalents	Time Stamp
L1	57	("3412258" "4287908" "4364370" "4416244" "4489699" "5555873" "5611312" "7954479" "9523497" "20070215223" "20100258099").pn.	(US-PGPUB; USPAT; USOCR; FIT (CN, FR, WO, JP, EP, KR); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/29 01:50 PM
L2	1402	F02D19/0613.cpc.	(US-PGPUB; USPAT; USOCR; FIT (CN, FR, WO, JP, EP, KR); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/29 01:51 PM
L3	2112	F02D19/0605.cpc.	(US-PGPUB; USPAT; USOCR; FIT (CN, FR, WO, JP, EP, KR); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/29 01:51 PM
L4	7150	F02D19/0647.cpc.	(US-PGPUB; USPAT; USOCR; FIT (CN, FR, WO, JP, EP, KR); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/29 01:51 PM
L5	435	F02D19/0673.cpc.	(US-PGPUB; USPAT; USOCR; FIT (CN, FR, WO, JP, EP, KR); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/29 01:51 PM
L6	6	(generator AND fuel AND regulator AND off-board AND stage AND line).clm.	(US-PGPUB; USPAT; USOCR; FIT (CN, FR, WO, JP, EP, KR); FPRS; EPO; JPO; DERWENT; IBM_TDB)	OR	ON	ON	2022/06/29 01:52 PM

PE2E SEARCH - Search History (Interference)

There are no Interference searches to show.



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United States Patent and Trademark Office
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www.uspto.gov

APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
18/183,734	03/14/2023	Mark J. Sarder	CET1090.104

CONFIRMATION NO. 4292

26629
ZIOLKOWSKI PATENT SOLUTIONS GROUP, SC (ZPS)
136 S WISCONSIN ST
PORT WASHINGTON, WI 53074

PUBLICATION NOTICE



OC000000059854786

Date Mailed: 07/27/2023

Title:DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE

Publication No.US-2023-0235707-A1

Publication Date:07/27/2023

NOTICE OF PUBLICATION OF APPLICATION

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.

The publication may be accessed through the USPTO's publically available Searchable Databases via the Internet at www.uspto.gov. The direct link to access the publication is currently <http://www.uspto.gov/patft/>.

The publication process established by the Office does not provide for mailing a copy of the publication to applicant. A copy of the publication may be obtained from the Office upon payment of the appropriate fee set forth in 37 CFR 1.19(a)(1). Orders for copies of patent application publications are handled by the USPTO's Public Records Division. The Public Records Division can be reached by telephone at (571) 272-3150 or (800) 972-6382, by facsimile at (571) 273-3250, by mail addressed to the United States Patent and Trademark Office, Public Records Division, Alexandria, VA 22313-1450 or via the Internet.

In addition, information on the status of the application, including the mailing date of Office actions and the dates of receipt of correspondence filed in the Office, may also be accessed via the Internet through the Patent Electronic Business Center at www.uspto.gov using the public side of the Patent Application Information and Retrieval (PAIR) system. The direct link to access this status information is currently <https://portal.uspto.gov/pair/> PublicPair. Prior to publication, such status information is confidential and may only be obtained by applicant using the private side of PAIR.

Further assistance in electronically accessing the publication, or about PAIR, is available by calling the Patent Electronic Business Center at 1-866-217-9197.

Office of Data Management, Application Assistance Unit (571) 272-4000, or (571) 272-4200, or 1-888-786-0101



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United States Patent and Trademark Office
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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
18/183,734	03/14/2023		704	CET1090.104	21	3

CONFIRMATION NO. 4292

26629

ZIOLKOWSKI PATENT SOLUTIONS GROUP, SC (ZPS)
136 S WISCONSIN ST
PORT WASHINGTON, WI 53074

FILING RECEIPT



0000000055996722

Date Mailed: 04/18/2023

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)

Mark J. Sarder, Waukesha, WI;
Aleko D. Sotiriades, Cedarburg, WI;
James J. Dehn, Brookfield, WI;
Leigh Jenison, Hartland, WI;

Applicant(s)

Champion Power Equipment, Inc., Santa Fe Springs, CA;

Power of Attorney: The patent practitioners associated with Customer Number 26629

Domestic Priority data as claimed by applicant

This application is a CON of 17/937,046 09/30/2022
which is a CON of 16/783,455 02/06/2020 PAT 11,492,985
which is a CON of 16/191,503 11/15/2018 PAT 11,530,654
which is a CON of 14/738,060 06/12/2015 PAT 10,221,780

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: 04/13/2023

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 18/183,734**

Projected Publication Date: 07/27/2023

Non-Publication Request: No

Early Publication Request: No

**** SMALL ENTITY ****

Title

DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE

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.

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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

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Title 37, Code of Federal Regulations, 5.11 & 5.15

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PATENT APPLICATION FEE DETERMINATION RECORD

Substitute for Form PTO-875

Application or Docket Number
18/183,734

APPLICATION AS FILED - PART I

(Column 1)		(Column 2)	SMALL ENTITY		OR	OTHER THAN SMALL ENTITY	
FOR	NUMBER FILED	NUMBER EXTRA	RATE(\$)	FEE(\$)		RATE(\$)	FEE(\$)
BASIC FEE (37 CFR 1.16(a), (b), or (c))	N/A	N/A	N/A	64		N/A	
SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A	280		N/A	
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	320		N/A	
TOTAL CLAIMS (37 CFR 1.16(i))	21 minus 20 =	*	x 40 =	40	OR		
INDEPENDENT CLAIMS (37 CFR 1.16(h))	3 minus 3 =	*	x =	0			
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			
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				0			
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	664		TOTAL	

APPLICATION AS AMENDED - PART II

(Column 1)		(Column 2)	(Column 3)	SMALL ENTITY		OR	OTHER THAN SMALL ENTITY	
AMENDMENT A	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)		RATE(\$)	ADDITIONAL FEE(\$)
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))						OR		
FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						OR		
				TOTAL ADD'L FEE		OR	TOTAL ADD'L FEE	

(Column 1)		(Column 2)	(Column 3)	SMALL ENTITY		OR	OTHER THAN SMALL ENTITY	
AMENDMENT B	CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	RATE(\$)	ADDITIONAL FEE(\$)		RATE(\$)	ADDITIONAL FEE(\$)
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))						OR		
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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ELECTRONIC PAYMENT RECEIPT

APPLICATION #
18/183,734

RECEIPT DATE / TIME
03/15/2023 01:51:53 PM ET

ATTORNEY DOCKET #
CET1090.104

Title of Invention

DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE

Application Information

APPLICATION TYPE Utility - Nonprovisional Application
under 35 USC 111(a)

PATENT # -

CONFIRMATION # 4292

FILED BY Robyn Templin

PATENT CENTER # 61745235

AUTHORIZED BY Andrew Stark

CUSTOMER # 26629

FILING DATE -

CORRESPONDENCE
ADDRESS -

FIRST NAMED
INVENTOR Mark J. Sarder

Payment Information

PAYMENT METHOD
CARD / 4529

PAYMENT TRANSACTION ID
E20233ED52157202

PAYMENT AUTHORIZED BY
Robyn Templin

FEE CODE	DESCRIPTION	ITEM PRICE(\$)	QUANTITY	ITEM TOTAL(\$)
2202	EACH CLAIM IN EXCESS OF 20	40.00	1	40.00
TOTAL AMOUNT:				\$40.00

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.

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If a new application is being filed and the application includes the necessary components for 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.

Petitioner MWE Investments, LLC, et al.
Exhibit 1002, Page 61

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.



ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #
18/183,734

RECEIPT DATE / TIME
03/15/2023 01:51:53 PM ET

ATTORNEY DOCKET #
CET1090.104

Title of Invention

DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE

Application Information

APPLICATION TYPE Utility - Nonprovisional Application
under 35 USC 111(a)

PATENT # -

CONFIRMATION # 4292

FILED BY Robyn Templin

PATENT CENTER # 61745235

FILING DATE -

CUSTOMER # 26629

FIRST NAMED INVENTOR Mark J. Sarder

CORRESPONDENCE ADDRESS -

AUTHORIZED BY Andrew Stark

Documents

TOTAL DOCUMENTS: 0

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
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Digest

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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(c), the applicant must file a petition to enter the national stage. Petitioner MWE Investments, LLC, et al.
Exhibit 1002, Page 63

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.

TRANSMITTAL FOR POWER OF ATTORNEY TO ONE OR MORE REGISTERED PRACTITIONERS

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	
First Named Inventor	Mark J. Sarder
Title	DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE
Art Unit	
Examiner Name	
Attorney Docket Number	CET1090.104

SIGNATURE of Applicant or Patent Practitioner

Signature	/Andrew C. Stark/	Date (Optional)	2023-03-14
Name	Andrew C. Stark	Registration Number	65742
Title (if Applicant is a juristic entity)	Patent Practitioner		
Applicant Name (if Applicant is a juristic entity)	Champion Power Equipment, 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.**



ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #
18/183,734

RECEIPT DATE / TIME
03/14/2023 05:13:59 PM ET

ATTORNEY DOCKET #
CET1090.104

Title of Invention

DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE

Application Information

APPLICATION TYPE Utility - Nonprovisional Application
under 35 USC 111(a)

PATENT # -

CONFIRMATION # 4292

FILED BY Robyn Templin

PATENT CENTER # 61740290

FILING DATE -

CUSTOMER # 26629

FIRST NAMED INVENTOR Mark J. Sarder

CORRESPONDENCE ADDRESS -

AUTHORIZED BY Andrew Stark

Documents

TOTAL DOCUMENTS: 6

DOCUMENT	PAGES	DESCRIPTION	SIZE (KB)
2023.03.14 ADS.pdf	9	Application Data Sheet	1196 KB
2023.03.14 Pat App-APP.TEXT.docx	26	Application body structured text document	50 KB
2023.03.14 Declaration.pdf	4	Oath or Declaration filed	1236 KB
2023.03.14 Drawings.pdf	5	Drawings-only black and white line drawings	3015 KB
2023.03.14 POA Transmittal.pdf	1	Power of Attorney	151 KB
2023.03.14 General POA.pdf	1	Power of Attorney	532 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
2023.03.14 ADS.pdf	2D383703CDD63A26BCBA27E93FD3B0AAABD631A22E23B9F6 EFD6172F2B256383A29C9E322588D96F5721005556370FFD85 6B9F4165F8B28A41CAC1118EF1AFBD
2023.03.14 Pat App- APP.TEXT.docx	0427F18590B362A544F6E3DF9F4EA54B3F1553A224B09C973F 37A14C95294B4D3DB651B228142595DDBE87AE18C9E37C115 E4C1BC8F35D48E3E7FE21E55597C6
2023.03.14 Declaration.pdf	775566D511699E66D2BAE31D262802794588C84CC180F4D26F 27D91ED5F242A25DCFB54490130BD56BBA46EFA1653B9BF8 317FD9A09251DDCD72F5E305084D0
2023.03.14 Drawings.pdf	DC66E7047F64747774BA69914C05097B8C010649F2D4C5F27E 85DCBD6BA012B9B496103726C3FE25673D990C85C1A3AA071 3C2E67474ED9994E81A717399A55A
2023.03.14 POA Transmittal.pdf	544A1E9D22A41E0D033C150FODFABEE725A441936991B2ED2 277AC66309D58BD6533570F08FFBF1D6F920896F9DAE6B0B3 73C5CFA3F69AFD820046604017050D
2023.03.14 General POA.pdf	EEE57956C00EA36439F3ECE88A916468E3E89FD7148120590B EA9FD6029EA56802800079ABA1694B6C5ACAAE418CC562026 80338D97979D157FAA73230CFFEB7

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 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.

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	CET1090.104
		Application Number	
Title of Invention	DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE		
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				Remove
Legal Name					
Prefix	Given Name	Middle Name	Family Name	Suffix	
	Mark	J.	Sarder		
Residence Information (Select One) ☒ US Residency ☐ Non US Residency ☐ Active US Military Service					
City	Waukesha	State/Province	WI	Country of Residence	US

Mailing Address of Inventor:

Address 1	208 Oxford Rd				
Address 2					
City	Waukesha	State/Province	WI		
Postal Code	53186	Country	US		

Inventor	2				Remove
Legal Name					
Prefix	Given Name	Middle Name	Family Name	Suffix	
	Aleko	D.	Sotiriades		
Residence Information (Select One) ☒ US Residency ☐ Non US Residency ☐ Active US Military Service					
City	Cedarburg	State/Province	WI	Country of Residence	US

Mailing Address of Inventor:

Address 1	W245 N5551 S Corp. Circle				
Address 2					
City	Sussex	State/Province	WI		
Postal Code	53089	Country	US		

Inventor	3				Remove
Legal Name					
Prefix	Given Name	Middle Name	Family Name	Suffix	
	James	J.	Dehn		
Residence Information (Select One) ☒ US Residency ☐ Non US Residency ☐ Active US Military Service					

Petitioner MWF Investments, LLC, et al

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	CET1090.104
		Application Number	
Title of Invention	DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE		

City	Brookfield	State/Province	WI	Country of Residence	US
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Mailing Address of Inventor:

Address 1	W245 N5551 S Corp. Circle				
Address 2					
City	Sussex	State/Province	WI		
Postal Code	53089	Country	US		
Inventor	4				Remove
Legal Name					

Prefix	Given Name	Middle Name	Family Name	Suffix	
	Leigh		Jenison		
Residence Information (Select One) ☒ US Residency ☐ Non US Residency ☐ Active US Military Service					
City	Hartland	State/Province	WI	Country of Residence	US

Mailing Address of Inventor:

Address 1	W245 N5551 S Corp. Circle				
Address 2					
City	Sussex	State/Province	WI		
Postal Code	53089	Country	US		
All Inventors Must Be Listed - Additional Inventor Information blocks may be generated within this form by selecting the Add button.					

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	26629		
Email Address		Add Email	Remove Email

Application Information:

Title of the Invention	DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE		
Attorney Docket Number	CET1090.104	Small Entity Status Claimed	☒
Application Type	Nonprovisional		
Subject Matter	Utility		
Total Number of Drawing Sheets (if any)		Suggested Figure for Publication (if any)	

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	CET1090.104
		Application Number	
Title of Invention	DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE		

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	26629		

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)
	Continuation of	17937046	2022-09-30

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	CET1090.104
		Application Number	
Title of Invention	DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE		

Prior Application Status		Patented		Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
17937046	Continuation of	16783455	2020-02-06	11492985	2022-11-08
Prior Application Status		Patented		Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
16783455	Continuation of	16191503	2018-11-15	11530654	2022-12-20
Prior Application Status		Patented		Remove	
Application Number	Continuity Type	Prior Application Number	Filing Date (YYYY-MM-DD)	Patent Number	Issue Date (YYYY-MM-DD)
16191503	Continuation of	14738060	2015-06-12	10221780	2019-03-05
Additional Domestic Benefit/National Stage Data may be generated within this form by selecting the Add button.					Add

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)ⁱ 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).

			Remove
Application Number	Country ⁱ	Filing Date (YYYY-MM-DD)	Access Code ⁱ (if applicable)
Additional Foreign Priority Data may be generated within this form by selecting the Add button.			Add

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	CET1090.104
		Application Number	
Title of Invention	DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE		

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	CET1090.104
		Application Number	
Title of Invention	DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE		

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	Remove
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	Champion Power Equipment, Inc.	
Mailing Address Information For Applicant:		
Address 1	12039 Smith Avenue	
Address 2		
City	Santa Fe Springs	State/Province
Country	US	Postal Code
Phone Number		Fax Number
Email Address		
Additional Applicant Data may be generated within this form by selecting the Add button. Add		

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.

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	CET1090.104
		Application Number	
Title of Invention	DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE		

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.				
				Remove
If the Assignee or Non-Applicant Assignee is an Organization check here.				☐
Prefix	Given Name	Middle Name	Family Name	Suffix
Mailing Address Information For Assignee including Non-Applicant Assignee:				
Address 1				
Address 2				
City		State/Province		
Country ⁱ		Postal Code		
Phone Number		Fax Number		
Email Address				
Additional Assignee or Non-Applicant Assignee Data may be generated within this form by selecting the Add button.				Add

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	/Andrew C. Stark/		Date (YYYY-MM-DD)	2023-03-14
First Name	Andrew C.	Last Name	Stark	Registration Number
				65742
Additional Signature may be generated within this form by selecting the Add button.				Add

Application Data Sheet 37 CFR 1.76		Attorney Docket Number	CET1090.104
		Application Number	
Title of Invention	DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE		

This collection of information is required by 37 CFR 1.76. 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 23 minutes to complete, including gathering, preparing, and submitting the completed application data sheet 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 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.

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

Title of
Invention

DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE

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 _____
filed on _____

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:

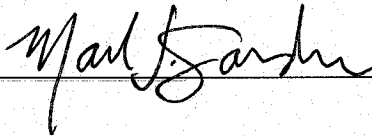
Petitioner/applicant is cautioned to avoid submitting personal information in documents filed in a patent application that may contribute to identity theft. Personal information such as social security numbers, bank account numbers, or credit card numbers (other than a check or credit card authorization 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: Mark J. Sarder

Date (Optional):

Signature:



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

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

Title of
Invention

DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE

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 _____
filed on _____

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: Aleko D. Sotiriades

Date (Optional): _____

Signature: _____

Aleko Sotiriades

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

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

Title of
Invention

DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE

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 _____
filed on _____

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:

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LEGAL NAME OF INVENTOR

Inventor: James J. Dehn

Date (Optional): 6/12/2015

Signature:

James J Dehn

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

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

Title of
Invention

DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE

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 _____
filed on _____

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:

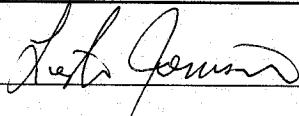
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LEGAL NAME OF INVENTOR

Inventor: Leigh Jenison

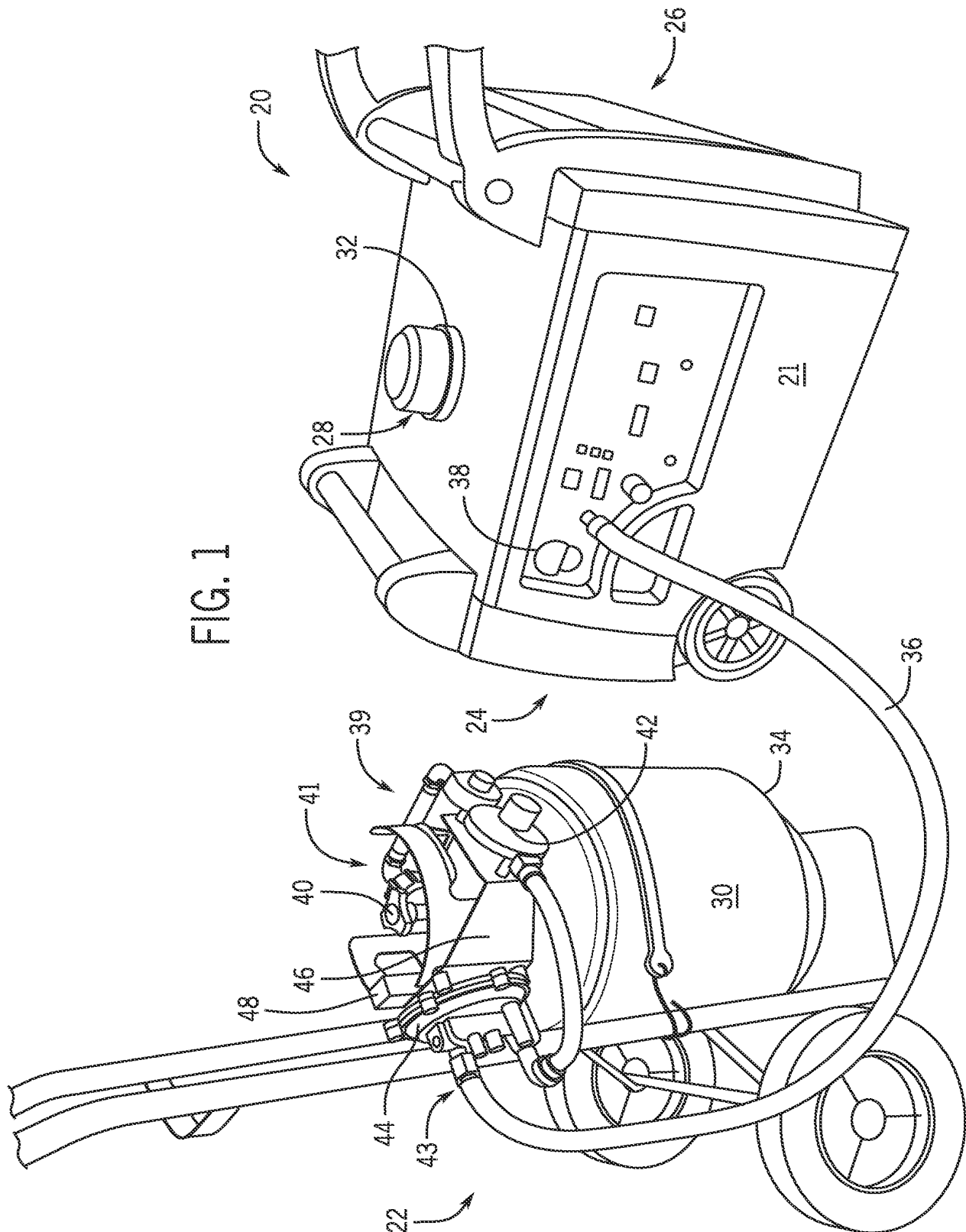
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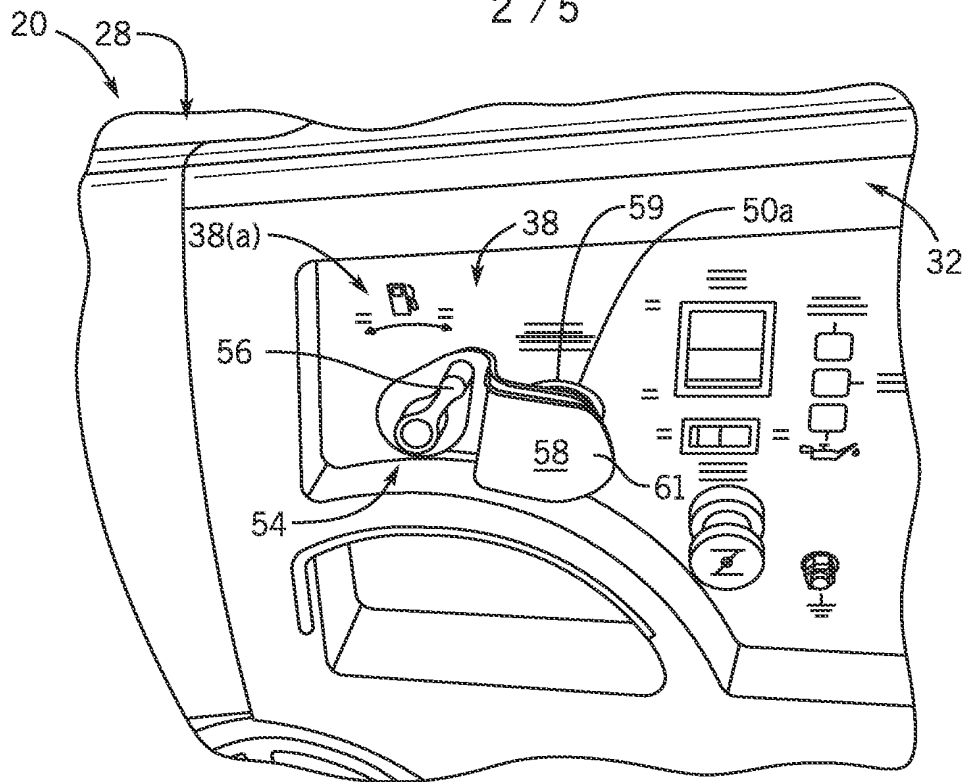


FIG. 2

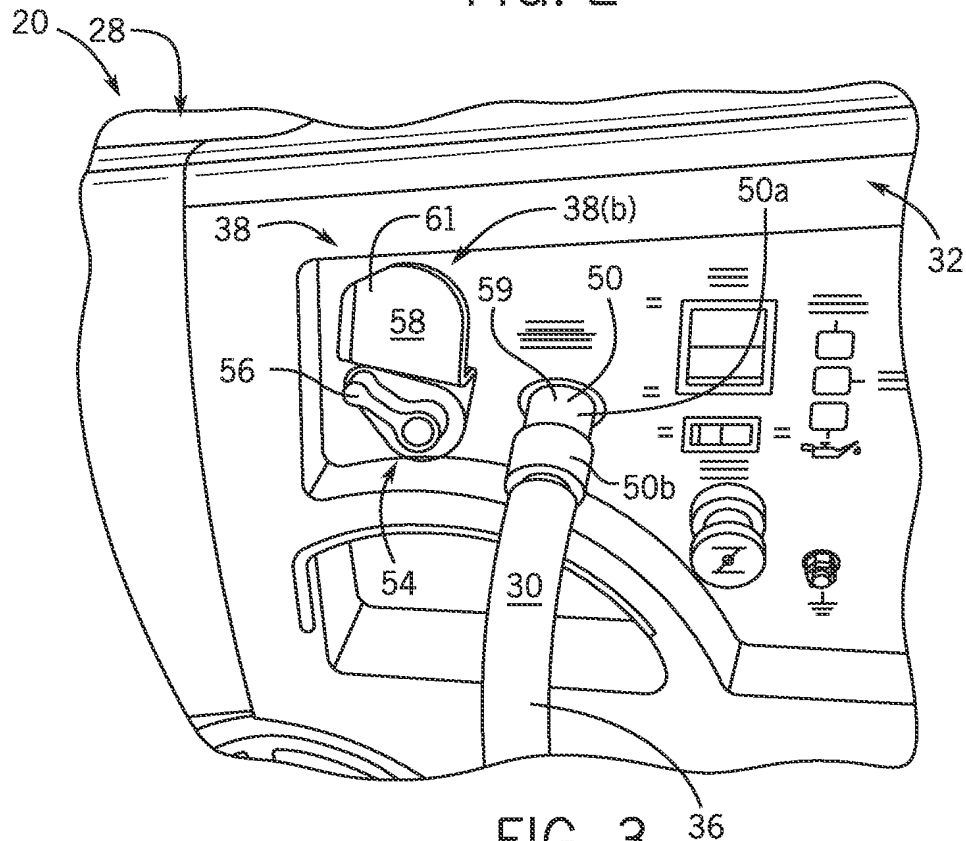


FIG. 3

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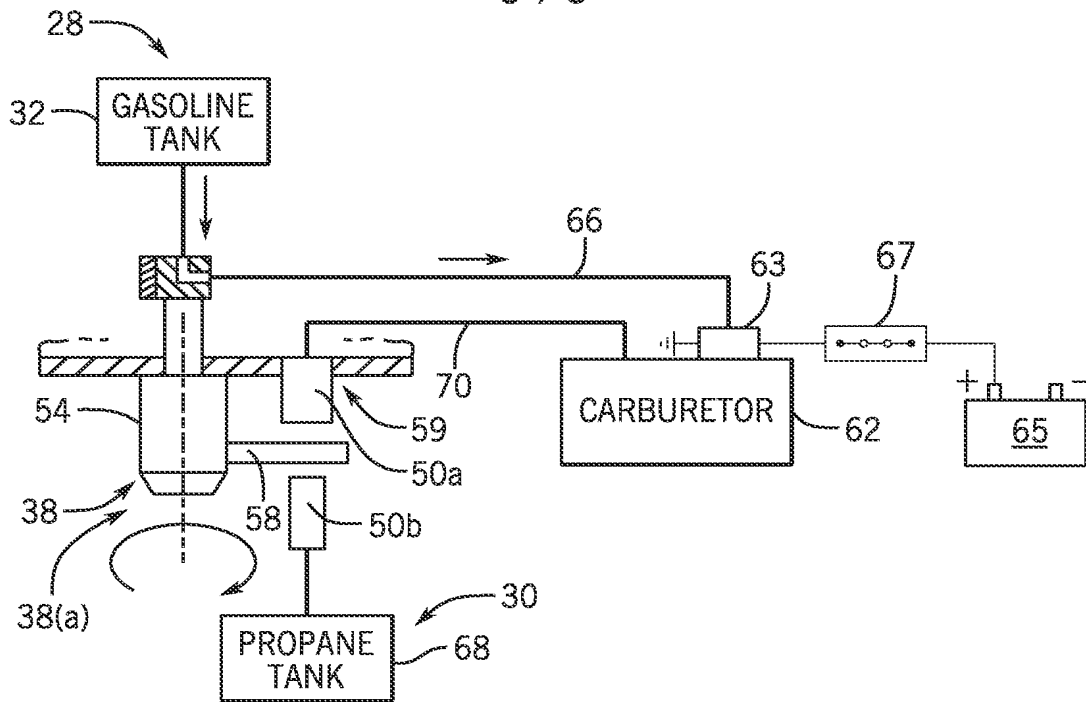


FIG. 4A

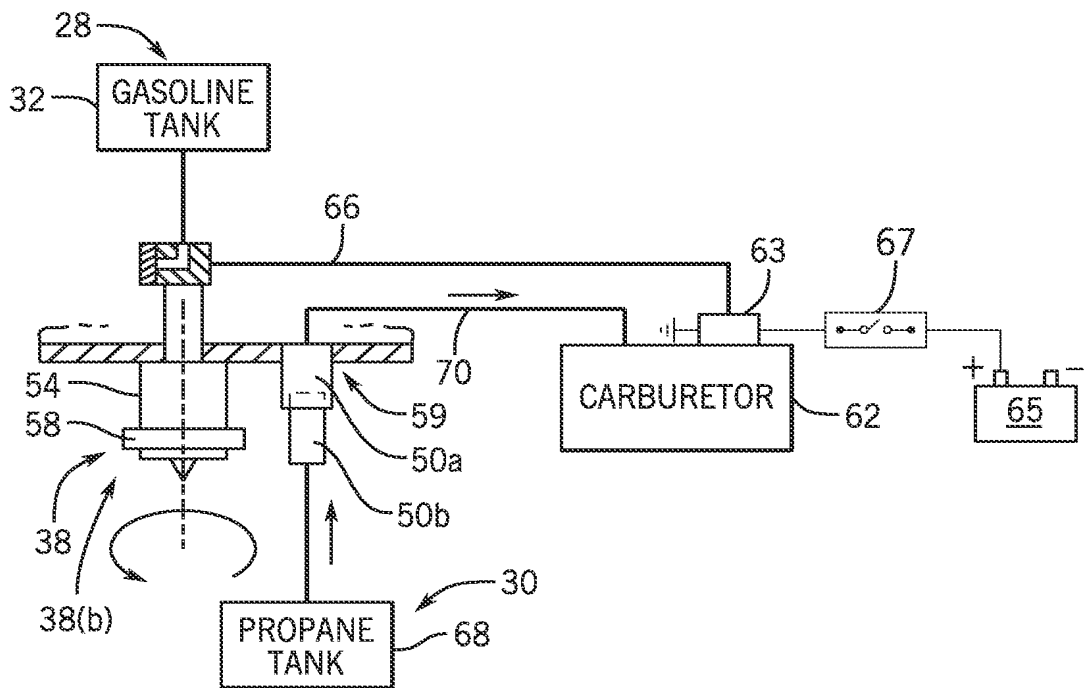


FIG. 4B

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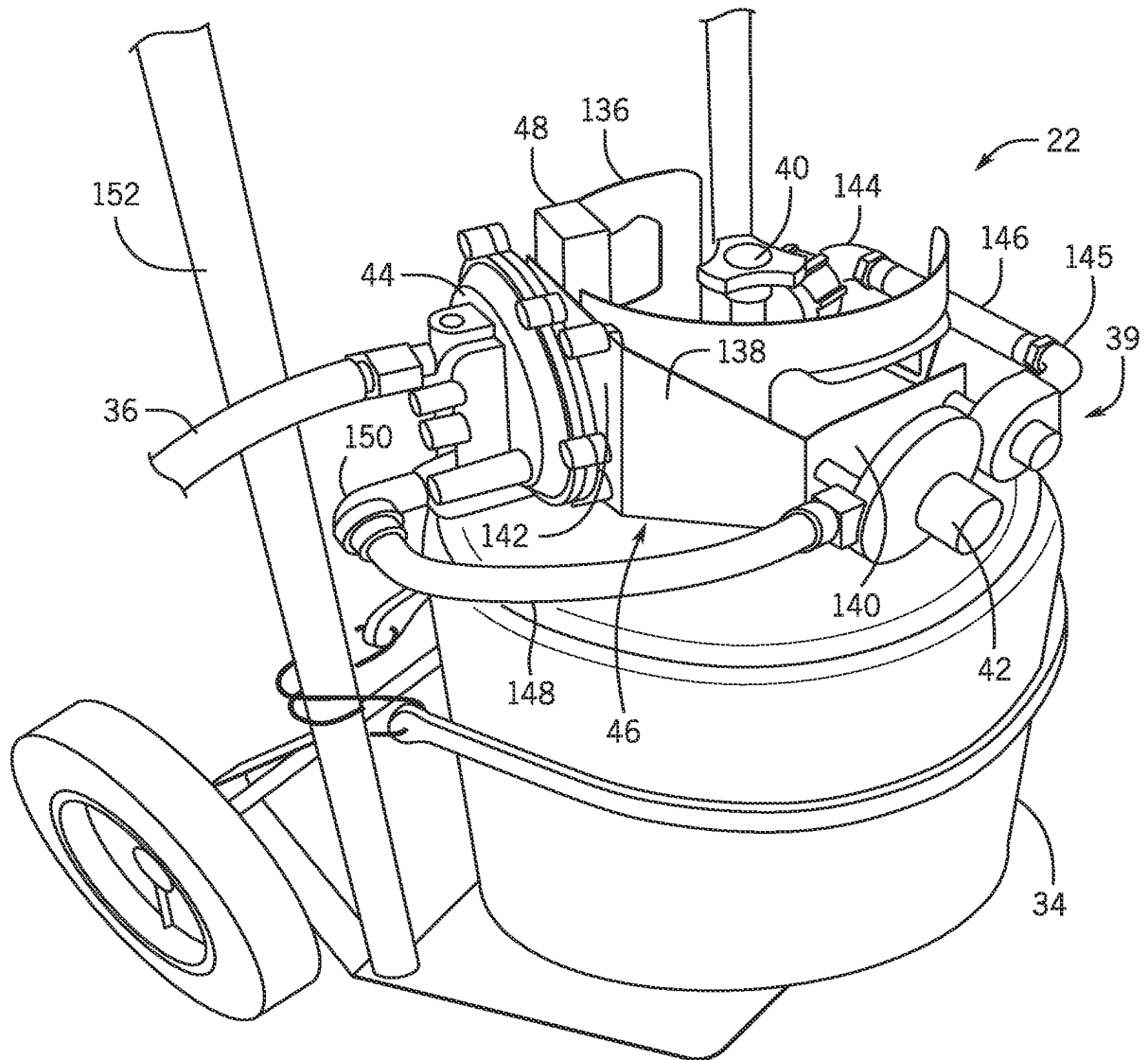


FIG. 5

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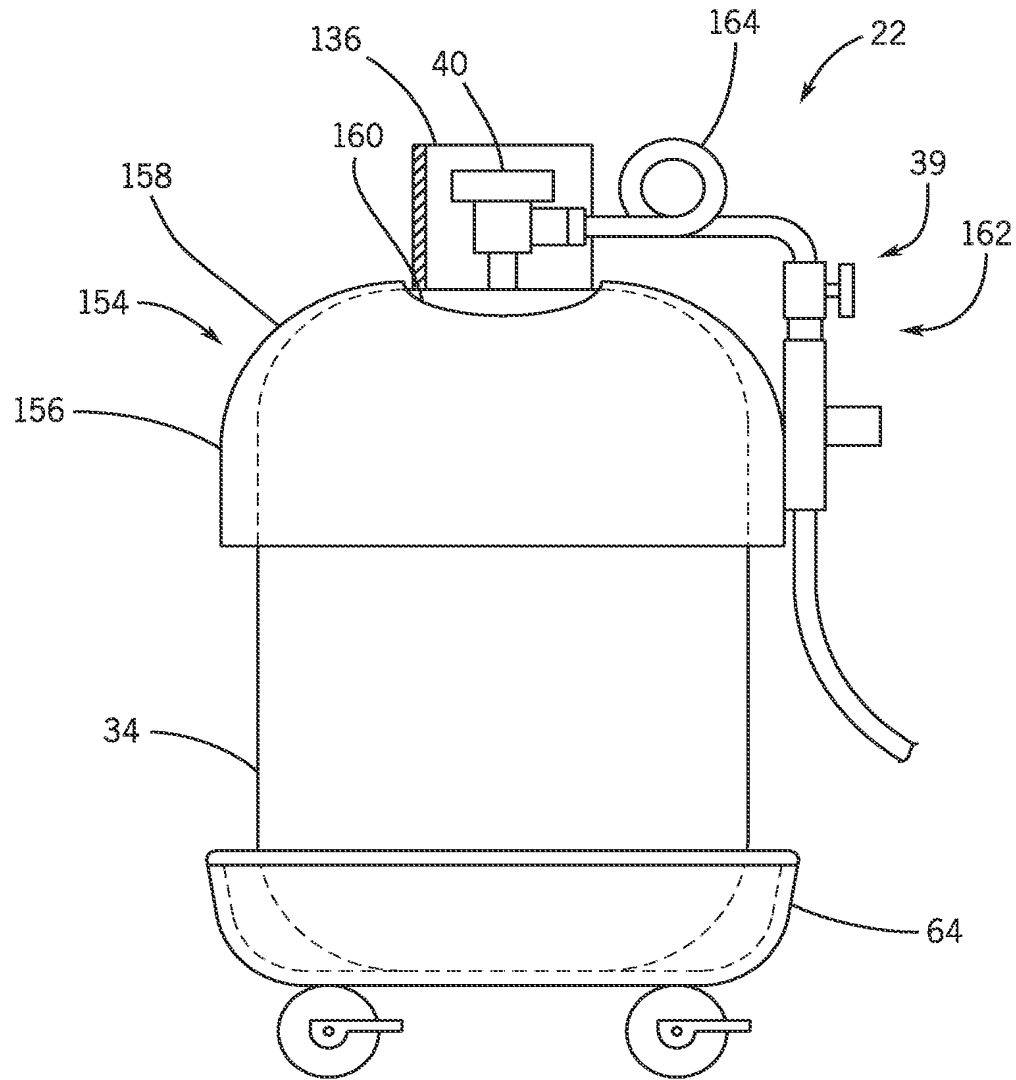


FIG. 6



ELECTRONIC PAYMENT RECEIPT

APPLICATION #
18/183,734

RECEIPT DATE / TIME
03/14/2023 05:13:59 PM ET

ATTORNEY DOCKET #
CET1090.104

Title of Invention

DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE

Application Information

APPLICATION TYPE Utility - Nonprovisional Application
under 35 USC 111(a)

PATENT # -

CONFIRMATION # 4292

FILED BY Robyn Templin

PATENT CENTER # 61740290

AUTHORIZED BY Andrew Stark

CUSTOMER # 26629

FILING DATE -

CORRESPONDENCE
ADDRESS -

FIRST NAMED
INVENTOR Mark J. Sarder

Payment Information

PAYMENT METHOD
CARD / 4529

PAYMENT TRANSACTION ID
E20233DH16488073

PAYMENT AUTHORIZED BY
Robyn Templin

FEE CODE	DESCRIPTION	ITEM PRICE(\$)	QUANTITY	ITEM TOTAL(\$)
2111	UTILITY PATENT APPL. SEARCH FEE	280.00	1	280.00
4011	BASIC FILING FEE- UTILITY	64.00	1	64.00
2311	EXAMINATION OF ORIGINAL PATENT APPLICATION	320.00	1	320.00
TOTAL AMOUNT:				\$664.00

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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.

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.

DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE

CROSS-REFERENCE TO RELATED APPLICATION

[0001] The present application is a continuation of, and claims priority to, U.S. Patent Application Serial No. 17/937,046, filed on September 30, 2022, which is a continuation of, and claims priority to, U.S. Patent Application Serial No. 16/783,455, filed on February 6, 2020, now U.S. Patent No. 11,492,985, which is a continuation of, and claims priority to, U.S. Patent Application Serial No. 16/191,503, filed on November 15, 2018, now U.S. Patent No. 11,530,654, which is a continuation of, and claims priority to, U.S. Patent Application Serial No. 14/738,060, filed on June 12, 2015, now U.S. Patent No. 10,221,780, the disclosures of which are incorporated herein by reference in their entirety.

BACKGROUND OF THE INVENTION

[0002] Embodiments of the invention relate generally to dual fuel generators, and more particularly, to an apparatus and method for delivering liquid fuel and gaseous fuel to a dual fuel generator.

[0003] Electric generators are frequently driven by internal combustion engines that use gasoline as a fuel source. Gasoline is a common fuel source for generators in a variety of applications. However, alternative fuel sources also provide a desirable fuel source. For instance, alternative fuels may provide a clean burning fuel that limits hazardous emissions. Alternative fuels may also be stored for long periods of time without degradation, whereas gasoline can degrade over a period of months leading to hard starting, rough running, and also lead to gum and varnish deposit left in the fuel system. In addition, generators that operate on alternative fuels may generate electricity when gasoline is not readily available. For instance, generators are frequently used when power outages in the utility grid result from severe weather. Unfortunately, gas stations may also be closed as a result of the power outage. Such a circumstance presents just one example where it would be advantageous to operate electrical generators on alternative fuels.

[0004] Certain generators are configured to operate as “dual fuel” generators, otherwise known as bi-fuel generators. These generators are driven by an internal combustion engine that is configured to operate on a liquid fuel for a period of operation and an alternative fuel for another period of operation. The alternative fuel source may exist in a gaseous state at normal temperature and pressure and can be any one of liquefied petroleum gas, compressed natural gas, hydrogen, or the like. Liquefied petroleum gas (LPG), often referred to as propane, exists in a gaseous state at normal temperature and pressure but can be conveniently stored under pressure in a liquid state. LPG may be a desirable fuel source for internal combustion engines because it can be stored for longer periods of time and contains fewer impurities than gasoline, resulting in smoother and cleaner operation, and often resulting in a longer lasting engine.

[0005] In order to provide the liquid and gaseous fuel to the engine, the dual fuel engine may have a first fuel line for liquid fuel and a second fuel line for gaseous fuel. A liquid fuel source and a gaseous fuel source may be coupled to the respective lines to provide fuel to the engine. However, a common problem with such configurations that couple two fuel sources to a single engine is the engine can experience overly rich air-fuel ratio when both fuels are simultaneously engaged during cross-over switching between the fuel sources. Further, such simultaneous delivery of fuel from the first fuel line and the second fuel line may make the engine hard to start or lead to unstable operating conditions.

[0006] Therefore, it would be desirable to design a dual fuel generator having a liquid fuel and gaseous fuel delivery system that overcomes the aforementioned detriments without substantially increasing the overall cost of the system.

BRIEF DESCRIPTION OF THE INVENTION

[0007] In accordance with one aspect of the invention, a mechanical fuel lockout switch for a dual fuel engine includes a mechanical fuel valve actuatable between a first position and a second position to selectively control fuel flow to the dual fuel engine from a first fuel source through a first fuel line and a second fuel source through a second fuel line. The mechanical fuel valve may be configured to allow communication between the first fuel source and the dual fuel engine and prevent communication between the second fuel source and the dual fuel engine while in the first position, and prevent communication between the first fuel source and the dual fuel engine while in the second position. The mechanical fuel lockout switch may also include a fuel lockout apparatus coupled to the mechanical fuel valve and configured to prevent the second fuel source from coupling to the second fuel line while the mechanical fuel valve is in the first position, and permit the second fuel source to couple to the second fuel line while the mechanical fuel valve is in the second position.

[0008] In accordance with another aspect of the invention, a mechanical fuel lockout switch for a dual fuel engine includes a mechanical fuel valve actuatable between a first position and a second position to selectively control fuel flow to the dual fuel engine from a first fuel source through a first fuel line and a second fuel source through a second fuel line. The mechanical fuel valve may be configured to allow communication between the first fuel source and the dual fuel engine and prevent communication between the second fuel source and the dual fuel engine while the first position, and prevent communication between the first fuel source and the dual fuel engine while in the second position. The mechanical fuel lockout switch may also include a fuel lockout apparatus coupled to the mechanical fuel valve and configured to prevent actuation of the mechanical fuel valve to the first position when the second fuel source is in communication with the dual fuel engine.

[0009] In accordance with yet another aspect of the invention, a dual fuel generator and fuel delivery system includes a dual fuel generator configured to operate on a liquid fuel supplied from a liquid fuel source through a liquid fuel line and a gaseous fuel supplied from a pressurized fuel source through a gaseous fuel line, and a fuel regulator

system located off board the dual fuel generator. The fuel regulator system may include a primary pressure regulator couplable to a service valve of the pressurized fuel source and configured to regulate the gaseous fuel supplied from the pressurized fuel source to a reduced pressure, and a secondary pressure regulator couplable to the primary pressure regulator and configured to regulate the gaseous fuel supplied from the primary pressure regulator to a desired pressure for delivery through the gaseous fuel line to operate the dual fuel generator. The dual fuel generator and fuel delivery system may also include a mechanical fuel valve actuatable between a first position and a second position to selectively control fuel flow to the dual fuel generator from the liquid fuel source through the liquid fuel line and the pressurized fuel source through the gaseous fuel line, the mechanical fuel valve configured to open and close the liquid fuel line to selectively control fuel flow from the liquid fuel source to the dual fuel generator. A fuel lockout apparatus may couple to the mechanical fuel valve configured to prevent the pressurized fuel source from coupling to the gaseous fuel line while the liquid fuel line is open, and permit the pressurized fuel source to couple to the gaseous fuel line while the liquid fuel line is closed by the mechanical fuel valve.

[0010] Various other features and advantages will be made apparent from the following detailed description and the drawings.

BRIEF DESCRIPTION OF THE DRAWINGS

[0011] The drawings illustrate preferred embodiments presently contemplated for carrying out the invention.

[0012] In the drawings:

[0013] FIG. 1 is a perspective view of a dual fuel generator coupled to a fuel delivery system, according to an embodiment of the invention.

[0014] FIG. 2 is a detail view of a portion of the generator of FIG. 1 about a mechanical fuel lockout switch with the switch in a first position, according to an embodiment of the invention.

[0015] FIG. 3 is a detail view similar to FIG. 2 and showing the mechanical fuel lockout switch in a second position, with an LPG supply line connected thereto, according to an embodiment of the invention.

[0016] FIG. 4A is a schematic diagram of a fuel system for the dual fuel generator of FIG. 1 showing a liquid fuel source in communication with a carburetor of the generator consistent with the first position of the switch as shown in FIG. 2, according to an embodiment of the invention.

[0017] FIG. 4B is a schematic diagram of the fuel system of FIG. 4A showing a gaseous fuel source in communication with a carburetor of the generator of FIG. 1 consistent with the second position of the switch as shown in FIG. 3, according to an embodiment of the invention.

[0018] FIG. 5 is a perspective view of a fuel delivery system for the dual fuel generator of FIG. 1, according to an embodiment of the invention.

[0019] FIG. 6 is a side view of a fuel delivery system for the dual fuel generator of FIG. 1, according to an embodiment of the invention.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

[0020] The operating environment of the invention is described with respect to a dual fuel generator. However, it will be appreciated by those skilled in the art that the invention is equally applicable for use with any dual fuel internal combustion engine. Moreover, the invention will be described with respect to a dual fuel generator configured to operate on a liquid fuel and a gaseous fuel. However, one skilled in the art will further appreciate that the invention is equally applicable for use with other fuel combinations for dual fuel generators and internal combustion engines.

[0021] Referring to FIG. 1, a dual fuel generator 20 is coupled to a fuel delivery system 22, in accordance with an embodiment of the invention. Dual fuel generator 20 includes an internal combustion engine (not shown) within housing 21 at one end 24, operatively connected to an alternator also enclosed in housing 21 at another end 26, by conventional means. Dual fuel generator 20 is configured to operate on different fuels via either a first fuel source 28 or a second fuel source 30. In an exemplary embodiment of the invention, first fuel source 28 is a liquid fuel and second fuel source 30 is a gaseous fuel. The liquid fuel may be gasoline and the gaseous fuel may be liquid petroleum gas (LPG). Each can selectively operate the generator as desired and controlled by an operator. For instance, generator 20 may operate on gasoline for a first period of operation and then switch to LPG for a second period of operation. However, it is contemplated that dual fuel generator 20 is configured to operate on fuels other than gasoline and LPG (e.g., natural gas, biodiesel, etc.), and thus the scope of the invention is not meant to be limited strictly to a dual fuel arrangement where first fuel source 28 provides gasoline and second fuel source 30 provides LPG.

[0022] In one embodiment of the invention, dual fuel generator 20 includes a gasoline tank 32 or, generally, a liquid fuel tank, located inside cover 21 onboard generator 20 to provide gasoline to the engine as first fuel source 28. Gasoline tank 32 connects to a first fuel line to provide gasoline to the carburetor to run the engine, as will later be described with reference to FIG. 4A and 4B. Generator 20 is also coupled to a pressurized fuel container 34, or a pressurized fuel source, located off board

generator 20 to provide LPG to the engine as second fuel source 30. Pressurized fuel container 34 is coupled to generator 20 with an LPG supply hose 36. LPG supply hose 36 is coupled to a second fuel line within generator 20 to provide LPG to the carburetor to run the engine. Dual fuel generator 20 includes a mechanical fuel lockout switch 38 for selecting a desired fuel to be provided to the engine. The mechanical fuel lockout switch 38 is actuated to select first fuel source 28 when in a first position, as shown in FIG. 2, and alternately to select second fuel source 30 when in a second position, as shown in FIG. 3.

[0023] Referring back to FIG. 1, in an exemplary embodiment, fuel 30 from pressurized fuel container 34 is regulated using a fuel regulator system 39 for delivery to the engine. Fuel regulator system 39 includes one or more pressure regulators that reduce and control the pressure of the fuel from pressurized fuel container 34 and delivers fuel at a desired pressure for operation of the engine. Fuel regulator system 39 has an inlet 41 operatively coupled to a service valve 40 of pressurized fuel container 34 and an outlet 43 coupled to LPG supply hose 36. Fuel regulator system 39 includes a primary pressure regulator 42 coupled to pressurized fuel container 34 and a secondary pressure regulator 44. Primary pressure regulator 42 protects downstream components from high pressure of pressurized fuel container 34. Primary pressure regulator 42 receives LPG through service valve 40 of pressurized fuel container 34 and reduces the pressure of the LPG to a first stage. In one embodiment of the invention, the first stage may be delivered directly to generator 20 at a pressure required for operation of the engine.

[0024] In an exemplary embodiment of the invention, fuel regulator system 39 includes secondary pressure regulator 44 coupled to the outlet of primary pressure regulator 42 in order to use standard “off-the-shelf” components. Typically, the primary pressure regulator is mounted on the LPG tank, while the secondary pressure regulator is mounted on the component using the fuel, such as an engine or grill. Here, since generator 20 can be used as a gasoline only generator, secondary pressure regulator 44 is mounted off-board the generator to reduce size and cost of the generator. Secondary pressure regulator 44 receives LPG from primary pressure regulator 42 and further

reduces the pressure of LPG to a second stage to be delivered to generator 20. In a system with two regulators, primary pressure regulator 42 regulates fuel received from pressurized fuel container 34 and reduces the pressure of the fuel to a level required for operation of secondary pressure regulator 44. Secondary pressure regulator 44 regulates fuel received from primary pressure regulator 42 and further reduces the pressure of the fuel to a level required for operation of generator 20. In addition, primary pressure regulator 42 may compensate for varying tank pressure as fuel is depleted while secondary pressure regulator 44 may compensate for varying demand from generator 20.

[0025] In accordance with an exemplary embodiment of the invention, fuel regulator system 39 includes both the primary and secondary regulators, or a custom single regulator, but in any case is located remotely, or off-board, from dual fuel generator 20. Fuel regulator system 39 may be directly mounted to pressurized fuel container 34 using a regulator mounting bracket 46. Regulator mounting bracket 46 has mounting locations for primary pressure regulator 42 and secondary pressure regulator 44. Regulator mounting bracket 46 also has a securing mechanism 48 to secure regulator mounting bracket 46 to pressurized fuel container 34.

[0026] In another embodiment of the invention, primary pressure regulator 42 is mounted on regulator mounting bracket 46 while secondary pressure regulator 44 could be mounted on or near generator 20. In yet another embodiment of the invention, a dual stage regulator may regulate the fuel received from pressurized fuel container 34 and deliver fuel at a pressure required for operation of generator 20. Such a dual stage regulator may regulate the fuel to the second stage within a single structure. The dual stage regulator may be mounted directly on fuel container 34.

[0027] Referring to FIG. 2, a detail view of a portion of generator 20 of FIG. 1 depicts mechanical fuel lockout switch 38 in a first position 38(a), in accordance with an embodiment of the invention. In this position, mechanical fuel lockout switch 38 provides gasoline flow from gasoline tank 32 to the engine while preventing connection of an LPG supply line to fuel inlet 59 of the second fuel line, as will later be discussed

in detail with reference to FIGS. 4A and 4B. Still referring to FIG. 2, mechanical fuel lockout switch 38 provides a combination liquid fuel shutoff valve and a gaseous fuel supply lockout that prevents simultaneous delivery of fuel to the engine from gasoline tank 32 and pressurized fuel container 34, FIG. 1. As such, mechanical fuel lockout switch 38 provides a fuel selector to ensure only the selected fuel is provided to dual fuel generator 20.

[0028] Mechanical fuel lockout switch 38, FIG. 2, includes mechanical fuel valve 54 actuatable between first position 38(a) as shown in FIG. 2 and second position 38(b) as shown in FIG. 3 to selectively control fuel flow to the dual fuel engine from first fuel source 28 through a first fuel line and second fuel source 30 through a second fuel line 36. Mechanical fuel lockout switch 38 may also include fuel lockout apparatus 58 coupled to mechanical fuel valve 54 to communicate fuel sources individually to generator 20. In one embodiment of the invention, fuel lockout apparatus 58 communicates first fuel source 28 to the engine by actuating mechanical fuel valve 54 to first position 38(a) to open the first fuel line as shown in FIG. 2, and communicates second fuel source 30 to the engine by actuating mechanical fuel valve 54 to second position 38(b) to open communication of the second fuel source 30 to the engine as shown in FIG. 3. Referring back to FIG. 2, when mechanical fuel valve 54 is in first position 38(a), fuel lockout apparatus 58 communicates first fuel source 28 to the dual fuel engine and prevents communication between the second fuel source and the dual fuel engine.

[0029] In an exemplary embodiment of the invention, mechanical fuel valve 54 controls the flow of LPG to the engine by actuating fuel lockout apparatus 58 to block or unblock fuel inlet 59 for the second fuel source. Mechanical fuel valve 54 is coupled to the first fuel line, as shown in FIGS. 4A and 4B, and therefore can control the flow of gasoline to the engine by opening and closing the first fuel line. When the mechanical fuel valve 54, FIG. 2, is in the first position 38(a), gasoline flows from the gasoline tank to the engine and the fuel lockout apparatus 58 blocks the fuel inlet 59. Accordingly, fuel lockout apparatus 58 prevents LPG flow to generator 20 when the mechanical fuel valve 54 is in first position 38(a) wherein the engine is operated on gasoline.

[0030] Mechanical fuel valve 54 includes a fuel valve handle 56 to control the opening and closing of the valve. Fuel valve handle 56 is movable between first position 38(a) as shown in FIG. 2 and second position 38(b) as shown in FIG. 3. Mechanical fuel valve 54 opens the first fuel line (to enable liquid fuel flow to the engine) when fuel valve handle 56 is in the first position, and mechanical fuel valve 54 closes the first fuel line (to prevent liquid fuel flow to the engine) when fuel valve handle 56 is in the second position. Thus, when fuel valve handle 56 is in first position 38(a) as shown in FIG. 2, mechanical fuel valve 54 opens the first fuel line and allows gasoline from gasoline tank 32 to flow to the engine.

[0031] Fuel valve handle 56 is coupled to fuel lockout apparatus 58. Fuel valve handle 56 actuates with fuel lockout apparatus 58 to prevent LPG flow to generator 20 when gasoline flow to the generator is enabled. Fuel lockout apparatus 58 is controlled by fuel valve handle 56 so that moving fuel valve handle 56 to the first position causes fuel lockout apparatus 58 to block fuel inlet 59 for LPG, and moving fuel valve handle 56 to the second position causes fuel lockout apparatus 58 to unblock fuel inlet 59 for LPG.

[0032] In an exemplary embodiment of the invention, fuel valve handle 56 rotates between the first position and the second position and fuel lockout apparatus 58 is rigidly coupled to the rotating handle. Fuel lockout apparatus 58 may include a fuel inlet cover 61, which may be a flange, coupled to fuel valve handle 56 so that fuel inlet cover 61 rotates with the handle. Fuel inlet cover 61 extends radially outward from fuel valve handle 56 and sweeps over fuel inlet 59 for LPG as fuel valve handle 56 rotates. That is, fuel inlet cover 61 rotates transversely across fuel inlet 59 and blocks access thereto. Accordingly, fuel inlet cover 61 prevents LPG flow to generator 20 when fuel valve handle 56 is in first position 38(a) to allow gasoline to run the engine.

[0033] Referring to FIG. 3, a detail view of a portion of generator 20 of FIG. 1 depicts mechanical fuel lockout switch 38 in a second position 38(b), in accordance with an embodiment of the invention. In this position, the mechanical fuel lockout switch 38 provides a disconnect to stop gasoline flow from gasoline tank 32 to the

engine while allowing connection of LPG supply hose 36 to fuel inlet 59 of the second fuel line. FIG. 3 further shows LPG supply hose 36 coupling second fuel source 30 to generator 20 to deliver LPG to run the generator.

[0034] Mechanical fuel lockout switch 38 includes mechanical fuel valve 54 coupled to fuel lockout apparatus 58 to prevent gasoline flow to generator 20 when LPG from the LPG service hose 36 is supplied to the engine. In one embodiment of the invention, actuation of mechanical fuel valve 54 to second position 38(b) causes fuel lockout apparatus 58 to allow communication of second fuel source 30 to the dual fuel engine, and interrupts the first fuel source 28 communication with the dual fuel engine. The position of fuel lockout apparatus 58 prevents the fuel valve handle 56 from moving to first position 38(a) (FIG. 2) while LPG supply hose 36 is connected to generator 20.

[0035] A quick-disconnect hose coupling 50, also referred to as a quick-connect hose coupling, connects LPG supply hose 36 to generator 20 so that LPG supply hose 36 may be quickly attached and detached from generator 20. Hose coupling 50 has a first end 50a mounted on the external surface of generator 20 and coupled to supply the second fuel to the engine. Hose coupling 50 has a second end 50b coupled to the outlet of LPG supply hose 36. Hose coupling 50 has a valve that opens when the couplings are engaged and closes when the couplings are disengaged. As such, quick-disconnect hose coupling 50 automatically opens when connected to enable fuel flow from LPG supply hose 36 to the engine. Hose coupling 50 automatically disconnects fluid communication when disconnected. Accordingly, when the supply hose is detached from generator 20, the coupling 50 is automatically closed so that fuel does not escape and unwanted air does not enter the fuel system.

[0036] In one embodiment, fuel inlet cover 61 is coupled to fuel valve handle 56 so that it is spaced apart from the surface of generator 20 to provide clearance for first end 50a of the quick-disconnect hose coupling 50 that protrudes from the surface of generator 20. As shown in FIG. 2, fuel inlet cover 61 blocks off first end 50a of the quick-disconnect hose coupling when fuel valve handle 56 is rotated to first position 38(a) to enable gasoline flow so that fuel inlet cover 61 prevents connection of LPG

supply hose 36 (FIG. 3) to generator 20. As shown in FIG. 3, fuel inlet cover 61 uncovers first end 50a of the quick-disconnect hose coupling 50 when fuel valve handle 56 is rotated to second position 38(b) to disable gasoline flow so that fuel inlet cover 61 permits connection of LPG supply hose 36 to generator 20.

[0037] To operate generator 20 on LPG, fuel valve handle 56 is turned to second position 38(b) to disable the flow of gasoline to the engine and to expose first end 50a of hose coupling 50 on generator 20. LPG supply hose 36 is then connected to generator 20 via hose coupling 50 to enable the flow of LPG to the engine. To operate generator 20 on gasoline, LPG supply hose 36 is disconnected from generator 20 via hose coupling 50 to disable the flow of LPG to the engine and to unblock fuel valve handle 56 from rotating to the first position. As shown in FIG. 2, fuel valve handle 56 is then turned to first position 38(a) to enable the flow of gasoline to generator 20.

[0038] Referring to FIG. 4A, a schematic diagram of a fuel system for a dual fuel engine shows mechanical fuel lockout switch 38 in first position 38(a) to provide communication between the first fuel source 28 and dual fuel carburetor 62, according to an embodiment of the invention. Mechanical fuel lockout switch 38 prevents communication between second fuel source 30 and dual fuel carburetor 62 when the switch is in first position 38(a). In one embodiment of the invention, first fuel source 28 includes a gasoline tank 32 to provide gasoline to carburetor 62 through a first fuel line 66, and second fuel source 30 includes a propane or LPG tank 68 to provide propane or LPG to carburetor 62 through a second fuel line 70. Accordingly, first fuel line 66 may be a liquid fuel line and second fuel line 70 may be a gaseous fuel line.

[0039] Mechanical fuel lockout switch 38 includes a mechanical fuel valve 54 actuatable between first position 38(a) as shown in FIG. 4A and second position 38(b) as shown in FIG. 4B to selectively control fuel flow to the dual fuel engine from first fuel source 28 through first fuel line 66 and second fuel source 30 through second fuel line 70. Referring back to FIG. 4A, mechanical fuel valve 54 selectively controls fuel flow through first fuel line 66 by opening the line when the mechanical fuel lockout switch 38 actuates to first position 38(a). Mechanical fuel valve 54 may be coupled to

fuel lockout apparatus 58 that actuates with mechanical fuel valve 54 to block and unblock fuel inlet 59 of second fuel line 70. First end 50a of the quick-disconnect hose coupling is located at fuel inlet 59 and a mating end 50b of the quick-disconnect hose coupling is coupled to the propane or LPG tank 68. Actuation of mechanical fuel valve 54 to first position 38(a) causes fuel lockout apparatus 58 to block fuel inlet 59 to prevent coupling the first end 50a and second end 50b of the quick-disconnect hose coupling together, and actuation of mechanical fuel valve 54 to another position causes fuel lockout apparatus 58 to unblock fuel inlet 59 to permit attaching first end 50a and second end 50b together.

[0040] In one embodiment of the invention, a fuel cut solenoid 63 couples to carburetor 62 to regulate liquid fuel flow into a main nozzle within the carburetor. Fuel cut solenoid 63 is advantageous to control liquid fuel flow downstream of a float bowl in the carburetor and can stop fuel flow to the engine immediately after ignition shutdown. As such, fuel cut solenoid 63 prevents the engine from drawing in fuel from the float bowl while the engine shuts off. Fuel cut solenoid 63 also traps fuel in the float bowl to eliminate delay in filling the bowl when starting the engine on liquid fuel, and prevents liquid fuel flow from the float bowl to the engine when starting on gaseous fuel.

[0041] Fuel cut solenoid 63 may regulate fuel flow through multiple fuel lines in carburetor 62 that provide fuel from the float bowl to the engine. For instance, carburetor 62 may have a main fuel line and an idle fuel line that receive fuel from the float bowl. Fuel cut solenoid 63 may control fuel flow through all of the fuel lines that receive fuel from the float bowl or may regulate only some of the fuel lines. As such, fuel cut solenoid 63 may block fuel flow through the main fuel line while small amounts of fuel can flow through the idle fuel line.

[0042] Fuel cut solenoid 63 preferably operates as a normally closed valve that opens when powered by a 12 volt battery 65, although fuel cut solenoid 63 may also be operated as a normally open valve. The normally closed valve is opened for gasoline mode to allow gasoline flow to the engine and closed for LPG mode to prevent gasoline

flow to the engine. Fuel cut solenoid 63 is operated by an electrical switch 67 which may be mechanically actuated and controlled by mechanical fuel lockout switch 38. As such, actuation of mechanical fuel lockout switch 38 to first position 38(a) closes electrical switch 67 to power and open fuel cut solenoid 63 as represented in FIG. 4A, and actuation of mechanical fuel lockout switch 38 to second position 38(b) opens electrical switch 67 to interrupt power and close fuel cut solenoid 63 as represented in FIG. 4B.

[0043] Referring to FIG. 4B, a schematic diagram of a fuel system for a dual fuel engine shows mechanical fuel lockout switch 38 in second position 38(b) to provide communication between second fuel source 30 and dual fuel carburetor 62, according to an embodiment of the invention. Mechanical fuel lockout switch 38 prevents communication between first fuel source 28 and dual fuel carburetor 62 when the switch is in second position 38(b). The dual fuel engine has a first fuel line 66 to provide fuel from first fuel source 28 to carburetor 62 and a second fuel line 70 to provide fuel from second fuel source 30 to carburetor 62.

[0044] Mechanical fuel lockout switch 38 includes mechanical fuel valve 54 that selectively controls fuel flow through first fuel line 66 by closing the line when mechanical fuel lockout switch 38 actuates to second position 38(b). Mechanical fuel lockout switch 38 may also include a mechanical lockout apparatus 58 to block and unblock fuel inlet 59 of the second fuel line 70. Fuel inlet 59 may include first end 50a of the quick-connect hose coupling mounted on the generator and coupled to second fuel line 70. Second end 50b of the quick-connect hose coupling is coupled to the outlet of second fuel source 30, and the first end 50a mates with second end 50b to quickly attach propane or LPG tank 68 to second fuel line 70. Fuel lockout apparatus 58 may also hold mechanical fuel lockout switch 38 in second position 38(b) when the propane or LPG tank 68 is coupled to the engine via the ends 50a, 50b of the quick-connect hose coupling.

[0045] Fuel cut solenoid 63 couples to carburetor 62 to regulate liquid fuel flow through the carburetor as described with respect to FIG. 4A. FIG. 4B shows electrical

switch 67 opened to interrupt power and close fuel cut solenoid 63 for LPG mode when mechanical fuel lockout switch 38 is in second position 38(b).

[0046] FIG. 4A and 4B depict an embodiment where mechanical fuel valve 54 operates along first fuel line 66 to provide a flow path for first fuel source 28 to carburetor 62 when the valve is in first position 38(a). That is, mechanical fuel valve 54 may control a single fuel line that runs through the valve while operating fuel lockout apparatus 58 to control fuel flow through second fuel line 70. Embodiments of the invention also contemplate mechanical fuel valve 54 configured to operate along second fuel line 70 to provide a flow path for second fuel source 30 to carburetor 62 when the valve is in second position 38(b). Mechanical fuel valve 54 may be configured to control multiple fuel lines that run through the valve according to embodiments of the invention.

[0047] Referring now to FIG. 5, a perspective view of fuel delivery system 22 for dual fuel generator 20 of FIG. 1 is shown, in accordance with an embodiment of the invention. Fuel delivery system 22 includes a mounting arrangement for fuel regulator system 39. The mounting arrangement includes regulator mounting bracket 46 for mounting fuel regulator system 39. Regulator mounting bracket 46 extends around the outer periphery of collar 136 on pressurized fuel container 34. Regulator mounting bracket 46 has securing mechanism 48 to secure to collar 136. In one embodiment, securing mechanism 48 is a rigid component that extends inward from regulator mounting bracket 46 with a slot for receiving collar 136 to hold regulator mounting bracket 46 to collar 136.

[0048] Regulator mounting bracket 46 provides mounting locations for pressure regulators. In one embodiment, regulator mounting bracket 46 is made of sheet metal bent in two locations to provide a central panel 138, a first outer panel 140, and a second outer panel 142 for mounting the regulators. The panels may be angled from each other such that regulator mounting bracket 46 fits around collar 136. Primary pressure regulator 42 mounts on first outer panel 140 and secondary pressure regulator 44 mounts on second outer panel 142. The panels are sized according to their respective

regulators. Accordingly, second outer panel 142 is larger than first outer panel 140 if secondary pressure regulator 44 is larger than primary pressure regulator 42. Panels 140, 142 have fasteners or openings to receive fasteners to couple respective regulators 42, 44 to the panels. Regulator mounting bracket 46 rests on top of pressurized fuel container 34 and engages the periphery of collar 136 to support fuel regulator system 39 on the container.

[0049] In one embodiment of the invention, primary pressure regulator 42 couples to two ninety degree elbows 144, 145 to reach around collar 136 in order to couple to service valve 40. The two elbows 144, 145 are joined by a hose or pipe 146 that leads from elbow 144 at service valve 40 to elbow 145 at the outer periphery of collar 136. The outlet of primary pressure regulator 42 couples to a hose 148 that extends to another ninety degree elbow 150 coupled to the inlet of secondary pressure regulator 44. Secondary pressure regulator 44 couples to LPG supply hose 36. Pressurized fuel container 34 may be strapped to a dolly 152.

[0050] Referring now to FIG. 6, a side view of another fuel delivery system 22 for dual fuel generator 20 of FIG. 1 is shown, in accordance with an embodiment of the invention. Fuel delivery system 22 includes a mounting arrangement for fuel regulator system 39. The mounting arrangement includes a regulator mounting structure 154 for mounting fuel regulator system 39 to pressurized fuel container 34. Regulator mounting structure 154 includes a cylinder 156 that surrounds the circumference of pressurized fuel container 34 to secure regulator mounting structure 154 radially along the circumference of pressurized fuel container 34. Cylinder 156 couples to a dome 158 to support cylinder 156 relative to the top of pressurized fuel container 34. Dome 158 has a central opening 160 through which collar 136 of pressurized fuel container 34 extends. Collar 136 of pressurized fuel container 34 extends through dome 158 so that service valve 40 is easily accessible from above regulator mounting structure 154 and so that dome 158 sits on pressurized fuel container 34 around collar 136.

[0051] Regulator mounting structure 154 supports pressure regulators around the outer circumference of cylinder 156. In some embodiments of the invention, a dual

stage pressure regulator 162 functions as both a primary pressure regulator and a secondary pressure regulator in a single integral component, and dual stage pressure regulator 162 may be mounted on regulator mounting structure 154. In other embodiments of the invention, primary pressure regulator 42 (FIG. 5) is mounted to service valve 40 while secondary pressure regulator 44 (FIG. 5) is mounted on regulator mounting structure 154. Alternatively, both primary pressure regulator 42 (FIG. 5) and secondary pressure regulator 44 (FIG. 5) may be mounted on regulator mounting structure 154.

[0052] Fuel regulator system 39 may be coupled to service valve 40 by a flexible connector called a pigtail 164. Pigtail 164 absorbs shock in the system from pressure surges and from movement of downstream components. Pigtail 164 can be looped to conserve space and therefore pressurized fuel container 34 is referred to as an LPG pig. Accordingly, regulator mounting structure 154 is referred to as a pig hat because it fits on the LPG pig. Pressurized fuel container 34 may be secured to a platform or mobile cart 64 for stability or transportation. In another embodiment, a regulator mounting device, including regulator mounting structure 154 or regulator mounting bracket 46 (FIG. 5), is secured directly to a platform or a mobile cart.

[0053] Beneficially, embodiments of the invention provide for a mechanical fuel lockout switch to ensure that two fuels are not simultaneously delivered to a dual fuel internal combustion engine. Embodiments of the invention also provide for a dual fuel generator with a remotely mounted gaseous fuel regulator system.

[0054] Therefore, according to one embodiment of the invention, a mechanical fuel lockout switch for a dual fuel engine includes a mechanical fuel valve actuatable between a first position and a second position to selectively control fuel flow to the dual fuel engine from a first fuel source through a first fuel line and a second fuel source through a second fuel line. The mechanical fuel valve may be configured to allow communication between the first fuel source and the dual fuel engine and prevent communication between the second fuel source and the dual fuel engine while in the first position, and prevent communication between the first fuel source and the dual fuel

engine while in the second position. The mechanical fuel lockout switch may also include a fuel lockout apparatus coupled to the mechanical fuel valve and configured to prevent the second fuel source from coupling to the second fuel line while the mechanical fuel valve is in the first position, and permit the second fuel source to couple to the second fuel line while the mechanical fuel valve is in the second position.

[0055] According to another embodiment of the invention, a mechanical fuel lockout switch for a dual fuel engine includes a mechanical fuel valve actuatable between a first position and a second position to selectively control fuel flow to the dual fuel engine from a first fuel source through a first fuel line and a second fuel source through a second fuel line. The mechanical fuel valve may be configured to allow communication between the first fuel source and the dual fuel engine and prevent communication between the second fuel source and the dual fuel engine while the first position, and prevent communication between the first fuel source and the dual fuel engine while in the second position. The mechanical fuel lockout switch may also include a fuel lockout apparatus coupled to the mechanical fuel valve and configured to prevent actuation of the mechanical fuel valve to the first position when the second fuel source is in communication with the dual fuel engine.

[0056] According to yet another embodiment of the invention, a dual fuel generator and fuel delivery system includes a dual fuel generator configured to operate on a liquid fuel supplied from a liquid fuel source through a liquid fuel line and a gaseous fuel supplied from a pressurized fuel source through a gaseous fuel line, and a fuel regulator system located off board the dual fuel generator. The fuel regulator system may include a primary pressure regulator couplable to a service valve of the pressurized fuel source and configured to regulate the gaseous fuel supplied from the pressurized fuel source to a reduced pressure, and a secondary pressure regulator couplable to the primary pressure regulator and configured to regulate the gaseous fuel supplied from the primary pressure regulator to a desired pressure for delivery through the gaseous fuel line to operate the dual fuel generator. The dual fuel generator and fuel delivery system may also include a mechanical fuel valve actuatable between a first position and a second position to selectively control fuel flow to the dual fuel generator from the liquid fuel

source through the liquid fuel line and the pressurized fuel source through the gaseous fuel line, the mechanical fuel valve configured to open and close the liquid fuel line to selectively control fuel flow from the liquid fuel source to the dual fuel generator. A fuel lockout apparatus may couple to the mechanical fuel valve configured to prevent the pressurized fuel source from coupling to the gaseous fuel line while the liquid fuel line is open, and permit the pressurized fuel source to couple to the gaseous fuel line while the liquid fuel line is closed by the mechanical fuel valve.

[0057] This written description uses examples to disclose the invention, including the best mode, and also to enable any person skilled in the art to practice the invention, including making and using any devices or systems and performing any incorporated methods. The patentable scope of the invention is defined by the claims, and may include other examples that occur to those skilled in the art. Such other examples are intended to be within the scope of the claims if they have structural elements that do not differ from the literal language of the claims, or if they include equivalent structural elements with insubstantial differences from the literal languages of the claims.

CLAIMS

What is claimed is:

1. A mechanical fuel lockout switch for a dual fuel engine comprising:
 - a mechanical fuel valve actuatable between a first position and a second position to selectively control fuel flow to the dual fuel engine from a first fuel source through a first fuel line and a second fuel source through a second fuel line, the mechanical fuel valve configured to:
 - allow communication between the first fuel source and the dual fuel engine and prevent communication between the second fuel source and the dual fuel engine while in the first position, and
 - prevent communication between the first fuel source and the dual fuel engine while in the second position; and
 - a fuel lockout apparatus coupled to the mechanical fuel valve and configured to:
 - prevent the second fuel source from coupling to the second fuel line while the mechanical fuel valve is in the first position, and
 - permit the second fuel source to couple to the second fuel line while the mechanical fuel valve is in the second position.
2. The mechanical fuel lockout switch of claim 1 wherein the fuel lockout apparatus prevents actuation of the mechanical fuel valve to the first position when the second fuel source is in communication with the dual fuel engine.
3. The mechanical fuel lockout switch of claim 1 wherein the fuel lockout apparatus comprises a flange rigidly coupled to the mechanical fuel valve and configured to:
 - cover an inlet of the second fuel line while the mechanical fuel valve is in the first position, and
 - uncover the inlet of the second fuel line while the mechanical fuel valve is in the second position.

4. The mechanical fuel lockout switch of claim 3 wherein the mechanical fuel valve is configured to rotate between the first position and the second position and the flange is configured to rotate transversely across the inlet of the second fuel line.

5. The mechanical fuel lockout switch of claim 3 further comprising:
a first end of a quick-disconnect hose coupling attached to the inlet of the second fuel line; and

a second end of the quick-disconnect hose coupling configured to mate with the first end of the quick-disconnect hose coupling to couple the second fuel source to the second fuel line.

6. The mechanical fuel lockout switch of claim 1 wherein the mechanical fuel valve and the fuel lockout apparatus operate together to ensure that fuel from the first fuel source and fuel from the second fuel source are not simultaneously delivered to the dual fuel engine.

7. The mechanical fuel lockout switch of claim 6 wherein the mechanical fuel valve is configured to:

provide liquid fuel from a liquid fuel tank of the first fuel source to the dual fuel engine while in the first position, and

provide gaseous fuel from a pressurized fuel container of the second fuel source to the dual fuel engine while in the second position.

8. A mechanical fuel lockout switch for a dual fuel engine comprising:
a mechanical fuel valve actuatable between a first position and a second position to selectively control fuel flow to the dual fuel engine from a first fuel source through a first fuel line and a second fuel source through a second fuel line, the mechanical fuel valve configured to:

allow communication between the first fuel source and the dual fuel engine and prevent communication between the second fuel source and the dual fuel engine while the first position, and

prevent communication between the first fuel source and the dual fuel engine while in the second position; and

a fuel lockout apparatus coupled to the mechanical fuel valve and configured to prevent actuation of the mechanical fuel valve to the first position when the second fuel source is in communication with the dual fuel engine.

9. The mechanical fuel lockout switch of claim 8 wherein the fuel lockout apparatus comprises a flange rigidly coupled to the mechanical fuel valve and configured to:

cover an inlet of the second fuel line while the mechanical fuel valve is in the first position, and

uncover the inlet of the second fuel line while the mechanical fuel valve is in the second position.

10. The mechanical fuel lockout switch of claim 9 wherein the mechanical fuel valve is configured to rotate between the first position and the second position and the flange is configured to rotate transversely across the inlet of the second fuel line.

11. The mechanical fuel lockout switch of claim 9 further comprising:
a first end of a quick-disconnect hose coupling attached to the inlet of the second fuel line; and

a second end of the quick-disconnect hose coupling configured to mate with the first end of the quick-disconnect hose coupling to couple the second fuel source to the second fuel line.

12. The mechanical fuel lockout switch of claim 8 wherein the mechanical fuel valve and the fuel lockout apparatus operate together to ensure that fuel from the

first fuel source and fuel from the second fuel source are not simultaneously delivered to the dual fuel engine.

13. The mechanical fuel lockout switch of claim 12 wherein the mechanical fuel valve is configured to:

provide liquid fuel from a liquid fuel tank of the first fuel source to the dual fuel engine while in the first position, and

provide gaseous fuel from a pressurized fuel container of the second fuel source to the dual fuel engine while in the second position.

14. A dual fuel generator and fuel delivery system comprising:

a dual fuel generator configured to operate on a liquid fuel supplied from a liquid fuel source through a liquid fuel line and a gaseous fuel supplied from a pressurized fuel source through a gaseous fuel line;

a fuel regulator system located off board the dual fuel generator, the fuel regulator system comprising:

a primary pressure regulator couplable to a service valve of the pressurized fuel source and configured to regulate the gaseous fuel supplied from the pressurized fuel source to a reduced pressure, and

a secondary pressure regulator couplable to the primary pressure regulator and configured to regulate the gaseous fuel supplied from the primary pressure regulator to a desired pressure for delivery through the gaseous fuel line to operate the dual fuel generator;

a mechanical fuel valve actuatable between a first position and a second position to selectively control fuel flow to the dual fuel generator from the liquid fuel source through the liquid fuel line and the pressurized fuel source through the gaseous fuel line, the mechanical fuel valve configured to open and close the liquid fuel line to selectively control fuel flow from the liquid fuel source to the dual fuel generator; and

a fuel lockout apparatus coupled to the mechanical fuel valve and configured to:

prevent the pressurized fuel source from coupling to the gaseous fuel line while the liquid fuel line is open, and

permit the pressurized fuel source to couple to the gaseous fuel line while the liquid fuel line is closed by the mechanical fuel valve.

15. The dual fuel generator and fuel delivery system of claim 14 wherein the fuel lockout apparatus is further configured to prevent the mechanical fuel valve from opening the liquid fuel line while the fuel regulator system is coupled to the gaseous fuel line.

16. The dual fuel generator and fuel delivery system of claim 14 wherein the fuel lockout apparatus comprises a fuel inlet cover that actuates with the mechanical fuel valve to cover an inlet of the gaseous fuel line while the liquid fuel line is open and to uncover the inlet of the gaseous fuel line when the liquid fuel line is closed.

17. The dual fuel generator and fuel delivery system of claim 14 further comprising:

a first end of a quick-connect hose coupling coupled to an outlet of the secondary pressure regulator; and

a second end of the quick-connect hose coupling coupled to an inlet of the gaseous fuel line and configured to mate with the first end of the quick-connect hose coupling to couple the secondary pressure regulator to the gaseous fuel line.

18. The dual fuel generator and fuel delivery system of claim 14 further comprising a regulator mounting device fixed to the pressurized fuel source; and

at least the secondary pressure regulator is mounted on the regulator mounting device.

19. The dual fuel generator and fuel delivery system of claim 18 wherein the primary pressure regulator is mounted on the regulator mounting device.

20. The dual fuel generator and fuel delivery system of claim 19 wherein the regulator mounting device is configured to attach onto a collar of a pressurized fuel container of the pressurized fuel source so that the primary and secondary pressure regulators are positioned adjacent each other along an outer periphery of the collar.

21. The dual fuel generator and fuel delivery system of claim 14 wherein:
the fuel regulator system comprises a dual stage pressure regulator; and
the primary and secondary pressure regulators are integral components of the dual stage pressure regulator.

ABSTRACT

A mechanical fuel lockout switch for a dual fuel engine includes a mechanical fuel valve actuatable between a first position and a second position to selectively control fuel flow to the dual fuel engine from a first fuel source through a first fuel line and a second fuel source through a second fuel line. The mechanical fuel lockout switch may also include a fuel lockout apparatus coupled to the mechanical fuel valve. The mechanical fuel valve may be configured to allow communication between the first fuel source and the dual fuel engine and prevent communication between the second fuel source and the dual fuel engine while in the first position, and prevent communication between the first fuel source and the dual fuel engine while in the second position.

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