

108 and downstream of the first solenoid valve 118 and the return line 119 to selectively control the flow of a desired type of fuel to the fuel rail 108. *Pursifull*, ¶[0025]. The state of the three-way valve 120 may be controlled by controller 128 to vary which type of fuel is delivered to the fuel rail 108. *Pursifull*, ¶[0025]. Fuel in the fuel rail 108 may be returned to the fuel tank 112 via the return line 119, with an ejector 124 positioned in the return line 119 to provide a single fuel rail evacuation stage. *Pursifull*, ¶[0026]. A return check valve 122 is positioned in the return line 119 downstream of the ejector 124 to force fuel returning from the fuel rail 108 at a predetermined pressure to ejector 124 so that fuel is evacuated from the fuel rail 108. *Pursifull*, ¶[0027]. A second solenoid valve 126 is positioned upstream of the outlet of the ejector 124 and downstream of the fuel tank 112 that may be controlled by controller 128 evacuate the fuel rail 108. *Pursifull*, ¶[0028].

In a method for controlling for controlling a multi-fuel system as described in *Pursifull*, the method may include operating in the fuel rail pressurization mode where a determination is made if a first fuel from a first fuel stage or a second fuel from a second fuel is selected for delivery to the fuel rail 108. *Pursifull*, ¶[0066]. If the first fuel is selected, operating in the fuel rail pressurization mode may include, switching the three-way valve 120 to the first fuel stage, opening the solenoid valve 118 positioned downstream of the fuel pump 114 and upstream of the fuel rail 108, closing the solenoid valve 126 positioned upstream of the ejector 124 and downstream of the fuel tank 112, and operating the fuel pump 114 to deliver the first fuel from the fuel tank to the fuel rail. *Pursifull*, ¶[0066]. If the second fuel is selected, operating in the fuel rail pressurization mode may include switching the three-way valve 120 to the second fuel stage, and, operating the fuel pump 136 to deliver the second fuel from the fuel tank 134 to the fuel rail 108. *Pursifull*, ¶[0066].

Sugimoto discloses an engine operated generator 1 that includes an engine 30 that powers an electric generator 40. *Sugimoto*, ¶¶[0041], [0042]. A fuel system F for supplying the fuel gas to the engine 30 has an internal fuel system Fa (fuel bottles 61) and an external fuel system Fb (external fuel bottle 71) disposed outside the case C of the generator. *Sugimoto*, ¶[0070]. The fuel supply system Fa includes a fuel pressure regulator 62, a fuel system selector valve 12, a connector 14, and a fuel cutoff valve 63. *Sugimoto*, ¶[0071]. The fuel pressure regulator 62 reduces the pressure of the fuel gas supplied from fuel bottles 61 and the external fuel bottle 71 and regulates the pressure of the fuel gas so that the fuel gas may be supplied to a carburetor 18b at fuel supply rate varying in proportion to load on the engine 30. *Sugimoto*, ¶[0071]. The fuel system selector valve 12 is placed on the operating panel 5e and is operated to select a fuel supply line. *Sugimoto*, ¶[0071]. The fuel pipes interconnect the fuel bottles 61, the fuel pressure regulator 62 and the

carburetor 18b. The fuel cutoff valve 63 stops the flow of the fuel gas from the fuel system F to the engine 30. *Sugimoto*, ¶[0071].

In the fuel supply system Fa, a first fuel system for supplying the first fuel gas from the fuel bottles 61 to the engine 30 is constituted by the fuel bottles 61, a pipe A1 connecting the fuel bottles 61 to the fuel system selector valve 12, a pipe A2 connecting the fuel system selector valve 12 to the fuel pressure regulator 62, the fuel pressure regulator 62, a pipe connecting the fuel pressure regulator 62 to the carburetor 18b, and the fuel cut-off valve 63 placed in the pipe A3. *Sugimoto*, ¶[0079]. A second fuel system for supplying the second fuel gas from the external fuel bottle 71 to the engine 30 is constituted by a pipe A4 connecting the connector 14 to the fuel cutoff valve 12, the pipe A2 connecting the fuel system selector valve 12 to the fuel pressure regulator 62, the fuel pressure regulator, the pipe A3 connecting the fuel pressure regulator 62 to the carburetor 18b, and the fuel cutoff valve 63. *Sugimoto*, ¶[0079].

The fuel cutoff valve 63, namely, a fuel cutoff means, is, for example, a normally-open solenoid valve which closes when energized. *Sugimoto*, ¶[0081]. The ECU 89 controls the fuel cutoff valve 63 on the basis of the pressure of the first fuel gas. *Sugimoto*, ¶[0081]. More specifically, the fuel pressure regulator 62 is provided with a pressure sensor 73 for measuring the pressure of the first fuel gas flowing from the fuel bottle 61 to the fuel pressure regulator 62. *Sugimoto*, ¶[0081]. When the pressure of the first fuel gas measured by the pressure sensor 73 is higher than an upper limit pressure P1, the ECU 89 closes the fuel cutoff valve 63 to disconnect the common fuel system from the fuel bottle 61. *Sugimoto*, ¶[0081]. The fuel system selector valve 12 connects either the first fuel system that supplies the first fuel gas to the engine 30 or the second fuel system that supplies the second gas to the engine 30 selectively to the fuel pressure regulator 62. *Sugimoto*, ¶[0082]. The fuel system selector valve 12 can be set in a first position, where the knob of the fuel system selector valve 12 is at a first position marked with "Internal fuel" to connect the first fuel system to the engine 30 to supply the first fuel gas to the engine 30, and in a second position, where the knob of the fuel system selector valve 12 is at a second position marked with "External fuel" to connect the second fuel system to the engine 30 to supply the second fuel gas to the engine 30. *Sugimoto*, ¶[0082].

Failure of Pursifull, Sugimoto, and GasHose to teach Claims 1, 11, and 21

With regard to the claimed limitations, there is no disclosure provided by the combination of cited references of a fuel regulator system located off board the dual fuel generator, the fuel regulator system comprising a primary pressure regulator configured to regulate the fuel supplied

from the pressurized fuel source to a reduced pressure and a secondary pressure regulator coupled 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 (claim 1), and/or a fuel regulator system located off board the dual fuel generator, the fuel regulator system configured to: regulate the gaseous fuel down to a reduced pressure and regulate the reduced pressure gaseous fuel in a second stage down to a desired pressure in the second stage for delivery through the gaseous fuel line to operate the dual fuel generator (claim 11), and/or a generator free of any pressure regulator with a fuel regulator system located off-board the generator that regulates gaseous fuel supplied from a pressurized fuel source down to a reduced pressure in a first stage and regulates the reduced pressure gaseous fuel down to a desired pressure in a second stage (claim 21).

Regarding Pursifull, the Examiner admits that the reference fails to teach a fuel regulator system as called for in claims 1, 11, and 21.

Regarding Sugimoto, there is no teaching therein of a fuel regulator system located off board the dual fuel generator – i.e., of both the primary pressure regulator and secondary pressure regulator being located off board the dual fuel generator (claim 1) and/or both a first stage and second stage being located off board the dual fuel generator (claims 11 and 21). That is, while pressure reducing device 72 of Sugimoto is included as part of external fuel system Fb that is off-board generator 1, *Sugimoto*, ¶[0073], the fuel pressure regulator 62 referenced by the Examiner is on-board generator 1 - as the fuel pressure regulator 62 is located between pipe A2 and pipe A3 on generator 1, as can be clearly seen in FIG. 1 of Sugimoto. See *Sugimoto*, FIG. 1. As fuel pressure regulator 62 is located on-board the generator 1, the arrangement of the “fuel regulator system” in Sugimoto (collectively comprising pressure reducing device 72 and fuel pressure regulator 62) is different from what is called for in claims 1, 11, and 21 where an entirety of a fuel regulator system (primary and second regulators (claim 1) or first and second stages (claims 11 and 21) of a fuel regulator system) is located off board the generator.

Regarding the combination of GasHose with Pursifull and Sugimoto, Applicant believes that one skilled in the art would not look to GasHose to modify Pursifull and Sugimoto in order to include “a dual-pressure regulator in the off-board fuel system,” as asserted by the Examiner. With regard to Sugimoto, which the Examiner has cited to for teaching “a dual fuel engine and delivery system (Fig. 1, as shown) wherein the system includes an off-board gaseous fuel system (Fb) which includes an off-board pressure regulator 72 which feeds fuel into an engine system 1 which includes another pressure regulator 62,” *Office Action*, supra at 5, Applicant believes that one skilled in the

art would not simply modify the arrangement of pressure regulator 62 and pressure reducing device 72 to include multiple pressure regulators in the off-board fuel system (Fb), as asserted by the Examiner. That is, the engine operated generator 1 of Sugimoto includes a fuel system F that has an internal fuel system Fa (gaseous fuel bottles 61) and an external fuel system Fb (external gaseous fuel bottle 71) disposed outside the case C of the generator. *Sugimoto*, ¶[0070]; FIGS. 1 and 2. As Sugimoto includes gaseous fuel bottles 61 that are an internal fuel system Fa onboard the generator, Sugimoto necessarily requires a fuel pressure regulator 62 that is also onboard the generator. The fuel pressure regulator 62 could not simply be removed from the generator 1 and combined with pressure reducing device 72 as part of a dual-stage off-board regulator for gaseous fuel bottle 71, as the Examiner seems to suggest, as there would then be no pressure regulator on/in generator 1 that would regulate gas from fuel bottles 61.

Additionally, one skilled in the art would not modify Sugimoto in view of GasHose to provide a dual-stage off-board regulator for gaseous fuel bottle 71 – i.e., to modify pressure reducing device 72 from a single-stage regulator to a dual-stage regulator – as such a modification would be unnecessary and duplicative in Sugimoto. That is, the fuel pressure regulator 62 and pressure reducing device 72 already provide a two-stage pressure regulation of gas from gaseous fuel bottle 71, with it recognized that (1) one could simply not replace the fuel pressure regulator 62 with another offboard regulator (for reasons discussed in detail above), and (2) adding a dual-stage regulator offboard the generator 1 (for gaseous fuel bottle 71) in addition to the fuel pressure regulator 62 would only add additional cost and complexity to the generator 1, without providing any additional benefit – since two stage pressure regulation is already provided by fuel pressure regulator 62 and a single stage pressure reducing device 72. Thus, one skilled in the art would not look to GasHose to modify the modified system of Pursifull and Sugimoto, with the Examiner’s only motivation for doing so being that which is disclosed in the present invention (i.e., improper hindsight).

While the Examiner asserts that “it would have been obvious to one of ordinary skill in the art to modify the generator system of the modified Pursifull with a dual-regulator system such as disclose[d] in GasHose as doing so would allow for a more even output and a reduction in freeze-ups from an off-board fuel system (such as a propane tank),” *Office Action*, supra at 6, such statements are merely conclusory and fall far short of supporting a *prima facie* case of obviousness, as the Examiner has not set forth any articulated reasoning with some rational underpinning to support the legal conclusion of obviousness. (“[R]ejections on obviousness cannot be sustained

with mere conclusory statements; instead, there must be articulated reasoning with some rational underpinning to support the legal conclusion of obviousness.” *MPEP §2143*).

In light of at least the above, the combination of Pursifull, Sugimoto and GasHose fails to teach or suggest that which is called for in claims 1, 11, and 21. Each of claims 1, 11, and 21 is believed to be patentably distinct from the cited references, and Applicant therefore respectfully requests withdrawal of the rejection of claims 1, 11, and 21 and the claims dependent therefrom.

Canceled & Newly Presented Claims

In addition to the above amendments and remarks, Applicant has canceled claim 23 and newly added claim 24 in the present response. Support for claim 24 can be found at least in Paragraphs [0024] and [0053] of the Specification and in FIGS. 1, 4A, and 4B.

No fees are deemed necessary for new claim 24, as claim 23 has been canceled.

Claim 24 is believed to be patentably distinct from that which is disclosed in the cited prior art, as there is no teaching therein of a generator free of any pressure regulator, in combination with the additional elements of claim 21 from which claim 24 depends.

Conclusion

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 1-17 and 21, 22, and 24.

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

Respectfully submitted,

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Dated: July 16, 2020
Attorney Docket No.: CET1090.070

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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.

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ELECTRONIC ACKNOWLEDGEMENT RECEIPT

APPLICATION #
16/191,503

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Title of Invention

DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE

Application Information

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

PATENT # -

CONFIRMATION # 6187

FILED BY Robyn Templin

PATENT CENTER # 60054895

FILING DATE 11/15/2018

CUSTOMER # 26629

FIRST NAMED
INVENTOR Mark Sarder

CORRESPONDENCE
ADDRESS -

AUTHORIZED BY Kevin Rosin

Documents

TOTAL DOCUMENTS: 3

DOCUMENT		PAGES	DESCRIPTION	SIZE (KB)
2020.07.16 Response.pdf		14	-	550 KB
2020.07.16 Response- A....pdf	(1-1)	1	Amendment/Req. Reconsideration-After Non- Final Reject	115 KB
2020.07.16 Response- CLM.pdf	(2-6)	5	Claims	92 KB
2020.07.16 Response- REM.pdf	(7-14)	8	Applicant Arguments/Remarks Made in an Amendment	132 KB

Digest

DOCUMENT	MESSAGE DIGEST(SHA-512)
2020.07.16 Response.pdf	8F0719821B095D1ED69B55566D103B6F03385A1A119DE0EA6F BD4B074D653E624D8F0A94B916DD1E5CA5AC07552B23B0045 5A9C38D25B7EA3BEFE393ED7CDCFA
2020.07.16 Response-A....pdf	01DEFEA02DD10FDAFE2CC5638F7E392E27067AE2B07DE1F 2D6480FC1328F18D8BBBBBAB652E77CC9889C4C1F7441368B9 3F47E46D6ACAA217F4C6D4A8BE2EB81
2020.07.16 Response-CLM.pdf	BC0D4BCA336C1AC29F0F8BE5AF4111D6EC8359D3A755B142 E1FE4C38103B9424D896636F716168D38192856D494F2DF659 F6A003587A9A5D5D166E2C53CC693E
2020.07.16 Response-REM.pdf	C82991ECE8EEDAEFF44D5C0BC261225B32EDBAAC25552DC B8D81ED7E4A0E71C4A1DBED7432079EFA9105873A83A0D6F CAB6B7835CD9D0C1202D4411010F7B4A4

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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.

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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

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**Courtesy Reminder for
Application Serial No: 16/191,503**

Attorney Docket No: CET1090.070

Customer Number: 26629

Date of Electronic Notification: 04/30/2020

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/191,503	11/15/2018	Mark J. Sarder	CET1090.070	6187
26629 7590 04/30/2020 ZIOLKOWSKI PATENT SOLUTIONS GROUP, SC (ZPS) 136 S WISCONSIN ST PORT WASHINGTON, WI 53074			EXAMINER LATHERS, KEVIN ANTHONY	
			ART UNIT	PAPER NUMBER
			3747	
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			04/30/2020	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

info@zpspatents.com
sml@zpspatents.com

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.

Response to Appeal Brief

2. In view of the appeal brief filed on 02/28/2020, PROSECUTION IS HEREBY REOPENED. A new ground of rejection set forth below.

To avoid abandonment of the application, appellant must exercise one of the following two options:

(1) file a reply under 37 CFR 1.111 (if this Office action is non-final) or a reply under 37 CFR 1.113 (if this Office action is final); or,

(2) initiate a new appeal by filing a notice of appeal under 37 CFR 41.31 followed by an appeal brief under 37 CFR 41.37. The previously paid notice of appeal fee and appeal brief fee can be applied to the new appeal. If, however, the appeal fees set forth in 37 CFR 41.20 have been increased since they were previously paid, then appellant must pay the difference between the increased fees and the amount previously paid.

A Supervisory Patent Examiner (SPE) has approved of reopening prosecution by signing below:

/LINDSAY M LOW/
Supervisory Patent Examiner, Art Unit 3747

Double Patenting

3. 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 §§ 706.02(I)(1) - 706.02(I)(3) 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 USPTO Internet website contains terminal disclaimer forms which may be used. Please visit www.uspto.gov/patent/patents-forms. The 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/process/file/efs/guidance/eTD-info-I.jsp.

4. Claims 1-17 and 21-23 are rejected on the ground of nonstatutory double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 10,221,780. Although the claims at issue are not

identical, they are not patentably distinct from each other because the limitations of claims 1-17 and 21-23 are substantially the same to an anticipatory or obvious degree as those in '780.

Claim Rejections - 35 USC § 103

5. In the event the determination of the status of the application as subject to AIA 35 U.S.C. 102 and 103 (or as subject to pre-AIA 35 U.S.C. 102 and 103) is incorrect, any correction of the statutory basis for the rejection will not be considered a new ground of rejection if the prior art relied upon, and the rationale supporting the rejection, would be the same under either status.

6. The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

7. **Claims 1, 6, 10-13, 16, and 21-23 is/are rejected under 35 U.S.C. 103 as being unpatentable over Pursifull et al (US 2011/0168133) in view of Sugimoto et al (US 2007/0137591), and further in view of GasHoseandRegulators (May 17th, 2014,**

<https://web.archive.org/web/20140517093401/http://gashosesandregulators.com/>), hereinafter

“Gashose.” For the purposes of ease of finding information, the individual pages of Gashose will be attached, but the citation includes the entirety of the website.

8. **Regarding claims 1, 11, 12, 16, and 21-23** Pursifull discloses a dual fuel generator and fuel delivery system, as well as a method for its operation, (Fig. 3, shown dual fuel engine) comprising:

a dual fuel generator 102 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 (Para. [0040], the dual fuel engine comprises pressurized gaseous fuel and liquid fuel); and 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 (Para. [0025], [0028], and [0066], wherein a three-way valve and lockout apparatus determine which fuel flows to the dual fuel generator).

9. Pursifull fails to disclose a fuel regulator system located off board the dual fuel generator, the fuel regulator system comprising: a primary pressure regulator coupled to a service valve of the pressurized fuel source and configured to regulate the fuel supplied from the pressurized fuel source to a reduced pressure; and a secondary pressure regulator coupled 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.

10. Sugimoto discloses a dual fuel engine and delivery system (Fig. 1, as shown) wherein the system includes an off-board gaseous fuel system (Fb) which includes an off-board pressure regulator 72 which feeds fuel into an engine system 1 which includes another pressure regulator 62 – it is noted in Fig. 5 of Sugimoto that the coupling point 14 appears to be a typical propane tank pipe connector. The inclusion of pressure reduction devices for the gasification of liquid-held fuel allows for an effective cooling of the fuel system and systems (Para. [0010]) while allowing the dual fuel engine to be powered by an external fuel tank attached to it in an off board fashion such as in emergency situations (Para. [0002]).

11. Therefore, it would have been obvious to one of ordinary skill in the art before the filing date of the invention to modify the device of Pursifull with the pressure regulators and gaseous fuel system methods of Sugimoto in order to improve the cooling of the fuel system parts through pressure

reduction as well as regulate the pressure from an external attached fuel tank which allows the dual fuel engine system to be used in varying situations such as emergency ones using an external fuel source.

12. With regards to the inclusion of a dual-pressure regulator in the off-board fuel system of the modified Pursifull: Sugimoto does not disclose the exact details of its off-board fuel system, such as the type of tank and regulator it contains, simply showing a diagram of such devices (Fig. 1) and a typical gaseous fuel tank connector (14 in Fig. 5). However, Gashose discloses making use of twin stage regulators (i.e. two regulators in series) for usage with off-board fuel systems (e.g. a propane tank for a fuel generator as noted in "First Stage and Second Stage Low Pressure Custom Assembly" under "Low Pressure Regulators"), wherein such regulators ensure even pressure output from the regulators and lower possibilities of freeze-ups ("Why use a twin stage regulator?").

13. Therefore, it would have been obvious to one of ordinary skill in the art to modify the generator system of the modified Pursifull with a dual-regulator system such as disclose in Gashose as doing so would allow for a more even output and a reduction in freeze-ups from an off-board fuel system (such as a propane tank).

14. **Regarding claims 6 and 13**, the modified Pursifull discloses the dual fuel generator and fuel delivery system of claims 1 and 11, 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 to mate with the first end of the quick-connect hose coupling to couple the secondary pressure regulator to the gaseous fuel line (Fig. 1 of Sugimoto modifies Pursifull to include an external source of gaseous fuel and regulators makes use of a connection hose coupling 14, and wherein Gashose's "Propane Quick connect" notes the use of a quick-connect hose with its regulators in order for ease of connection and disconnection along with maintaining gas safety of the generators, such as those in "generator and heater hoses").

15. **Regarding claim 10**, the modified Pursifull discloses the dual fuel generator and fuel delivery system of claims 1 and 11, wherein the primary and secondary pressure regulators are integral components of a dual stage pressure regulator (as per the modifications using Gashose's regulators above, including the dual regulator twin stage regulator systems under "Low Pressure Regulators").

16.

17. **Claims 7-9, 14, 15, and 17 is/are rejected under 35 U.S.C. 103 as being unpatentable over Pursifull in view of Sugimoto, Gashose, and further in view of Nooutage.com (Aug. 27th, 2006, <http://web.archive.org/web/20061113112733/http://www.nooutage.com/40248.htm>).**

18. **Regarding claims 7-9, 14, 15, and 17**, the dual fuel generator and fuel delivery system of claim 1, discloses the fuel source having a collar (as per Gashose modifications, the system is for a generic propane/natural gas system which include containers having collars as per "Low Pressure Regulators" wherein typical pressurized gaseous fuel tanks are shown), but fails to disclose further comprising a regulator mounting device secured to the pressurized fuel source with at least the secondary pressure regulator mounted on the regulator mounting device, and wherein the regulator mounting device secures to the collar so that the primary and secondary pressure regulators are positioned adjacent each other along an outer periphery of the collar.

19. Pursifull and Sugimoto fail to disclose how their regulators are mounted while Gashose shows a "custom assembly" for mounting the regulators to a wall and a "Universal Mounting Bracket" which appears to be for mounting to propane tank collars but does not specifically disclose such.

20. Nooutage discloses a regulation system for a gaseous off-board fuel tank system for a generator (as shown and listed as "dual-mode generator" having a "propane quick connect kit"), wherein the system of Nooutage is shown with a mounting bracket on the collar of the propane tanks supporting the regulator ("Hose Connections to Portable Tanks" picture), the bracket being similar to the one disclosed

in Gashose (the “universal mounting bracket” and the vertical bracket shown on the “Dual Tank Automatic Changeover Low Pressure Regulator Assembly”).

21. Therefore, it would have been obvious to one of ordinary skill in the art before the filing date of the invention to modify the modified Pursifull with the mounting brackets of Nooutage as the system already discloses similar mounting brackets and fuel tanks with collars, wherein the inclusion of this mounting bracket in place of or in addition to the bracket of the modified Pursifull is nothing more than a simple substitution of one known element for another, and wherein mounting to a propane tank collars would be both easy, economical, and easily performed. As both components perform functions well-known in the art (attaching and maintaining tank regulators) and the substitution would have been a predictable solution with expected results, then the modification would have been obvious to one of ordinary skill in the art. *Ruiz v. AB Chance Co.*, 357 F.3d 1270, 69 USPQ2d 1686 (Fed. Cir. 2004), MPEP 2143(B).

Allowable Subject Matter

22. Claims 2-5 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims if the Non-Statutory Double Patenting rejection presented above is also overcome.

Response to Arguments

23. Applicant’s arguments with respect to claims 1-23 have been considered but are moot because the arguments do not apply to any of the references being used in the current rejection.

24. For the sake of argument, with regards to Pursifull and Sugimoto, the two have now had a modification in light of Gashose, as disclosed and discussed above, which renders the arguments pertaining to their combination moot. It is noted that Sugimoto discloses a typical propane, or other gaseous fuel, tank attachment (Fig. 14, attachment point 14), but simply does not show the exact nature of its offboard tank. Whether or not a regulator is inside the main generator system of either Pursifull or

Sugimoto would not alter the functionality and inclusion of the regulators and their functionalities of Gashose. There is good reason to make use of the routine systems of Gashose and they would not discount, disable, or remove any functionality from the other devices, nor would any possible duplicative usage cause any issue other than providing more fail safes as well as the benefits as discussed above.

25. While Sugimoto shows a typical connection point for a gaseous quick-connect hose, it does fail to discuss it directly, and so the modification in view of Gashose remedies this by discussing the benefits of such a modification and inclusion. Similarly, Gashose makes use of a mounting device but does not exactly show its location with regards to its fuel sources, however Nooutage clarifies such an attachment point to being on a source collar.

Conclusion

26. 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 on 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 an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <https://ppair->

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my.uspto.gov/pair/PrivatePair. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/KEVIN A LATHERS/

Primary Examiner, Art Unit 3747

/LINDSAY M LOW/

Supervisory Patent Examiner, Art Unit 3747

<i>Notice of References Cited</i>	Application/Control No. 16/191,503	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					
	B					
	C					
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	E					
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	P					
	Q					
	R					
	S					
	T					

NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	GasHoseandRegulators (May 17th, 2014, https://web.archive.org/web/20140517093401/http://gashosesandregulators.com/) (Year: 2014)
	V	Nooutage.com (Aug. 27th, 2006, http://web.archive.org/web/20061113112733/http://www.nooutage.com/40248.htm) (Year: 2006)
	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. 16/191,503	Applicant(s)/Patent Under Reexamination Sarder et al.
	Examiner KEVIN A LATHERS	Art Unit 3747

CPC - Searched*		
Symbol	Date	Examiner
F02D19/0613, 19/0605, 19/0647	03/05/2019	/K.L./
Y02T10/36	03/05/2019	/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
Google and EAST including inventor and assignee search.	03/05/2019	/K.L./
Google and EAST search.	08/27/2019	/K.L./
Google and EAST search.	04/22/2020	/K.L./

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

/KEVIN A LATHERS/ Primary Examiner, Art Unit 3747	
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EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	42	(propane natural adj gaseous gaseous near2 fuel) near20 (source tank container) near20 (regulat\$3) near5 (mount\$3 attach\$4)	USPAT	OR	OFF	2020/04/22 16:15
L2	72	(propane natural adj gaseous gaseous near2 fuel) near20 (source tank container) near20 (regulat\$3) near5 (mount\$3 attach\$4)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2020/04/22 16:16
S1	445	F02D19/0613.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/27 14:25
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S3	3408	F02D19/0647.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/27 14:25
S4	15258	Y02T10/36.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/27 14:25

S5	808	(S1 S2 S3 S4) and (switch valve) near20 (propane natural adj gas gaseous lng cng) near20 (gasoline liquid diesel)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/27 14:28
S6	79	(S1 S2 S3 S4) and (switch valve) near20 (propane natural adj gas gaseous lng cng) near20 (gasoline liquid diesel) and (second secondary auxiliary) near5 (regulat\$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/27 14:29
S7	64	(S1 S2 S3 S4) and (switch valve) near20 (propane natural adj gas gaseous lng cng) near20 (gasoline liquid diesel) and (second secondary auxiliary) adj (regulat\$3 pressure)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/27 14:44
S8	28	("5450832" "20130220274" "5325835" "5320078" "4619240" "6082323" "6453877" "5171487" "6223730" "6213083" "4489699" "5287839" "8590510" "5673670" "4450821" "5816224" "6276345" "4502453" "20130047964" "4372276" "6401685" "7905469" "2722208" "4895124" "5161496" "5379740" "5438968" "5419291" "6914342" "8342158").PN.	USPAT	OR	OFF	2017/07/27 14:45
S9	124	("5450832" "20130220274" "5325835" "5320078" "4619240" "6082323" "6453877" "5171487" "6223730" "6213083" "4489699" "5287839" "8590510" "5673670" "4450821" "5816224" "6276345" "4502453" "20130047964" "4372276" "6401685" "7905469" "2722208" "4895124" "5161496" "5379740" "5438968" "5419291" "6914342" "8342158").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/27 14:45
S10	421	(duel dual) near5 fuel near20 (engine generator) same (switch valve) near20 between	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2017/07/27 14:46

			DERWENT; IBM_TDB			
S11	0	dual adj fuel near20 engine same "switchover valve"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/27 15:17
S12	44	dual adj fuel near20 engine same (switch switchover) near5 valve	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/27 15:19
S13	49	"6591817"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/27 15:19
S14	63	("3799125" "4150645" "4265208" "4303049" "4305350" "4323046" "4353345" "4391251" "4398517" "4524033" "4671243" "5450832" "5524582" "5623907" "5720266" "5816224" "6035837").PN. OR ("6591817").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/27 15:20
S15	80	dual adj fuel near20 engine same (switch switchover select\$3) near5 valve	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/27 15:21
S16	30	((("SARDER") near3 ("Mark"))).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/27 15:25
S17	28	((("SOTIRIADES") near3 ("Aleko"))).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/27 15:25

S18	41	((("DEHN") near3 ("James"))).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/27 15:25
S19	15	((("JENISON") near3 ("Leigh"))).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/27 15:25
S20	16	((("CHAMPION") near3 ("ENGINE") near3 ("TECHNOLOGY") near3 ("LLC"))).AANM.	USPAT	OR	OFF	2017/07/27 15:25
S21	19	((("CHAMPION") near3 ("ENGINE") near3 ("TECHNOLOGY") near3 ("LLC"))).as.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/27 15:26
S22	5	("20040240141" "20060169238" "20130098349" "20130122439" "4489699").PN. OR ("9435273").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/27 15:42
S23	41	("1973142" "2315882" "2381304" "4068639" "4227497" "4335697").PN. OR ("4489699").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/27 15:43
S24	97	(dual multi multiple plural plurality) adj fuel near20 engine same (switch switchover changeover change switch\$3) near5 (valve switch)	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/27 16:02
S25	1	(09/813622).APP.	USPAT; USOCR	OR	OFF	2017/07/27 16:03
S26	63	("3799125" "4150645" "4265208" "4303049" "4305350" "4323046" "4353345" "4391251" "4398517" "4524033" "4671243" "5450832" "5524582" "5623907" "5720266" "5816224" "6035837").PN. OR ("6591817").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/27 16:03
S27	64	("4335697" "4393848" "4430978" "4606322" "4683864" "4825842" "4922862" "5379740" "5474047" "5479906" "5755211" "5775282").PN. OR ("6035837").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/27 16:34
S28	27	("5999888" "6543395" "4619240" "20140366577" "20120168023" "20140202430" "4463735" "5668310" "5224457").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO;	OR	OFF	2017/07/28 10:32

			DERWENT; IBM_TDB			
S29	0	(14/156204).APP.	USPAT; USOCR	OR	OFF	2017/07/28 11:33
S30	5	(gas gasoline liquid near5 fuel) near20 (propane natural adj gas) near20 (fill\$3 fueling) same (quick-connect connect\$3) near20 (cover flange)	USPAT; USOCR	OR	OFF	2017/07/28 11:47
S31	109	(gas gasoline liquid near5 fuel) near20 (propane natural adj gas) near20 (fill\$3 fueling) same (quick-connect connect\$3) near20 (cover flange)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/28 11:47
S32	280	(gas gasoline liquid near5 fuel) near20 (propane natural adj gas) near20 (fill\$3 fueling) same (cover flange)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/28 11:48
S33	171	(gas gasoline liquid near5 fuel) near20 (propane natural adj gas) near20 (fill\$3 fueling) same (cover flange) not S31	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/28 11:48
S34	5	"9435273"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/28 14:35
S35	1	"20070137591"	USPAT	OR	OFF	2018/02/12 15:56
S37	34	(champion near3 engine).as.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/02/12 15:59

S38	95	dual adj fuel near20 valve near10 switch	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/02/12 16:19
S39	48	"4489699"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/02/12 16:30
S40	5	"20070137591"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/02/12 16:30
S41	29	"3412258"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/02/12 16:30
S42	3	"20100258099"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/02/12 16:30
S43	53	"5611312"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/02/12 16:30
S44	138	(S39 S40 S41 S42 S43)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/02/12 16:31

S45	1	(10/591304).APP.	USPAT; USOCR	OR	OFF	2018/02/12 16:45
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S50	17	S48 and regulator	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/02/13 17:40
S56	61	("20020134362" "20040139943" "20070137591" "20100258099" "20110168133" "20110253102" "20130047964" "20130220274" "20140202430" "20140238340" "20140373531" "20150122230" "2722208" "3384059" "3412258" "3659574" "3718000" "3783849" "3888223" "4335697" "4372276" "4373493" "4450821" "4463735" "4480595" "4489699" "4502453" "4619240" "4628871" "4708094" "4895124" "4979480" "5092305" "5161496" "5171487" "5228423" "5287839" "5320078" "5325835" "5379740" "5419291" "5438968" "5450832" "5611312" "5673670" "5816224" "6082323" "6213083" "6223730" "6276345" "6401685" "6453877" "6591817" "6914342" "7905469" "8342158" "8590510" "9435273").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/03/05 15:38
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		20130047964-\$ or US-4463735-\$ or CN-203796423-\$).did.				
S58	5	S57 and (regulator and valve).clm.	USPAT	OR	OFF	2019/03/05 16:02
S59	8	S57 and (regulator and valve).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/05 16:02
S60	10	S57 and (pressure and valve).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/05 16:02
S61	1423	engine same (dual multiple plural\$3 double two) near5 fuel same pressure near4 regulat\$3 same valve	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/05 16:03
S62	24	"10221780"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/05 17:48
S63	2	(dual-stage double-stage) near5 regulator near20 (fuel propane gas) same engine	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/08/27 13:19
S64	9	generator same (gaseous propane lpg lng natural adj gas) same (off-board offboard off adj board) near20 (regulator tank)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/11/26 16:21

S65	9	generator same (gaseous propane lpg lng natural adj gas) same (off-board offboard off adj board) near20 (regulator)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/11/26 16:21
S66	9	generator same (gaseous propane lpg lng natural adj gas) same (off-board offboard off adj board) near20 (regulator)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/11/26 16:21
S67	0	(14/925441).APP.	USPAT; USOCR	OR	OFF	2019/11/26 16:24
S68	43	"4489699"	USPAT; USOCR	OR	OFF	2019/11/26 16:25
S69	4	"5809979"	USPAT; USOCR	OR	OFF	2019/11/26 16:25

EAST Search History (Interference)

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S53	747	F02D19/0647.cpc.	US-PGPUB; USPAT	OR	OFF	2018/11/20 12:06
S54	3711	Y02T10/36.cpc.	US-PGPUB; USPAT	OR	OFF	2018/11/20 12:06
S55	1	(engine and lockout and fuel and first adj fuel and second adj fuel and source and switch).clm.	US-PGPUB; USPAT	OR	OFF	2018/11/20 15:47

4/22/2020 4:49:08 PM

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propane tank regulator mount



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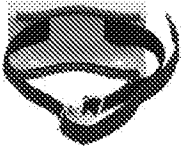
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low pressure regulator

valve



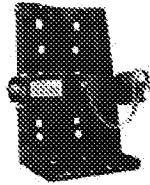
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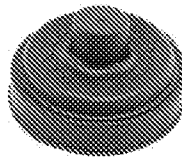
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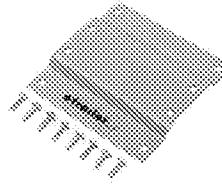
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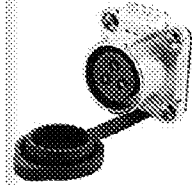
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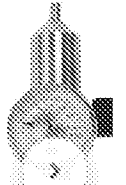
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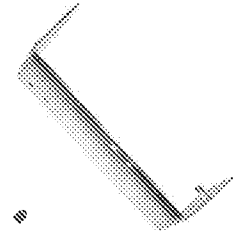
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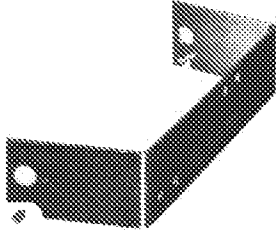
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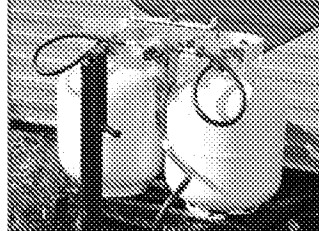
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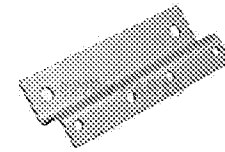
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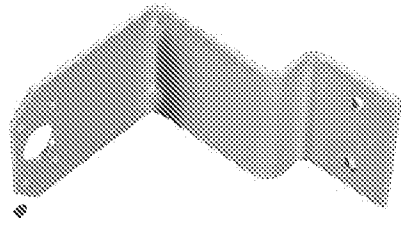
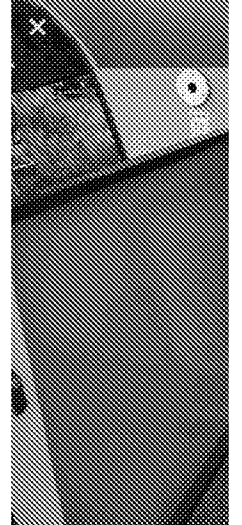
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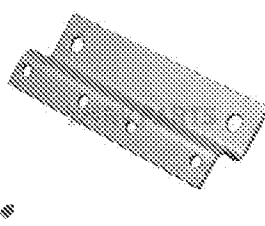
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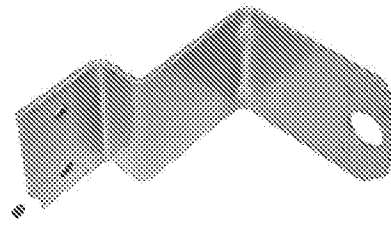
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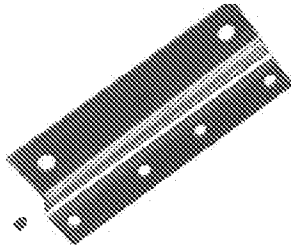
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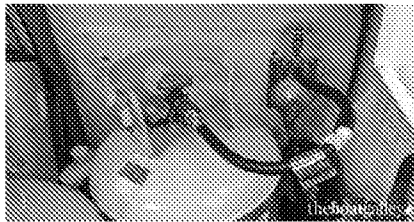
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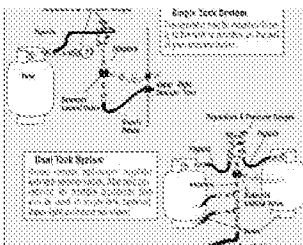
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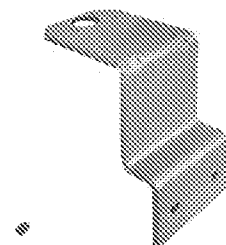
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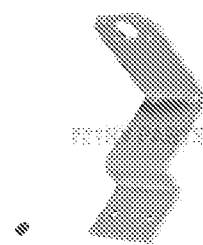
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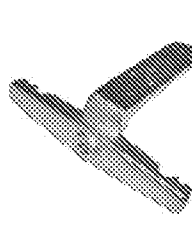
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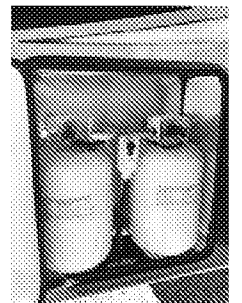
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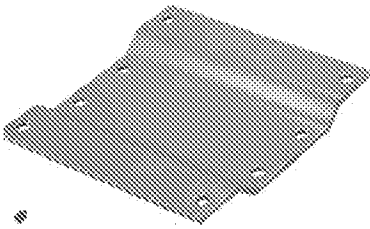
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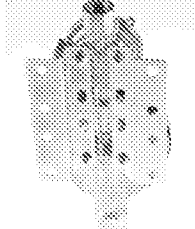
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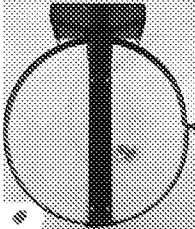
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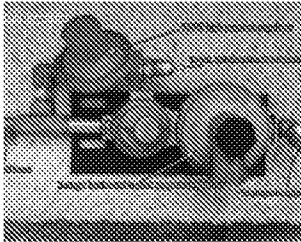
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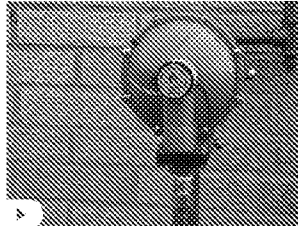
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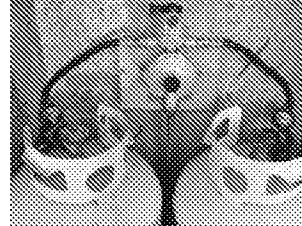
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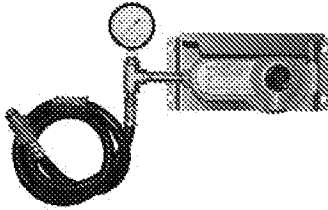
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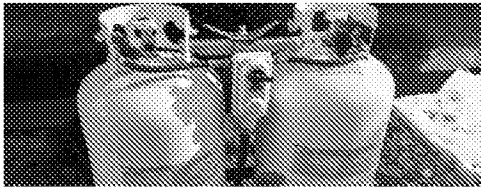
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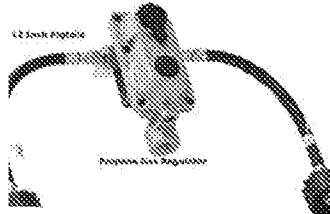
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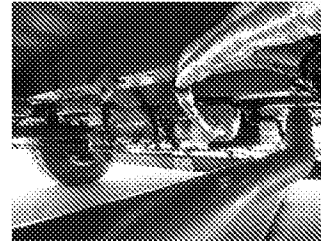
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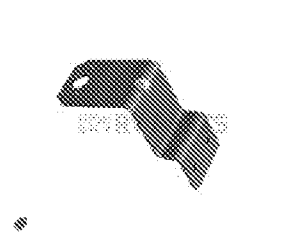
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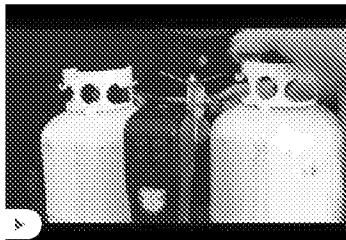
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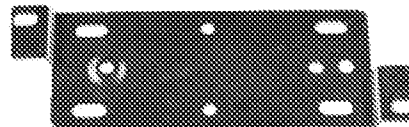
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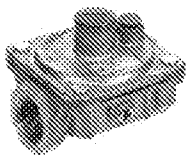
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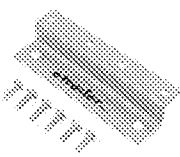
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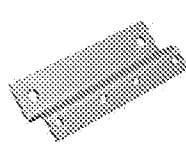
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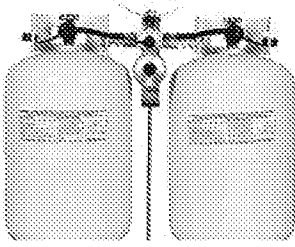
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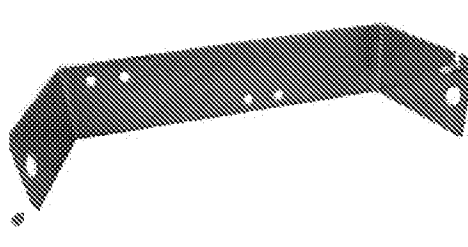
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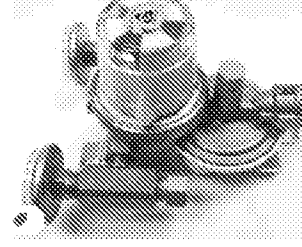
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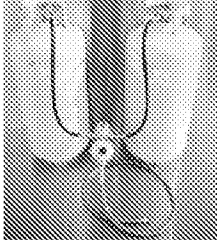
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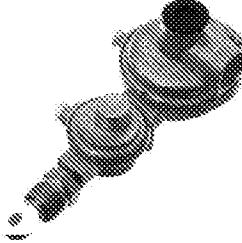
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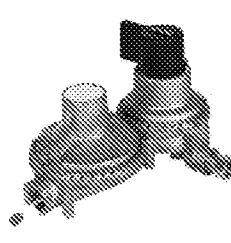
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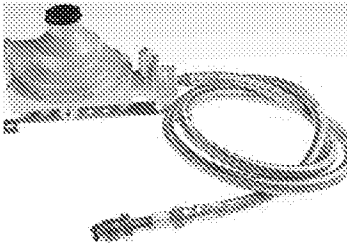
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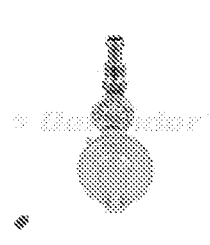
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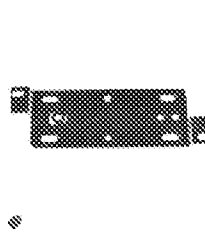
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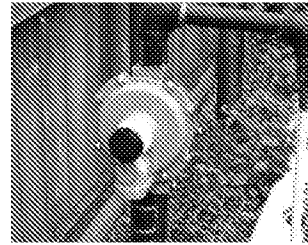
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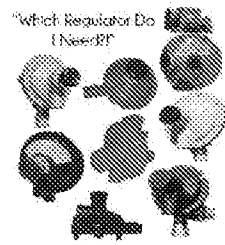
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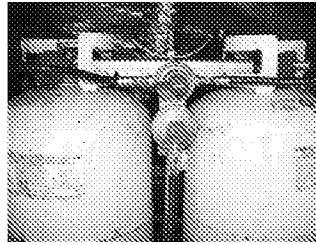
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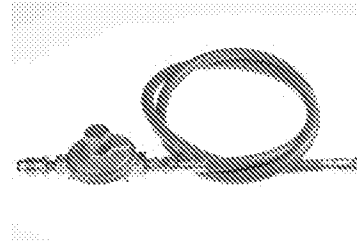
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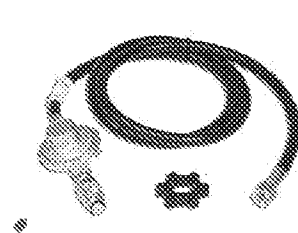
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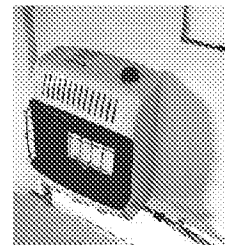
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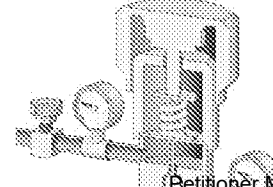
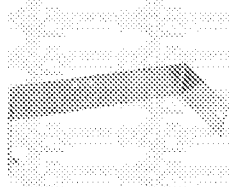
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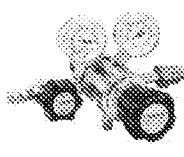
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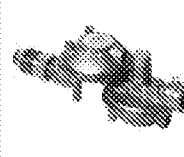
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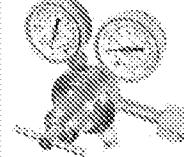
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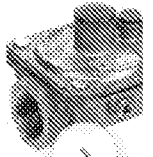
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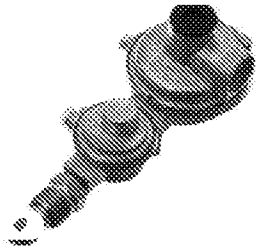
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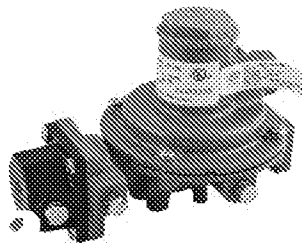
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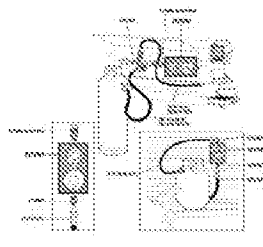
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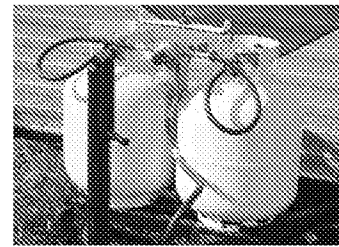
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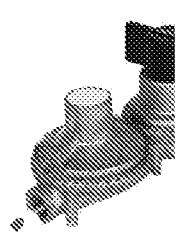
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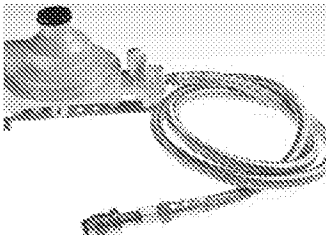
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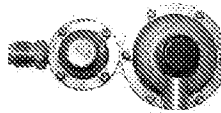
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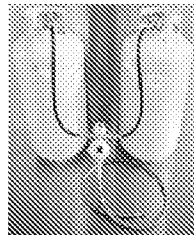
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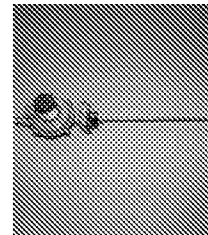
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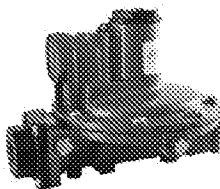
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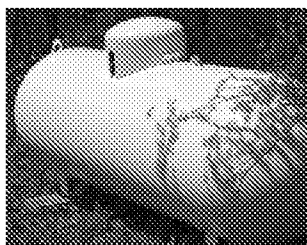
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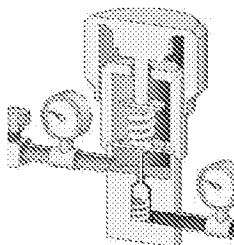
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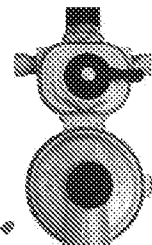
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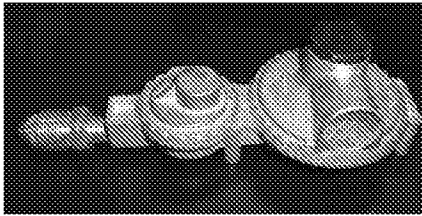
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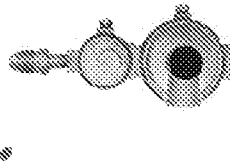
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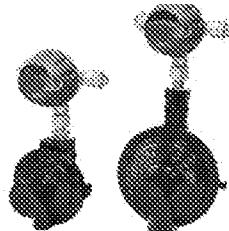
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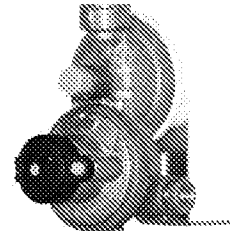
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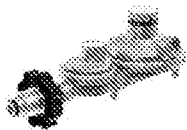


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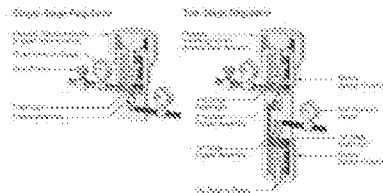
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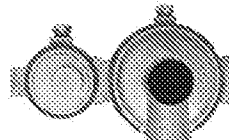
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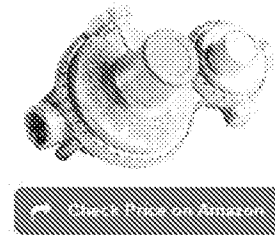
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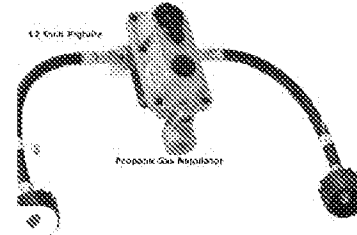
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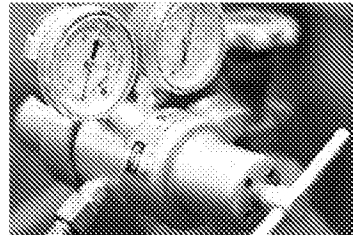
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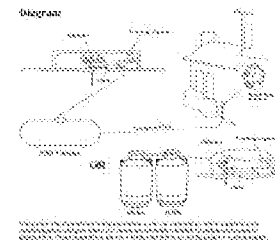
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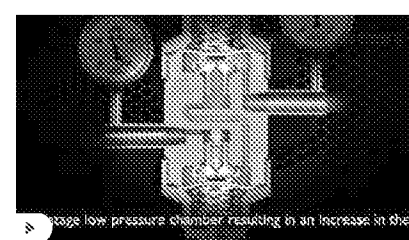
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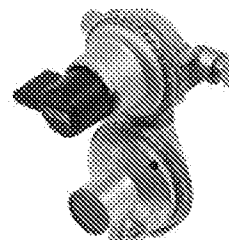
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Patent
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Sarder et al.
Serial No. : 16/191,503
Filed : November 15, 2018
For : OFF-BOARD FUEL REGULATOR FOR GENERATOR
ENGINE
Group Art No. : 3747
Examiner : Kevin A. Lathers

CERTIFICATION UNDER 37 CFR 1.8(a) and 1.10

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APPEAL BRIEF PURSUANT TO 37 C.F.R §41.37

Dear Sir:

This Appeal Brief is being filed in furtherance of the Notice of Appeal filed on January 6, 2020.

1. **REAL PARTY IN INTEREST**

The real party in interest is Champion Power Equipment, Inc. by virtue of the Assignment recorded November 29, 2018, at reel 047681, frame 0698.

2. **RELATED APPEALS AND INTERFERENCES**

Appellant is unaware of any other appeals or interferences related to this Appeal. The undersigned is Appellant's legal representative in this Appeal. Champion Power Equipment, Inc., the Assignee of the above-referenced application, as evidenced by the documents mentioned above, will be directly affected by the Board's decision in the pending appeal.

3. **SUMMARY OF CLAIMED SUBJECT MATTER**

The following is a summary of the claimed subject matter of independent claims 1, 11, and 21, as disclosed in the specification with supporting citations to reference numerals and page and line numbers in accordance with 37 C.F.R. §41.37(c)(1)(iii).

Claim 1 calls for a dual fuel generator (20) and fuel delivery system (22) that includes a dual fuel generator (20) configured to operate on a liquid fuel supplied from a liquid fuel source (28) through a liquid fuel line (66) and a gaseous fuel supplied from a pressurized fuel source (30) through a gaseous fuel line (70). *Specification*, ¶¶[0021], [0038]; FIGS. 1-3, 4A, 4B. The dual fuel generator (20) and fuel delivery system (22) also includes a fuel regulator system (39) located off board the dual fuel generator (20). *Specification*, ¶[0023]; FIG. 1. The fuel regulator system (39) includes a primary pressure regulator (42) coupled to a service valve (40) of the pressurized fuel source (30) and configured to regulate the fuel supplied from the pressurized fuel source (30) to a reduced pressure and a secondary pressure regulator (44) coupled to the primary pressure regulator (42) and configured to regulate the gaseous fuel supplied from the primary pressure regulator (42) to a desired pressure for delivery through the gaseous fuel line (70) to operate the dual fuel generator (20). *Specification*, ¶¶[0023], [0038]; FIG. 1., 4A, 4B. The fuel regulator system (39) also includes a mechanical fuel valve (54) actuatable between a first position (38a) and a second position (38b) to selectively control fuel flow to the dual fuel generator (20) from the liquid fuel source (28) through the liquid fuel line

(66) and the pressurized fuel source (30) through the gaseous fuel line (70). *Specification*, ¶[0028]; FIGS. 2, 3, 4A, 4B.

Claim 11 calls for a dual fuel generator (20) and fuel delivery system (22) that includes a dual fuel generator (20) configured to operate on a liquid fuel supplied from a liquid fuel source (28) through a liquid fuel line (66) and a gaseous fuel supplied from a pressurized fuel source (30) through a gaseous fuel line (70). *Specification*, ¶¶[0021], [0038]; FIGS. 1-3, 4A, 4B. The dual fuel generator (20) and fuel delivery system (22) also includes a fuel regulator system (39) located off board the dual fuel generator (20), the fuel regulator system (39) configured to regulate the gaseous fuel supplied from the pressurized fuel source (30) in a first stage (42), the gaseous fuel regulated down to a reduced pressure in the first stage (42), and regulate the reduced pressure gaseous fuel in a second stage (44), the reduced pressure gaseous fuel from the first stage (42) regulated down to a desired pressure in the second stage (44) for delivery through the gaseous fuel line (70) to operate the dual fuel generator (20). *Specification*, ¶¶[0023], [0038]; FIG. 1., 4A, 4B. The dual fuel generator (20) and fuel delivery system (22) further includes a mechanical fuel valve (54) actuatable between a first position (38a) and a second position (38b) to selectively control fuel flow to the dual fuel generator (20) from the liquid fuel source (28) through the liquid fuel line (66) and the pressurized fuel source (30) through the gaseous fuel line (70). *Specification*, ¶[0028]; FIGS. 2, 3, 4A, 4B.

Claim 21 calls for a generator (2) and fuel delivery system (22) that includes a generator (20) configured to operate on a gaseous fuel supplied from a pressurized fuel source (30) through a gaseous fuel line (70). *Specification*, ¶¶[0021], [0038]; FIGS. 1-3, 4A, 4B. The generator (20) and fuel delivery system (22) also includes a fuel regulator system (39) located off-board the generator (20), the fuel regulator system (39) configured to regulate the gaseous fuel supplied from the pressurized fuel source (30) in a first stage (42), the gaseous fuel regulated down to a reduced pressure in the first stage (42), and regulate the reduced pressure gaseous fuel in a second stage (44), the reduced pressure gaseous fuel from the first stage (42) regulated down to a desired pressure in the second stage (44) for delivery through the gaseous fuel line (70) to operate the generator (20). *Specification*, ¶¶[0023], [0038]; FIG. 1., 4A, 4B.

4. ARGUMENTS

Rejection under 35 U.S.C. §103 over Pursifull et al. in view of Sugimoto et al.

Claims 1, 11, and 21

Introduction

The Examiner rejected claims 1, 11, and 21 under 35 U.S.C. §103 as being unpatentable over Pursifull et al. (US Pub. 2011/0168133) in view of Sugimoto et al. (US Pub. 2007/0137591).

In rejecting claims 1, 11, and 21, the Examiner asserted that Pursifull discloses the claimed “a dual fuel generator” and “mechanical fuel valve,” but admitted that “Pursifull fails to disclose a fuel regulator system located off board the dual fuel generator” that comprises a primary pressure regulator and secondary pressure regulator (claim 1) and/or a first stage and second stage (claims 11 and 21). *Final Office Action*, August 30, 2019, p. 3-4. The Examiner thus cited to Sugimoto as teaching these claim elements, with the Examiner stating that “Sugimoto discloses a dual fuel engine and delivery system (Fig. 1, as shown) wherein the system includes an off-board gaseous fuel system (Fb) which includes an off-board pressure regulator 72 which feeds fuel into an engine system 1 which includes another pressure regulator 62.” *Id.* at 4. The Examiner thus concluded that “it would have been obvious to one of ordinary skill in the art before the filing date of the invention to modify the device of Pursifull with the pressure regulators and gaseous fuel system methods of Sugimoto.” *Id.*

Appellant respectfully disagrees with the rejection and believes claims 1, 11, and 21 to be patentably distinct from that which is disclosed in Pursifull and Sugimoto. As set forth in MPEP §2142, “[t]he examiner bears the initial burden of factually supporting any *prima facie* conclusion of obviousness.” MPEP §2142. “With regard to rejections under 35 U.S.C. 103, the examiner must provide evidence which as a whole shows that the legal determination sought to be proved (i.e., the reference teachings establish a *prima facie* case of obviousness) is more probable than not.” *Id.* (emphasis in original). As will be set forth in detail here below, the combination of Pursifull and Sugimoto does not teach or suggest the claimed invention, nor would one skilled in the art be motivated to combine the references in the manner done so by the Examiner. Accordingly, the

Examiner has not established a *prima facie* case of obviousness under 35 U.S.C. §103(a) with respect to claims 1, 11, and 21.

Prior Art – Pursifull and Sugimoto

Pursifull discloses an engine system 100 that includes an internal combustion engine 102 having one or more cylinders 104 that may receive fuel from one or more fuel injectors 106 that inject fuel in proportion to a pulse width of a signal received from a controller 128. Pursifull, ¶[0021]. Fuel may be delivered to the fuel injector 106 from a fuel rail 108 by a fuel system 110. Pursifull, ¶[0021]. The fuel system 110 may include a fuel tank 112 and a fuel pump 114 operable by controller 128 to pump fuel from the fuel tank 112 to the fuel rail 108. Pursifull, ¶[0022]. A delivery check valve 116 may be positioned downstream of the fuel pump 114 to force fuel pumped from the fuel pump at a predetermined pressure to the fuel rail 108 so that fuel does not return along the same path to the fuel pump. Pursifull, ¶[0023]. A first solenoid valve 118 may be positioned downstream of delivery check valve 116 to control the flow of fuel to fuel rail 108 or from the fuel rail to a return line 119. Pursifull, ¶[0023]. In some embodiments, fuel system 110 may be what is known as a multi-fuel system that selectively provides a plurality of different types of fuel to the fuel rail 108 based on the mode of operation, such as gasoline and/or liquid propane. Pursifull, ¶[0024]. A three-way valve 120 may be positioned upstream of the fuel rail 108 and downstream of the first solenoid valve 118 and the return line 119 to selectively control the flow of a desired type of fuel to the fuel rail 108. Pursifull, ¶[0025]. The state of the three-way valve 120 may be controlled by controller 128 to vary which type of fuel is delivered to the fuel rail 108. Pursifull, ¶[0025]. Fuel in the fuel rail 108 may be returned to the fuel tank 112 via the return line 119, with an ejector 124 positioned in the return line 119 to provide a single fuel rail evacuation stage. Pursifull, ¶[0026]. A return check valve 122 is positioned in the return line 119 downstream of the ejector 124 to force fuel returning from the fuel rail 108 at a predetermined pressure to ejector 124 so that fuel is evacuated from the fuel rail 108. Pursifull, ¶[0027]. A second solenoid valve 126 is positioned upstream of the outlet of

the ejector 124 and downstream of the fuel tank 112 that may be controlled by controller 128 evacuate the fuel rail 108. *Pursifull*, ¶[0028].

In a method for controlling for controlling a multi-fuel system as described in *Pursifull*, the method may include operating in the fuel rail pressurization mode where a determination is made if a first fuel from a first fuel stage or a second fuel from a second fuel is selected for delivery to the fuel rail 108. *Pursifull*, ¶[0066]. If the first fuel is selected, operating in the fuel rail pressurization mode may include, switching the three-way valve 120 to the first fuel stage, opening the solenoid valve 118 positioned downstream of the fuel pump 114 and upstream of the fuel rail 108, closing the solenoid valve 126 positioned upstream of the ejector 124 and downstream of the fuel tank 112, and operating the fuel pump 114 to deliver the first fuel from the fuel tank to the fuel rail. *Pursifull*, ¶[0066]. If the second fuel is selected, operating in the fuel rail pressurization mode may include switching the three-way valve 120 to the second fuel stage, and, operating the fuel pump 136 to deliver the second fuel from the fuel tank 134 to the fuel rail 108. *Pursifull*, ¶[0066].

Sugimoto discloses an engine operated generator 1 that includes an engine 30 that powers an electric generator 40. *Sugimoto*, ¶¶[0041], [0042]. A fuel system F for supplying the fuel gas to the engine 30 has an internal fuel system Fa (fuel bottles 61) and an external fuel system Fb (external fuel bottle 71) disposed outside the case C of the generator. *Sugimoto*, ¶[0070]. The fuel supply system Fa includes a fuel pressure regulator 62, a fuel system selector valve 12, a connector 14, and a fuel cutoff valve 63. *Sugimoto*, ¶[0071]. The fuel pressure regulator 62 reduces the pressure of the fuel gas supplied from fuel bottles 61 and the external fuel bottle 71 and regulates the pressure of the fuel gas so that the fuel gas may be supplied to a carburetor 18b at fuel supply rate varying in proportion to load on the engine 30. *Sugimoto*, ¶[0071]. The fuel system selector valve 12 is placed on the operating panel 5e and is operated to select a fuel supply line. *Sugimoto*, ¶[0071]. The fuel pipes interconnect the fuel bottles 61, the fuel pressure regulator 62 and the carburetor 18b. The fuel cutoff valve 63 stops the flow of the fuel gas from the fuel system F to the engine 30. *Sugimoto*, ¶[0071].

In the fuel supply system Fa, a first fuel system for supplying the first fuel gas from the fuel bottles 61 to the engine 30 is constituted by the fuel bottles 61, a pipe A1 connecting the fuel bottles 61 to the fuel system selector valve 12, a pipe A2 connecting the fuel system selector valve 12 to the fuel pressure regulator 62, the fuel pressure regulator 62, a pipe connecting the fuel pressure regulator 62 to the carburetor 18b, and the fuel cut-off valve 63 placed in the pipe A3. *Sugimoto*, ¶[0079]. A second fuel system for supplying the second fuel gas from the external fuel bottle 71 to the engine 30 is constituted by a pipe A4 connecting the connector 14 to the fuel cutoff valve 12, the pipe A2 connecting the fuel system selector valve 12 to the fuel pressure regulator 62, the fuel pressure regulator, the pipe A3 connecting the fuel pressure regulator 62 to the carburetor 18b, and the fuel cutoff valve 63. *Sugimoto*, ¶[0079].

The fuel cutoff valve 63, namely, a fuel cutoff means, is, for example, a normally-open solenoid valve which closes when energized. *Sugimoto*, ¶[0081]. The ECU 89 controls the fuel cutoff valve 63 on the basis of the pressure of the first fuel gas. *Sugimoto*, ¶[0081]. More specifically, the fuel pressure regulator 62 is provided with a pressure sensor 73 for measuring the pressure of the first fuel gas flowing from the fuel bottle 61 to the fuel pressure regulator 62. *Sugimoto*, ¶[0081]. When the pressure of the first fuel gas measured by the pressure sensor 73 is higher than an upper limit pressure P1, the ECU 89 closes the fuel cutoff valve 63 to disconnect the common fuel system from the fuel bottle 61. *Sugimoto*, ¶[0081]. The fuel system selector valve 12 connects either the first fuel system that supplies the first fuel gas to the engine 30 or the second fuel system that supplies the second gas to the engine 30 selectively to the fuel pressure regulator 62. *Sugimoto*, ¶[0082]. The fuel system selector valve 12 can be set in a first position, where the knob of the fuel system selector valve 12 is at a first position marked with "Internal fuel" to connect the first fuel system to the engine 30 to supply the first fuel gas to the engine 30, and in a second position, where the knob of the fuel system selector valve 12 is at a second position marked with "External fuel" to connect the second fuel system to the engine 30 to supply the second fuel gas to the engine 30. *Sugimoto*, ¶[0082].

Failure of Pursifull and Sugimoto to teach Claims 1, 11, and 21

With regard to the claimed limitations, there is no disclosure provided in Pursifull and/or Sugimoto of a fuel regulator system located off board the dual fuel generator, the fuel regulator system comprising a primary pressure regulator configured to regulate the fuel supplied from the pressurized fuel source to a reduced pressure and a secondary pressure regulator coupled 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 (claim 1), and/or a fuel regulator system located off board the dual fuel generator, the fuel regulator system configured to: regulate the gaseous fuel down to a reduced pressure and regulate the reduced pressure gaseous fuel in a second stage down to a desired pressure in the second stage for delivery through the gaseous fuel line to operate the dual fuel generator (claim 11), and/or a generator free of any pressure regulator with a fuel regulator system located off-board the generator that regulates gaseous fuel supplied from a pressurized fuel source down to a reduced pressure in a first stage and regulates the reduced pressure gaseous fuel down to a desired pressure in a second stage (claim 21).

Regarding Pursifull, the Examiner admits that the reference fails to teach a fuel regulator system as called for in claims 1, 11, and 21.

Regarding Sugimoto, there is no teaching therein of a fuel regulator system located off board the dual fuel generator – i.e., of both the primary pressure regulator and secondary pressure regulator being located off board the dual fuel generator (claim 1) and/or both a first stage and second stage being located off board the dual fuel generator (claims 11 and 21). That is, while pressure reducing device 72 of Sugimoto is included as part of external fuel system Fb that is off-board generator 1, *Sugimoto*, ¶[0073], the fuel pressure regulator 62 referenced by the Examiner is on-board generator 1 - as the fuel pressure regulator 62 is located between pipe A2 and pipe A3 on generator 1, as can be clearly seen in FIG. 1 of Sugimoto. *See Sugimoto*, FIG. 1. As fuel pressure regulator 62 is located on-board the generator 1, the arrangement of the “fuel regulator system” in Sugimoto (collectively comprising pressure reducing device 72 and fuel pressure regulator 62) is different from what is called for in claims 1, 11, and 21, where an entirety

of a fuel regulator system (primary and second regulators (claim 1) or first and second stages (claims 11 and 21) of a fuel regulator system) is located off board the generator.

In light of the above, the combination of Sugimoto with Pursifull would therefore result in a dual fuel generator and fuel delivery system that includes a primary pressure regulator located off board the dual fuel generator (as disclosed in Sugimoto) and a secondary pressure regulator located on-board the dual fuel generator (as disclosed in Sugimoto). The resulting system thus would not teach or suggest that which is specifically called for in claims 1, 11, and 21 regarding an entirety of a fuel regulator system (primary and second regulators (claim 1) or first and second stages (claims 11 and 21) of a fuel regulator system) being located off board the generator.

As evidence of the validity of the above arguments, Appellant notes that the Examiner has admitted in the Final Office Action that “the inclusion of multiple pressure regulators in the off-board fuel system [is] not disclosed in Pursifull as modified by Sugimoto.” *Final Office Action*, supra at 4. Thus, by the Examiner’s own admission, the combination of Pursifull and Sugimoto – which is the basis for the rejection under 35 U.S.C. §103 – does not teach the claimed fuel regulator system of claim 1. Therefore, the rejection of claims 1, 11, and 21 under 35 U.S.C. §103 as being unpatentable over Pursifull in view of Sugimoto is deficient on its face and cannot be sustained.

Obviousness of Claims 1, 11, and 21 further in view of Propane 101 and/or Harris

As indicated above, in setting forth the rejection of claims 1, 11, and 21, the Examiner admitted that “the inclusion of multiple pressure regulators in the off-board fuel system [is] not disclosed in Pursifull as modified by Sugimoto.” *Final Office Action*, supra at 4. The Examiner thus further stated that “the inclusion of multiple pressure regulators in the off-board fuel system, while not disclosed in Pursifull as modified by Sugimoto, would have been an obvious modification of the system of Sugimoto which includes an off-board fuel regulation system including a single regulator 72,” *id.* at 4, asserting that such a modification would be a mere “duplication of parts.” *Id.* at 5. The Examiner additionally stated that “dual tank regulators are extremely old and well-known in the art” and that “it would have been obvious to one of ordinary skill in the art... to

modify the modified Pursifull to include such a dual-stage off-board regulator,” with the Examiner referencing “Propane 101” and “Harris” as examples of such dual-stage regulators. *See id.*

With regard to the Examiner’s reference to “Propane 101” and “Harris,” Appellant notes that these references have **not** been cited to as forming part of the rejection of claims 1, 11, and 21 under 35 U.S.C. §103. Thus, on its face, the rejection of claims 1, 11, and 21 as set forth by the Examiner is improper and cannot be sustained, as MPEP 706.02(j) sets forth that “[w]here a reference is relied on to support a rejection, whether or not in a minor capacity, **that reference should be positively included in the statement of the rejection**” (citing *In re Hoch*, 428 F.2d 1341, 1342 n.3 166 USPQ 406, 407 n. 3 (CCPA 1970)).

Additionally, Appellant notes that “Harris” is not available as prior art as part of any rejection under 35 U.S.C. §103 proposed by the Examiner, as the Examiner has indicated a publication date of 2017 for Harris, while the present application claims priority to U.S. Patent Application Serial No. 14/738,060, filed on June 12, 2015. Accordingly, the reliance on Harris is improper and any theoretical rejection that cites to Harris as part of the rejection cannot be sustained.

Regardless of all the above, Appellant believes that one skilled in the art would not look to Propane 101 (and/or Harris) to modify Pursifull and Sugimoto in order to include “multiple pressure regulators in the off-board fuel system,” as asserted by the Examiner. With regard to Sugimoto, which the Examiner has cited to for teaching “a dual fuel engine and delivery system (Fig. 1, as shown) wherein the system includes an off-board gaseous fuel system (Fb) which includes an off-board pressure regulator 72 which feeds fuel into an engine system 1 which includes another pressure regulator 62,” *Final Office Action*, supra at 4, one skilled in the art would not simply modify the arrangement of pressure regulator 62 and pressure reducing device 72 to include multiple pressure regulators in the off-board fuel system (Fb), as asserted by the Examiner. That is, the engine operated generator 1 of Sugimoto includes a fuel system F that has an internal fuel system Fa (gaseous fuel bottles 61) and an external fuel system Fb (external gaseous fuel bottle 71) disposed outside the case C of the generator. *Sugimoto*, ¶[0070];

FIGS. 1 and 2. As Sugimoto includes gaseous fuel bottles 61 that are an internal fuel system Fa onboard the generator, Sugimoto necessarily requires a fuel pressure regulator 62 that is also onboard the generator. The fuel pressure regulator 62 could not simply be removed from the generator 1 and combined with pressure reducing device 72 as part of a dual-stage off-board regulator for gaseous fuel bottle 71, as the Examiner seems to suggest, as there would then be no pressure regulator on/in generator 1 that would regulate gas from fuel bottles 61.

Additionally, one skilled in the art would not modify Sugimoto in view of Propane 101 (and/or Harris) to provide a dual-stage off-board regulator for gaseous fuel bottle 71 – i.e., to modify pressure reducing device 72 from a single-stage regulator to a dual-stage regulator – as such a modification would be unnecessary and duplicative in Sugimoto. That is, the fuel pressure regulator 62 and pressure reducing device 72 already provide a two-stage pressure regulation of gas from gaseous fuel bottle 71, with it recognized that: (1) one could not simply replace the fuel pressure regulator 62 with another offboard regulator (for reasons discussed in detail above due to the internal fuel system Fa onboard the generator), and (2) adding a dual-stage regulator offboard the generator 1 (for gaseous fuel bottle 71) in addition to the onboard fuel pressure regulator 62 would only add additional cost and complexity to the generator 1, without providing any additional benefit – since two stage pressure regulation is already provided by fuel pressure regulator 62 and a single stage pressure reducing device 72. Accordingly, one skilled in the art would not look to Propane 101 (and/or Harris) to modify the modified system of Pursifull and Sugimoto.

In sustaining the rejection, the Examiner further asserted that “duplicative, especially as a fail safe or for ease of use, systems are common and despite cost one of ordinary skill in the art would have found it obvious to duplicate systems for these purposes” and that “rearranging [and/or duplication of] parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70.” *Advisory Action*, December 5, 2019. Appellant disagrees.

With regard to the Examiner's reliance on a "duplication" or "rearrangement" of parts as a basis for the rejection, MPEP 2144.04 specifies that "[t]he mere fact that a worker in the art could rearrange the parts of the reference device to meet the terms of the claims... is not by itself sufficient to support a finding of obviousness" and that "[t]he prior art must provide a motivation or reason for the worker in the art, without the benefit of appellant's specification, to make the necessary changes in the reference device." (citing *Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984)). In the present case, the Examiner's suggestion to modify the system of Pursifull and Sugimoto to have an entirety of a fuel regulator system (primary and second regulators or first and second stages) off-board the generator is not a mere rearrangement of parts that would have been obvious to one skilled in the art based on a motivation or reason provided by Propane 101, but instead the Examiner has improperly relied on the teaching of the present Specification as the basis for such rearrangement.

As set forth above, the engine operated generator 1 of Sugimoto includes a fuel system F that has an internal fuel system Fa (gaseous fuel bottles 61) and an external fuel system Fb (external gaseous fuel bottle 71) disposed outside the case C of the generator, with an onboard fuel pressure regulator 62 corresponding to the internal fuel system Fa and a pressure reducing device 72 corresponding to the external fuel system Fb. *Sugimoto*, ¶[0070]; FIGS. 1 and 2. In light of the teachings of Sugimoto, it would *not* be an obvious "rearrangement of parts" or "duplication of parts" to have both primary and second regulators or first and second stages of a fuel regulator system being located off-board the generator. The fuel pressure regulator 62 could not simply be "rearranged" by removing the regulator from the generator 1 and combining it with pressure reducing device 72 as part of a dual-stage off-board regulator for gaseous fuel bottle 71, as there would then be no pressure regulator on/in generator 1 that would regulate gas from fuel bottles 61. Additionally, one skilled in the art would not be motivated to simply add an additional or "duplicative" pressure regulator offboard the generator 1 (in addition to fuel pressure regulator 62 and pressure reducing device 72), as such a duplication of pressure regulators would serve no purpose in the generator 1. "[O]bviousness concerns whether a skilled artisan not only *could have made but would have been motivated to make* the

combinations or modifications of prior art to arrive at the claimed invention.” *Belden Inc. v. Berk-Tek LLC*, 805 F.3d 1064, 1073 (Fed. Cir. 2015) (citing *InTouch Technologies, Inc. v. VGO Communications, Inc.*, 751 F.3d 1327, 1352 (Fed. Cir. 2014) (emphasis in original)). The Examiner’s addition of a duplicative regulator offboard the system of Sugimoto (and Pursifull) is merely the result of improper hindsight using Applicant’s specification as a roadmap and, in fact, would only add increased cost and complexity to the system(s) of Pursifull and Sugimoto.

In light of all the above, one skilled in the art would recognize that it would not be a mere “duplication or rearrangement of parts” to modify the system of Sugimoto to include an additional pressure regulator offboard the generator, as alleged by the Examiner. Rather, such a proposed “duplication or rearrangement of parts” would be an entirely unnecessary modification to Sugimoto (and Pursifull) for which there would be no “motivation or reason for the worker in the art, without the hindsight benefit of appellant’s specification, to make the necessary changes in the reference device,” as required under MPEP 2144.04.

Conclusion

In light of at least the above, the Examiner has not established a *prima facie* case of obviousness under 35 U.S.C. §103(a) with respect to claims 6 and 13. The combination of Pursifull and Sugimoto - alone or in further combination with Propane 101 (and/or Harris) - fails to teach or suggest that which is called for in claims 1, 11, and 21. Additionally, one skilled in the art would not be motivated to modify the system(s) of Pursifull and Sugimoto in the manner done so by the Examiner in order to achieve the present invention. Each of claims 1, 11, and 21 is thus believed to be patentably distinct from the cited references, and Appellant therefore respectfully requests reversal of the rejection of claims 1, 11, and 21 and the claims dependent therefrom.

Claims 6 and 13

The Examiner rejected claims 6 and 13 under 35 U.S.C. §103 as being unpatentable over Pursifull in view of Sugimoto.

Each of claims 6 and 13 calls for 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 to mate with the first end of the quick-connect hose coupling to couple the secondary pressure regulator to the gaseous fuel line.

In rejecting claims 6 and 13, the Examiner asserted that “the modified [teachings of] Pursifull discloses... 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 to mate with the first end of the quick-connect hose coupling to couple the secondary pressure regulator to the gaseous fuel line (Fig. 1 of Sugimoto modifies Pursifull to include an external source of gaseous fuel and regulators makes use of a connection hose coupling 14).” *Final Office Action*, supra at 5. Appellant disagrees with the rejection.

As set forth above, Sugimoto discloses an engine operated generator 1 that includes a fuel system F for supplying the fuel gas to the engine 30, with the fuel system F having an internal fuel system Fa (fuel bottles 61) and an external fuel system Fb (external fuel bottle 71) disposed outside the case C of the generator. *Sugimoto*, ¶[0070]. The fuel supply system Fa includes a fuel pressure regulator 62, a fuel system selector valve 12, a pipe connector 14, and a fuel cutoff valve 63. *Sugimoto*, ¶[0071]. The external fuel system Fb includes the external fuel bottle 71, namely, a second fuel source or an external fuel source, a pipe A5 and a pressure reducing device 72. *Sugimoto*, ¶[0073]. The pipe A5 connects the external fuel bottle 71 to the connector 14, with a pipe A4 connecting pipe connector 14 to the fuel cutoff valve 12. *Sugimoto*, ¶¶[0073], [0079].

However, there is no teaching in Sugimoto (alone or in combination with Pursifull) of 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 to mate with the first end of the quick-connect hose coupling to couple the secondary pressure regulator to the gaseous fuel line, as called for in claims 6 and 13. That is, there is no disclosure in Sugimoto that connector 14, which was referenced by the Examiner in the rejection, is structured as a “*quick-connect hose coupling*” with a first end coupled to an outlet of the secondary pressure regulator and a second end coupled to an inlet of the gaseous fuel line. Instead, the connector 14 of Sugimoto is only generally/generically described as “a pipe connector 14 to which a fuel pipe connected to an external fuel bottle 71 shown in FIG. 1 is connected.” *Sugimoto*, ¶[0048]. This general reference to pipe connector 14 thus provides no teaching or suggestion of the specifically claimed quick-connect hose coupling having first and second ends that is called for in claims 6 and 13.

The Examiner’s characterization of the connector 14 of Sugimoto as teaching the claimed quick-connect hose coupling having first and second ends as called for in claims 6 and 13 ignores the standard of a broadest reasonable interpretation of the claim language, ignores the clear teaching of the present claims/Specification, and distorts that which is disclosed in Sugimoto. That is, MPEP §2111 states that “the meaning given to a claim term must be consistent with the ordinary and customary meaning of the term (unless the term has been given a special definition in the specification), and must be consistent with the use of the claim term in the specification and drawings . . . [and] the broadest reasonable interpretation of the claims must be consistent with the interpretation that those skilled in the art would reach.” *MPEP § 2111* (citing *In re Cortright*, 165 F.3d 1353, 1359 (Fed. Circ. 1999)). “The plain meaning of a term means the ordinary and customary meaning given to the term by those of ordinary skill in the art at the time of the invention... [and] may be evidenced by a variety of sources, including the words of the claims themselves, the specification, drawings, and prior art.” “However, the best source for determining the meaning of a claim term is the specification - the greatest clarity is obtained when the specification serves as a glossary for the claim terms.” *MPEP § 2111.01* (citing *In re Zletz*, 893 F.2d 319, 321, 13 USPQ2d 1320, 1322 (Fed. Cir. 1989)).

In the present case, a skilled artisan would readily recognize that a “quick-connect hose coupling” is “a coupling used to provide a fast, make-or-break connection of fluid transfer lines that is operated by hand and can, upon disconnection, automatically contain any fluid in the line.”¹ This plain meaning is consistent with the use of the term “quick-connect hose coupling” as disclosed in the Specification, with the specification disclosing that “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,” that “[h]ose coupling 50 has a first end 50a mounted on the external surface of generator 20 and... a second end 50b coupled to the outlet of LPG supply hose 36,” and that “quick-disconnect hose coupling 50 automatically opens when connected to enable fuel flow from LPG supply hose 36 to the engine... [and] automatically disconnects fluid communication when disconnected.” *Specification*, ¶[0035]. When the claimed “quick-connect hose coupling” is given its proper broadest reasonable interpretation consistent with the requirements of MPEP § 2111 and MPEP § 2111.01, it is clear that Sugimoto (alone or in combination with Pursifull) fails to teach or suggest that which is called for in claims 6 and 13. That is, as set forth above, the pipe connector 14 in Sugimoto provides **no** teaching or suggestion of a quick-connect hose coupling having first and second ends, as called for in claims 6 and 13.

In light of at least the above, the Examiner has not established a *prima facie* case of obviousness under 35 U.S.C. §103(a) with respect to claims 6 and 13. Sugimoto and Pursifull, and any resulting combination thereof, does not teach or suggest that which is called for in claims 6 and 13. Appellant therefore respectfully requests reversal of the rejection of claims 6 and 13 under 35 U.S.C. §103.

Claims 7, 8, and 14

The Examiner rejected claims 7, 8, and 14 under 35 U.S.C. §103 as being unpatentable over Pursifull in view of Sugimoto.

¹ See https://en.wikipedia.org/wiki/Quick_connect_fitting

Claims 7, 8, and 14 call for a regulator mounting device secured to the pressurized fuel source with the secondary pressure regulator (claim 7) and/or the primary pressure regulator (claims 8 and 14) mounted on the regulator mounting device.

In rejecting claims 7, 8, and 14, the Examiner admitted that Pursifull and Sugimoto fail to disclose a regulator mounting device secured to the pressurized fuel source with at least the secondary pressure regulator mounted on the regulator mounting device. *See Final Office Action*, supra at 5. However, the Examiner asserted that “it would have been obvious to one having ordinary skill in the art... to mount both regulators in a similar location on the same bracket since it has been held that rearranging parts of an invention involves only routine skill in the art” and that “[i]n this case locating the two regulators mounted with a mounting device on the pressure source is not only common but obvious due to its efficiency, ease of use, and ease of movement for any potential operator.” *Id.* Appellant disagrees with the rejection.

With regard to the Examiner’s reliance on a “rearrangement of parts” as a basis for the rejection, MPEP 2144.04 specifies that “[t]he mere fact that a worker in the art could rearrange the parts of the reference device to meet the terms of the claims [] is not by itself sufficient to support a finding of obviousness” and that “[t]he prior art must provide a motivation or reason for the worker in the art, without the benefit of appellant’s specification, to make the necessary changes in the reference device.” (citing *Ex parte Chicago Rawhide Mfg. Co.*, 223 USPQ 351, 353 (Bd. Pat. App. & Inter. 1984)). In the present case, the Examiner’s suggestion to modify the system of Pursifull and Sugimoto to include a mounting device secured to the pressurized fuel source and on which the secondary pressure regulator (claim 7) and/or the primary pressure regulator (claims 8 and 14) are mounted is not a mere rearrangement of parts that would have been obvious to one skilled in the art, but instead adds an entirely new element/component not disclosed in Pursifull or Sugimoto – i.e., a mounting device. There is no disclosure in Sugimoto of any “mounting device” that would be used to mount pressure reducing device 72 to pressurized fuel source 71, but instead the only disclosure regarding the device 72 is that “external fuel system Fb includes the external fuel bottle 71, namely, a second fuel source or an external fuel source, a pipe A5 and a pressure reducing device

72.” *Sugimoto*, ¶[0073]. Furthermore, FIG. 1 in *Sugimoto* shows that pressure reducing device 72 is not secured to the pressurized fuel source 71, as called for in claims 7, 8, and 14, but is instead positioned along pipe A5 that connects pressurized fuel source 71 to the generator 1. The “rearranging of parts” alleged by the Examiner is thus, in fact, an addition of an entirely new component (the claimed mounting device) not included in either of *Pursifull* or *Sugimoto*, such that the Examiner’s alleged basis for the rejection is improper and cannot be sustained.

In light of at least the above, the Examiner has not established a *prima facie* case of obviousness under 35 U.S.C. §103(a) with respect to claims 7, 8, and 14. *Sugimoto* and *Pursifull*, and any resulting combination thereof, does not teach or suggest that which is called for in claims 7, 8, and 14. Appellant therefore respectfully requests reversal of the rejection of claims 7, 8, and 14 under 35 U.S.C. §103.

Claims 9 and 15

The Examiner rejected claims 9 and 15 under 35 U.S.C. §103 as being unpatentable over *Pursifull* in view of *Sugimoto*.

Claims 9 and 15 call for a pressurized fuel container having a collar, and wherein the regulator mounting device secures to the collar so that the primary and secondary pressure regulators are positioned adjacent each other along an outer periphery of the collar.

In rejecting claims 9 and 15, the Examiner admitted that *Pursifull* and *Sugimoto* fail to disclose such an arrangement but asserted that pressurized fuel containers “are well-known in the art to have a ‘collar’ piece which often has regulators attached to it.” *See Final Office Action*, supra at 6. The Examiner therefore took Official Notice that “it is old and well-known to make use of standard-in-the-art propane tanks with regulators attached to their collars,” with the Examiner citing to “RVDoctor” and “Nooutage.com” as evidence of such an arrangement. *See id.*

Appellant disagrees with the rejection. As set forth in 2144.03, “[w]hile ‘official notice’ may be relied on, these circumstances should be rare” and “the notice of facts beyond the record which may be taken by the examiner must be “capable of such instant

and unquestionable demonstration as to defy dispute.” *Id.* (citing *In re Knapp Monarch Co.*, 296 F.2d 230, 132 USPQ 6 (CCPA 1961)). In the present case, Appellant believes that the Examiner’s use of Official Notice still fails to address all the elements called for in claims 9 and 15. That is, assuming *arguendo* that the Examiner is correct in that pressurized fuel containers are well-known in the art to have a “collar” piece thereon, the Examiner has provided no indication of any prior art that suggests an arrangement as called for in claims 9 and 15 where a regulator mounting device secures to the collar so that the primary and secondary pressure regulators are positioned adjacent each other along an outer periphery of the collar. The Examiner admitted that each of Pursifull and Sugimoto fail to disclose this arrangement called for in claims 9 and 15. *See Final Office Action*, supra at 6. Additionally, neither RVDoctor or Nooutage.com referenced in the Official Notice taken by the Examiner teaches the arrangement called for in claims 9 and 15 – as instead these references teach (at best) a single primary pressure regulator positioned between (and shared by) a pair of pressurized fuel containers and that is attached to the containers via a connecting rod extending between the collars. *See RVDoctor and Nooutage.com*. Accordingly, none of the prior art references cited by the Examiner teaches or suggests the arrangement called for in claims 9 and 15 where a regulator mounting device secures to the collar so that the primary and secondary pressure regulators are positioned adjacent each other along an outer periphery of the collar.

In light of at least the above, the Examiner has not established a *prima facie* case of obviousness under 35 U.S.C. §103(a) with respect to claims 9 and 15. Sugimoto and Pursifull, and any resulting combination thereof, does not teach or suggest that which is called for in claims 9 and 15. Appellant therefore respectfully requests reversal of the rejection of claims 9 and 15 under 35 U.S.C. §103.

Double Patenting Rejection

Claims 1-20

The Examiner rejected claims 1-20 on the ground of non-statutory double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 10,221,780.

Appellant notes that the double patenting rejection is not the only remaining rejection in the present application. The Examiner also applied rejections under 35 U.S.C. §103 in the Final Office Action. Appellant, therefore, has previously requested that the double patenting rejection be held in abeyance by the Examiner pending resolution of the other rejections.

5. **CONCLUSION**

For at least the reasons set forth above, that which is called for in claims 1-17 and 21-23 is not taught or suggested in the art of record or a combination thereof. As such, Appellant believes that claims 1-17 and 21-23 are patentably distinct over the art of record. Appellant appreciates the Board's consideration of these Remarks and respectfully requests timely issuance of a Notice of Allowance.

Respectfully submitted,

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CLAIMS APPENDIX

1. (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 coupled to a service valve of the pressurized fuel source and configured to regulate the fuel supplied from the pressurized fuel source to a reduced pressure; and
 - a secondary pressure regulator coupled 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; and
 - 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.
2. (Original) The dual fuel generator and fuel delivery system of claim 1 further comprising a fuel lockout apparatus coupled to the mechanical fuel valve; and
 - wherein when the mechanical fuel valve is in the first position, the fuel lockout apparatus communicates the liquid fuel source to the dual fuel generator and prevents the pressurized fuel source from coupling to the dual fuel generator, and actuation of the mechanical fuel valve to the second position causes the fuel lockout apparatus to permit the pressurized fuel source to couple to the dual fuel generator, and interrupts the liquid fuel source communication with the dual fuel generator.

3. (Original) The dual fuel generator and fuel delivery system of claim 1, wherein mechanical fuel valve opens and closes the liquid fuel line to selectively control fuel flow from the liquid fuel source to the dual fuel generator; and further comprises:

a fuel lockout apparatus coupled to the mechanical fuel valve and configured to prevent the pressurize fuel source from coupling to the gaseous fuel line while the mechanical fuel valve opens the liquid fuel line, and permit the pressurized fuel source to couple to the gaseous fuel line while the mechanical fuel valve closes the liquid fuel line.

4. (Original) The dual fuel generator and fuel delivery system of claim 3, wherein the fuel lockout apparatus is further configured to prevent the mechanical fuel valve from opening the liquid fuel line while the dual fuel generator receives fuel from the pressurized fuel source.

5. (Original) The dual fuel generator and fuel delivery system of claim 3, wherein the fuel lockout apparatus further comprises a fuel inlet cover that actuates with the mechanical fuel valve to cover an inlet of the gaseous fuel line while the mechanical fuel valve opens the liquid fuel line and to uncover mechanical fuel lockout switch the inlet of the gaseous fuel line when the mechanical fuel valve closes the liquid fuel line.

6. (Original) The dual fuel generator and fuel delivery system of claim 1, 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 to mate with the first end of the quick-connect hose coupling to couple the secondary pressure regulator to the gaseous fuel line.

7. (Original) The dual fuel generator and fuel delivery system of claim 1, further comprising a regulator mounting device secured to the pressurized fuel source with at least the secondary pressure regulator mounted on the regulator mounting device.

8. (Original) The dual fuel generator and fuel delivery system of claim 7, wherein the primary pressure regulator is mounted on the regulator mounting device.

9. (Original) The dual fuel generator and fuel delivery system of claim 8, wherein the pressurized fuel source comprises a pressurized fuel container having a collar; and

wherein the regulator mounting device secures to the collar so that the primary and secondary pressure regulators are positioned adjacent each other along an outer periphery of the collar.

10. (Original) The dual fuel generator and fuel delivery system of claim 1, wherein the primary and secondary pressure regulators are integral components of a dual stage pressure regulator.

11. (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 configured to:

regulate the gaseous fuel supplied from the pressurized fuel source in a first stage, the gaseous fuel regulated down to a reduced pressure in the first stage; and

regulate the reduced pressure gaseous fuel in a second stage, the reduced pressure gaseous fuel from the first stage regulated down to a desired pressure in

the second stage for delivery through the gaseous fuel line to operate the dual fuel generator; and

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.

12. (Original) The dual fuel generator and fuel delivery system of claim 11 wherein the first stage comprises a primary pressure regulator coupled to a service valve of the pressurized fuel source and configured to regulate the gaseous fuel supplied from the pressurized fuel source to the reduced pressure; and

wherein the second stage comprises a secondary pressure regulator coupled to the primary pressure regulator and configured to regulate the gaseous fuel supplied from the primary pressure regulator to the desired pressure for delivery through the gaseous fuel line to operate the dual fuel generator.

13. (Original) The dual fuel generator and fuel delivery system of claim 12 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 to mate with the first end of the quick-connect hose coupling to couple the secondary pressure regulator to the gaseous fuel line.

14. (Original) The dual fuel generator and fuel delivery system of claim 12, further comprising a regulator mounting device secured to the pressurized fuel source with at least one of the primary pressure regulator and the secondary pressure regulator mounted on the regulator mounting device.

15. (Original) The dual fuel generator and fuel delivery system of claim 14, wherein the pressurized fuel source comprises a pressurized fuel container having a collar; and

wherein the regulator mounting device secures to the collar so that the primary and secondary pressure regulators are positioned adjacent each other along an outer periphery of the collar.

16. (Original) The dual fuel generator and fuel delivery system of claim 11 wherein the first and second stages comprise a dual stage regulator configured to regulate the gaseous fuel supplied from the pressurized fuel source and regulate the reduced pressure gaseous fuel.

17. (Original) The dual fuel generator and fuel delivery system of claim 16 wherein the dual stage regulator is mounted directly onto the pressurized fuel source.

18-20. (Canceled)

21. (Previously Presented) A generator and fuel delivery system comprising:
a generator configured to operate on a gaseous fuel supplied from a pressurized fuel source through a gaseous fuel line;

a fuel regulator system located off-board the generator, the fuel regulator system configured to:

regulate the gaseous fuel supplied from the pressurized fuel source in a first stage, the gaseous fuel regulated down to a reduced pressure in the first stage;
and

regulate the reduced pressure gaseous fuel in a second stage, the reduced pressure gaseous fuel from the first stage regulated down to a desired pressure in the second stage for delivery through the gaseous fuel line to operate the generator.

22. (Previously Presented) The generator and fuel delivery system of claim 21 wherein the first and second stages comprise a dual stage regulator configured to regulate the gaseous fuel supplied from the pressurized fuel source and regulate the reduced pressure gaseous fuel.

23. (Previously Presented) The generator and fuel delivery system of claim 22 wherein the dual stage regulator is mounted directly onto the pressurized fuel source, off-board from the generator.

EVIDENCE APPENDIX:

-- None --

RELATED PROCEEDINGS APPENDIX:

-- None --

Electronic Acknowledgement Receipt

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International Application Number:	
Confirmation Number:	6187
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First Named Inventor/Applicant Name:	Mark J. Sarder
Customer Number:	26629
Filer:	Kevin Roger Rosin./Robyn Templin
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1	Appeal Brief Filed	AppealBrief.pdf	618683	no	28
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Petitioner MWE Investments, LLC, et al.
Exhibit 1003, Page 673

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NOTICE OF APPEAL FROM THE EXAMINER TO THE PATENT TRIAL AND APPEAL BOARD		Docket Number (Optional) CET1090.070						
I hereby certify that this correspondence is being facsimile transmitted to the USPTO, EFS-Web transmitted to the USPTO, or deposited with the United States Postal Service with sufficient postage in an envelope addressed to "Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450" [37 CFR 1.8(a)] On <u>January 6, 2020</u> Signature <u>/Robyn L. Templin/</u> Typed or printed name <u>Robyn L. Templin</u>		In re Application of <u>Sarder et al.</u> <table border="1" style="width: 100%; border-collapse: collapse;"><tr><td style="padding: 2px;">Application Number 16/191,503</td><td style="padding: 2px;">Filed 11/15/2018</td></tr><tr><td colspan="2" style="padding: 2px;">For OFF-BOARD FUEL REGULATOR FOR GENERATOR ENGINE</td></tr><tr><td style="padding: 2px;">Art Unit 3747</td><td style="padding: 2px;">Examiner Kevin A. Lathers</td></tr></table>	Application Number 16/191,503	Filed 11/15/2018	For OFF-BOARD FUEL REGULATOR FOR GENERATOR ENGINE		Art Unit 3747	Examiner Kevin A. Lathers
Application Number 16/191,503	Filed 11/15/2018							
For OFF-BOARD FUEL REGULATOR FOR GENERATOR ENGINE								
Art Unit 3747	Examiner Kevin A. Lathers							
Applicant hereby <u>appeals</u> to the Patent Trial and Appeal Board from the last decision of the examiner.								
The fee for this Notice of Appeal is (37 CFR 41.20(b)(1)) \$ <u>800.00</u>								
☒ Applicant asserts small entity status. See 37 CFR 1.27. Therefore, the fee shown above is reduced by 50%, and the resulting fee is: \$ <u>400.00</u>								
☐ Applicant certifies micro entity status. See 37 CFR 1.29. Therefore, the fee shown above is reduced by 75%, and the resulting fee is: \$ _____ Form PTO/SB/15A or B or equivalent must either be enclosed or have been submitted previously.								
☐ A check in the amount of the fee is enclosed.								
☐ Payment by credit card. Form PTO-2038 is attached.								
☐ The Director is hereby authorized to charge any fees which may be required, or credit any overpayment To Deposit Account No. _____								
☒ Payment made via EFS-Web.								
☐ A petition for an extension of time under 37 CFR 1.136(a) (PTO/AIA/22 or equivalent) is enclosed. For extensions of time in reexamination proceedings, see 37 CFR 1.550.								
WARNING: Information on this form may become public. Credit card information should not be included on this form. Provide credit card information and authorization on PTO-2038.								
I am the								
☐ applicant ☒ attorney or agent of record Registration number <u>55584</u> ☐ attorney or agent acting under 37 CFR 1.34 Registration number _____								
Signature <u>/Kevin R. Rosin/</u>								
Typed or printed name <u>Kevin R. Rosin</u>								
Telephone number <u>(262) 268-8100</u>								
Date <u>January 6, 2020</u>								
NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. Submit multiple forms if more than one signature is required, see below*.								
☒ * Total of <u>1</u> forms are submitted.								

This collection of information is required by 37 CFR 41.20(b)(1) and 41.31. 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, 1.14 and 41.6. 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 450, Alexandria, VA 22313-1450.**

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

PETITION FOR EXTENSION OF TIME UNDER 37 CFR 1.136(a)		Docket Number (Optional) CET1090.070
Application Number 16/191,503	Filed 11/15/2018	
For OFF-BOARD FUEL REGULATOR FOR GENERATOR ENGINE		
Art Unit 3747	Examiner Kevin A. Lathers	

This is a request under the provisions of 37 CFR 1.136(a) to extend the period for filing a reply in the above identified application.

The requested extension and fee are as follows (check time period desired and enter the appropriate fee below):

	<u>Fee</u>	<u>Small Entity Fee</u>	<u>Micro Entity Fee</u>	
☒ One month (37 CFR 1.17(a)(1))	\$ 200	\$ 100	\$ 50	\$ <u>100</u>
☐ Two months (37 CFR 1.17(a)(2))	\$ 600	\$ 300	\$ 150	\$ _____
☐ Three months (37 CFR 1.17(a)(3))	\$ 1400	\$ 700	\$ 350	\$ _____
☐ Four months (37 CFR 1.17(a)(4))	\$ 2200	\$ 1100	\$ 550	\$ _____
☐ Five months (37 CFR 1.17(a)(5))	\$ 3000	\$ 1500	\$ 750	\$ _____

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

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

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

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

☐ The Director has already been authorized to charge fees in this application to a Deposit Account.

☐ The Director is hereby authorized to charge any fees which may be required, or credit any overpayment, to Deposit Account Number _____.

☒ Payment made via EFS-Web.

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

I am the

☐ applicant.

☒ attorney or agent of record. Registration Number 55584.

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

/Kevin R. Rosin/ January 6, 2020
 Signature Date

Kevin R. Rosin (262) 268-8100
 Typed or printed name Telephone Number

NOTE: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4 for signature requirements and certifications. Submit multiple forms if more than one signature is required, see below.*

☒ *Total of 1 forms are submitted.

This collection of information is required by 37 CFR 1.136(a). 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 6 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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

Electronic Patent Application Fee Transmittal

Application Number:	16191503			
Filing Date:	15-Nov-2018			
Title of Invention:	DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE			
First Named Inventor/Applicant Name:	Mark J. Sarder			
Filer:	Kevin Roger Rosin./Robyn Templin			
Attorney Docket Number:	CET1090.070			
Filed as Small Entity				
Filing Fees for Utility under 35 USC 111(a)				
Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Basic Filing:				
Pages:				
Claims:				
Miscellaneous-Filing:				
Petition:				
Patent-Appeals-and-Interference:				
NOTICE OF APPEAL	2401	1	400	400
Post-Allowance-and-Post-Issuance:				

Description	Fee Code	Quantity	Amount	Sub-Total in USD(\$)
Extension-of-Time:				
Extension - 1 month with \$0 paid	2251	1	100	100
Miscellaneous:				
Total in USD (\$)				500

Electronic Acknowledgement Receipt

EFS ID:	38208085
Application Number:	16191503
International Application Number:	
Confirmation Number:	6187
Title of Invention:	DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE
First Named Inventor/Applicant Name:	Mark J. Sarder
Customer Number:	26629
Filer:	Kevin Roger Rosin./Robyn Templin
Filer Authorized By:	Kevin Roger Rosin.
Attorney Docket Number:	CET1090.070
Receipt Date:	06-JAN-2020
Filing Date:	15-NOV-2018
Time Stamp:	12:13:40
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	yes
Payment Type	CARD
Payment was successfully received in RAM	\$ 500
RAM confirmation Number	E202016C14187773
Deposit Account	
Authorized User	

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

File Listing:					
Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	Notice of Appeal Filed	NoticeOfAppeal.pdf	100582	no	1
			2d15d8f0bc2772568b7bdaf987ac002aaf364cf8		
Warnings:					
Information:					
2	Extension of Time	PetForExt.pdf	101191	no	1
			e2836aa321ab7d2a32dec223ff2570e671175325		
Warnings:					
Information:					
3	Fee Worksheet (SB06)	fee-info.pdf	32502	no	2
			564595b232c529cc3b567e0fa2d082b5b00be009		
Warnings:					
Information:					
Total Files Size (in bytes):			234275		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					



UNITED STATES PATENT AND TRADEMARK OFFICE

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

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/191,503	11/15/2018	Mark J. Sarder	CET1090.070	6187
26629	7590	12/05/2019		
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
			12/05/2019	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

info@zpspatents.com
sml@zpspatents.com

Advisory Action Before the Filing of an Appeal Brief	Application No. 16/191,503	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 --

THE REPLY FILED 30 October 2019 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE.

NO NOTICE OF APPEAL FILED

1. ☒ The reply was filed after a final rejection. No Notice of Appeal has been filed. To avoid abandonment of this application, applicant must timely file one of the following replies: (1) an amendment, affidavit, or other evidence, which places the application in condition for allowance; (2) a Notice of Appeal (with appeal fee) in compliance with 37 CFR 41.31; or (3) a Request for Continued Examination (RCE) in compliance with 37 CFR 1.114 if this is a utility or plant application. Note that RCEs are not permitted in design applications. The reply must be filed within one of the following time periods:

a) ☐ The period for reply expires ____ months from the mailing date of the final rejection.

b) ☒ The period for reply expires on: (1) the mailing date of this Advisory Action; or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection.

c) ☐ A prior Advisory Action was mailed more than 3 months after the mailing date of the final rejection in response to a first after-final reply filed within 2 months of the mailing date of the final rejection. The current period for reply expires ____ months from the mailing date of the prior Advisory Action or SIX MONTHS from the mailing date of the final rejection, whichever is earlier.

Examiner Note: If box 1 is checked, check either box (a), (b) or (c). ONLY CHECK BOX (b) WHEN THIS ADVISORY ACTION IS THE FIRST RESPONSE TO APPLICANTS FIRST AFTER-FINAL REPLY WHICH WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. ONLY CHECK BOX (c) IN THE LIMITED SITUATION SET FORTH UNDER BOX (c). See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) or (c) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

NOTICE OF APPEAL

2. ☐ The Notice of Appeal was filed on _____. A brief in compliance with 37 CFR 41.37 must be filed within two months of the date of filing the Notice of Appeal (37 CFR 41.37(a)), or any extension thereof (37 CFR 41.37(e)), to avoid dismissal of the appeal. Since a Notice of Appeal has been filed, any reply must be filed within the time period set forth in 37CFR 41.37(a).

AMENDMENTS

3. ☒ The proposed amendments filed after a final rejection, but prior to the date of filing a brief, will not be entered because

a) ☐ They raise new issues that would require further consideration and/or search (see NOTE below);

b) ☐ They raise the issue of new matter (see NOTE below);

c) ☒ They are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or

d) ☐ They present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____ (See 37CFR 1.116 and 41.33(a)).

4. ☐ The amendments are not in compliance with 37CFR 1.121. See attached Notice of Non-Compliant Amendment (PTOL-324).

5. ☐ Applicants reply has overcome the following rejection(s): _____

6. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).

7. ☒ For purposes of appeal, the proposed amendment(s): (a) ☒ will not be entered, or (b) ☐ will be entered, and an explanation of how the new or amended claims would be rejected is provided below or appended.

AFFIDAVIT OR OTHER EVIDENCE

8. ☐ A declaration(s)/affidavit(s) under **37 CFR 1.130(b)** was/were filed on _____

9. ☐ The affidavit or other evidence filed after final action, but before or on the date of filing a Notice of Appeal will not be entered because applicant failed to provide a showing of good and sufficient reasons why the affidavit or other evidence is necessary and was not earlier presented. See 37 CFR 1.116(e).

10. ☐ The affidavit or other evidence filed after the date of filing the Notice of Appeal, but prior to the date of filing a brief, will not be entered because the affidavit or other evidence failed to overcome all rejections under appeal and/or appellant fails to provide a showing of good and sufficient reasons why it is necessary and was not earlier presented. See 37 CFR 41.33(d)(1).

11. ☐ The affidavit or other evidence is entered. An explanation of the status of the claims after entry is below or attached.

REQUEST FOR RECONSIDERATION/OTHER

12. ☐ The request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____

13. ☐ Note the attached Information *Disclosure Statement(s)*. (PTO/SB/08) Paper No(s). _____

14. ☒ Other: See Continuation Sheet.

STATUS OF CLAIMS

15. The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____

Claim(s) objected to: 2-5.

Claim(s) rejected: 1,6-17 and 21-22.

Claim(s) withdrawn from consideration: _____

/KEVIN A LATHERS/ Primary Examiner, Art Unit 3747	
--	--

Continuation of REQUEST FOR RECONSIDERATION/OTHER 14. Other: Claims 2-5 would remain allowable if amended to include limitations of intervening claims and if the double patenting rejection was overcome.

Applicant has amended claim 21. The amendment of the generator being "free of any pressure regulator" would overcome the currently applied prior art. However, this constitutes new matter and is not described in the disclosure in any way. While the disclosure makes it clear there are off-board regulators, it never specifies or shows (in either specification, original claims, or drawings) that the generator itself is completely free of fuel regulators. Thus this would receive a 112 1st rejection and is therefore not entered. Therefore, regardless of applicant's arguments as they pertain to other claims, the claim amendments would not be entered.

With regards to claim 1, applicant argues that one skilled in the art would not have found it obvious to modify the prior art of Pursifull and Sugimoto to include a primary and secondary fuel regulator off-board of the generator. Applicant's primary argument is that the fuel regulators of Sugimoto could not be removed to offboard and further that one of ordinary skill in the art would not duplicate or provide unnecessary fuel regulators due to cost and complexity.

It should be noted that duplicative, especially as a fail safe or for ease of use, systems are common and despite cost one of ordinary skill in the art would have found it obvious to duplicate systems for these purposes. Further, as applicant notes this would simply be a duplication of parts and/or rearrangement of parts and it has been held that rearranging parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ 70. Further, as previously noted (and to which some exemplary prior art of "propane 101" is provided) twin stage regulators are "the most common type of regulators" and would simply be used "as is;" one of ordinary skill in the art would not disassemble existing propane tanks before attaching them to the modified Pursifull, essentially, and further would find it obvious to use existing and cost-effective propane tanks and their regulators.

PTO-2323 is attached.

AFCP 2.0 Decision

Application No.

16/191,503

Applicant(s)

Sarder et al.

Examiner

KEVIN A LATHERS

Art Unit

3747

AIA (FITF) Status

Yes

This is in response to the After Final Consideration Pilot request filed 30 October 2019.

1. **Improper Request** – The AFCP 2.0 request is improper for the following reason(s) and the after final amendment submitted with the request will be treated under pre-pilot procedure.

- ☐ An AFCP 2.0 request form PTO/SB/434 (or equivalent document) was not submitted.
- ☐ A non-broadening amendment to at least one independent claim was not submitted.
- ☐ The request is not the first proper AFCP 2.0 request submitted in response to the most recent final rejection.
- ☐ Other: _____

2. Proper Request

A. After final amendment submitted with the request will not be treated under AFCP 2.0.

The after final amendment cannot be reviewed and a search conducted within the guidelines of the pilot program.

- ☐ The after final amendment will be treated under pre-pilot procedure.

B. Updated search and/or completed additional consideration.

The examiner performed an updated search and/or completed additional consideration of the after final amendment within the time authorized for the pilot program. The result(s) of the updated search and/or completed additional consideration are:

- ☐ 1. All of the rejections in the most recent final Office action are overcome and a Notice of Allowance is issued herewith.
- ☐ 2. The after final amendment would not overcome all of the rejections in the most recent final Office action. See attached interview summary for further details.
- ☐ 3. The after final amendment was reviewed, and it raises a new issue(s). See attached interview summary for further details.
- ☐ 4. The after final amendment raises new issues, but would overcome all of the rejections in the most recent final Office action. A decision on determining allowability could not be made within the guidelines of the pilot. See attached interview summary for further details, including any newly discovered prior art.
- ☒ 5. Other: See Continuation Sheet

Examiner Note: Please attach an interview summary when necessary as described above.

Continuation of Proper Request- B. 5. Other: The after final amendment would not overcome the double patenting rejection or the prior art rejections and further would require further rejections thus not reducing matters.

Customer No. 26629
Confirmation No. 6187

Patent
Attorney Docket No. CET1090.070

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Sarder et al.
Serial No. : 16/191,503
Filed : November 15, 2018
For : OFF-BOARD FUEL REGULATOR FOR GENERATOR ENGINE
Group Art No. : 3747
Examiner : Kevin A. Lathers

CERTIFICATION UNDER 37 CFR 1.8(a) and 1.10

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

Mailing

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

37 CFR 1.8(a)

37 CFR 1.10

☐ with sufficient postage as first class mail ☐ As "Express Mail 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 EFS-WEB addressed to Examiner Kevin A. Lathers at the Patent and Trademark Office.

Date: October 30, 2019

/Robyn L. Templin/
Signature

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

AFTER-FINAL
RESPONSE/AMENDMENT TO FINAL OFFICE ACTION
MAILED AUGUST 30, 2019

Dear Sir:

Responsive to the Final Office Action mailed August 30, 2019, please amend the application as follows:

DO NOT ENTER: /K.A.L./

CERTIFICATION AND REQUEST FOR CONSIDERATION UNDER THE AFTER FINAL CONSIDERATION PILOT PROGRAM 2.0		
Practitioner Docket No.: CET1090.070	Application No.: 16/191,503	Filing Date: November 15, 2018
First Named Inventor: Mark Sarder	Title: OFF-BOARD FUEL REGULATOR FOR GENERATOR ENGINE	
APPLICANT HEREBY CERTIFIES THE FOLLOWING AND REQUESTS CONSIDERATION UNDER THE AFTER FINAL CONSIDERATION PILOT PROGRAM 2.0 (AFCP 2.0) OF THE ACCOMPANYING RESPONSE UNDER 37 CFR 1.116. 1. The above-identified application is (i) an original utility, plant, or design nonprovisional application filed under 35 U.S.C. 111(a) [a continuing application (<i>e.g.</i>, a continuation or divisional application) is filed under 35 U.S.C. 111(a) and is eligible under (i)], or (ii) an international application that has entered the national stage in compliance with 35 U.S.C. 371(c). 2. The above-identified application contains an outstanding final rejection. 3. Submitted herewith is a response under 37 CFR 1.116 to the outstanding final rejection. The response includes an amendment to at least one independent claim, and the amendment does not broaden the scope of the independent claim in any aspect. 4. This certification and request for consideration under AFCP 2.0 is the only AFCP 2.0 certification and request filed in response to the outstanding final rejection. 5. Applicant is willing and available to participate in any interview requested by the examiner concerning the present response. 6. This certification and request is being filed electronically using the Office's electronic filing system (EFS-Web). 7. Any fees that would be necessary consistent with current practice concerning responses after final rejection under 37 CFR 1.116, <i>e.g.</i>, extension of time fees, are being concurrently filed herewith. [There is no additional fee required to request consideration under AFCP 2.0.] 8. By filing this certification and request, applicant acknowledges the following: • Reissue applications and reexamination proceedings are not eligible to participate in AFCP 2.0. • The examiner will verify that the AFCP 2.0 submission is compliant, <i>i.e.</i>, that the requirements of the program have been met (see items 1 to 7 above). For compliant submissions: ○ The examiner will review the response under 37 CFR 1.116 to determine if additional search and/or consideration (i) is necessitated by the amendment and (ii) could be completed within the time allotted under AFCP 2.0. If additional search and/or consideration is required but cannot be completed within the allotted time, the examiner will process the submission consistent with current practice concerning responses after final rejection under 37 CFR 1.116, <i>e.g.</i>, by mailing an advisory action. ○ If the examiner determines that the amendment does not necessitate additional search and/or consideration, or if the examiner determines that additional search and/or consideration is required and could be completed within the allotted time, then the examiner will consider whether the amendment places the application in condition for allowance (after completing the additional search and/or consideration, if required). If the examiner determines that the amendment does not place the application in condition for allowance, then the examiner will contact the applicant and request an interview. ▪ The interview will be conducted by the examiner, and if the examiner does not have negotiation authority, a primary examiner and/or supervisory patent examiner will also participate. ▪ If the applicant declines the interview, or if the interview cannot be scheduled within ten (10) calendar days from the date that the examiner first contacts the applicant, then the examiner will proceed consistent with current practice concerning responses after final rejection under 37 CFR 1.116.		
Signature /Kevin R. Rosin/	Date October 30, 2019	
Name (Print/Typed) Kevin R. Rosin	Practitioner Registration No. 55,584	
Note: This form must be signed in accordance with 37 CFR 1.33. See 37 CFR 1.4(d) for signature requirements and certifications. Submit multiple forms if more than one signature is required, see below*.		
☒ * Total of <u>1</u> forms are submitted.		

Privacy Act Statement

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

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

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

Customer No. 26629
Confirmation No. 6187

Patent
Attorney Docket No. CET1090.070

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Sarder et al.
Serial No. : 16/191,503
Filed : November 15, 2018
For : OFF-BOARD FUEL REGULATOR FOR GENERATOR ENGINE
Group Art No. : 3747
Examiner : Kevin A. Lathers

CERTIFICATION UNDER 37 CFR 1.8(a) and 1.10

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

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37 CFR 1.8(a)

37 CFR 1.10

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

Date: October 30, 2019

/Robyn L. Templin/
Signature

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

AFTER-FINAL
RESPONSE/AMENDMENT TO FINAL OFFICE ACTION
MAILED AUGUST 30, 2019

Dear Sir:

Responsive to the Final Office Action mailed August 30, 2019, please amend the application as follows:

In the Claims

1. (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 coupled to a service valve of the pressurized fuel source and configured to regulate the fuel supplied from the pressurized fuel source to a reduced pressure; and
 - a secondary pressure regulator coupled 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; and
 - 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.
2. (Original) The dual fuel generator and fuel delivery system of claim 1 further comprising a fuel lockout apparatus coupled to the mechanical fuel valve; and
 - wherein when the mechanical fuel valve is in the first position, the fuel lockout apparatus communicates the liquid fuel source to the dual fuel generator and prevents the pressurized fuel source from coupling to the dual fuel generator, and actuation of the mechanical fuel valve to the second position causes the fuel lockout apparatus to permit the pressurized fuel source to couple to the dual fuel generator, and interrupts the liquid fuel source communication with the dual fuel generator.
3. (Original) The dual fuel generator and fuel delivery system of claim 1, wherein mechanical fuel valve opens and closes the liquid fuel line to selectively control fuel flow from the liquid fuel source to the dual fuel generator; and further comprises:
 - a fuel lockout apparatus coupled to the mechanical fuel valve and configured to prevent the pressurize fuel source from coupling to the gaseous fuel line while the mechanical fuel valve opens the liquid fuel line, and permit the pressurized fuel source to couple to the gaseous fuel line while the mechanical fuel valve closes the liquid fuel line.

4. (Original) The dual fuel generator and fuel delivery system of claim 3, wherein the fuel lockout apparatus is further configured to prevent the mechanical fuel valve from opening the liquid fuel line while the dual fuel generator receives fuel from the pressurized fuel source.

5. (Original) The dual fuel generator and fuel delivery system of claim 3, wherein the fuel lockout apparatus further comprises a fuel inlet cover that actuates with the mechanical fuel valve to cover an inlet of the gaseous fuel line while the mechanical fuel valve opens the liquid fuel line and to uncover mechanical fuel lockout switch the inlet of the gaseous fuel line when the mechanical fuel valve closes the liquid fuel line.

6. (Original) The dual fuel generator and fuel delivery system of claim 1, 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 to mate with the first end of the quick-connect hose coupling to couple the secondary pressure regulator to the gaseous fuel line.

7. (Original) The dual fuel generator and fuel delivery system of claim 1, further comprising a regulator mounting device secured to the pressurized fuel source with at least the secondary pressure regulator mounted on the regulator mounting device.

8. (Original) The dual fuel generator and fuel delivery system of claim 7, wherein the primary pressure regulator is mounted on the regulator mounting device.

9. (Original) The dual fuel generator and fuel delivery system of claim 8, wherein the pressurized fuel source comprises a pressurized fuel container having a collar; and

wherein the regulator mounting device secures to the collar so that the primary and secondary pressure regulators are positioned adjacent each other along an outer periphery of the collar.

10. (Original) The dual fuel generator and fuel delivery system of claim 1, wherein the primary and secondary pressure regulators are integral components of a dual stage pressure regulator.

11. (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 configured to:

regulate the gaseous fuel supplied from the pressurized fuel source in a first stage, the gaseous fuel regulated down to a reduced pressure in the first stage; and

regulate the reduced pressure gaseous fuel in a second stage, the reduced pressure gaseous fuel from the first stage regulated down to a desired pressure in the second stage for delivery through the gaseous fuel line to operate the dual fuel generator; and

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.

12. (Original) The dual fuel generator and fuel delivery system of claim 11 wherein the first stage comprises a primary pressure regulator coupled to a service valve of the pressurized fuel source and configured to regulate the gaseous fuel supplied from the pressurized fuel source to the reduced pressure; and

wherein the second stage comprises a secondary pressure regulator coupled to the primary pressure regulator and configured to regulate the gaseous fuel supplied from the primary pressure regulator to the desired pressure for delivery through the gaseous fuel line to operate the dual fuel generator.

13. (Original) The dual fuel generator and fuel delivery system of claim 12 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 to mate with the first end of the quick-connect hose coupling to couple the secondary pressure regulator to the gaseous fuel line.

14. (Original) The dual fuel generator and fuel delivery system of claim 12, further comprising a regulator mounting device secured to the pressurized fuel source with at least one of the primary pressure regulator and the secondary pressure regulator mounted on the regulator mounting device.

15. (Original) The dual fuel generator and fuel delivery system of claim 14, wherein the pressurized fuel source comprises a pressurized fuel container having a collar; and

wherein the regulator mounting device secures to the collar so that the primary and secondary pressure regulators are positioned adjacent each other along an outer periphery of the collar.

16. (Original) The dual fuel generator and fuel delivery system of claim 11 wherein the first and second stages comprise a dual stage regulator configured to regulate the gaseous fuel supplied from the pressurized fuel source and regulate the reduced pressure gaseous fuel.

17. (Original) The dual fuel generator and fuel delivery system of claim 16 wherein the dual stage regulator is mounted directly onto the pressurized fuel source.

18-20. (Canceled)

21. (Currently Amended) A generator and fuel delivery system comprising:

a generator free of any pressure regulator and configured to operate on a gaseous fuel supplied from a pressurized fuel source through a gaseous fuel line;

a fuel regulator system located off-board the generator, the fuel regulator system configured to:

regulate the gaseous fuel supplied from the pressurized fuel source in a first stage, the gaseous fuel regulated down to a reduced pressure in the first stage; and

regulate the reduced pressure gaseous fuel in a second stage, the reduced pressure gaseous fuel from the first stage regulated down to a desired pressure in the second stage for delivery through the gaseous fuel line to operate the generator.

22. (Previously Presented) The generator and fuel delivery system of claim 21 wherein the first and second stages comprise a dual stage regulator configured to regulate the gaseous fuel supplied from the pressurized fuel source and regulate the reduced pressure gaseous fuel.

23. (Previously Presented) The generator and fuel delivery system of claim 22 wherein the dual stage regulator is mounted directly onto the pressurized fuel source, off-board from the generator.

Electronic Acknowledgement Receipt

EFS ID:	37601641
Application Number:	16191503
International Application Number:	
Confirmation Number:	6187
Title of Invention:	DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE
First Named Inventor/Applicant Name:	Mark J. Sarder
Customer Number:	26629
Filer:	Kevin Roger Rosin./Robyn Templin
Filer Authorized By:	Kevin Roger Rosin.
Attorney Docket Number:	CET1090.070
Receipt Date:	30-OCT-2019
Filing Date:	15-NOV-2018
Time Stamp:	10:29:41
Application Type:	Utility under 35 USC 111(a)

Payment information:

Submitted with Payment	no
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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1	After Final Consideration Program Request	AFCP.pdf	228107	no	2
			d9f39b69671883d0db64999af985b83a4ba9fd66		

Warnings:

Petitioner MWE Investments, LLC, et al.

Exhibit 1003, Page 695

Information:					
2		Response.pdf	197399	yes	14
			a70ded518162ef0c8af61b1cf52f42aee748b2d2		
	Multipart Description/PDF files in .zip description				
	Document Description		Start	End	
	Response After Final Action		1	1	
	Claims		2	6	
	Applicant Arguments/Remarks Made in an Amendment		7	14	
Warnings:					
Information:					
Total Files Size (in bytes):			425506		
This Acknowledgement Receipt evidences receipt on the noted date by the USPTO of the indicated documents, characterized by the applicant, and including page counts, where applicable. It serves as evidence of receipt similar to a Post Card, as described in MPEP 503. <u>New Applications Under 35 U.S.C. 111</u> If a new application is being filed and the application includes the necessary components for a filing date (see 37 CFR 1.53(b)-(d) and MPEP 506), a Filing Receipt (37 CFR 1.54) will be issued in due course and the date shown on this Acknowledgement Receipt will establish the filing date of the application. <u>National Stage of an International Application under 35 U.S.C. 371</u> If a timely submission to enter the national stage of an international application is compliant with the conditions of 35 U.S.C. 371 and other applicable requirements a Form PCT/DO/EO/903 indicating acceptance of the application as a national stage submission under 35 U.S.C. 371 will be issued in addition to the Filing Receipt, in due course. <u>New International Application Filed with the USPTO as a Receiving Office</u> If a new international application is being filed and the international application includes the necessary components for an international filing date (see PCT Article 11 and MPEP 1810), a Notification of the International Application Number and of the International Filing Date (Form PCT/RO/105) will be issued in due course, subject to prescriptions concerning national security, and the date shown on this Acknowledgement Receipt will establish the international filing date of the application.					

REMARKS

Claims 1-17 and 21-23 are pending in the present application. In the Final Office Action mailed August 30, 2019, the Examiner rejected claims 1-17 and 21-23 on the ground of nonstatutory double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 10,221,780. The Examiner next rejected claims 1, 6-17, and 21-23 under 35 U.S.C. §103 as being unpatentable over Pursifull et al. (US Pub. 2011/0168133) in view of Sugimoto et al. (US Pub. 2007/0137591).

Claims 2-5 were indicated as containing allowable subject matter. Such indication is appreciated.

Double Patenting Rejection

The Examiner rejected claims 1-20 on the ground of non-statutory double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 10,221,780.

Applicant notes that the double patenting rejection is not the only remaining rejection in the present application. The Examiner has also applied rejections under 35 U.S.C. §103 in the current Office Action. Applicant, therefore, requests that the double patenting rejection be held in abeyance pending resolution of the other rejections.

Claim Amendment

Applicant has amended claim 21 in the present Response in order to further clarify the scope of the invention – with claim 21 now further specifying that the claimed generator *is free of any pressure regulator* and configured to operate on a gaseous fuel supplied from a pressurized fuel source through a gaseous fuel line. The amendment to claim 21 is presented concurrent with a request under AFCP.

Rejection under 35 U.S.C. §103 over Pursifull et al. in view of Sugimoto et al.

Claims 1, 11, and 21

Introduction

The Examiner rejected claims 1, 11, and 21 under 35 U.S.C. §103 as being unpatentable over Pursifull et al. (US Pub. 2011/0168133) in view of Sugimoto et al. (US Pub. 2007/0137591).

In rejecting claims 1, 11, and 21, the Examiner asserted that Pursifull discloses the claimed “a dual fuel generator” and “mechanical fuel valve,” but admitted that “Pursifull fails to disclose a fuel regulator system located off board the dual fuel generator” that comprises a primary pressure regulator and secondary pressure regulator (claim 1) and/or a first stage and

second stage (claim 11). *Final Office Action*, August 30, 2019, p. 3-4. The Examiner thus cited to Sugimoto as teaching these claim elements, with the Examiner stating that “Sugimoto discloses a dual fuel engine and delivery system (Fig. 1, as shown) wherein the system includes an off-board gaseous fuel system (Fb) which includes an off-board pressure regulator 72 which feeds fuel into an engine system 1 which includes another pressure regulator 62.” *Id.* at 4. The Examiner thus concluded that “it would have been obvious to one of ordinary skill in the art before the filing date of the invention to modify the device of Pursifull with the pressure regulators and gaseous fuel system methods of Sugimoto.” *Id.*

In continuing to set forth the rejection, the Examiner further indicated that “the inclusion of multiple pressure regulators in the off-board fuel system, while not disclosed in Pursifull as modified by Sugimoto, would have been an obvious modification of the system of Sugimoto which includes an off-board fuel regulation system including a single regulator 72,” *id.* at 4, asserting that such a modification would be a mere “duplication of parts.” *Id.* at 5. The Examiner additionally stated that “dual tank regulators are extremely old and well-known in the art” and that “it would have been obvious to one of ordinary skill in the art... to modify the modified Pursifull to include such a dual-stage off-board regulator,” with the Examiner referencing “Propane 101” and “Harris” as examples of such dual-stage regulators. *See id.* Applicant respectfully disagrees with the rejection.

Prior Art – Pursifull and Sugimoto

Pursifull discloses an engine system 100 that includes an internal combustion engine 102 having one or more cylinders 104 that may receive fuel from one or more fuel injectors 106 that inject fuel in proportion to a pulse width of a signal received from a controller 128. *Pursifull*, ¶[0021]. Fuel may be delivered to the fuel injector 106 from a fuel rail 108 by a fuel system 110. *Pursifull*, ¶[0021]. The fuel system 110 may include a fuel tank 112 and a fuel pump 114 operable by controller 128 to pump fuel from the fuel tank 112 to the fuel rail 108. *Pursifull*, ¶[0022]. A delivery check valve 116 may be positioned downstream of the fuel pump 114 to force fuel pumped from the fuel pump at a predetermined pressure to the fuel rail 108 so that fuel does not return along the same path to the fuel pump. *Pursifull*, ¶[0023]. A first solenoid valve 118 may be positioned downstream of delivery check valve 116 to control the flow of fuel to fuel rail 108 or from the fuel rail to a return line 119. *Pursifull*, ¶[0023]. In some embodiments, fuel system 110 may be what is known as a multi-fuel system that selectively provides a plurality of different types of fuel to the fuel rail 108 based on the mode of operation, such as gasoline and/or liquid propane. *Pursifull*, ¶[0024]. A three-way valve 120 may be positioned upstream of the

fuel rail 108 and downstream of the first solenoid valve 118 and the return line 119 to selectively control the flow of a desired type of fuel to the fuel rail 108. *Pursifull*, ¶[0025]. The state of the three-way valve 120 may be controlled by controller 128 to vary which type of fuel is delivered to the fuel rail 108. *Pursifull*, ¶[0025]. Fuel in the fuel rail 108 may be returned to the fuel tank 112 via the return line 119, with an ejector 124 positioned in the return line 119 to provide a single fuel rail evacuation stage. *Pursifull*, ¶[0026]. A return check valve 122 is positioned in the return line 119 downstream of the ejector 124 to force fuel returning from the fuel rail 108 at a predetermined pressure to ejector 124 so that fuel is evacuated from the fuel rail 108. *Pursifull*, ¶[0027]. A second solenoid valve 126 is positioned upstream of the outlet of the ejector 124 and downstream of the fuel tank 112 that may be controlled by controller 128 evacuate the fuel rail 108. *Pursifull*, ¶[0028].

In a method for controlling for controlling a multi-fuel system as described in *Pursifull*, the method may include operating in the fuel rail pressurization mode where a determination is made if a first fuel from a first fuel stage or a second fuel from a second fuel is selected for delivery to the fuel rail 108. *Pursifull*, ¶[0066]. If the first fuel is selected, operating in the fuel rail pressurization mode may include, switching the three-way valve 120 to the first fuel stage, opening the solenoid valve 118 positioned downstream of the fuel pump 114 and upstream of the fuel rail 108, closing the solenoid valve 126 positioned upstream of the ejector 124 and downstream of the fuel tank 112, and operating the fuel pump 114 to deliver the first fuel from the fuel tank to the fuel rail. *Pursifull*, ¶[0066]. If the second fuel is selected, operating in the fuel rail pressurization mode may include switching the three-way valve 120 to the second fuel stage, and, operating the fuel pump 136 to deliver the second fuel from the fuel tank 134 to the fuel rail 108. *Pursifull*, ¶[0066].

Sugimoto discloses an engine operated generator 1 that includes an engine 30 that powers an electric generator 40. *Sugimoto*, ¶[0041], [0042]. A fuel system F for supplying the fuel gas to the engine 30 has an internal fuel system Fa (fuel bottles 61) and an external fuel system Fb (external fuel bottle 71) disposed outside the case C of the generator. *Sugimoto*, ¶[0070]. The fuel supply system Fa includes a fuel pressure regulator 62, a fuel system selector valve 12, a connector 14, and a fuel cutoff valve 63. *Sugimoto*, ¶[0071]. The fuel pressure regulator 62 reduces the pressure of the fuel gas supplied from fuel bottles 61 and the external fuel bottle 71 and regulates the pressure of the fuel gas so that the fuel gas may be supplied to a carburetor 18b at fuel supply rate varying in proportion to load on the engine 30. *Sugimoto*, ¶[0071]. The fuel system selector valve 12 is placed on the operating panel 5e and is operated to select a fuel supply line. *Sugimoto*, ¶[0071]. The fuel pipes interconnect the fuel bottles 61, the fuel pressure

regulator 62 and the carburetor 18b. The fuel cutoff valve 63 stops the flow of the fuel gas from the fuel system F to the engine 30. *Sugimoto*, ¶[0071].

In the fuel supply system Fa, a first fuel system for supplying the first fuel gas from the fuel bottles 61 to the engine 30 is constituted by the fuel bottles 61, a pipe A1 connecting the fuel bottles 61 to the fuel system selector valve 12, a pipe A2 connecting the fuel system selector valve 12 to the fuel pressure regulator 62, the fuel pressure regulator 62, a pipe connecting the fuel pressure regulator 62 to the carburetor 18b, and the fuel cut-off valve 63 placed in the pipe A3. *Sugimoto*, ¶[0079]. A second fuel system for supplying the second fuel gas from the external fuel bottle 71 to the engine 30 is constituted by a pipe A4 connecting the connector 14 to the fuel cutoff valve 12, the pipe A2 connecting the fuel system selector valve 12 to the fuel pressure regulator 62, the fuel pressure regulator, the pipe A3 connecting the fuel pressure regulator 62 to the carburetor 18b, and the fuel cutoff valve 63. *Sugimoto*, ¶[0079].

The fuel cutoff valve 63, namely, a fuel cutoff means, is, for example, a normally-open solenoid valve which closes when energized. *Sugimoto*, ¶[0081]. The ECU 89 controls the fuel cutoff valve 63 on the basis of the pressure of the first fuel gas. *Sugimoto*, ¶[0081]. More specifically, the fuel pressure regulator 62 is provided with a pressure sensor 73 for measuring the pressure of the first fuel gas flowing from the fuel bottle 61 to the fuel pressure regulator 62. *Sugimoto*, ¶[0081]. When the pressure of the first fuel gas measured by the pressure sensor 73 is higher than an upper limit pressure P1, the ECU 89 closes the fuel cutoff valve 63 to disconnect the common fuel system from the fuel bottle 61. *Sugimoto*, ¶[0081]. The fuel system selector valve 12 connects either the first fuel system that supplies the first fuel gas to the engine 30 or the second fuel system that supplies the second gas to the engine 30 selectively to the fuel pressure regulator 62. *Sugimoto*, ¶[0082]. The fuel system selector valve 12 can be set in a first position, where the knob of the fuel system selector valve 12 is at a first position marked with "Internal fuel" to connect the first fuel system to the engine 30 to supply the first fuel gas to the engine 30, and in a second position, where the knob of the fuel system selector valve 12 is at a second position marked with "External fuel" to connect the second fuel system to the engine 30 to supply the second fuel gas to the engine 30. *Sugimoto*, ¶[0082].

Failure of Pursifull and Sugimoto to teach Claims 1, 11, and 21

With regard to the claimed limitations, there is no disclosure provided in Pursifull and/or Sugimoto of a fuel regulator system located off board the dual fuel generator, the fuel regulator system comprising a primary pressure regulator configured to regulate the fuel supplied from the pressurized fuel source to a reduced pressure and a secondary pressure regulator coupled 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 (claim 1), and/or a fuel regulator system located off board the dual fuel generator, the fuel regulator system configured to: regulate the gaseous fuel down to a reduced pressure and regulate the reduced pressure gaseous fuel in a second stage down to a desired pressure in the second stage for delivery through the gaseous fuel line to operate the dual fuel generator (claim 11), and/or a generator free of any pressure regulator with a fuel regulator system located off-board the generator that regulates gaseous fuel supplied from a pressurized fuel source down to a reduced pressure in a first stage and regulates the reduced pressure gaseous fuel down to a desired pressure in a second stage (claim 21).

Regarding Pursifull, the Examiner admits that the reference fails to teach a fuel regulator system as called for in claims 1, 11, and 21.

Regarding Sugimoto, there is no teaching therein of a fuel regulator system located off board the dual fuel generator – i.e., of both the primary pressure regulator and secondary pressure regulator being located off board the dual fuel generator (claim 1) and/or both a first stage and second stage being located off board the dual fuel generator (claims 11 and 21). That is, while pressure reducing device 72 of Sugimoto is included as part of external fuel system Fb that is off-board generator 1, *Sugimoto*, ¶[0073], the fuel pressure regulator 62 referenced by the Examiner is on-board generator 1 - as the fuel pressure regulator 62 is located between pipe A2 and pipe A3 on generator 1, as can be clearly seen in FIG. 1 of Sugimoto. *See Sugimoto*, FIG. 1. As fuel pressure regulator 62 is located on-board the generator 1, the arrangement of the “fuel regulator system” in Sugimoto (collectively comprising pressure reducing device 72 and fuel pressure regulator 62) is different from what is called for in claims 1, 11, and 21 where an entirety of a fuel regulator system (primary and second regulators (claim 1) or first and second stages (claims 11 and 21) of a fuel regulator system) is located off board the generator.

As evidence of the validity of the above arguments, the Examiner admits on page 4 of the Final Office Action that “the inclusion of multiple pressure regulators in the off-board fuel system [is] not disclosed in Pursifull as modified by Sugimoto.” *Final Office Action*, supra at 4. Accordingly, Applicant believes claims 1, 11, and 21 to be patentably distinct from the combination thereof.

Obviousness of Claims 1, 11, and 21 further in view of Propane 101 and/or Harris

Initially, with regard to the Examiner’s additional reference to “Propane 101” and “Harris,” Applicant notes that the references have not been relied upon as part of the rejection of

claims 1, 11, and 21 under 35 U.S.C. §103. If the Examiner is in fact relying on these references in an attempt to establish a case of *prima facie* obviousness of the claims, Applicant requests that the reference(s) formally be made of record as part of the rejection under 35 U.S.C. §103 in a next Final Office Action.

Additionally, Applicant notes that “Harris” is not available as prior art as part of any rejection proposed by the Examiner, as the Examiner has indicated a publication date of 2017 for Harris, while the present application claims priority to U.S. Patent Application Serial No. 14/738,060, filed on June 12, 2015. Accordingly, the reliance on Harris is improper.

Regardless of all the above, Applicant believes that one skilled in the art would not look to Propane 101 (and/or Harris) to modify Pursifull and Sugimoto in order to include “multiple pressure regulators in the off-board fuel system,” as asserted by the Examiner. With regard to Sugimoto, which the Examiner has cited to for teaching “a dual fuel engine and delivery system (Fig. 1, as shown) wherein the system includes an off-board gaseous fuel system (Fb) which includes an off-board pressure regulator 72 which feeds fuel into an engine system 1 which includes another pressure regulator 62,” *Final Office Action*, supra at 4, Applicant believes that one skilled in the art would not simply modify the arrangement of pressure regulator 62 and pressure reducing device 72 to include multiple pressure regulators in the off-board fuel system (Fb), as asserted by the Examiner. That is, the engine operated generator 1 of Sugimoto includes a fuel system F that has an internal fuel system Fa (gaseous fuel bottles 61) and an external fuel system Fb (external gaseous fuel bottle 71) disposed outside the case C of the generator. *Sugimoto*, ¶[0070]; FIGS. 1 and 2. As Sugimoto includes gaseous fuel bottles 61 that are an internal fuel system Fa onboard the generator, Sugimoto necessarily requires a fuel pressure regulator 62 that is also onboard the generator. The fuel pressure regulator 62 could not simply be removed from the generator 1 and combined with pressure reducing device 72 as part of a dual-stage off-board regulator for gaseous fuel bottle 71, as the Examiner seems to suggest, as there would then be no pressure regulator on/in generator 1 that would regulate gas from fuel bottles 61.

Additionally, one skilled in the art would not modify Sugimoto in view of Propane 101 (and/or Harris) to provide a dual-stage off-board regulator for gaseous fuel bottle 71 – i.e., to modify pressure reducing device 72 from a single-stage regulator to a dual-stage regulator – as such a modification would be unnecessary and duplicative in Sugimoto. That is, the fuel pressure regulator 62 and pressure reducing device 72 already provide a two-stage pressure regulation of gas from gaseous fuel bottle 71, with it recognized that (1) one could simply not replace the fuel pressure regulator 62 with another offboard regulator (for reasons discussed in detail above), and

(2) adding a dual-stage regulator offboard the generator 1 (for gaseous fuel bottle 71) in addition to the fuel pressure regulator 62 would only add additional cost and complexity to the generator 1, without providing any additional benefit – since two stage pressure regulation is already provided by fuel pressure regulator 62 and a single stage pressure reducing device 72. Accordingly, one skilled in the art would not look to Propane 101 (and/or Harris) to modify the modified system of Pursifull and Sugimoto.

In light of at least the above, the combination of Pursifull and Sugimoto – alone or in further combination with Propane 101 (and/or Harris) - fails to teach or suggest that which is called for in claims 1, 11, and 21. Each of claims 1, 11, and 21 is thus believed to be patentably distinct from the cited references, and Applicant therefore respectfully requests withdrawal of the rejection of claims 1, 11, and 21 and the claims dependent therefrom.

Conclusion

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 1-17 and 21-23.

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

Respectfully submitted,

/Kevin R. Rosin/

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Dated: October 30, 2019
Attorney Docket No.: CET1090.070

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136 South Wisconsin Street
Port Washington, WI 53074
262-268-8100

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.

/Kevin R. Rosin/

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Dated: October 30, 2019
Attorney Docket No.: CET1090.070

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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 16/191,503	Filing Date 11/15/2018	☐ 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 \$50 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 = *		x \$230 =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED - PART II

		(Column 1)		(Column 2)	(Column 3)	RATE (\$)	ADDITIONAL FEE (\$)
AMENDMENT	10/30/2019	CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		
	Total (37 CFR 1.16(i))	* 15	Minus	** 20	= 0	x \$50 =	0
	Independent (37 CFR 1.16(h))	* 2	Minus	*** 3	= 0	x \$230 =	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		CLAIMS REMAINING AFTER AMENDMENT		HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA		
	Total (37 CFR 1.16(i))	*	Minus	**	=	x \$0 =	
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x \$0 =	
	☐ Application Size Fee (37 CFR 1.16(s))						
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))						
						TOTAL ADD'L FEE	
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.						LIE	
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".						/POLIN ANG/	
*** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 3, enter "3".							
The "Highest Number Previously Paid For" (Total or Independent) is the highest number found in the appropriate box in column 1.							

This collection of information is required by 37 CFR 1.16. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. **SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.**

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/191,503	11/15/2018	Mark J. Sarder	CET1090.070	6187
26629	7590	08/30/2019		
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
			08/30/2019	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

info@zpspatents.com
sml@zpspatents.com

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 §§ 706.02(I)(1) - 706.02(I)(3) 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 USPTO Internet website contains terminal disclaimer forms which may be used. Please visit www.uspto.gov/patent/patents-forms. The 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/process/file/efs/guidance/eTD-info-I.jsp.

3. Claims 1-17 and 21-23 are rejected on the ground of nonstatutory double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 10,221,780. Although the claims at issue are not identical, they are not patentably distinct from each other because the limitations of claims 1-17 and 21-23 are substantially the same to an anticipatory or obvious degree as those in '780.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1, 6-17, and 21-23 is/are rejected under 35 U.S.C. 103 as being unpatentable over Pursifull et al (US 2011/0168133) in view of Sugimoto et al (US 2007/0137591)**

6. **Regarding claims 1, 11, 12, 16, and 21-23** Pursifull discloses a dual fuel generator and fuel delivery system, as well as a method for its operation, (Fig. 3, shown dual fuel engine) comprising:

a dual fuel generator 102 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 (Para. [0040], the dual fuel engine comprises pressurized gaseous fuel and liquid fuel);

and 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 (Para. [0025], [0028], and [0066], wherein a three-way valve and lockout apparatus determine which fuel flows to the dual fuel generator).

7. Pursifull fails to disclose a fuel regulator system located off board the dual fuel generator, the fuel regulator system comprising: a primary pressure regulator coupled to a service valve of the pressurized fuel source and configured to regulate the fuel supplied from the pressurized fuel source to a reduced pressure; and a secondary pressure regulator coupled 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.

8. Sugimoto discloses a dual fuel engine and delivery system (Fig. 1, as shown) wherein the system includes an off-board gaseous fuel system (Fb) which includes an off-board pressure regulator 72 which feeds fuel into an engine system 1 which includes another pressure regulator 62. The inclusion of pressure reduction devices for the gasification of liquid-held fuel allows for an effective cooling of the fuel system and systems (Para. [0010]) while allowing the dual fuel engine to be powered by an external fuel tank attached to it in an off board fashion such as in emergency situations (Para. [0002]).

9. Therefore, it would have been obvious to one of ordinary skill in the art before the filing date of the invention to modify the device of Pursifull with the pressure regulators and gaseous fuel system methods of Sugimoto in order to improve the cooling of the fuel system parts through pressure reduction as well as regulate the pressure from an external attached fuel tank which allows the dual fuel engine system to be used in varying situations such as emergency ones using an external fuel source.

10. Further, the inclusion of multiple pressure regulators in the off-board fuel system, while not disclosed in Pursifull as modified by Sugimoto, would have been an obvious modification of the system of Sugimoto which includes an off-board fuel regulation system including a single regulator 72. It would

have been obvious to one having ordinary skill in the art at the time the invention was made to duplicate the regulation system to have a dual-regulator off-board system since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

11. *Further*, dual tank regulators are extremely old and well-known in the art to provide on off-board fuel tanks, particularly gaseous ones such as propane/natural gas tanks, as they are more efficient, durable, and effective in their regulation. These types of regulators are often called "dual-stage" or "double-stage" regulators and would be known to one of ordinary skill in the art. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the modified Pursifull to include such a dual-stage off-board regulator (e.g. a dual-regulator attached to the fuel source) as doing so would have allowed for a more accurate and better control of the pressure coming from the fuel tank. Examples of these common regulators can be seen in: **Propane 101** ((2008, March 23). Integral Twin Stage Regulators. Retrieved from <https://web.archive.org/web/20080323053734/http://www.propane101.com/integraltwinstageregulators.htm>), wherein shown is an integrated two-stage regulators for propane fuel tanks – one regulator lowers pressure directly from the tank, the other lowers pressure from the first; and **Harris** ((2017, January 9). Two-Stage Regulator. Retrieved from <https://web.archive.org/web/20170109225700/http://www.harrisproductsgroup.com/en/blog/2016/november/two-stage-regulators.aspx>), two-stage regulators are common for reducing pressure in a gas supply system wherein this allows for a reduction in pressure fluctuation for better control of gas pressure.

12. **Regarding claims 6 and 13**, the modified Pursifull discloses the dual fuel generator and fuel delivery system of claims 1 and 11, 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 to mate with the first end of the quick-connect hose coupling to couple the secondary pressure regulator to the gaseous fuel line (Fig. 1 of Sugimoto modifies Pursifull to include an external source of gaseous fuel and regulators makes use of a connection hose coupling 14).

13. **Regarding claims 7, 8, 14, and 17**, the dual fuel generator and fuel delivery system of claim 1, but fails to disclose further comprising a regulator mounting device secured to the pressurized fuel source with at least the secondary pressure regulator mounted on the regulator mounting device. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to mount both regulators in a similar location on the same bracket since it has been held that rearranging parts of an invention involves only routine skill in the art. In re Japikse, 86 USPQ70. In this case locating the two regulators mounted with a mounting device on the pressure source is not only common but obvious due to its efficiency, ease of use, and ease of movement for any potential operator.

14. **Regarding claims 9 and 15**, the dual fuel generator and fuel delivery system of claims 8 and 14, but fails to disclose wherein the pressurized fuel source comprises a pressurized fuel container having a collar; and wherein the regulator mounting device secures to the collar so that the primary and secondary pressure regulators are positioned adjacent each other along an outer periphery of the collar.

15. In this case the claim pertains to the routine and known art of using propane tanks as a fuel tank source as these devices are well-known in the art to have a "collar" piece which often has regulators attached to it. While the art of Pursifull and Sugimoto never make reference to this specific old and well-known device, they do make use of fuel tanks that could easily be substituted with them. Therefore, examiner makes official notice that it is old and well-known to make use of standard-in-the-art propane tanks with regulators attached to their collars as this would have allowed the modified Pursifull to make use of the common, cheap, and easy-to-use propane tanks for its regulation and propane tank systems.

Some examples of such tanks can be seen at: RVDoctor (Oct. 2010, <http://www.rvdoctor.com/2012/10/disconcerting-propane-le3ks-on-rv.html>) which shows two propane tanks with a regulator attached to their collar; and Nooutage.com (Aug. 27th, 2006, [https://web.archive.org/web/20060928183104/http://www.nooutage.cx/m:80/images/BS-7KW Power Now tanks.jpg](https://web.archive.org/web/20060928183104/http://www.nooutage.cx/m:80/images/BS-7KW%20Power%20Now%20tanks.jpg)) which shows propane tanks with regulators attached to their collars.

16. **Regarding claim 10**, the modified Pursifull discloses the dual fuel generator and fuel delivery system of claims 1 and 11, but fails to disclose wherein the primary and secondary pressure regulators are integral components of a dual stage pressure regulator.

17. However, It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the regulators into a two-stage regulator, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. *Howard v. Detroit Stove Works*, 150 U.S. 164 (1893). Further, integral dual-regulators are old and well-known in the art for off-board fuel tanks, particularly gaseous ones, and are commonly known as “dual-stage” or “double-stage” regulators.

Allowable Subject Matter

18. Claims 2-5 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims if the Non-Statutory Double Patenting rejection presented above is also overcome.

Response to Arguments

19. Applicant's arguments filed 05/22/2019 have been fully considered but they are not persuasive.

20. Applicant argues that the fuel pressure regulators of the modified Sugimoto are not disclosed to be “off-board” from the fuel supply system, wherein both the primary and secondary pressure regulators/regulator stages are located off board from the dual fuel generator. As is noted by applicant and examiner, the fuel regulation system of Sugimoto includes an on-board regulator 62 as well as an

off-board “pressure-reducing device 72” wherein a “pressure-reducing device” is a pressure regulator.

Essentially, applicant is asserting that it is not obvious to modify the pressure regulation device of Sugimoto to be a dual-stage regulator rather than a single-stage regulator (though the specifics of Sugimoto’s pressure regulator are technically not disclosed).

21. Therefore, it is noted that Sugimoto, as it applied to Pursifull, already discloses at least one pressure-regulator in an off-board system and merely fails to disclose a dual-stage regulator in its off-board system instead. Thus the above rejection includes a modification of Sugimoto to remedy this as dual-stage regulators (two regulators in a series) are old and well-known in attachable fuel devices such as propane tanks. The above rejection has been elaborated upon to establish exemplary prior art to show the commonality of such devices. These devices are not necessarily replacing the entirety of Sugimoto’s fuel control system but rather modifying its attachable off-board tank.

22. Examples of such regulators are: Propane 101 ((2008, March 23). Integral Twin Stage Regulators. Retrieved from

<https://web.archive.org/web/20080323053734/http://www.propane101.com/integraltwinstageregulators.htm>), wherein shown is an integrated two-stage regulators for propane fuel tanks – one regulator lowers pressure directly from the tank, the other lowers pressure from the first. Further, as noted in Harris((2017, January 9). Two-Stage Regulator. Retrieved from

<https://web.archive.org/web/20170109225700/http://www.harrisproductsgroup.com/en/blog/2016/november/two-stage-regulators.aspx>), two-stage regulators are common for reducing pressure in a gas supply system wherein this allows for a reduction in pressure fluctuation for better control of gas pressure.

Conclusion

1. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

23. 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 on 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 an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic

Art Unit: 3747

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/KEVINA LATHERS/

Primary Examiner, Art Unit 3747

<i>Notice of References Cited</i>	Application/Control No. 16/191,503		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					
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FOREIGN PATENT DOCUMENTS

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	N					
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NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	(2017, January 9). Two-Stage Regulator. Retrieved from https://web.archive.org/web/20170109225700/http://www.harrisproductsgroup.com/en/blog/2016/november/two-stage-regulators.aspx (Year: 2017)
	V	(2008, March 23). Integral Twin Stage Regulators. Retrieved from https://web.archive.org/web/20080323053734/http://www.propane101.com/integraltwinstageregulators.htm (Year: 2008)
	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>Index of Claims</i> 	Application/Control No. 16/191,503	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	08/27/2019								
	1	✓								
	2	✓								
	3	✓								
	4	✓								
	5	✓								
	6	✓								
	7	✓								
	8	✓								
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	16	✓								
	17	✓								
	18	-								
	19	-								
	20	-								
	21	✓								
	22	✓								
	23	✓								

<i>Search Notes</i> 	Application/Control No. 16/191,503	Applicant(s)/Patent Under Reexamination Sarder et al.
	Examiner KEVIN A LATHERS	Art Unit 3747

CPC - Searched*		
Symbol	Date	Examiner
F02D19/0613, 19/0605, 19/0647	03/05/2019	/K.L./
Y02T10/36	03/05/2019	/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
Google and EAST including inventor and assignee search.	03/05/2019	/K.L./
Google and EAST search.	08/27/2019	/K.L./

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

/KEVIN A LATHERS/ Primary Examiner, Art Unit 3747	
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EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	2	(dual-stage double-stage) near5 regulator near20 (fuel propane gas) same engine	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2019/08/27 13:19
S1	445	F02D19/0613.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/27 14:25
S2	1204	F02D19/0605.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/27 14:25
S3	3408	F02D19/0647.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/27 14:25
S4	15258	Y02T10/36.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/27 14:25
S5	808	(S1 S2 S3 S4) and (switch valve) near20 (propane natural adj gas gaseous lng cng) near20 (gasoline liquid diesel)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/27 14:28
S6	79	(S1 S2 S3 S4) and (switch valve) near20 (propane natural adj gas gaseous lng cng) near20 (gasoline liquid diesel) and (second secondary auxiliary) near5 (regulat\$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/27 14:29
S7	64	(S1 S2 S3 S4) and (switch valve) near20	US-PGPUB;	OR	OFF	2017/07/27

		(propane natural adj gas gaseous lng cng) near20 (gasoline liquid diesel) and (second secondary auxiliary) adj (regulat\$3 pressure)	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			14:44
S8	28	("5450832" "20130220274" "5325835" "5320078" "4619240" "6082323" "6453877" "5171487" "6223730" "6213083" "4489699" "5287839" "8590510" "5673670" "4450821" "5816224" "6276345" "4502453" "20130047964" "4372276" "6401685" "7905469" "2722208" "4895124" "5161496" "5379740" "5438968" "5419291" "6914342" "8342158").PN.	USPAT	OR	OFF	2017/07/27 14:45
S9	124	("5450832" "20130220274" "5325835" "5320078" "4619240" "6082323" "6453877" "5171487" "6223730" "6213083" "4489699" "5287839" "8590510" "5673670" "4450821" "5816224" "6276345" "4502453" "20130047964" "4372276" "6401685" "7905469" "2722208" "4895124" "5161496" "5379740" "5438968" "5419291" "6914342" "8342158").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/27 14:45
S10	421	(duel dual) near5 fuel near20 (engine generator) same (switch valve) near20 between	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/27 14:46
S11	0	dual adj fuel near20 engine same "switchover valve"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/27 15:17
S12	44	dual adj fuel near20 engine same (switch switchover) near5 valve	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/27 15:19
S13	49	"6591817"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/27 15:19
S14	63	("3799125" "4150645" "4265208" "4303049" "4305350" "4323046" "4353345" "4391251" "4398517" "4524033" "4671243" "5450832" "5524582" "5623907" "5720266" "5816224" "6035837").PN. OR ("6591817").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/27 15:20

S15	80	dual adj fuel near20 engine same (switch switchover select\$3) near5 valve	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/27 15:21
S16	30	((("SARDER") near3 ("Mark"))).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/27 15:25
S17	28	((("SOTIRIADES") near3 ("Aleko"))).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/27 15:25
S18	41	((("DEHN") near3 ("James"))).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/27 15:25
S19	15	((("JENISON") near3 ("Leigh"))).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/27 15:25
S20	16	((("CHAMPION") near3 ("ENGINE") near3 ("TECHNOLOGY") near3 ("LLC"))).AANM.	USPAT	OR	OFF	2017/07/27 15:25
S21	19	((("CHAMPION") near3 ("ENGINE") near3 ("TECHNOLOGY") near3 ("LLC"))).as.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/27 15:26
S22	5	("20040240141" "20060169238" "20130098349" "20130122439" "4489699").PN. OR ("9435273").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/27 15:42
S23	41	("1973142" "2315882" "2381304" "4068639" "4227497" "4335697").PN. OR ("4489699").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/27 15:43
S24	97	(dual multi multiple plural plurality) adj fuel near20 engine same (switch switchover changeover change switch\$3) near5 (valve switch)	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/27 16:02
S25	1	(09/813622).APP.	USPAT; USOCR	OR	OFF	2017/07/27 16:03
S26	63	("3799125" "4150645" "4265208" "4303049" "4305350" "4323046" "4353345" "4391251" "4398517" "4524033" "4671243" "5450832" "5524582" "5623907" "5720266" "5816224" "6035837").PN. OR ("6591817").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/27 16:03
S27	64	("4335697" "4393848" "4430978" "4606322" "4683864" "4825842" "4922862" "5379740" "5474047" "5479906" "5755211" "5775282").PN. OR ("6035837").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/27 16:34
S28	27	("5999888" "6543395" "4619240" "20140366577" "20120168023" "20140202430" "4463735" "5668310" "5224457").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/28 10:32
S29	0	(14/156204).APP.	USPAT; USOCR	OR	OFF	2017/07/28 11:33
S30	5	(gas gasoline liquid near5 fuel) near20	USPAT;	OR	OFF	2017/07/28

		(propane natural adj gas) near20 (fill\$3 fueling) same (quick-connect connect\$3) near20 (cover flange)	USOCR			11:47
S31	109	(gas gasoline liquid near5 fuel) near20 (propane natural adj gas) near20 (fill\$3 fueling) same (quick-connect connect\$3) near20 (cover flange)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/28 11:47
S32	280	(gas gasoline liquid near5 fuel) near20 (propane natural adj gas) near20 (fill\$3 fueling) same (cover flange)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/28 11:48
S33	171	(gas gasoline liquid near5 fuel) near20 (propane natural adj gas) near20 (fill\$3 fueling) same (cover flange) not S31	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/28 11:48
S34	5	"9435273"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/28 14:35
S35	1	"20070137591"	USPAT	OR	OFF	2018/02/12 15:56
S37	34	(champion near3 engine).as.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/02/12 15:59
S38	95	dual adj fuel near20 valve near10 switch	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/02/12 16:19
S39	48	"4489699"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/02/12 16:30
S40	5	"20070137591"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/02/12 16:30

S41	29	"3412258"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/02/12 16:30
S42	3	"20100258099"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/02/12 16:30
S43	53	"5611312"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/02/12 16:30
S44	138	(S39 S40 S41 S42 S43)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/02/12 16:31
S45	1	(10/591304).APP.	USPAT; USOCR	OR	OFF	2018/02/12 16:45
S46	6	("6332433" "7146962").PN. OR ("7325519").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/02/12 16:46
S47	35	(US-20020014077-\$ or US-20030168024-\$ or US-20110168133-\$ or US-20120204835-\$ or US-20030010320-\$ or US-20160363099-\$ or US-20170037796-\$ or US-20020134362-\$ or US-20140202430-\$ or US-20160221518-\$ or US-20070137591-\$).did. or (US-5320078-\$ or US-5450832-\$ or US-5816224-\$ or US-6591817-\$ or US-5524582-\$ or US-4570605-\$ or US-4712516-\$ or US-9435273-\$ or US-4489699-\$ or US-4305350-\$ or US-4353345-\$ or US-6035837-\$ or US-6904873-\$ or US-7045916-\$ or US-5092305-\$).did. or (US-2558884-\$ or US-2470747-\$ or US-3022425-\$ or US-3451424-\$).did. or (JP-2004278332-\$).did. or (US-20080290531-\$ or US-20130047964-\$ or US-4463735-\$ or CN-203796423-\$).did.	US-PGPUB; USPAT; USOCR; JPO; DERWENT	OR	OFF	2018/02/12 17:19
S48	35	(US-20020014077-\$ or US-20030168024-\$ or US-20110168133-\$ or US-20120204835-\$ or US-20030010320-\$ or US-20160363099-\$ or US-20170037796-\$ or US-20020134362-\$ or US-20140202430-\$ or US-20160221518-\$ or US-20070137591-\$).did. or (US-5320078-\$ or US-5450832-\$ or US-5816224-\$ or US-6591817-\$ or US-5524582-\$ or US-	US-PGPUB; USPAT; USOCR; JPO; DERWENT	OR	OFF	2018/02/13 17:40

		4570605-\$ or US-4712516-\$ or US-9435273-\$ or US-4489699-\$ or US-4305350-\$ or US-4353345-\$ or US-6035837-\$ or US-6904873-\$ or US-7045916-\$ or US-5092305-\$).did. or (US-2558884-\$ or US-2470747-\$ or US-3022425-\$ or US-3451424-\$).did. or (JP-2004278332-\$).did. or (US-20080290531-\$ or US-20130047964-\$ or US-4463735-\$ or CN-203796423-\$).did.				
S50	17	S48 and regulator	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/02/13 17:40
S56	61	("20020134362" "20040139943" "20070137591" "20100258099" "20110168133" "20110253102" "20130047964" "20130220274" "20140202430" "20140238340" "20140373531" "20150122230" "2722208" "3384059" "3412258" "3659574" "3718000" "3783849" "3888223" "4335697" "4372276" "4373493" "4450821" "4463735" "4480595" "4489699" "4502453" "4619240" "4628871" "4708094" "4895124" "4979480" "5092305" "5161496" "5171487" "5228423" "5287839" "5320078" "5325835" "5379740" "5419291" "5438968" "5450832" "5611312" "5673670" "5816224" "6082323" "6213083" "6223730" "6276345" "6401685" "6453877" "6591817" "6914342" "7905469" "8342158" "8590510" "9435273").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/03/05 15:38
S57	37	(US-20020014077-\$ or US-20030168024-\$ or US-20110168133-\$ or US-20120204835-\$ or US-20030010320-\$ or US-20160363099-\$ or US-20170037796-\$ or US-20020134362-\$ or US-20140202430-\$ or US-20160221518-\$ or US-20070137591-\$ or US-20130047964-\$ or US-20150122230-\$).did. or (US-5320078-\$ or US-5450832-\$ or US-5816224-\$ or US-6591817-\$ or US-5524582-\$ or US-4570605-\$ or US-4712516-\$ or US-9435273-\$ or US-4489699-\$ or US-4305350-\$ or US-4353345-\$ or US-6035837-\$ or US-6904873-\$ or US-7045916-\$ or US-5092305-\$).did. or (US-2558884-\$ or US-2470747-\$ or US-3022425-\$ or US-3451424-\$).did. or (JP-2004278332-\$).did. or (US-20080290531-\$ or US-20130047964-\$ or US-4463735-\$ or CN-203796423-\$).did.	US-PGPUB; USPAT; USOCR; JPO; DERWENT	OR	OFF	2019/03/05 16:01
S58	5	S57 and (regulator and valve).clm.	USPAT	OR	OFF	2019/03/05 16:02

S59	8	S57 and (regulator and valve).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/05 16:02
S60	10	S57 and (pressure and valve).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/05 16:02
S61	1423	engine same (dual multiple plural\$3 double two) near5 fuel same pressure near4 regulat\$3 same valve	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/05 16:03
S62	24	"10221780"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/05 17:48

EAST Search History (Interference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S51	88	F02D19/0613.cpc.	US-PGPUB; USPAT	OR	OFF	2018/11/20 12:06
S52	273	F02D19/0605.cpc.	US-PGPUB; USPAT	OR	OFF	2018/11/20 12:06
S53	747	F02D19/0647.cpc.	US-PGPUB; USPAT	OR	OFF	2018/11/20 12:06
S54	3711	Y02T10/36.cpc.	US-PGPUB; USPAT	OR	OFF	2018/11/20 12:06
S55	1	(engine and lockout and fuel and first adj fuel and second adj fuel and source and switch).clm.	US-PGPUB; USPAT	OR	OFF	2018/11/20 15:47

8/ 27/ 2019 1:56:30 PM
C:\ Users\ klathers\ Documents\ EAST\ Workspaces\ 14738060.wsp

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PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875	Application or Docket Number 16/191,503	Filing Date 11/15/2018	☐ 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 \$50 =	
INDEPENDENT CLAIMS (37 CFR 1.16(h))	minus 3 = *		x \$230 =	
☐ APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			
☐ MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	

APPLICATION AS AMENDED - PART II

	(Column 1)		(Column 2)	(Column 3)	RATE (\$)	ADDITIONAL FEE (\$)
AMENDMENT	05/22/2019		CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	
	Total (37 CFR 1.16(i))	* 20	Minus	** 20	= 0	x \$50 = 0
	Independent (37 CFR 1.16(h))	* 3	Minus	*** 3	= 0	x \$230 = 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			CLAIMS REMAINING AFTER AMENDMENT	HIGHEST NUMBER PREVIOUSLY PAID FOR	PRESENT EXTRA	
	Total (37 CFR 1.16(i))	*	Minus	**	=	x \$0 =
	Independent (37 CFR 1.16(h))	*	Minus	***	=	x \$0 =
	☐ Application Size Fee (37 CFR 1.16(s))					
	☐ FIRST PRESENTATION OF MULTIPLE DEPENDENT CLAIM (37 CFR 1.16(j))					
TOTAL ADD'L FEE						
* If the entry in column 1 is less than the entry in column 2, write "0" in column 3.						LIE
** If the "Highest Number Previously Paid For" IN THIS SPACE is less than 20, enter "20".						/VERNON A TOWLER/
*** 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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Customer No. 26629
Confirmation No. 6187

Patent
Attorney Docket No. CET1090.070

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Sarder et al.
Serial No. : 16/191,503
Filed : November 15, 2018
For : DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE
Group Art No. : 3747
Examiner : Kevin A. Lathers

CERTIFICATION UNDER 37 CFR 1.8(a) and 1.10

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

Mailing

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

37 CFR 1.8(a)

37 CFR 1.10

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

Transmission

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Date: May 22, 2019

/Robyn L. Templin/
Signature

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

AMENDMENT/RESPONSE TO OFFICE ACTION
MAILED MARCH 11, 2019

Dear Sir:

Responsive to the Office Action mailed March 11, 2019, please amend the Application as follows:

In the Title

Please change the Title to:

OFF-BOARD FUEL REGULATOR FOR GENERATOR ENGINE

In the Abstract

Please replace the Abstract with the following Abstract:

A generator and off-board fuel delivery system is disclosed. The generator is configured to operate on one or more fuels, including on a gaseous fuel supplied from a pressurized fuel source through a gaseous fuel line. A fuel regulator system is located off board the generator and is configured to regulate the gaseous fuel supplied from the pressurized fuel source in a first stage, with the gaseous fuel regulated down to a reduced pressure in the first stage. A second stage of the fuel regulator system regulates the reduced pressure gaseous fuel, with the reduced pressure gaseous fuel from the first stage regulated down to a desired pressure in the second stage for delivery through the gaseous fuel line to operate the generator.

In the Claims

1. (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 coupled to a service valve of the pressurized fuel source and configured to regulate the fuel supplied from the pressurized fuel source to a reduced pressure; and
 - a secondary pressure regulator coupled 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; and
 - 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.
2. (Original) The dual fuel generator and fuel delivery system of claim 1 further comprising a fuel lockout apparatus coupled to the mechanical fuel valve; and
 - wherein when the mechanical fuel valve is in the first position, the fuel lockout apparatus communicates the liquid fuel source to the dual fuel generator and prevents the pressurized fuel source from coupling to the dual fuel generator, and actuation of the mechanical fuel valve to the second position causes the fuel lockout apparatus to permit the pressurized fuel source to couple to the dual fuel generator, and interrupts the liquid fuel source communication with the dual fuel generator.
3. (Original) The dual fuel generator and fuel delivery system of claim 1, wherein mechanical fuel valve opens and closes the liquid fuel line to selectively control fuel flow from the liquid fuel source to the dual fuel generator; and further comprises:
 - a fuel lockout apparatus coupled to the mechanical fuel valve and configured to prevent the pressurize fuel source from coupling to the gaseous fuel line while the mechanical

fuel valve opens the liquid fuel line, and permit the pressurized fuel source to couple to the gaseous fuel line while the mechanical fuel valve closes the liquid fuel line.

4. (Original) The dual fuel generator and fuel delivery system of claim 3, wherein the fuel lockout apparatus is further configured to prevent the mechanical fuel valve from opening the liquid fuel line while the dual fuel generator receives fuel from the pressurized fuel source.

5. (Original) The dual fuel generator and fuel delivery system of claim 3, wherein the fuel lockout apparatus further comprises a fuel inlet cover that actuates with the mechanical fuel valve to cover an inlet of the gaseous fuel line while the mechanical fuel valve opens the liquid fuel line and to uncover mechanical fuel lockout switch the inlet of the gaseous fuel line when the mechanical fuel valve closes the liquid fuel line.

6. (Original) The dual fuel generator and fuel delivery system of claim 1, 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 to mate with the first end of the quick-connect hose coupling to couple the secondary pressure regulator to the gaseous fuel line.

7. (Original) The dual fuel generator and fuel delivery system of claim 1, further comprising a regulator mounting device secured to the pressurized fuel source with at least the secondary pressure regulator mounted on the regulator mounting device.

8. (Original) The dual fuel generator and fuel delivery system of claim 7, wherein the primary pressure regulator is mounted on the regulator mounting device.

9. (Original) The dual fuel generator and fuel delivery system of claim 8, wherein the pressurized fuel source comprises a pressurized fuel container having a collar; and

wherein the regulator mounting device secures to the collar so that the primary and secondary pressure regulators are positioned adjacent each other along an outer periphery of the collar.

10. (Original) The dual fuel generator and fuel delivery system of claim 1, wherein the primary and secondary pressure regulators are integral components of a dual stage pressure regulator.

11. (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 configured to:
regulate the gaseous fuel supplied from the pressurized fuel source in a first stage, the gaseous fuel regulated down to a reduced pressure in the first stage; and
regulate the reduced pressure gaseous fuel in a second stage, the reduced pressure gaseous fuel from the first stage regulated down to a desired pressure in the second stage for delivery through the gaseous fuel line to operate the dual fuel generator; and
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.

12. (Original) The dual fuel generator and fuel delivery system of claim 11 wherein the first stage comprises a primary pressure regulator coupled to a service valve of the pressurized fuel source and configured to regulate the gaseous fuel supplied from the pressurized fuel source to the reduced pressure; and

wherein the second stage comprises a secondary pressure regulator coupled to the primary pressure regulator and configured to regulate the gaseous fuel supplied from the primary pressure regulator to the desired pressure for delivery through the gaseous fuel line to operate the dual fuel generator.

13. (Original) The dual fuel generator and fuel delivery system of claim 12 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 to mate with the first end of the quick-connect hose coupling to couple the secondary pressure regulator to the gaseous fuel line.

14. (Original) The dual fuel generator and fuel delivery system of claim 12, further comprising a regulator mounting device secured to the pressurized fuel source with at least one of the primary pressure regulator and the secondary pressure regulator mounted on the regulator mounting device.

15. (Original) The dual fuel generator and fuel delivery system of claim 14, wherein the pressurized fuel source comprises a pressurized fuel container having a collar; and

wherein the regulator mounting device secures to the collar so that the primary and secondary pressure regulators are positioned adjacent each other along an outer periphery of the collar.

16. (Original) The dual fuel generator and fuel delivery system of claim 11 wherein the first and second stages comprise a dual stage regulator configured to regulate the gaseous fuel supplied from the pressurized fuel source and regulate the reduced pressure gaseous fuel.

17. (Original) The dual fuel generator and fuel delivery system of claim 16 wherein the dual stage regulator is mounted directly onto the pressurized fuel source.

18-20. (Canceled)

21. (New) A generator and fuel delivery system comprising:

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

a fuel regulator system located off-board the generator, the fuel regulator system configured to:

regulate the gaseous fuel supplied from the pressurized fuel source in a first stage, the gaseous fuel regulated down to a reduced pressure in the first stage; and

regulate the reduced pressure gaseous fuel in a second stage, the reduced pressure gaseous fuel from the first stage regulated down to a desired pressure in the second stage for delivery through the gaseous fuel line to operate the generator.

22. (New) The generator and fuel delivery system of claim 21 wherein the first and second stages comprise a dual stage regulator configured to regulate the gaseous fuel supplied from the pressurized fuel source and regulate the reduced pressure gaseous fuel.

23. (New) The generator and fuel delivery system of claim 22 wherein the dual stage regulator is mounted directly onto the pressurized fuel source, off-board from the generator.

REMARKS

Claims 1-20 are pending in the present application. In the Office Action mailed March 11, 2019, the Examiner rejected claims 1-20 on the ground of nonstatutory double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 10,221,780. The Examiner next rejected claims 1 and 6-20 under 35 U.S.C. §103 as being unpatentable over Pursifull et al. (US Pub. 2011/0168133) in view of Sugimoto et al. (US Pub. 2007/0137591).

Claims 2-5 were indicated as containing allowable subject matter. Such indication is appreciated.

Canceled and Newly Presented Claims

In the present response, Applicant has canceled claims 18-20 and newly added claims 21-23. No new matter is added in claims 21-23 and Applicant therefore respectfully requests entering thereof.

Double Patenting Rejection

The Examiner rejected claims 1-20 on the ground of non-statutory double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 10,221,780.

Applicant notes that the double patenting rejection is not the only remaining rejection in the present application. The Examiner has also applied rejections under 35 U.S.C. §103 in the current Office Action. Applicant, therefore, requests that the double patenting rejection be held in abeyance pending resolution of the other rejections.

Rejection under 35 U.S.C. §103 over Pursifull et al. in view of Sugimoto et al.**Claims 1 and 11**

The Examiner rejected claims 1 and 11 under 35 U.S.C. §103 as being unpatentable over Pursifull et al. (US Pub. 2011/0168133) in view of Sugimoto et al. (US Pub. 2007/0137591).

Claim 1 calls for 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 coupled to a service valve of the pressurized fuel source and configured to regulate the fuel supplied from the pressurized fuel source to a reduced pressure; and a secondary pressure regulator coupled 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; and 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

Claim 11 calls for 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 configured to: regulate the gaseous fuel supplied from the pressurized fuel source in a first stage, the gaseous fuel regulated down to a reduced pressure in the first stage; and regulate the reduced pressure gaseous fuel in a second stage, the reduced pressure gaseous fuel from the first stage regulated down to a desired pressure in the second stage for delivery through the gaseous fuel line to operate the dual fuel generator; and 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.

In rejecting claims 1 and 11, the Examiner asserted that Pursifull discloses the claimed “a dual fuel generator” and “mechanical fuel valve,” but admitted that “Pursifull fails to disclose a fuel regulator system located off board the dual fuel generator” that comprises a primary pressure regulator and secondary pressure regulator (claim 1) and/or a first stage and second stage (claim 11). *Office Action*, March 11, 2019, p. 3-4. The Examiner thus cited to Sugimoto as teaching these claim elements, with the Examiner stating that “Sugimoto discloses a dual fuel engine and delivery system (Fig. 1, as shown) wherein the system includes an off-board gaseous fuel system (Fb) which includes an off-board pressure regulator 72 which feeds fuel into an engine system 1 which includes another pressure regulator 62.” *Id.* at 4. The Examiner thus concluded that “it would have been obvious to one of ordinary skill in the art before the filing date of the invention to modify the device of Pursifull with the pressure regulators and gaseous fuel system methods of Sugimoto.” *Id.* Applicant respectfully disagrees with the rejection.

Pursifull discloses an engine system 100 that includes an internal combustion engine 102 having one or more cylinders 104 that may receive fuel from one or more fuel injectors 106 that inject fuel in proportion to a pulse width of a signal received from a controller 128. *Pursifull*, ¶[0021]. Fuel may be delivered to the fuel injector 106 from a fuel rail 108 by a fuel system 110.

Pursifull, ¶[0021]. The fuel system 110 may include a fuel tank 112 and a fuel pump 114 operable by controller 128 to pump fuel from the fuel tank 112 to the fuel rail 108. *Pursifull*, ¶[0022]. A delivery check valve 116 may be positioned downstream of the fuel pump 114 to force fuel pumped from the fuel pump at a predetermined pressure to the fuel rail 108 so that fuel does not return along the same path to the fuel pump. *Pursifull*, ¶[0023]. A first solenoid valve 118 may be positioned downstream of delivery check valve 116 to control the flow of fuel to fuel rail 108 or from the fuel rail to a return line 119. *Pursifull*, ¶[0023]. In some embodiments, fuel system 110 may be what is known as a multi-fuel system that selectively provides a plurality of different types of fuel to the fuel rail 108 based on the mode of operation, such as gasoline and/or liquid propane. *Pursifull*, ¶[0024]. A three-way valve 120 may be positioned upstream of the fuel rail 108 and downstream of the first solenoid valve 118 and the return line 119 to selectively control the flow of a desired type of fuel to the fuel rail 108. *Pursifull*, ¶[0025]. The state of the three-way valve 120 may be controlled by controller 128 to vary which type of fuel is delivered to the fuel rail 108. *Pursifull*, ¶[0025]. Fuel in the fuel rail 108 may be returned to the fuel tank 112 via the return line 119, with an ejector 124 positioned in the return line 119 to provide a single fuel rail evacuation stage. *Pursifull*, ¶[0026]. A return check valve 122 is positioned in the return line 119 downstream of the ejector 124 to force fuel returning from the fuel rail 108 at a predetermined pressure to ejector 124 so that fuel is evacuated from the fuel rail 108. *Pursifull*, ¶[0027]. A second solenoid valve 126 is positioned upstream of the outlet of the ejector 124 and downstream of the fuel tank 112 that may be controlled by controller 128 evacuate the fuel rail 108. *Pursifull*, ¶[0028].

In a method for controlling for controlling a multi-fuel system as described in *Pursifull*, the method may include operating in the fuel rail pressurization mode where a determination is made if a first fuel from a first fuel stage or a second fuel from a second fuel is selected for delivery to the fuel rail 108. *Pursifull*, ¶[0066]. If the first fuel is selected, operating in the fuel rail pressurization mode may include, switching the three-way valve 120 to the first fuel stage, opening the solenoid valve 118 positioned downstream of the fuel pump 114 and upstream of the fuel rail 108, closing the solenoid valve 126 positioned upstream of the ejector 124 and downstream of the fuel tank 112, and operating the fuel pump 114 to deliver the first fuel from the fuel tank to the fuel rail. *Pursifull*, ¶[0066]. If the second fuel is selected, operating in the fuel rail pressurization mode may include switching the three-way valve 120 to the second fuel stage, and, operating the fuel pump 136 to deliver the second fuel from the fuel tank 134 to the fuel rail 108. *Pursifull*, ¶[0066].

Sugimoto discloses an engine operated generator 1 that includes an engine 30 that powers an electric generator 40. *Sugimoto*, ¶¶[0041], [0042]. A fuel system F for supplying the fuel gas to the engine 30 has an internal fuel system Fa (fuel bottles 61) and an external fuel system Fb (external fuel bottle 71) disposed outside the case C of the generator. *Sugimoto*, ¶[0070]. The fuel supply system Fa includes a fuel pressure regulator 62, a fuel system selector valve 12, a connector 14, and a fuel cutoff valve 63. *Sugimoto*, ¶[0071]. The fuel pressure regulator 62 reduces the pressure of the fuel gas supplied from fuel bottles 61 and the external fuel bottle 71 and regulates the pressure of the fuel gas so that the fuel gas may be supplied to a carburetor 18b at fuel supply rate varying in proportion to load on the engine 30. *Sugimoto*, ¶[0071]. The fuel system selector valve 12 is placed on the operating panel 5e and is operated to select a fuel supply line. *Sugimoto*, ¶[0071]. The fuel pipes interconnect the fuel bottles 61, the fuel pressure regulator 62 and the carburetor 18b. The fuel cutoff valve 63 stops the flow of the fuel gas from the fuel system F to the engine 30. *Sugimoto*, ¶[0071].

In the fuel supply system Fa, a first fuel system for supplying the first fuel gas from the fuel bottles 61 to the engine 30 is constituted by the fuel bottles 61, a pipe A1 connecting the fuel bottles 61 to the fuel system selector valve 12, a pipe A2 connecting the fuel system selector valve 12 to the fuel pressure regulator 62, the fuel pressure regulator 62, a pipe connecting the fuel pressure regulator 62 to the carburetor 18b, and the fuel cut-off valve 63 placed in the pipe A3. *Sugimoto*, ¶[0079]. A second fuel system for supplying the second fuel gas from the external fuel bottle 71 to the engine 30 is constituted by a pipe A4 connecting the connector 14 to the fuel cutoff valve 12, the pipe A2 connecting the fuel system selector valve 12 to the fuel pressure regulator 62, the fuel pressure regulator, the pipe A3 connecting the fuel pressure regulator 62 to the carburetor 18b, and the fuel cutoff valve 63. *Sugimoto*, ¶[0079].

The fuel cutoff valve 63, namely, a fuel cutoff means, is, for example, a normally-open solenoid valve which closes when energized. *Sugimoto*, ¶[0081]. The ECU 89 controls the fuel cutoff valve 63 on the basis of the pressure of the first fuel gas. *Sugimoto*, ¶[0081]. More specifically, the fuel pressure regulator 62 is provided with a pressure sensor 73 for measuring the pressure of the first fuel gas flowing from the fuel bottle 61 to the fuel pressure regulator 62. *Sugimoto*, ¶[0081]. When the pressure of the first fuel gas measured by the pressure sensor 73 is higher than an upper limit pressure P1, the ECU 89 closes the fuel cutoff valve 63 to disconnect the common fuel system from the fuel bottle 61. *Sugimoto*, ¶[0081]. The fuel system selector valve 12 connects either the first fuel system that supplies the first fuel gas to the engine 30 or the second fuel system that supplies the second gas to the engine 30 selectively to the fuel pressure

regulator 62. *Sugimoto*, ¶[0082]. The fuel system selector valve 12 can be set in a first position, where the knob of the fuel system selector valve 12 is at a first position marked with "Internal fuel" to connect the first fuel system to the engine 30 to supply the first fuel gas to the engine 30, and in a second position, where the knob of the fuel system selector valve 12 is at a second position marked with "External fuel" to connect the second fuel system to the engine 30 to supply the second fuel gas to the engine 30. *Sugimoto*, ¶[0082].

However, there is no disclosure provided in Pursifull and/or Sugimoto of a fuel regulator system located off board the dual fuel generator, the fuel regulator system comprising a primary pressure regulator configured to regulate the fuel supplied from the pressurized fuel source to a reduced pressure and a secondary pressure regulator coupled 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 (claim 1) and/or a fuel regulator system located off board the dual fuel generator, the fuel regulator system configured to: regulate the gaseous fuel down to a reduced pressure and regulate the reduced pressure gaseous fuel in a second stage down to a desired pressure in the second stage for delivery through the gaseous fuel line to operate the dual fuel generator (claim 11).

Regarding Pursifull, the Examiner admits that the reference fails to teach a fuel regulator system as called for in claims 1 and 11.

Regarding Sugimoto, there is no teaching therein of a fuel regulator system located off board the dual fuel generator – i.e., of both the primary pressure regulator and secondary pressure regulator being located off board the dual fuel generator (claim 1) and/or both a first stage and second stage being located off board the dual fuel generator (claim 11). That is, while pressure reducing device 72 of Sugimoto is included as part of external fuel system Fb that is off-board generator 1, *Sugimoto*, ¶[0073], the fuel pressure regulator 62 referenced by the Examiner is on-board generator 1 - as the fuel pressure regulator 62 is located between pipe A2 and pipe A3 on generator 1, as can be clearly seen in FIG. 1 of Sugimoto. See *Sugimoto*, FIG. 1. As fuel pressure regulator 62 is located on-board the generator 1, the arrangement of the “fuel regulator system” in Sugimoto (collectively comprising pressure reducing device 72 and fuel pressure regulator 62) is different from what is called for in claims 1 and 11 where an entirety of a fuel regulator system (primary and second regulators (claim 1) or first and second stages (claim 11) of a fuel regulator system) is located off board the generator.

In light of at least the above, the combination of Pursifull and Sugimoto fails to teach or suggest that which is called for in claims 1 and 11. Each of claims 1 and 11 is thus believed to be

patentably distinct from the cited references, and Applicant therefore respectfully requests withdrawal of the rejection of claims 1 and 11 and the claims dependent therefrom.

Conclusion

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 1-17 and 21-23.

No fees are deemed necessary for the claims newly presented herein, as an equal number of claims have been canceled.

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

Respectfully submitted,

/Kevin R. Rosin/

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Dated: May 22, 2019
Attorney Docket No.: CET1090.070

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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.

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Dated: May 22, 2019
Attorney Docket No.: CET1090.070

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Electronic Acknowledgement Receipt

EFS ID:	36083605
Application Number:	16191503
International Application Number:	
Confirmation Number:	6187
Title of Invention:	DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE
First Named Inventor/Applicant Name:	Mark J. Sarder
Customer Number:	26629
Filer:	Kevin Roger Rosin./Robyn Templin
Filer Authorized By:	Kevin Roger Rosin.
Attorney Docket Number:	CET1090.070
Receipt Date:	22-MAY-2019
Filing Date:	15-NOV-2018
Time Stamp:	12:42:59
Application Type:	Utility under 35 USC 111(a)

Payment information:

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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		Response.pdf	175267	yes	15
			a09143077ee23b5715f4de9768d9f7b51abc16a2		

	Multipart Description/PDF files in .zip description		
	Document Description	Start	End
	Amendment/Req. Reconsideration-After Non-Final Reject	1	1
	Specification	2	2
	Abstract	3	3
	Claims	4	8
	Applicant Arguments/Remarks Made in an Amendment	9	15

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

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

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

New International Application Filed with the USPTO as a Receiving Office

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



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APPLICATION NUMBER	FILING OR 371(C) DATE	FIRST NAMED APPLICANT	ATTY. DOCKET NO./TITLE
16/191,503	11/15/2018	Mark J. Sarder	CET1090.070

CONFIRMATION NO. 6187

PUBLICATION NOTICE



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ZIOLKOWSKI PATENT SOLUTIONS GROUP, SC (ZPS)
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Title:DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE

Publication No.US-2019-0078519-A1

Publication Date:03/14/2019

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/>.

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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.

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

Customer No. 26629
Confirmation No. 6187

Patent
Attorney Docket No. CET1090.070

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of : Sarder et al.
Serial No. : 16/191,503
Filed : November 15, 2018
For : DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE
Group Art No. : 3747
Examiner : NOT YET ASSIGNED

CERTIFICATION UNDER 37 CFR 1.8(a) and 1.10

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

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37 CFR 1.10

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☒ transmitted by EFS-WEB addressed to **Office of Initial Patent Examination** at the Patent and Trademark Office.

Date: March 13, 2019

/Robyn L. Templin/
Signature

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

PRELIMINARY AMENDMENT

Dear Examiner:

Prior to examination on the merits, please amend the application as follows:

Electronic Acknowledgement Receipt

EFS ID:	35413326
Application Number:	16191503
International Application Number:	
Confirmation Number:	6187
Title of Invention:	DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE
First Named Inventor/Applicant Name:	Mark J. Sarder
Customer Number:	26629
Filer:	Kevin Roger Rosin./Robyn Templin
Filer Authorized By:	Kevin Roger Rosin.
Attorney Docket Number:	CET1090.070
Receipt Date:	13-MAR-2019
Filing Date:	15-NOV-2018
Time Stamp:	16:08:41
Application Type:	Utility under 35 USC 111(a)

Payment information:

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File Listing:

Document Number	Document Description	File Name	File Size(Bytes)/ Message Digest	Multi Part /.zip	Pages (if appl.)
1		PreliminaryAmendment.pdf	141787	yes	10
			2e9f8b72b25018a2c8a61bdc7258a84d37d775e8		

	Multipart Description/PDF files in .zip description		
	Document Description	Start	End
	Applicant Arguments/Remarks Made in an Amendment	10	10
	Claims	4	9
	Abstract	3	3
	Specification	2	2
	Preliminary Amendment	1	1

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

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

New International Application Filed with the USPTO as a Receiving Office

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

REMARKS

In this Preliminary Amendment, claims 18-20 have been canceled and claims 21-23 have been newly added. Additionally, the Title and Abstract of the application have been amended to more accurately reflect the claimed invention. No new matter has been added by way of the amendments. No fees are deemed to be due for the newly presented claims, as an equal number of claims have been canceled.

Should the Examiner have any questions regarding this Amendment, he or she is cordially invited to contact the undersigned.

Respectfully submitted,

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Dated: March 13, 2019
Attorney Docket No.: CET1090.070

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In the Claims

1. (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 coupled to a service valve of the pressurized fuel source and configured to regulate the fuel supplied from the pressurized fuel source to a reduced pressure; and
 - a secondary pressure regulator coupled 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; and
 - 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.
2. (Original) The dual fuel generator and fuel delivery system of claim 1 further comprising a fuel lockout apparatus coupled to the mechanical fuel valve; and
 - wherein when the mechanical fuel valve is in the first position, the fuel lockout apparatus communicates the liquid fuel source to the dual fuel generator and prevents the pressurized fuel source from coupling to the dual fuel generator, and actuation of the mechanical fuel valve to the second position causes the fuel lockout apparatus to permit the pressurized fuel source to couple to the dual fuel generator, and interrupts the liquid fuel source communication with the dual fuel generator.

3. (Original) The dual fuel generator and fuel delivery system of claim 1, wherein mechanical fuel valve opens and closes the liquid fuel line to selectively control fuel flow from the liquid fuel source to the dual fuel generator; and further comprises:

a fuel lockout apparatus coupled to the mechanical fuel valve and configured to prevent the pressurize fuel source from coupling to the gaseous fuel line while the mechanical fuel valve opens the liquid fuel line, and permit the pressurized fuel source to couple to the gaseous fuel line while the mechanical fuel valve closes the liquid fuel line.

4. (Original) The dual fuel generator and fuel delivery system of claim 3, wherein the fuel lockout apparatus is further configured to prevent the mechanical fuel valve from opening the liquid fuel line while the dual fuel generator receives fuel from the pressurized fuel source.

5. (Original) The dual fuel generator and fuel delivery system of claim 3, wherein the fuel lockout apparatus further comprises a fuel inlet cover that actuates with the mechanical fuel valve to cover an inlet of the gaseous fuel line while the mechanical fuel valve opens the liquid fuel line and to uncover mechanical fuel lockout switch the inlet of the gaseous fuel line when the mechanical fuel valve closes the liquid fuel line.

6. (Original) The dual fuel generator and fuel delivery system of claim 1, 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 to mate with the first end of the quick-connect hose coupling to couple the secondary pressure regulator to the gaseous fuel line.

7. (Original) The dual fuel generator and fuel delivery system of claim 1, further comprising a regulator mounting device secured to the pressurized fuel source with at least the secondary pressure regulator mounted on the regulator mounting device.

8. (Original) The dual fuel generator and fuel delivery system of claim 7, wherein the primary pressure regulator is mounted on the regulator mounting device.

9. (Original) The dual fuel generator and fuel delivery system of claim 8, wherein the pressurized fuel source comprises a pressurized fuel container having a collar; and

wherein the regulator mounting device secures to the collar so that the primary and secondary pressure regulators are positioned adjacent each other along an outer periphery of the collar.

10. (Original) The dual fuel generator and fuel delivery system of claim 1, wherein the primary and secondary pressure regulators are integral components of a dual stage pressure regulator.

11. (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 configured to:

regulate the gaseous fuel supplied from the pressurized fuel source in a first stage, the gaseous fuel regulated down to a reduced pressure in the first stage; and

regulate the reduced pressure gaseous fuel in a second stage, the reduced pressure gaseous fuel from the first stage regulated down to a desired pressure in

the second stage for delivery through the gaseous fuel line to operate the dual fuel generator; and

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.

12. (Original) The dual fuel generator and fuel delivery system of claim 11 wherein the first stage comprises a primary pressure regulator coupled to a service valve of the pressurized fuel source and configured to regulate the gaseous fuel supplied from the pressurized fuel source to the reduced pressure; and

wherein the second stage comprises a secondary pressure regulator coupled to the primary pressure regulator and configured to regulate the gaseous fuel supplied from the primary pressure regulator to the desired pressure for delivery through the gaseous fuel line to operate the dual fuel generator.

13. (Original) The dual fuel generator and fuel delivery system of claim 12 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 to mate with the first end of the quick-connect hose coupling to couple the secondary pressure regulator to the gaseous fuel line.

14. (Original) The dual fuel generator and fuel delivery system of claim 12, further comprising a regulator mounting device secured to the pressurized fuel source with at least one of the primary pressure regulator and the secondary pressure regulator mounted on the regulator mounting device.

15. (Original) The dual fuel generator and fuel delivery system of claim 14, wherein the pressurized fuel source comprises a pressurized fuel container having a collar; and

wherein the regulator mounting device secures to the collar so that the primary and secondary pressure regulators are positioned adjacent each other along an outer periphery of the collar.

16. (Original) The dual fuel generator and fuel delivery system of claim 11 wherein the first and second stages comprise a dual stage regulator configured to regulate the gaseous fuel supplied from the pressurized fuel source and regulate the reduced pressure gaseous fuel.

17. (Original) The dual fuel generator and fuel delivery system of claim 16 wherein the dual stage regulator is mounted directly onto the pressurized fuel source.

18-20. (Canceled)

21. (New) A generator and fuel delivery system comprising:

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

a fuel regulator system located off-board the generator, the fuel regulator system configured to:

regulate the gaseous fuel supplied from the pressurized fuel source in a first stage, the gaseous fuel regulated down to a reduced pressure in the first stage; and

regulate the reduced pressure gaseous fuel in a second stage, the reduced pressure gaseous fuel from the first stage regulated down to a desired pressure in the second stage for delivery through the gaseous fuel line to operate the generator.

22. (New) The generator and fuel delivery system of claim 21 wherein the first and second stages comprise a dual stage regulator configured to regulate the gaseous fuel supplied from the pressurized fuel source and regulate the reduced pressure gaseous fuel.

23. (New) The generator and fuel delivery system of claim 22 wherein the dual stage regulator is mounted directly onto the pressurized fuel source, off-board from the generator.

In the Abstract

Please replace the Abstract with the following Abstract:

A generator and off-board fuel delivery system is disclosed. The generator is configured to operate on one or more fuels, including on a gaseous fuel supplied from a pressurized fuel source through a gaseous fuel line. A fuel regulator system is located off board the generator and is configured to regulate the gaseous fuel supplied from the pressurized fuel source in a first stage, with the gaseous fuel regulated down to a reduced pressure in the first stage. A second stage of the fuel regulator system regulates the reduced pressure gaseous fuel, with the reduced pressure gaseous fuel from the first stage regulated down to a desired pressure in the second stage for delivery through the gaseous fuel line to operate the generator.

In the Title

Please change the Title to:

OFF-BOARD FUEL REGULATOR FOR GENERATOR ENGINE



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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
16/191,503	11/15/2018	Mark J. Sarder	CET1090.070	6187
26629	7590	03/11/2019		
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
			03/11/2019	ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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sml@zpspatents.com

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 §§ 706.02(I)(1) - 706.02(I)(3) 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 USPTO Internet website contains terminal disclaimer forms which may be used. Please visit www.uspto.gov/patent/patents-forms. The 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/process/file/efs/guidance/eTD-info-I.jsp.

3. Claims 1-20 are rejected on the ground of nonstatutory double patenting as being unpatentable over claims 1-15 of U.S. Patent No. 10,221,780. Although the claims at issue are not identical, they are not patentably distinct from each other because the limitations of claims 1-20 are substantially the same to an anticipatory or obvious degree as those in '780.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103 which forms the basis for all obviousness rejections set forth in this Office action:

A patent for a claimed invention may not be obtained, notwithstanding that the claimed invention is not identically disclosed as set forth in section 102, if the differences between the claimed invention and the prior art are such that the claimed invention as a whole would have been obvious before the effective filing date of the claimed invention to a person having ordinary skill in the art to which the claimed invention pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1 and 6-20 is/are rejected under 35 U.S.C. 103 as being unpatentable over Pursifull et al (US 2011/0168133) in view of Sugimoto et al (US 2007/0137591)**

6. **Regarding claims 1, 11, 12, 16, and 18-20,** Pursifull discloses a dual fuel generator and fuel delivery system, as well as a method for its operation, (Fig. 3, shown dual fuel engine) comprising:

a dual fuel generator 102 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 (Para. [0040], the dual fuel engine comprises pressurized gaseous fuel and liquid fuel);

and 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 (Para. [0025], [0028], and [0066], wherein a three-way valve and lockout apparatus determine which fuel flows to the dual fuel generator).

7. Pursifull fails to disclose a fuel regulator system located off board the dual fuel generator, the fuel regulator system comprising: a primary pressure regulator coupled to a service valve of the pressurized fuel source and configured to regulate the fuel supplied from the pressurized fuel source to a reduced pressure; and a secondary pressure regulator coupled 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.

8. Sugimoto discloses a dual fuel engine and delivery system (Fig. 1, as shown) wherein the system includes an off-board gaseous fuel system (Fb) which includes an off-board pressure regulator 72 which feeds fuel into an engine system 1 which includes another pressure regulator 62. The inclusion of pressure reduction devices for the gasification of liquid-held fuel allows for an effective cooling of the fuel system and systems (Para. [0010]) while allowing the dual fuel engine to be powered by an external fuel tank attached to it in an off board fashion such as in emergency situations (Para. [0002]).

9. Therefore, it would have been obvious to one of ordinary skill in the art before the filing date of the invention to modify the device of Pursifull with the pressure regulators and gaseous fuel system methods of Sugimoto in order to improve the cooling of the fuel system parts through pressure reduction as well as regulate the pressure from an external attached fuel tank which allows the dual fuel engine system to be used in varying situations such as emergency ones using an external fuel source.

10. Further, the inclusion of multiple pressure regulators in the off-board fuel system, while not disclosed in Pursifull as modified by Sugimoto, would have been an obvious modification of the system of Sugimoto which includes an off-board fuel regulation system including a single regulator 72. It would

have been obvious to one having ordinary skill in the art at the time the invention was made to duplicate the regulation system to have a dual-regulator off-board system since it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8. Further, dual tank regulators are extremely old and well-known in the art to provide on off-board fuel tanks, particularly gaseous ones such as propane/natural gas tanks, as they are more efficient, durable, and effective in their regulation. These types of regulators are often called "dual-stage" or "double-stage" regulators and would be known to one of ordinary skill in the art.

11. **Regarding claims 6 and 13**, the modified Pursifull discloses the dual fuel generator and fuel delivery system of claims 1 and 11, 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 to mate with the first end of the quick-connect hose coupling to couple the secondary pressure regulator to the gaseous fuel line (Fig. 1 of Sugimoto modifies Pursifull to include an external source of gaseous fuel and regulators makes use of a connection hose coupling 14).

12. **Regarding claims 7, 8, 14, and 17**, the dual fuel generator and fuel delivery system of claim 1, but fails to disclose further comprising a regulator mounting device secured to the pressurized fuel source with at least the secondary pressure regulator mounted on the regulator mounting device. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to mount both regulators in a similar location on the same bracket since it has been held that rearranging parts of an invention involves only routine skill in the art. *In re Japikse*, 86 USPQ70. In this case locating the two regulators mounted with a mounting device on the pressure source is not only common but obvious due to its efficiency, ease of use, and ease of movement for any potential operator.

13. **Regarding claims 9 and 15**, the dual fuel generator and fuel delivery system of claims 8 and 14, but fails to disclose wherein the pressurized fuel source comprises a pressurized fuel container having a collar; and wherein the regulator mounting device secures to the collar so that the primary and secondary pressure regulators are positioned adjacent each other along an outer periphery of the collar.

14. In this case the claim pertains to the routine and known art of using propane tanks as a fuel tank source as these devices are well-known in the art to have a "collar" piece which often has regulators attached to it. While the art of Pursifull and Sugimoto never make reference to this specific old and well-known device, they do make use of fuel tanks that could easily be substituted with them. Therefore, examiner makes official notice that it is old and well-known to make use of standard-in-the-art propane tanks with regulators attached to their collars as this would have allowed the modified Pursifull to make use of the common, cheap, and easy-to-use propane tanks for its regulation and propane tank systems. Some examples of such tanks can be seen at: RVDoctor (Oct. 2010, <http://www.rvdoctor.com/2012/10/disconcerting-propane-le3ks-on-rv.html>) which shows two propane tanks with a regulator attached to their collar; and Nooutage.com (Aug. 27th, 2006, [https://web.archive.org/web/20060928183104/http://www.nooutage.cx/m:80/images/BS-7KW Power Now tanks.jpg](https://web.archive.org/web/20060928183104/http://www.nooutage.cx/m:80/images/BS-7KW%20Power%20Now%20tanks.jpg)) which shows propane tanks with regulators attached to their collars.

15. **Regarding claim 10**, the modified Pursifull discloses the dual fuel generator and fuel delivery system of claims 1 and 11, but fails to disclose wherein the primary and secondary pressure regulators are integral components of a dual stage pressure regulator.

16. However, It would have been obvious to one having ordinary skill in the art at the time the invention was made to combine the regulators into a two-stage regulator, since it has been held that forming in one piece an article which has formerly been formed in two pieces and put together involves only routine skill in the art. Howard v. Detroit Stove Works, 150 U.S. 164 (1893). Further, integral dual-

regulators are old and well-known in the art for off-board fuel tanks, particularly gaseous ones, and are commonly known as “dual-stage” or “double-stage” regulators.

Allowable Subject Matter

17. Claims 2-5 would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims if the Non-Statutory Double Patenting rejection presented above is also overcome.

Conclusion

18. 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 on 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.

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/KEVIN A LATHERS/
Primary Examiner, Art Unit 3747

<i>Notice of References Cited</i>	Application/Control No. 16/191,503		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-10221780-B2	03-2019	Sarder, Mark J.	F02D19/0613	1/1
	B					
	C					
	D					
	E					
	F					
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NON-PATENT DOCUMENTS

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Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

<i>Search Notes</i> 	Application/Control No. 16/191,503	Applicant(s)/Patent Under Reexamination Sarder et al.
	Examiner KEVIN A LATHERS	Art Unit 3747

CPC - Searched*		
Symbol	Date	Examiner
F02D19/0613, 19/0605, 19/0647	03/05/2019	/K.L./
Y02T10/36	03/05/2019	/K.L./

CPC Combination Sets - Searched*		
Symbol	Date	Examiner

US Classification - Searched*			
Class	Subclass	Date	Examiner

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Search Notes		
Search Notes	Date	Examiner
Google and EAST including inventor and assignee search.	03/05/2019	/K.L./

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

/KEVIN A LATHERS/ Primary Examiner, Art Unit 3747	
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Doc code: IDS

PTO/SB/08a (01-10)

Doc description: Information Disclosure Statement (IDS) Filed

Approved for use through 07/31/2012. OMB 0651-0031

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Application Number	
Filing Date	
First Named Inventor	Mark J. Sarder et al.
Art Unit	
Examiner Name	
Attorney Docket Number	CET1090.070

U.S.PATENTS						Remove
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	2722208		1955-11-01	Conroy, Jr. et al.	
	2	3384059		1968-05-21	Kopa	
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Application Number		
Filing Date		
First Named Inventor	Mark J. Sarder et al.	
Art Unit		
Examiner Name		
Attorney Docket Number	CET1090.070	

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Application Number		
Filing Date		
First Named Inventor	Mark J. Sarder et al.	
Art Unit		
Examiner Name		
Attorney Docket Number	CET1090.070	

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First Named Inventor	Mark J. Sarder et al.	
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Examiner Name		
Attorney Docket Number	CET1090.070	

31	5450832		1995-09-19	Graf	
32	5611312		1997-03-18	Swanson et al.	
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Application Number		
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First Named Inventor	Mark J. Sarder et al.	
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42	6914342	B1	2005-07-05	French	
43	7905469	B2	2011-03-15	Nickels et al.	
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	1	20020134362	A1	2002-09-26	Deutsch	
	2	20040139943	A1	2004-07-22	Kern et al.	
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)

Application Number		
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First Named Inventor	Mark J. Sarder et al.	
Art Unit		
Examiner Name		
Attorney Docket Number	CET1090.070	

5	20110168133	A1	2011-07-14	Pursifull et al.
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	1	2060477	CN	U	1990-08-15	Zhao Yunying		

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

Application Number		
Filing Date		
First Named Inventor	Mark J. Sarder et al.	
Art Unit		
Examiner Name		
Attorney Docket Number	CET1090.070	

2	1981121	CN	A	2007-06-13	Honda Motor Co., Ltd.	
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NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵
	1	Honda EU20i LPG, March 20, 2012, https://www.youtube.com/watch?v=yBpq33aJmR0	
	2	JOHNSON et al., "Electronic Direct Fuel Injection (EDFI) for Small Two-Stroke Engines," SAE Technical Paper 1999-01-3312, Proceedings of the 1999 SAE Small Engine Technology Conference, Madison, WI, September 28-30, 1999, pp. 1-15	
	3	Champion Power (2014, Dec. & Jan.) 100153 Manual, Retrieved from http://www.championpowerequipment.com/media/2400/100153_manual-english_12-4-14.pdf	

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Examiner Signature	/KEVIN A LATHERS/	Date Considered	03/05/2019
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First Named Inventor	Mark J. Sarder et al.	
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Please see 37 CFR 1.97 and 1.98 to make the appropriate selection(s):

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

OR

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

See attached certification statement.

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

A certification statement is not submitted herewith.

SIGNATURE

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

Signature	/Kevin R. Rosin/	Date (YYYY-MM-DD)	2018-11-15
Name/Print	Kevin R. Rosin	Registration Number	55584

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5. A record related to an International Application filed under the Patent Cooperation Treaty in this system of records may be disclosed, as a routine use, to the International Bureau of the World Intellectual Property Organization, pursuant to the Patent Cooperation Treaty.
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7. A record from this system of records may be disclosed, as a routine use, to the Administrator, General Services, or his/her designee, during an inspection of records conducted by GSA as part of that agency's responsibility to recommend improvements in records management practices and programs, under authority of 44 U.S.C. 2904 and 2906. Such disclosure shall be made in accordance with the GSA regulations governing inspection of records for this purpose, and any other relevant (i.e., GSA or Commerce) directive. Such disclosure shall not be used to make determinations about individuals.
8. A record from this system of records may be disclosed, as a routine use, to the public after either publication of the application pursuant to 35 U.S.C. 122(b) or issuance of a patent pursuant to 35 U.S.C. 151. Further, a record may be disclosed, subject to the limitations of 37 CFR 1.14, as a routine use, to the public if the record was filed in an application which became abandoned or in which the proceedings were terminated and which application is referenced by either a published application, an application open to public inspections or an issued patent.
9. A record from this system of records may be disclosed, as a routine use, to a Federal, State, or local law enforcement agency, if the USPTO becomes aware of a violation or potential violation of law or regulation.

EAST Search History

EAST Search History (Prior Art)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
L1	24	"10221780"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/05 17:48
S1	445	F02D19/0613.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/27 14:25
S2	1204	F02D19/0605.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/27 14:25
S3	3408	F02D19/0647.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/27 14:25
S4	15258	Y02T10/36.cpc.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/27 14:25
S5	808	(S1 S2 S3 S4) and (switch valve) near20 (propane natural adj gas gaseous lng cng) near20 (gasoline liquid diesel)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/27 14:28
S6	79	(S1 S2 S3 S4) and (switch valve) near20 (propane natural adj gas gaseous lng cng) near20 (gasoline liquid diesel) and (second secondary auxiliary) near5 (regulat\$3)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/27 14:29
S7	64	(S1 S2 S3 S4) and (switch valve) near20	US-PGPUB;	OR	OFF	2017/07/27

		(propane natural adj gas gaseous lng cng) near20 (gasoline liquid diesel) and (second secondary auxiliary) adj (regulat\$3 pressure)	USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB			14:44
S8	28	("5450832" "20130220274" "5325835" "5320078" "4619240" "6082323" "6453877" "5171487" "6223730" "6213083" "4489699" "5287839" "8590510" "5673670" "4450821" "5816224" "6276345" "4502453" "20130047964" "4372276" "6401685" "7905469" "2722208" "4895124" "5161496" "5379740" "5438968" "5419291" "6914342" "8342158").PN.	USPAT	OR	OFF	2017/07/27 14:45
S9	124	("5450832" "20130220274" "5325835" "5320078" "4619240" "6082323" "6453877" "5171487" "6223730" "6213083" "4489699" "5287839" "8590510" "5673670" "4450821" "5816224" "6276345" "4502453" "20130047964" "4372276" "6401685" "7905469" "2722208" "4895124" "5161496" "5379740" "5438968" "5419291" "6914342" "8342158").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/27 14:45
S10	421	(duel dual) near5 fuel near20 (engine generator) same (switch valve) near20 between	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/27 14:46
S11	0	dual adj fuel near20 engine same "switchover valve"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/27 15:17
S12	44	dual adj fuel near20 engine same (switch switchover) near5 valve	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/27 15:19
S13	49	"6591817"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/27 15:19
S14	63	("3799125" "4150645" "4265208" "4303049" "4305350" "4323046" "4353345" "4391251" "4398517" "4524033" "4671243" "5450832" "5524582" "5623907" "5720266" "5816224" "6035837").PN. OR ("6591817").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/27 15:20

S15	80	dual adj fuel near20 engine same (switch switchover select\$3) near5 valve	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/27 15:21
S16	30	((("SARDER") near3 ("Mark"))).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/27 15:25
S17	28	((("SOTIRIADES") near3 ("Aleko"))).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/27 15:25
S18	41	((("DEHN") near3 ("James"))).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/27 15:25
S19	15	((("JENISON") near3 ("Leigh"))).INV.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/27 15:25
S20	16	((("CHAMPION") near3 ("ENGINE") near3 ("TECHNOLOGY") near3 ("LLC"))).AANM.	USPAT	OR	OFF	2017/07/27 15:25
S21	19	((("CHAMPION") near3 ("ENGINE") near3 ("TECHNOLOGY") near3 ("LLC"))).as.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/27 15:26
S22	5	("20040240141" "20060169238" "20130098349" "20130122439" "4489699").PN. OR ("9435273").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/27 15:42
S23	41	("1973142" "2315882" "2381304" "4068639" "4227497" "4335697").PN. OR ("4489699").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/27 15:43
S24	97	(dual multi multiple plural plurality) adj fuel near20 engine same (switch switchover changeover change switch\$3) near5 (valve switch)	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/27 16:02
S25	1	(09/813622).APP.	USPAT; USOCR	OR	OFF	2017/07/27 16:03
S26	63	("3799125" "4150645" "4265208" "4303049" "4305350" "4323046" "4353345" "4391251" "4398517" "4524033" "4671243" "5450832" "5524582" "5623907" "5720266" "5816224" "6035837").PN. OR ("6591817").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/27 16:03
S27	64	("4335697" "4393848" "4430978" "4606322" "4683864" "4825842" "4922862" "5379740" "5474047" "5479906" "5755211" "5775282").PN. OR ("6035837").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2017/07/27 16:34
S28	27	("5999888" "6543395" "4619240" "20140366577" "20120168023" "20140202430" "4463735" "5668310" "5224457").PN.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/28 10:32
S29	0	(14/156204).APP.	USPAT; USOCR	OR	OFF	2017/07/28 11:33
S30	5	(gas gasoline liquid near5 fuel) near20	USPAT;	OR	OFF	2017/07/28

		(propane natural adj gas) near20 (fill\$3 fueling) same (quick-connect connect\$3) near20 (cover flange)	USOCR			11:47
S31	109	(gas gasoline liquid near5 fuel) near20 (propane natural adj gas) near20 (fill\$3 fueling) same (quick-connect connect\$3) near20 (cover flange)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/28 11:47
S32	280	(gas gasoline liquid near5 fuel) near20 (propane natural adj gas) near20 (fill\$3 fueling) same (cover flange)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/28 11:48
S33	171	(gas gasoline liquid near5 fuel) near20 (propane natural adj gas) near20 (fill\$3 fueling) same (cover flange) not S31	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/28 11:48
S34	5	"9435273"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2017/07/28 14:35
S35	1	"20070137591"	USPAT	OR	OFF	2018/02/12 15:56
S37	34	(champion near3 engine).as.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/02/12 15:59
S38	95	dual adj fuel near20 valve near10 switch	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/02/12 16:19
S39	48	"4489699"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/02/12 16:30
S40	5	"20070137591"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/02/12 16:30

S41	29	"3412258"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/02/12 16:30
S42	3	"20100258099"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/02/12 16:30
S43	53	"5611312"	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/02/12 16:30
S44	138	(S39 S40 S41 S42 S43)	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	ON	2018/02/12 16:31
S45	1	(10/591304).APP.	USPAT; USOCR	OR	OFF	2018/02/12 16:45
S46	6	("6332433" "7146962").PN. OR ("7325519").URPN.	US-PGPUB; USPAT; USOCR	OR	OFF	2018/02/12 16:46
S47	35	(US-20020014077-\$ or US-20030168024-\$ or US-20110168133-\$ or US-20120204835-\$ or US-20030010320-\$ or US-20160363099-\$ or US-20170037796-\$ or US-20020134362-\$ or US-20140202430-\$ or US-20160221518-\$ or US-20070137591-\$).did. or (US-5320078-\$ or US-5450832-\$ or US-5816224-\$ or US-6591817-\$ or US-5524582-\$ or US-4570605-\$ or US-4712516-\$ or US-9435273-\$ or US-4489699-\$ or US-4305350-\$ or US-4353345-\$ or US-6035837-\$ or US-6904873-\$ or US-7045916-\$ or US-5092305-\$).did. or (US-2558884-\$ or US-2470747-\$ or US-3022425-\$ or US-3451424-\$).did. or (JP-2004278332-\$).did. or (US-20080290531-\$ or US-20130047964-\$ or US-4463735-\$ or CN-203796423-\$).did.	US-PGPUB; USPAT; USOCR; JPO; DERWENT	OR	OFF	2018/02/12 17:19
S48	35	(US-20020014077-\$ or US-20030168024-\$ or US-20110168133-\$ or US-20120204835-\$ or US-20030010320-\$ or US-20160363099-\$ or US-20170037796-\$ or US-20020134362-\$ or US-20140202430-\$ or US-20160221518-\$ or US-20070137591-\$).did. or (US-5320078-\$ or US-5450832-\$ or US-5816224-\$ or US-6591817-\$ or US-5524582-\$ or US-	US-PGPUB; USPAT; USOCR; JPO; DERWENT	OR	OFF	2018/02/13 17:40

		4570605-\$ or US-4712516-\$ or US-9435273-\$ or US-4489699-\$ or US-4305350-\$ or US-4353345-\$ or US-6035837-\$ or US-6904873-\$ or US-7045916-\$ or US-5092305-\$).did. or (US-2558884-\$ or US-2470747-\$ or US-3022425-\$ or US-3451424-\$).did. or (JP-2004278332-\$).did. or (US-20080290531-\$ or US-20130047964-\$ or US-4463735-\$ or CN-203796423-\$).did.				
S50	17	S48 and regulator	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2018/02/13 17:40
S56	61	("20020134362" "20040139943" "20070137591" "20100258099" "20110168133" "20110253102" "20130047964" "20130220274" "20140202430" "20140238340" "20140373531" "20150122230" "2722208" "3384059" "3412258" "3659574" "3718000" "3783849" "3888223" "4335697" "4372276" "4373493" "4450821" "4463735" "4480595" "4489699" "4502453" "4619240" "4628871" "4708094" "4895124" "4979480" "5092305" "5161496" "5171487" "5228423" "5287839" "5320078" "5325835" "5379740" "5419291" "5438968" "5450832" "5611312" "5673670" "5816224" "6082323" "6213083" "6223730" "6276345" "6401685" "6453877" "6591817" "6914342" "7905469" "8342158" "8590510" "9435273").PN.	US-PGPUB; USPAT; USOCR	OR	OFF	2019/03/05 15:38
S57	37	(US-20020014077-\$ or US-20030168024-\$ or US-20110168133-\$ or US-20120204835-\$ or US-20030010320-\$ or US-20160363099-\$ or US-20170037796-\$ or US-20020134362-\$ or US-20140202430-\$ or US-20160221518-\$ or US-20070137591-\$ or US-20130047964-\$ or US-20150122230-\$).did. or (US-5320078-\$ or US-5450832-\$ or US-5816224-\$ or US-6591817-\$ or US-5524582-\$ or US-4570605-\$ or US-4712516-\$ or US-9435273-\$ or US-4489699-\$ or US-4305350-\$ or US-4353345-\$ or US-6035837-\$ or US-6904873-\$ or US-7045916-\$ or US-5092305-\$).did. or (US-2558884-\$ or US-2470747-\$ or US-3022425-\$ or US-3451424-\$).did. or (JP-2004278332-\$).did. or (US-20080290531-\$ or US-20130047964-\$ or US-4463735-\$ or CN-203796423-\$).did.	US-PGPUB; USPAT; USOCR; JPO; DERWENT	OR	OFF	2019/03/05 16:01
S58	5	S57 and (regulator and valve).clm.	USPAT	OR	OFF	2019/03/05 16:02

S59	8	S57 and (regulator and valve).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/05 16:02
S60	10	S57 and (pressure and valve).clm.	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/05 16:02
S61	1423	engine same (dual multiple plural\$3 double two) near5 fuel same pressure near4 regulat\$3 same valve	US-PGPUB; USPAT; USOCR; FPRS; EPO; JPO; DERWENT; IBM_TDB	OR	OFF	2019/03/05 16:03

EAST Search History (I nterference)

Ref #	Hits	Search Query	DBs	Default Operator	Plurals	Time Stamp
S51	88	F02D19/0613.cpc.	US-PGPUB; USPAT	OR	OFF	2018/11/20 12:06
S52	273	F02D19/0605.cpc.	US-PGPUB; USPAT	OR	OFF	2018/11/20 12:06
S53	747	F02D19/0647.cpc.	US-PGPUB; USPAT	OR	OFF	2018/11/20 12:06
S54	3711	Y02T10/36.cpc.	US-PGPUB; USPAT	OR	OFF	2018/11/20 12:06
S55	1	(engine and lockout and fuel and first adj fuel and second adj fuel and source and switch).clm.	US-PGPUB; USPAT	OR	OFF	2018/11/20 15:47

3/ 5/ 2019 5:52:57 PM
C:\ Users\ klathers\ Documents\ EAST\ Workspaces\ 14738060.wsp

PATENT APPLICATION FEE DETERMINATION RECORD Substitute for Form PTO-875						Application or Docket Number 16/191,503				
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	75		N/A				
SEARCH FEE (37 CFR 1.16(k), (l), or (m))	N/A	N/A	N/A	330		N/A				
EXAMINATION FEE (37 CFR 1.16(o), (p), or (q))	N/A	N/A	N/A	380		N/A				
TOTAL CLAIMS (37 CFR 1.16(j))	20	minus 20 = *	x 50 =	0.00	OR					
INDEPENDENT CLAIMS (37 CFR 1.16(h))	3	minus 3 = *	x 230 =	0.00						
APPLICATION SIZE FEE (37 CFR 1.16(s))	If the specification and drawings exceed 100 sheets of paper, the application size fee due is \$310 (\$155 for small entity) for each additional 50 sheets or fraction thereof. See 35 U.S.C. 41(a)(1)(G) and 37 CFR 1.16(s).			0.00						
MULTIPLE DEPENDENT CLAIM PRESENT (37 CFR 1.16(j))				0.00						
* If the difference in column 1 is less than zero, enter "0" in column 2.			TOTAL	785		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	
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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APPLICATION NUMBER	FILING or 371(c) DATE	GRP ART UNIT	FIL FEE REC'D	ATTY. DOCKET NO	TOT CLAIMS	IND CLAIMS
16/191,503	11/15/2018	3747	785	CET1090.070	20	3

CONFIRMATION NO. 6187

FILING RECEIPT



0000000104237681

26629
ZIOLKOWSKI PATENT SOLUTIONS GROUP, SC (ZPS)
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PORT WASHINGTON, WI 53074

Date Mailed: 12/07/2018

Receipt is acknowledged of this non-provisional 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 APPLICANT, 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 Filing Receipt Correction. Please provide a copy of this Filing Receipt with the changes noted thereon. If you received a "Notice to File Missing Parts" for this application, please submit any corrections 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**

Inventor(s)

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Leigh Jenison, Hartland, WI;

Applicant(s)

Champion Engine Technology, LLC, Sussex, WI;

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

Domestic Priority data as claimed by applicant

This application is a CON of 14/738,060 06/12/2015

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: 12/04/2018

The country code and number of your priority application, to be used for filing abroad under the Paris Convention, is **US 16/191,503**

Projected Publication Date: 03/14/2019

Non-Publication Request: No

Early Publication Request: No

**** SMALL ENTITY ****

Title

DUAL FUEL LOCKOUT SWITCH FOR GENERATOR ENGINE

Preliminary Class

123

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

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INFORMATION DISCLOSURE STATEMENT BY APPLICANT (Not for submission under 37 CFR 1.99)	Application Number		
	Filing Date		
	First Named Inventor	Mark J. Sarder et al.	
	Art Unit		
	Examiner Name		
	Attorney Docket Number	CET1090.070	

U.S.PATENTS						Remove
Examiner Initial*	Cite No	Patent Number	Kind Code ¹	Issue Date	Name of Patentee or Applicant of cited Document	Pages,Columns,Lines where Relevant Passages or Relevant Figures Appear
	1	2722208		1955-11-01	Conroy, Jr. et al.	
	2	3384059		1968-05-21	Kopa	
	3	3412258		1968-11-19	Satter	
	4	3659574		1972-05-02	Reschke et al.	
	5	3718000		1973-02-27	Walker	
	6	3783849		1974-01-08	Bramfitt	
	7	3888223		1975-06-10	Mondt	
	8	4335697		1982-06-22	McLean	

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Attorney Docket Number	CET1090.070	

9	4372276		1983-02-08	Bernhardsson et al.	
10	4373493		1983-02-15	Welsh	
11	4450821		1984-05-29	Venning et al.	
12	4463735		1984-08-07	Stoltman	
13	4480595		1984-11-06	Hobby et al.	
14	4489699		1984-12-25	Poehlman	
15	4502453		1985-03-05	Kabasin et al.	
16	4619240		1986-10-28	Bedford et al.	
17	4628871		1986-12-16	Glass	
18	4708094		1987-11-24	Helmich et al.	
19	4895124		1990-01-23	Bartholomew	

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20	4979480		1990-12-25	Daikoku et al.	
21	5092305		1992-03-03	King	
22	5161496		1992-11-10	Matsushima et al.	
23	5171487		1992-12-15	Hudz	
24	5228423		1993-07-20	Oikawa et al.	
25	5287839		1994-02-22	Kondou et al.	
26	5320078		1994-06-14	Lorraine	
27	5325835		1994-07-05	Kimata et al.	
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29	5419291		1995-05-30	Kimata et al.	
30	5438968		1995-08-08	Johnson et al.	

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Examiner Name		
Attorney Docket Number	CET1090.070	

31	5450832		1995-09-19	Graf	
32	5611312		1997-03-18	Swanson et al.	
33	5673670		1997-10-07	Powell et al.	
34	5816224		1998-10-06	Welsh et al.	
35	6082323		2000-07-04	Winberg	
36	6213083	B1	2001-04-10	Winberg	
37	6223730	B1	2001-05-01	Hasegawa et al.	
38	6276345	B1	2001-08-21	Nelson et al.	
39	6401685	B1	2002-06-11	Warner	
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41	6591817	B2	2003-07-15	Deutsch	

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Art Unit		
Examiner Name		
Attorney Docket Number	CET1090.070	

42	6914342	B1	2005-07-05	French	
43	7905469	B2	2011-03-15	Nickels et al.	
44	8342158	B2	2013-01-01	Ulrey et al.	
45	8590510	B2	2013-11-26	Sumilla et al.	
46	9435273	B2	2016-09-06	Sarder et al.	

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	1	20020134362	A1	2002-09-26	Deutsch	
	2	20040139943	A1	2004-07-22	Kern et al.	
	3	20070137591	A1	2007-06-21	Sugimoto et al.	
	4	20100258099	A1	2010-10-14	Andersson et al.	

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Examiner Name		
Attorney Docket Number	CET1090.070	

5	20110168133	A1	2011-07-14	Pursifull et al.
6	20110253102	A1	2011-10-20	Watanabe
7	20130047964	A1	2013-02-28	Kim
8	20130220274	A1	2013-08-29	Deshpande et al.
9	20140202430	A1	2014-07-24	Monros
10	20140238340	A1	2014-08-28	Dunn et al.
11	20140373531	A1	2014-12-25	Wong
12	20150122230	A1	2015-05-07	Sarder et al.

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	1	2060477	CN	U	1990-08-15	Zhao Yunying		

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(Not for submission under 37 CFR 1.99)

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Filing Date		
First Named Inventor	Mark J. Sarder et al.	
Art Unit		
Examiner Name		
Attorney Docket Number	CET1090.070	

2	1981121	CN	A	2007-06-13	Honda Motor Co., Ltd.	
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NON-PATENT LITERATURE DOCUMENTS

Examiner Initials*	Cite No	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, pages(s), volume-issue number(s), publisher, city and/or country where published.	T ⁵
	1	Honda EU20i LPG, March 20, 2012, https://www.youtube.com/watch?v=yBpq33aJmR0	
	2	JOHNSON et al., "Electronic Direct Fuel Injection (EDFI) for Small Two-Stroke Engines," SAE Technical Paper 1999-01-3312, Proceedings of the 1999 SAE Small Engine Technology Conference, Madison, WI, September 28-30, 1999, pp. 1-15	
	3	Champion Power (2014, Dec. & Jan.) 100153 Manual, Retrieved from http://www.championpowerequipment.com/media/2400/100153_manual-english_12-4-14.pdf	

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

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Filing Date	
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Art Unit	
Examiner Name	
Attorney Docket Number	CET1090.070

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

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

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See attached certification statement.

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

A certification statement is not submitted herewith.

SIGNATURE

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

Signature	/Kevin R. Rosin/	Date (YYYY-MM-DD)	2018-11-15
Name/Print	Kevin R. Rosin	Registration Number	55584

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



Espacenet

Bibliographic data: CN2060477 (U) — 1990-08-15

CARBURETTOR

Inventor(s): YUNYING ZHAO [CN] ± (ZHAO YUNYING)

Applicant(s): ZHAO YUNYING [CN] ± (ZHAO YUNYING)

Classification: - **international:** *F02M3/05*; (IPC1-7): F02M3/05
- **cooperative:**

Application number: CN1989217629U 19890927

Priority number(s): CN1989217629U 19890927

Abstract of CN2060477 (U)

The utility model relates to a carburetor used for a combustion engine. The carburetor used for a combustion engine is characterized in that a fuel oil switch is arranged at a fuel inlet of a carburetor, and a restoring spring is arranged on a valve core of the fuel oil switch. A torsional handle of the valve core is connected with an operation draw rod. When an automobile is put into gear to slide down a slope, the fuel oil switch is closed by a driver through the operation draw rod, and the purpose of oil saving is achieved. When the operation draw rod is released, the fuel oil switch is automatically restored. The structure of the carburetor used for a combustion engine is simple. The current carburetor is convenient to modify. The carburetor used for a combustion engine is particularly suitable for a vehicle which often runs in a mountain area.



(12) 实用新型专利申请说明书

(21) 申请号 89217629.6

(51) Int.Cl³

F02M 3/05

(43) 公告日 1990年8月15日

(22) 申请日 89.9.27

(71) 申请人 赵云英

地址 河北省安国县鹿各庄乡路各庄村

071202

(72) 设计人 赵云英

(74) 专利代理机构 河北省专利事务所

代理人 朱树棠

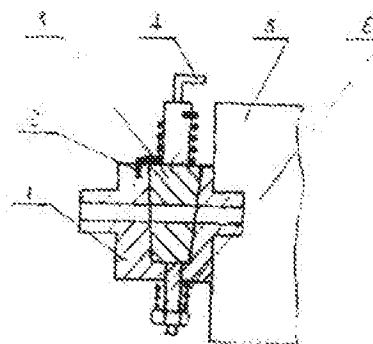
说明书页数: 2

附图页数: 2

(54) 实用新型名称 一种汽化器

(57) 摘要

供柴油机使用的汽化器,其特征是汽化器的燃料入口设有一燃油开关该开关的阀芯上设有复位弹簧,阀芯把柄与操作拉杆连接。当汽车下坡挂挡滑行时,司机经拉杆关闭燃油开关,达到节油目的;解除拉杆,燃油开关自动复位。本实用新型结构简单,对现行汽化器改造方便,特别适用于经常在山区行驶的车辆。



(83) 第1452号