

CHAMPION’S INFRINGEMENT CONTENTIONS FOR
U.S. PATENT NO. 10,697,398
AS ASSERTED AGAINST
GENERAC MODEL PM4500DF ET AL.
FILING DATE: OCTOBER 28, 2015
PRIORITY DATE: JUNE 12, 2015

I. Generac Model PM4500DF



II. Brief Description

Generac Model PM4500DF is a dual fuel portable generator under Generac’s Powermate brand. Model PM4500DF produces 4,500W (starting)/3,600W (running) when using gasoline and 4,180W (starting)/3,240W (running) when using liquified petroleum gas (“LPG”; also known as propane). Model PM4500DF can operate at 50% load for up to 14 hours with its 5-gallon gasoline tank and up to 8.75 hours on LPG. Model PM4500DF has a recoil starter for its 224cc, pull start engine with a low oil shutoff. Model PM4500DF also includes an automatic voltage regulator (“AVR”), five receptacles, circuit breaker protection, a carbon monoxide (“CO”) detection and shutoff system, and a control panel with a digital hour meter. Model PM4500DF also has a handle and 8-inch never flat wheels.

III. Accused Instrumentalities

Generac Model PM4500DF and also Generac Models PM7500DF and GP7500E DF, which are dual fuel portable generator as well, are the Accused Instrumentalities that are alleged to infringe claims 43, 44, and 56-58 (the “Asserted Claims”) of U.S. Patent No. 10,697,398 (the “398 Patent”).

Image of Models PM7500DF and GP7500E DF are provided below:

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PM7500DF



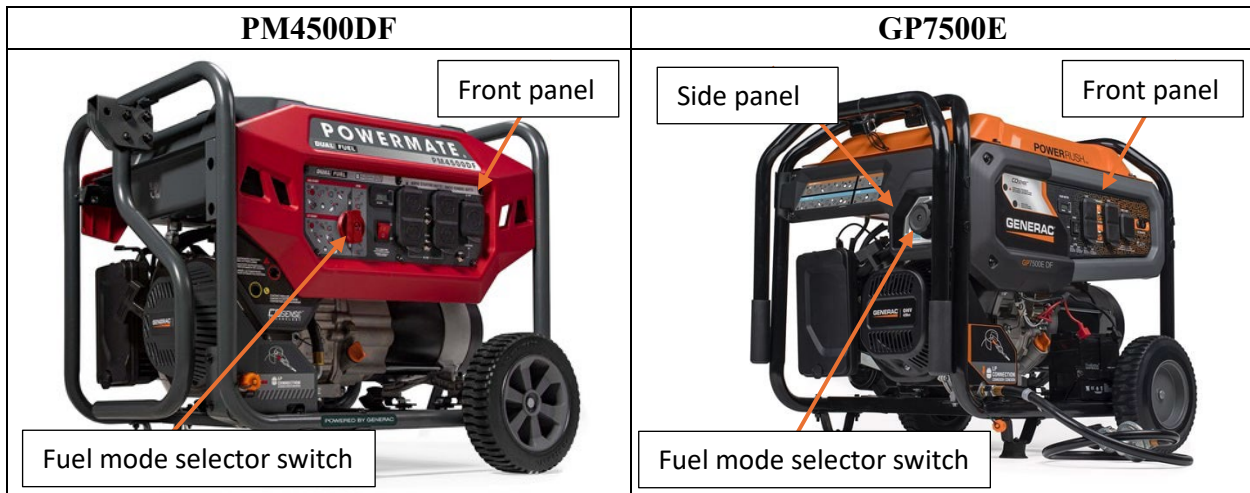
GP7500E

IV. Protocol

For purposes of analyzing the Asserted Claims of the '985 Patent against the Accused Instrumentalities, Model PM4500DF is considered representative. Models PM7500DF and GP7500E DF include the same components for switching between gaseous fuel and liquid fuel that infringe the claims of the '985 Patent in the same manner as discussed herein with respect to Model PM4500DF and are thus Accused Instrumentalities. In each Accused Instrumentality, the gaseous fuel is LPG, and the liquid fuel is gasoline.

A minor difference exists in Model GP7500E DF. In this model, the same components are included, but with a slightly different positioning of the components. More specifically, the fuel mode selector switch is not positioned on the front panel like in the other generator models. Instead, the fuel mode selector switch is positioned on a side panel adjacent to the front panel. This alternate configuration of Model GP7500E DF does not change the infringement contentions for any of the Asserted Claims, which are equally applicable to the alternate configuration.

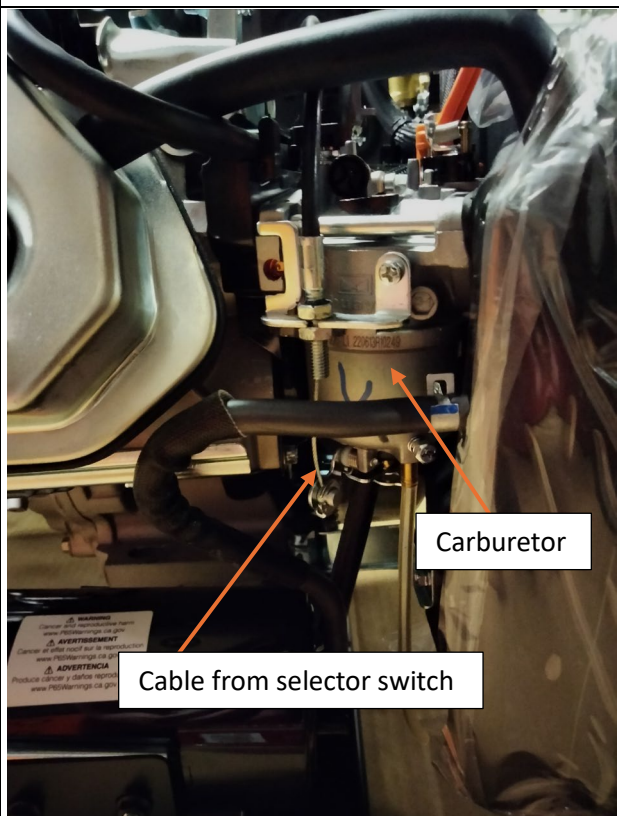
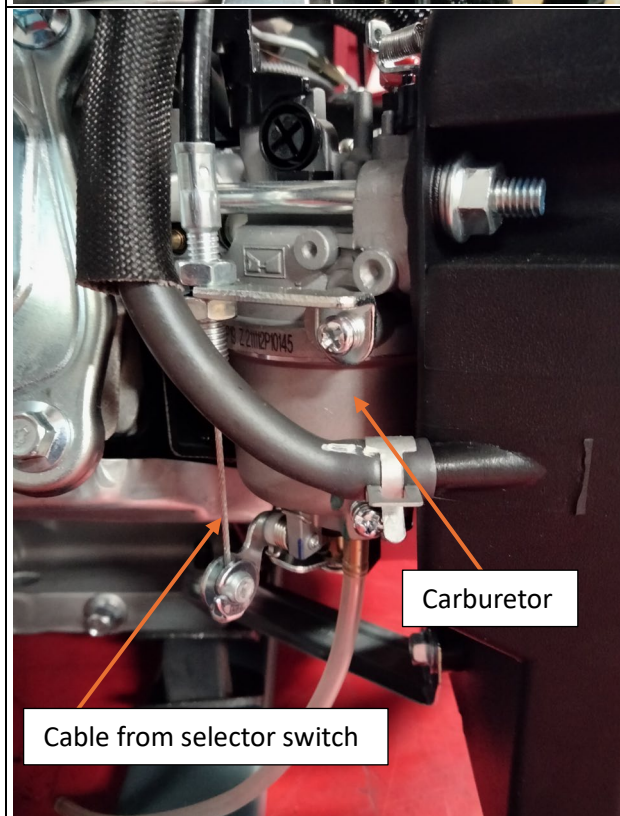
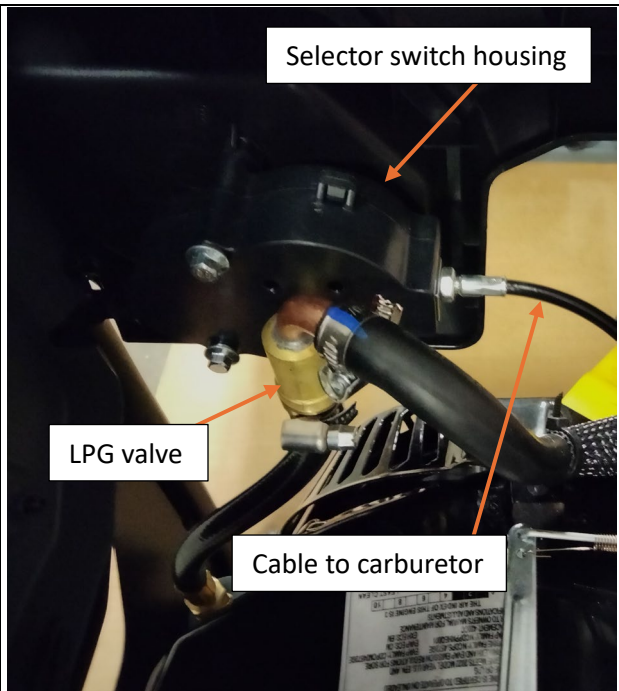
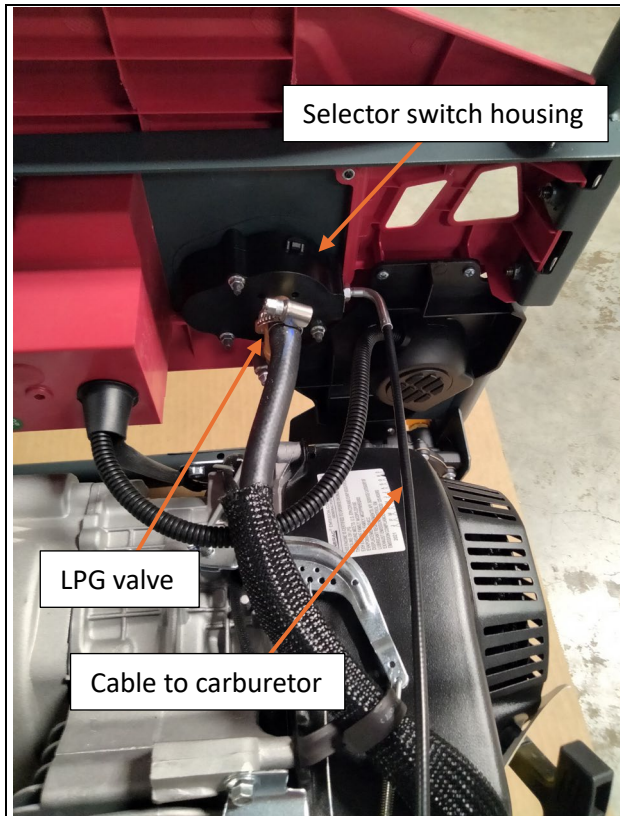
Images comparing Model PM4500DF and GP7500E DF are provided below to show the minor difference in configuration:



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Accordingly, while the claim chart provided below in Section VII is illustrated with reference to Model PM4500DF, each element in the claim chart is found in Models PM7500DF and GP7500E DF in the same manner as illustrated with reference to Model PM4500DF.

V. Priority Dates

The priority dates for the Asserted Claims of the '398 Patent are as follows:

Asserted Claim	Priority Date
43	October 28, 2015
44	October 28, 2015
56	October 28, 2015
57	June 12, 2015
58	October 28, 2015

VI. Statement Regarding Contributory and Induced Infringement

The claimed dual fuel engine operates on different fuels, like a liquid fuel (e.g., gasoline) or a gaseous fuel (e.g., LPG), but a gaseous fuel tank (e.g., an LPG tank), the gaseous fuel in the gaseous fuel tank, and liquid fuel in the liquid fuel tank (e.g., gasoline in a gasoline tank) are not required for infringement unless explicitly claimed in the Asserted Claims. Nonetheless, to the extent the Court construes any claim to require a gaseous fuel tank, gaseous fuel in the gaseous fuel tank, or liquid fuel in a liquid fuel tank, Generac contributes to or induces infringement by instructing its users to use a gaseous fuel tank and gaseous fuel and to fill the liquid fuel tank in order to operate the dual fuel engine.

Generac induces infringement of various Asserted Claims by specifically instructing its customers to attach an LPG tank to the engine and to put liquid fuel in the liquid fuel tank. [See Generac Owner's Manual for Model PM4500DF at 11 (listing gasoline quality requirements with instructions to "4. Slowing add recommended fuel" and making several notes on the use of LPG) and at 12 (providing instructions to, "Before Starting Engine," "2. If using gasoline, verify fuel level is correct. 3. If using LP[G], verify the fuel hose is properly connected to the LP[G] tank and the second stage regulator.").] To the extent the Court construes any Asserted Claim to require an LPG tank, gaseous fuel, or liquid fuel for infringement, when Generac's customers use the Accused Instrumentalities with a filled LPG tank connected and with fuel in the liquid fuel tank, the infringement of any such Asserted Claims is completed. As such, Generac's instructions to customers to connect a filled LPG tank and fill the liquid fuel tank before operation of the Accused Instrumentalities constitutes indirect infringement.

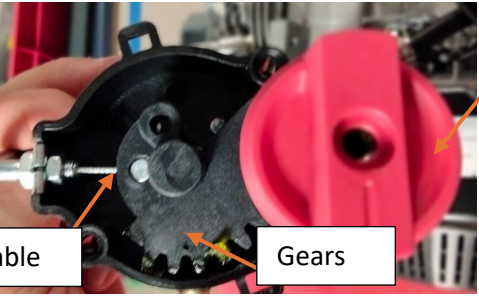
For the same reasons, Generac's conduct also constitutes contributory infringement. To the extent the Court's claim construction requires an LPG tank, gaseous fuel, or liquid fuel for infringement, Generac supplies its customers every component necessary to infringe the Asserted Claims except the filled LPG tank and the liquid fuel. Because the Owner's Manual for Model PM4500DF instructs customers to connect a filled LPG tank to the generator and to fill the liquid fuel tank with fuel, [*id.*], Generac knew that Model PM4500DF would be used to infringe any applicable Asserted Claims. By connecting and using the Accused Instrumentalities with a filled LPG tank connected or with liquid fuel in the liquid fuel tank, Generac's customers complete the infringement of

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such Asserted Claims. As such, Generac’s conduct also constitutes contributory infringement of such Asserted Claims.

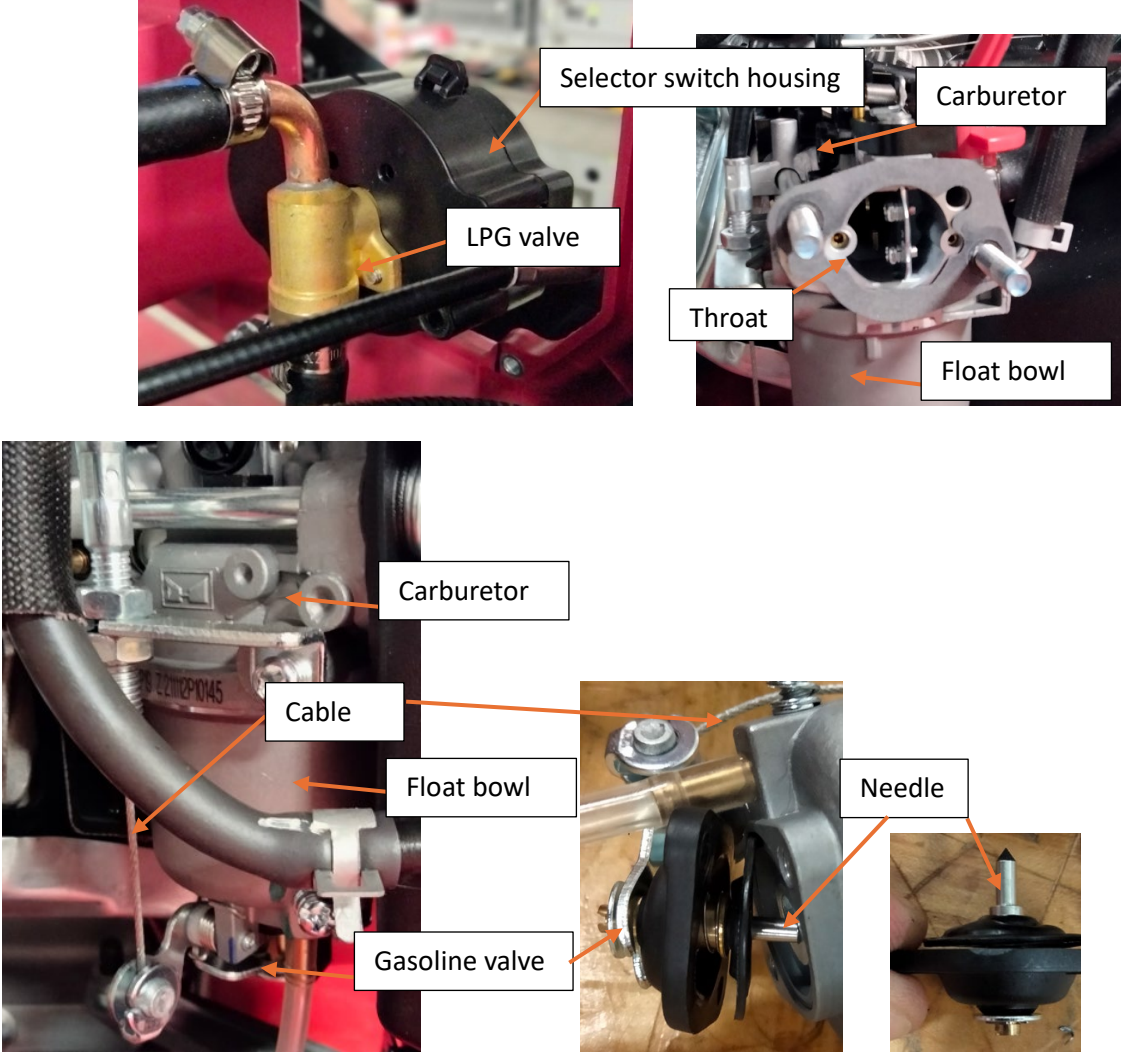
Champion incorporates this Section VI by reference into any element of any asserted claim that is construed to require attachment of a gaseous fuel tank, gaseous fuel, or filling of the liquid fuel tank with fuel.

VII. Claim Chart

'398 Patent Asserted Claims	Accused Instrumentality Components Illustrated with Respect to Model PM4500DF
43. (Preamble) A carburetor having a fuel shutoff comprising:	Although not necessary for infringement¹, the preamble of claim 43 is found within Model PM4500DF (and, thereby, Models PM7500DF and GP7500E DF) as follows: Model PM4500DF includes a carburetor with a gasoline valve incorporated into the float bowl. The gasoline valve is a needle valve that includes a needle and operates via a cable of a fuel selector switch. The cable either pushes the needle to extend and seal off the flow of gasoline through the float bowl or pulls the needle to retract and allow gasoline to flow through the float bowl. When extended, gasoline is shutoff from flowing to the carburetor. The cable operates by rotating a fuel selector switch which rotates gears to push/pull the cable.  Fuel selector switch Cable Gears

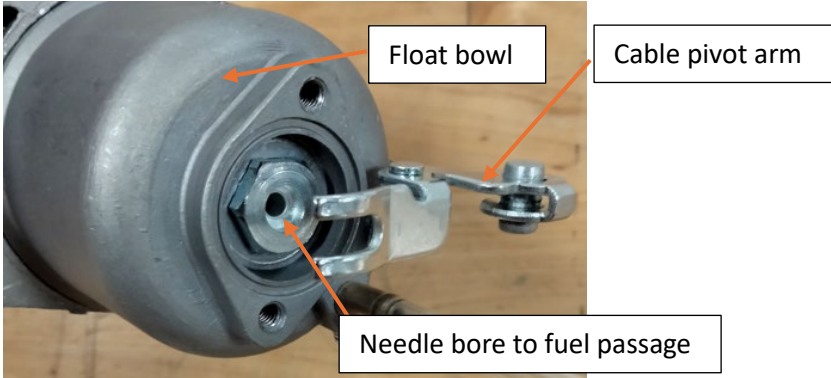
¹ The preambles of the Asserted Claims of the '398 Patent are not limiting and therefore should not be part of the infringement analysis. *See Artic Cat Inc. v. GEP Power Prods., Inc.*, 919 F.3d 1320, 1328 (Fed. Cir. 2019) (“We have long ruled that ‘a preamble is not limiting where a patentee defines a structurally complete invention in the claim body and uses the preamble only to state a purpose or intended use for the invention.’”) (quoting *Cataline Mktg. Int’l, Inc. v. Coolsavings.com, Inc.*, 289 F.3d 801, 808 (Fed. Cir. 2002)). Nonetheless, Champion provides general description of Model DF3500E next to the preamble to show how it meets the preamble and to assist in the infringement analysis by giving an overview of the Accused Instrumentalities. Champion incorporates this footnote by reference in the preambles of all the Asserted Claims.

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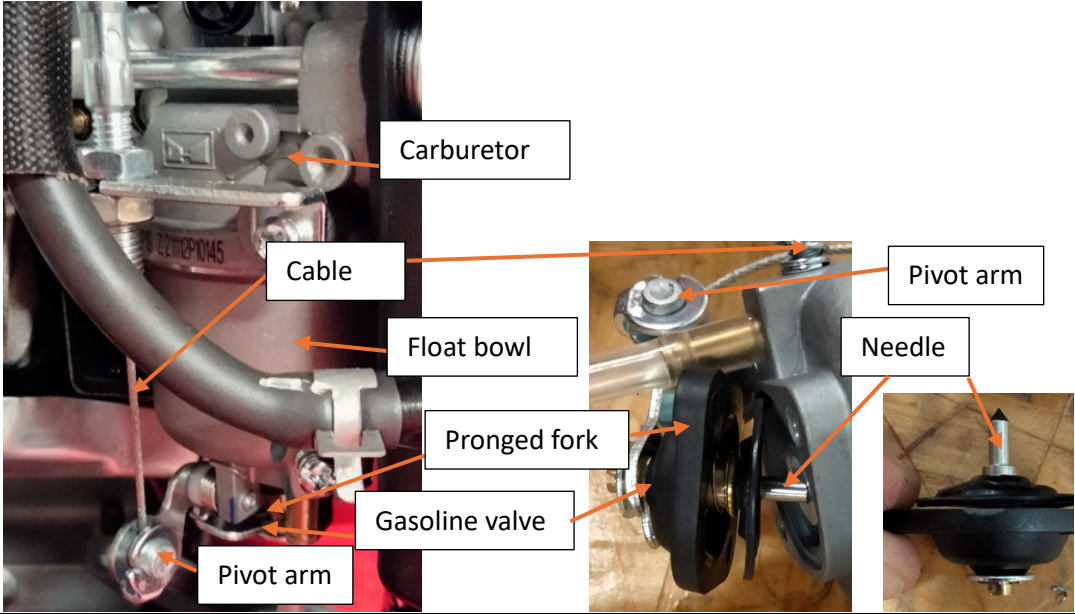
	
(a) a carburetor comprising:	Element (a) of claim 43 is found within Model PM4500DF (and, thereby, Models PM7500DF and GP7500E DF) directly and literally² as follows: The carburetor is pictured above.
(a)(1) a float bowl,	Element (a)(1) of claim 43 is found within Model PM4500DF (and, thereby, Models PM7500DF and GP7500E DF) directly and literally as follows:

² To the extent further discovery or claim construction reveals that any of the Accused Instrumentalities do not literally infringe the '398 Patent, Champion reserves the right to argue the Accused Instrumentalities infringe any of the Asserted Claims of the '398 Patent under the doctrine of equivalents. Champion incorporates this footnote by reference into each element of each Asserted Claim that Champion alleges is literally infringed by the Accused Instrumentalities.

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	The float bowl is shown in the images above. Gasoline accumulates in the float bowl.
(a)(2) a throat, and	Element (a)(2) of claim 43 is found within Model PM4500DF (and, thereby, Models PM7500DF and GP7500E DF) directly and literally as follows: The throat of the carburetor is shown above.
(a)(3) a fuel passage extending from the float bowl to the throat; and	Element (a)(3) of claim 43 is found within Model PM4500DF (and, thereby, Models PM7500DF and GP7500E DF) directly and literally as follows: The carburetor has a fuel passage in which an emulsion tube resides. A needle bore exposes the fuel passage, which leads to the throat. When the selector switch cable is pulled, the needle is retracted to allow fuel to flow through the passage and into the throat. When the cable is pushed, the needle valve is extended to close the fuel passage. 
(b) a fuel shutoff coupled to the carburetor having a first end in the carburetor that actuates to close the fuel passage and a second end external to the carburetor to actuate the first end; and	Element (b) of claim 43 is found within Model PM4500DF (and, thereby, Models PM7500DF and GP7500E DF) directly and literally as follows: The gasoline valve is a fuel shutoff coupled to the carburetor having a needle (the first end) in the carburetor that actuates to close the fuel passage and a pivot arm (the second end) external to the carburetor to actuate the needle via a two-pronged fork.

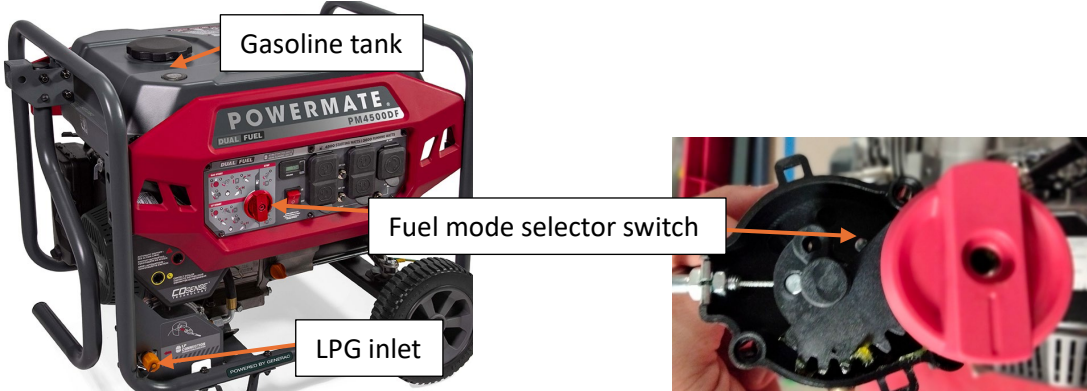
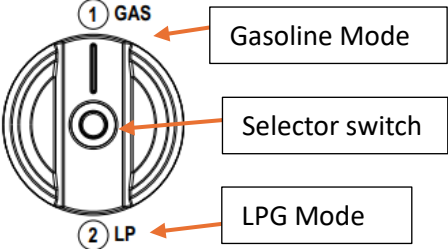
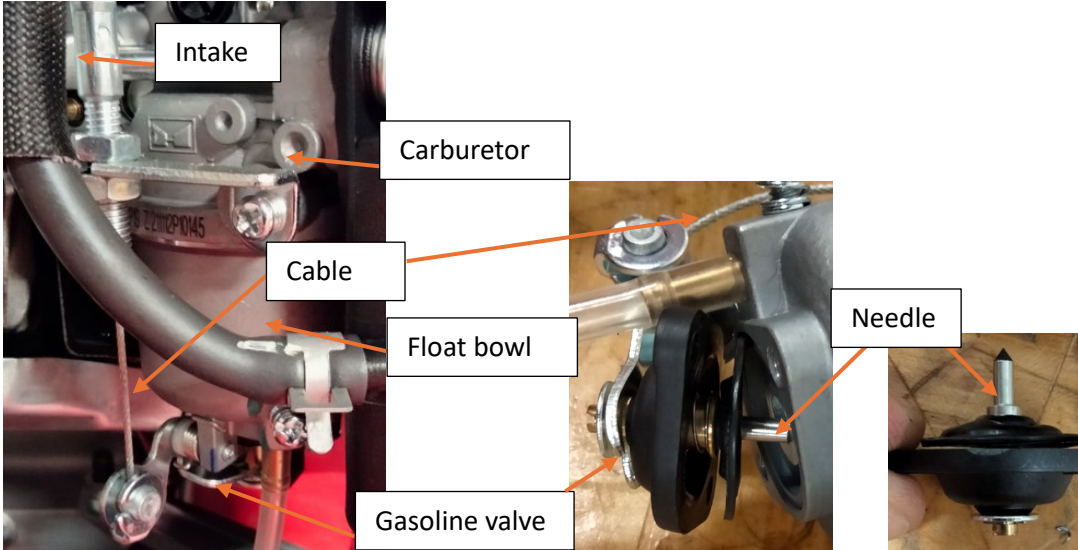
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(c) wherein the fuel shutoff actuates free from linear motion.	Element (c) of claim 43 is found within Model PM4500DF (and, thereby, Models PM7500DF and GP7500E DF) directly and literally as follows: The actuation by the cable causes rotational motion on the pivot arm and the two-pronged fork of the gasoline valve. Since that motion is rotational, the motion of the needle must also be rotational. When looking at the motion of the needle, it does not travel in a straight linear motion of in and out. Rather, the rotational motion of the pivot arm causes the needle to be slightly angled such that it runs into the wall of the needle bore into the float bowl. In other words, the fuel shutoff actuates free from linear motion and instead relies solely on rotational motion. The cable actuates the valve by causing the pivot arm to rotate. Since the two-pronged fork is fixed to one end of the pivot arm, the rotational motion of the pivot arm translates to the needle. That is, the pivot arm causes the needle to rotate between its extended and retracted positions.
44. The carburetor having a fuel shutoff of claim 43, wherein the fuel shutoff is a manually actuated fuel shutoff.	Claim 43 is found within Model PM4500DF (and, thereby, Models PM7500DF and GP7500E DF) directly and literally as follows: Champion incorporates by reference in claim 44 the contentions set forth above for claim 43. The fuel shutoff is mechanically actuated by a cable that is pushed and pulled by rotating the fuel selector switch. The fuel selector switch is manually rotated. As a result, the fuel shutoff is manually actuated.

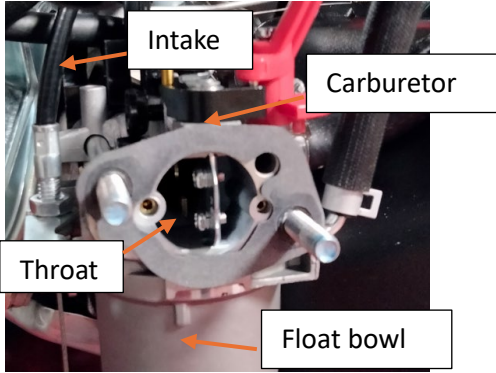
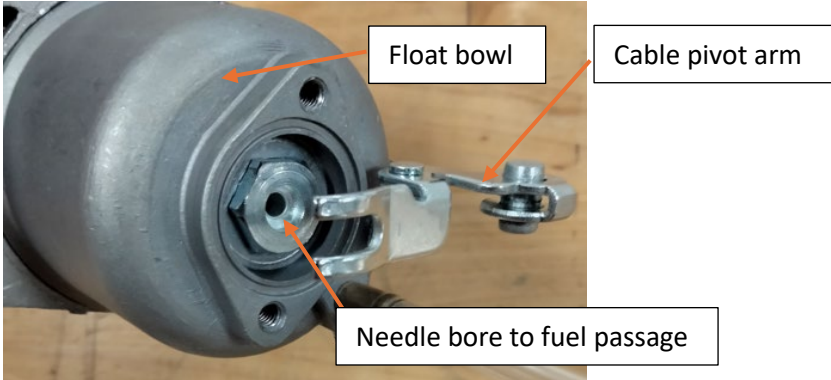
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56. The carburetor having a fuel shutoff of claim 43, wherein the fuel shutoff extends through an opening into the float bowl such that the first end actuates in the float bowl to close the fuel passage.	Claim 56 is found within Model PM4500DF (and, thereby, Models PM7500DF and GP7500E DF) directly and literally as follows: Champion incorporates by reference in claim 56 the contentions set forth above for claim 43. The fuel shutoff consists of a needle valve that extends through an opening in the float bowl. When the fuel selector switch is rotated to the LPG position, the needle valve is extended, blocking the fuel passage and preventing gasoline from flowing through the passage.
57. (Preamble) A method of assembling a dual fuel engine comprising:	The preamble of claim 57 is found within Model PM4500DF (and, thereby, Models PM7500DF and GP7500E DF) directly and literally as follows: As explained in more detail below, the components of the Model PM4500DF generator are arranged in a manner such that they had to be assembled as claimed to include the dual fuel engine. Model PM4500 DF generator has a dual fuel engine. The first fuel source is an LPG bottle that is connected to the generator with a supplied regulator and fuel hose. The second fuel source is the on-board gasoline tank. Both fuel sources feed fuel to the carburetor and engine.
(a) providing an engine operable on a gaseous fuel and a liquid fuel;	Element (a) of claim 57 is found within Model PM4500DF (and, thereby, Models PM7500DF and GP7500E DF) directly and literally as follows: The dual fuel engine operates on gaseous LPG or liquid gasoline. A fuel selector may be rotated between an LPG position and a gasoline position to choose LPG or gasoline.

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(b) attaching a carburetor to an intake of the engine, the carburetor comprising:	Element (b) of claim 57 is found within Model PM4500DF (and, thereby, Models PM7500DF and GP7500E DF) directly and literally as follows: The carburetor is attached to the engine's intake and receives gasoline and LPG via fuel hoses. The fuel is mixed with air and delivered to the engine. A float bowl keeps a reservoir of liquid gasoline. A gasoline needle valve may be used to shutoff the flow of gasoline when LPG is chosen. 

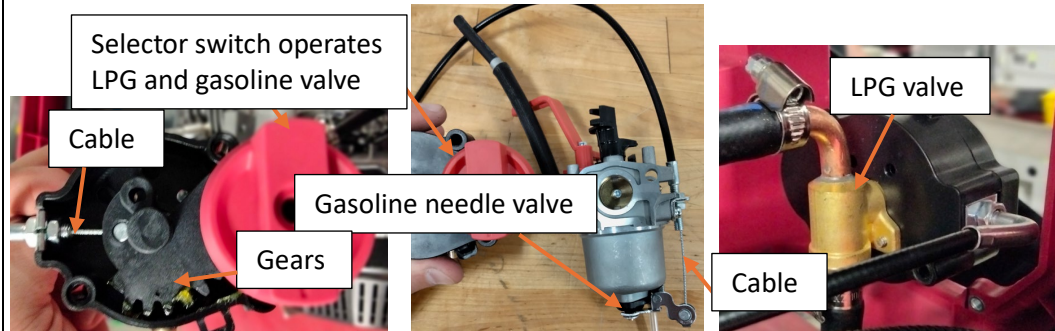
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(b)(1) a throat to mix gaseous fuel with air and liquid fuel with air,	Element (b)(1) of claim 57 is found within Model PM4500DF (and, thereby, Models PM7500DF and GP7500E DF) directly and literally as follows: The throat of the carburetor is shown above and includes the bore in which air enters the carburetor and is mixed with fuel.
(b)(2) a float bowl, and	Element (b)(2) of claim 57 is found within Model PM4500DF (and, thereby, Models PM7500DF and GP7500E DF) directly and literally as follows: The float bowl is shown in the images above and includes the gasoline valve. Gasoline accumulates in the float bowl.
(b)(3) a fuel passage extending from the float bowl to the throat to provide liquid fuel;	Element (b)(3) of claim 57 is found within Model PM4500DF (and, thereby, Models PM7500DF and GP7500E DF) directly and literally as follows: The carburetor has a fuel passage in which an emulsion tube resides. A needle bore exposes the fuel passage, which leads to the throat. When the selector switch cable is pulled, the needle is retracted to allow fuel to flow through the passage and into the throat. When the cable is pushed, the needle valve is extended to close the fuel passage. 
(c) coupling a switch to the engine to	Element (c) of claim 57 is found within Model PM4500DF (and, thereby, Models PM7500DF and GP7500E DF) directly and literally as follows:

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change operation of the engine between gaseous fuel and liquid fuel; and

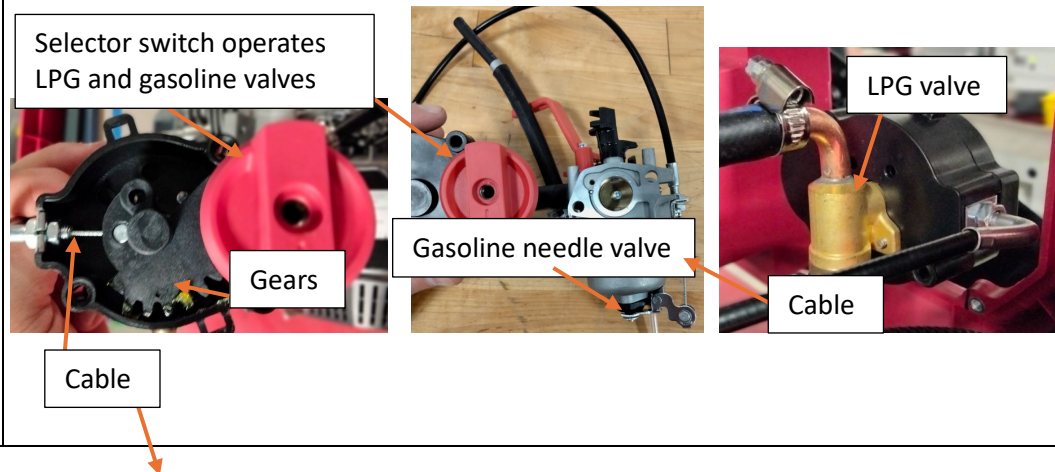
The selector switch is a mechanical switch used to change operation between liquid gasoline and gaseous LPG fuels. Inside the switch there are gears and a cable allowing the one handle to control operation of both the LPG and gasoline valves. When the selector is turned, one valve is opened, and the other is closed.



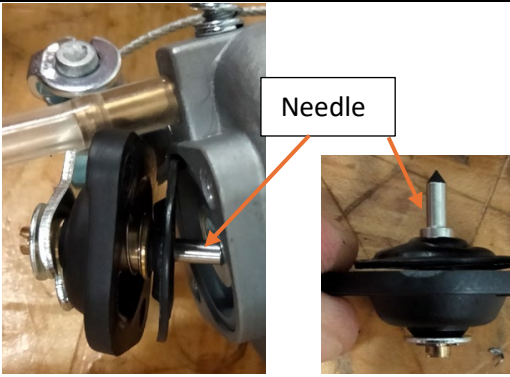
(d) attaching a liquid fuel cut-off to the carburetor to close the fuel passage upon actuation of the switch from liquid fuel to gaseous fuel.

Element (d) of claim 57 is found within Model PM4500DF (and, thereby, Models PM7500DF and GP7500E DF) directly and literally as follows:

The gasoline valve is a liquid fuel cut-off attached to the carburetor having a needle in the carburetor that actuates to close the fuel passage and a pivot arm external to the carburetor to actuate the needle via a two-pronged fork. The gasoline valve operates via the cable of the fuel selector switch. The cable either pushes the needle to extend and seal off the flow of gasoline through the float bowl or pulls the needle to retract and allow gasoline to flow through the float bowl. When selector switch is in the gasoline position, the needle is retracted, and gasoline is allowed to flow through the carburetor. When selector switch is in the LPG position, the needle is extended, and gasoline is cut off from flowing to the carburetor. The cable operates by rotating the fuel selector switch which rotates the gears to push/pull the cable.



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	 Needle
58. The method of claim 57 further comprising coupling a manually operated control operatively to the liquid fuel cut-off.	Claim 58 is found within Model PM4500DF (and, thereby, Models PM7500DF and GP7500E DF) directly and literally as follows: The fuel shutoff is mechanically actuated by a cable that is pushed and pulled by rotating the fuel selector switch. The fuel selector switch is manually rotated. As a result, the fuel shutoff is manually operated.