

Exhibit E

CHAMPION’S INFRINGEMENT CONTENTIONS FOR
U.S. PATENT NO. 11,143,145
AS ASSERTED AGAINST
GENERAC MODEL DF3500E ET AL.
FILING DATE: JUNE 22, 2020
PRIORITY DATE: JUNE 12, 2015

I. Generac Model DF3500E



II. Brief Description

Generac Model DF3500E is a dual fuel portable generator under Generac’s Powermate brand. Model DF3500E produces 4,375W (starting)/3,500W (running) when using gasoline and 4,000W (starting)/3,200W (running) when using liquified petroleum gas (“LPG”; also known as propane). Model DF3500E can operate at 50% load for up to 10 hours with its 4.5-gallon gasoline tank, up to 7 hours with a 20-pound LPG tank, or up to 10.5 hours with a 30-pound LPG tank. Model DF3500E has a battery-operated, push-button electric start and a recoil starter for its 208cc engine with a low oil shutoff. Model DF3500E also includes an automatic voltage regulator (“AVR”), four receptacles, circuit breaker protection, and a control panel with a digital multi-meter. Model DF3500E also has a fold-down locking handle and never flat wheels.

III. Accused Instrumentalities

Generac Model DF3500E and Generac Model DF7500E, which is also a dual fuel portable generator, are the Accused Instrumentalities that are alleged to infringe claims 1-7 and 10 (the “Asserted Claims”) of U.S. Patent No. 11,143,145 (the “145 Patent”). An image of Model DF7500E is provided below:

CHAMPION'S INFRINGEMENT CONTENTIONS FOR
U.S. PATENT NO. 11,143,145
AS ASSERTED AGAINST
GENERAC MODEL DF3500E ET AL.



Generac Model DF7500E

IV. Protocol

For purposes of analyzing the Asserted Claims of the '145 Patent against the Accused Instrumentalities, Model DF3500E is considered representative. Model DF7500E includes the same components for switching between gaseous fuel and liquid fuel that infringe the claims of the '145 Patent in the same manner as discussed herein with respect to Model DF3500E and is thus an Accused Instrumentality. In both Accused Instrumentalities, the gaseous fuel is LPG, and the liquid fuel is gasoline.

Accordingly, while the claim chart provided below in Section VII is illustrated with reference to Model DF3500E, each element in the claim chart is found in Model DF7500E in the same manner as illustrated with reference to Model DF3500E.

V. Priority Dates

The priority date for the Asserted Claims of the '145 Patent is 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 DF3500E at 9 (listing gasoline quality requirements and instructing to "4. Slowing add recommended

CHAMPION’S INFRINGEMENT CONTENTIONS FOR
U.S. PATENT NO. 11,143,145
AS ASSERTED AGAINST
GENERAC MODEL DF3500E ET AL.

fuel”) and at 10 (providing instructions to “Connect LPG Tank” using the “LPG regulator connecting hose”).] 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 DF3500E 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 DF3500E 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 such Asserted Claims. As such, Generac’s conduct also constitutes contributory infringement of such Asserted Claims.

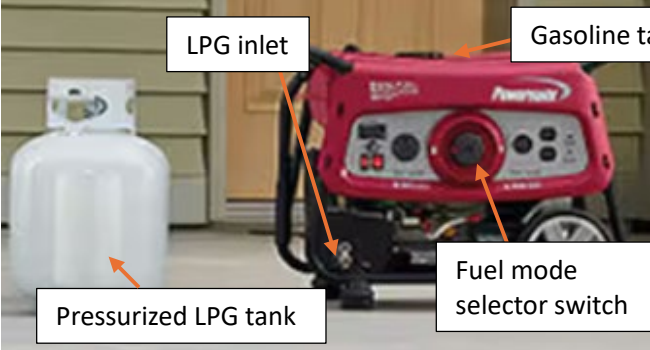
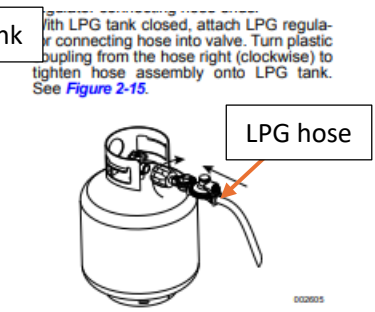
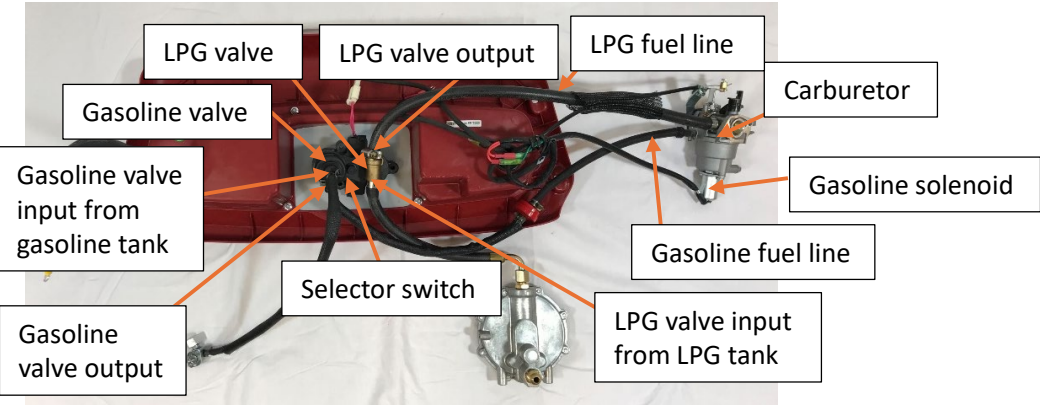
Champion incorporates this Section VI by reference into any element of any asserted claim that is construed to require attachment of a gaseous fuel tank, gaseous fuel, or filling of the liquid fuel tank with fuel.

VII. Claim Chart

’145 Patent Asserted Claims	Accused Instrumentality Components Illustrated with Respect to Model DF3500
1. (Preamble) A dual fuel generator comprising:	Although not necessary for infringement ¹ , the preamble of claim 1 is found within Model DF3500E (and, thereby, Model DF7500E) as follows: Model DF3500E includes a dual fuel engine that uses either LPG or gasoline. A fuel selector switch is provided to allow a user to toggle between gasoline from the gasoline tank and LPG from the LPG tank (as disclosed on page 10 of the Operator’s Manual).

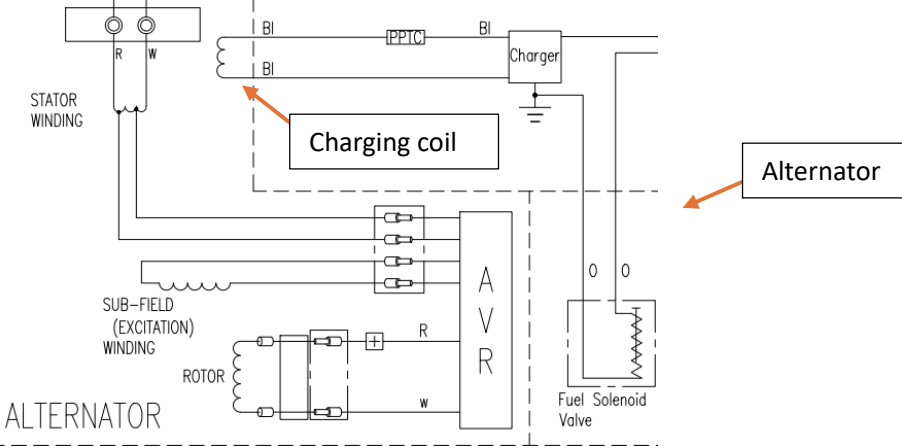
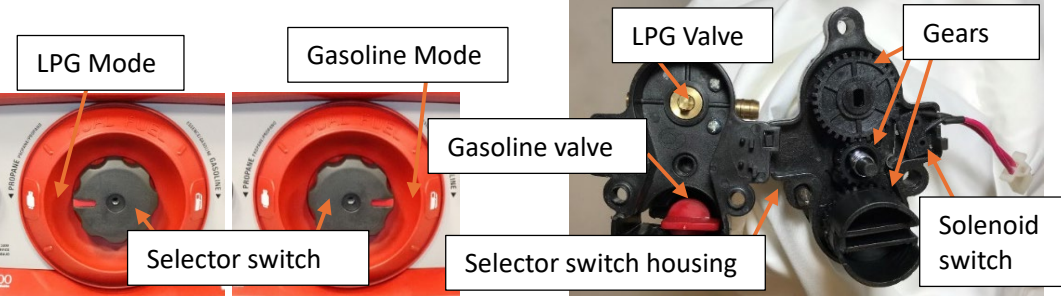
¹ The preambles of the Asserted Claims of the ’145 Patent are not limiting and therefore should not be part of the infringement analysis. See *Artic Cat Inc. v. GEP Power Prods., Inc.*, 919 F.3d 1320, 1328 (Fed. Cir. 2019) (“We have long ruled that ‘a preamble is not limiting where a patentee defines 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.

CHAMPION'S INFRINGEMENT CONTENTIONS FOR
U.S. PATENT NO. 11,143,145
AS ASSERTED AGAINST
GENERAC MODEL DF3500E ET AL.

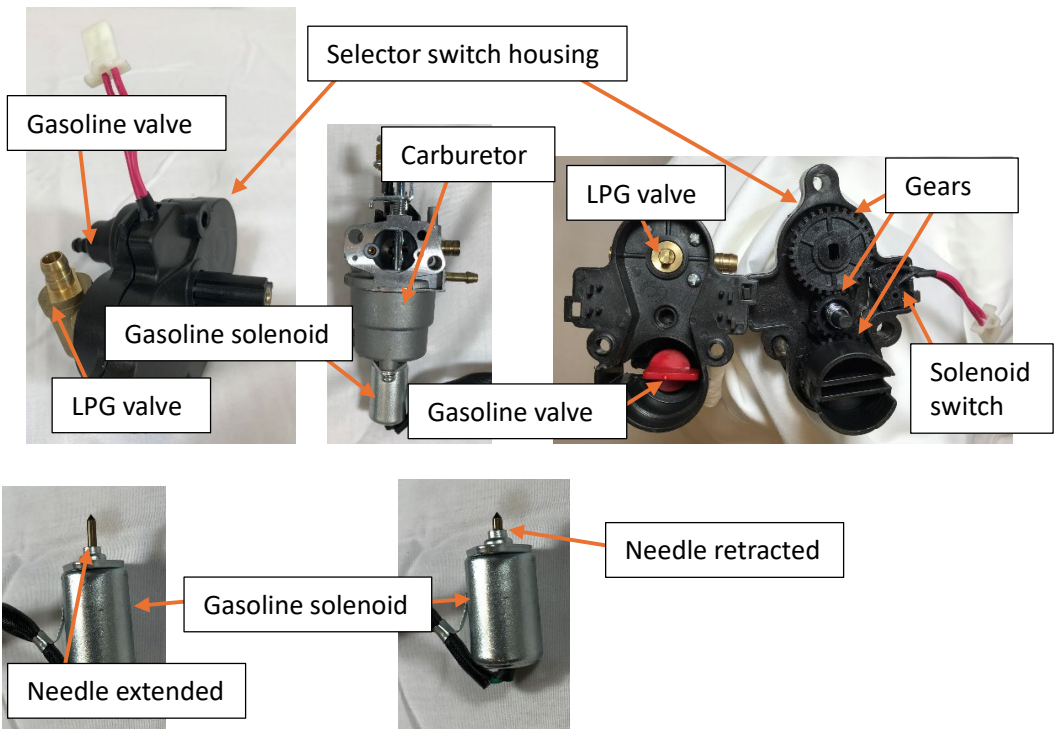
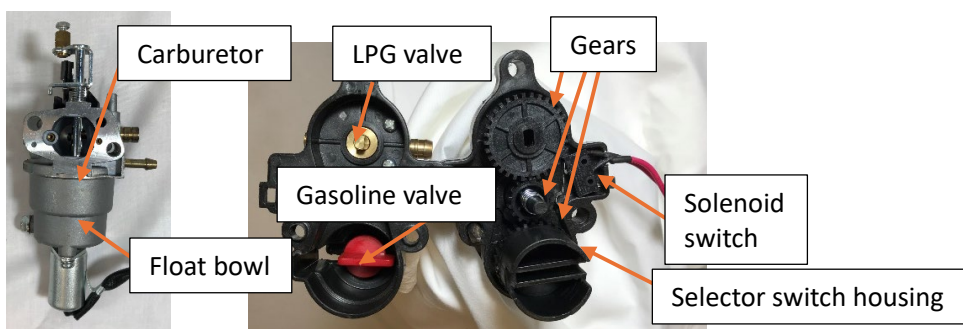
	  Figure 2-15. Connect Hose Assembly to LPG Tank
(a) an engine operable on a gaseous fuel and a liquid fuel;	Element (a) of claim 1 is found within Model DF3500E (and, thereby, Model DF7500E) directly and literally² as follows:  LPG is gaseous fuel. When the selector switch is placed in an LPG Mode, the LPG valve is opened, the LPG fuel source is connected to the carburetor and engine, and the gasoline valve is closed. Gasoline is liquid fuel. When the selector switch is in a Gasoline Mode, the LPG valve is closed, the gasoline valve is opened, the solenoid switch is activated, the gasoline solenoid opens, and the gasoline tank is in communication with the carburetor and engine.
(b) an electrical power generator driven by the engine	Element (b) of claim 1 is found within Model DF3500E (and, thereby, Model DF7500E) 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 '145 Patent, Champion reserves the right to argue the Accused Instrumentalities infringe any of the Asserted Claims of the '145 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.

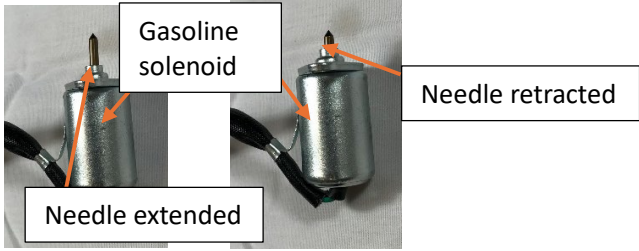
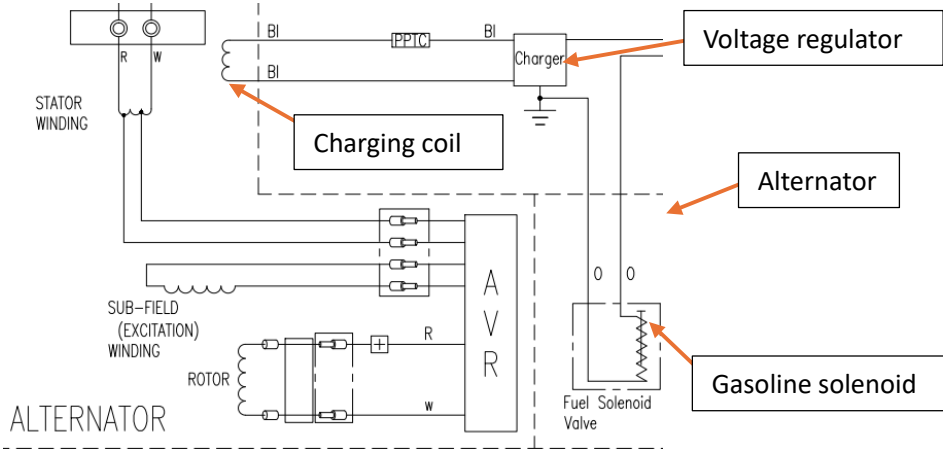
CHAMPION'S INFRINGEMENT CONTENTIONS FOR
U.S. PATENT NO. 11,143,145
AS ASSERTED AGAINST
GENERAC MODEL DF3500E ET AL.

and comprising a charging coil;	The alternator is the electrical generator and is housed within a casing on the engine. It is driven by the engine to generate electrical power. The wiring diagram also shows the charging coil. 
(c) a switch to change operation of the engine between gaseous fuel and liquid fuel;	Element (c) of claim 1 is found within Model DF3500E (and, thereby, Model DF7500E) directly and literally as follows: The fuel selector switch has an LPG Mode (gaseous fuel) and a Gasoline Mode (liquid fuel). When the fuel selector switch is in LPG Mode, only LPG fuel flows to the carburetor and engine. When the fuel selector switch is in Gasoline Mode only gasoline flows to the carburetor and engine. 
(d) a carburetor attached to an intake of the engine to mix air and fuel and connect to a gaseous fuel source and a liquid fuel source;	Element (d) of claim 1 is found within Model DF3500E (and, thereby, Model DF7500E) directly and literally as follows: A carburetor bolts to the engine's intake. The carburetor includes a gasoline solenoid valve incorporated into the float bowl. The gasoline solenoid valve uses a needle to extend and retract when a microswitch is activated in the selector switch. When the needle is extended, the gasoline fuel is shutoff from flowing to the carburetor. When the needle is retracted, the solenoid valve is opened, and gasoline is allowed to flow. The carburetor mixes the selected fuel for mixture with air and combustion in the engine.

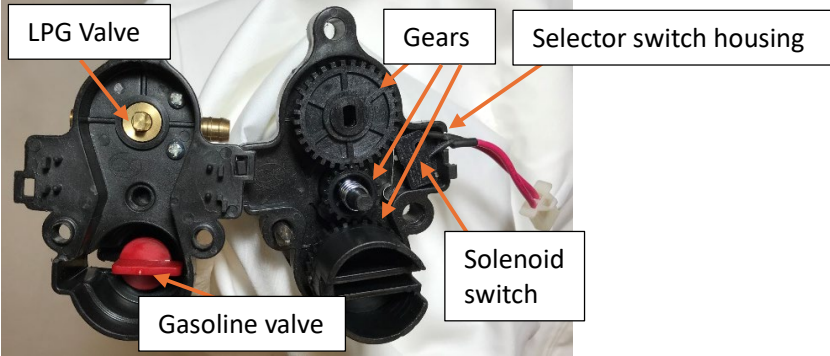
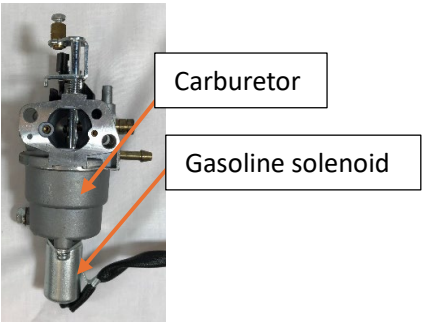
CHAMPION'S INFRINGEMENT CONTENTIONS FOR
U.S. PATENT NO. 11,143,145
AS ASSERTED AGAINST
GENERAC MODEL DF3500E ET AL.

	
(e) a liquid fuel cut-off solenoid to interrupt liquid fuel flow to the engine upon actuation of the switch from liquid fuel to gaseous fuel; and	Element (e) of claim 1 is found within Model DF3500E (and, thereby, Model DF7500E) directly and literally as follows: The liquid fuel cut-off is the gasoline solenoid valve that extends a needle into the float bowl to block the flow of liquid gasoline. When the fuel selector switch is placed in LPG Mode (gaseous fuel), the solenoid switch is triggered causing the gasoline solenoid to extend the needle and cut-off the flow of gasoline. 

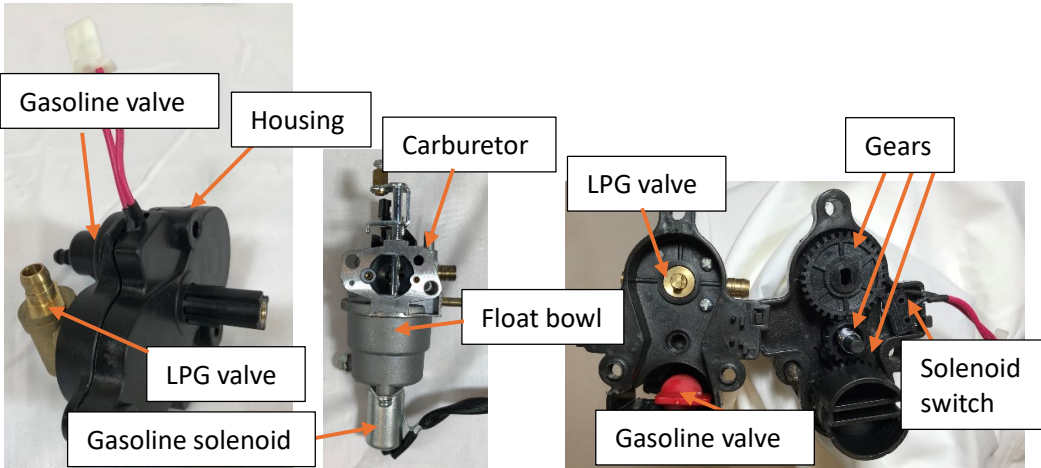
CHAMPION'S INFRINGEMENT CONTENTIONS FOR
U.S. PATENT NO. 11,143,145
AS ASSERTED AGAINST
GENERAC MODEL DF3500E ET AL.

	
(f) a voltage regulator coupled to the charging coil to receive power therefrom and that operates to provide a regulated voltage to the liquid fuel cut-off solenoid.	Element (f) of claim 1 is found within Model DF3500E (and, thereby, Model DF7500E) directly and literally as follows: Model DF3500E has a voltage regulator electrically coupled to the charging coil to receive power therefrom. The voltage regulator operates to provide a regulated voltage to the gasoline solenoid, as shown in the wiring diagram. 
2. (Preamble) The dual fuel generator of claim 1 further comprising:	The preamble of claim 2 is found within Model DF3500E (and, thereby, Model DF7500E) as follows: Champion incorporates by reference in claim 2 the contentions set forth above for claim 1. The dual fuel generator described above is further described below.
(a) a liquid fuel valve along a liquid fuel line coupling the liquid fuel source to the carburetor; and	Element (a) of claim 2 is found within Model DF3500E (and, thereby, Model DF7500E) directly and literally as follows: The liquid fuel valve is the gasoline valve that is within the selector switch housing. The gasoline valve couples the gasoline tank to the carburetor via fuel lines.

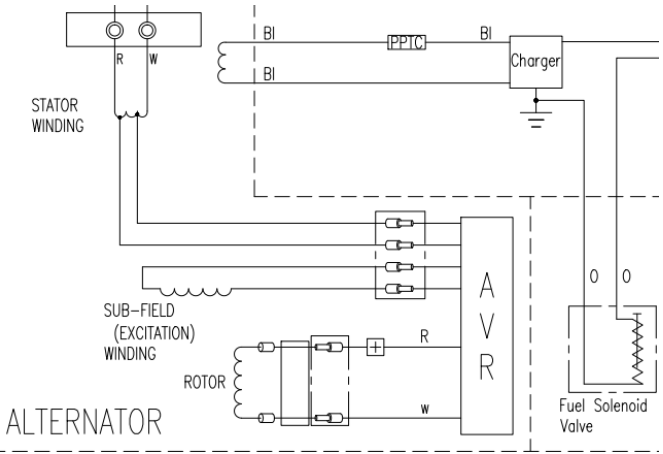
CHAMPION'S INFRINGEMENT CONTENTIONS FOR
U.S. PATENT NO. 11,143,145
AS ASSERTED AGAINST
GENERAC MODEL DF3500E ET AL.

	
(b) a gaseous fuel valve along a gaseous fuel line coupling the gaseous fuel source to the carburetor.	Element (b) of claim 2 is found within Model DF3500E (and, thereby, Model DF7500E) directly and literally as follows: The LPG valve is the gaseous valve. As shown above, the LPG valve is also within the selector switch housing. It also couples the LPG tank to the carburetor via fuel lines.
3. The dual fuel generator of claim 2, wherein each of the liquid fuel valve and the gaseous fuel valve comprises a mechanical valve.	Claim 3 is found within Model DF3500E (and, thereby, Model DF7500E) directly and literally as follows: Champion incorporates by reference in claim 3 the contentions set forth above for claims 1 and 2. Both the liquid gasoline valve and the gaseous LPG vales are mechanical valves that are operated by gearing within the selector switch housing and are manually actuated by rotating the fuel selector switch.
4. The dual fuel generator of claim 2, wherein the liquid fuel cut-off solenoid is attached to the carburetor.	Claim 4 is found within Model DF3500E (and, thereby, Model DF7500E) as follows: Champion incorporates by reference in claim 4 the contentions set forth above for claims 1 and 2.  The liquid fuel cut-off solenoid is a gasoline solenoid attached to the carburetor.

CHAMPION'S INFRINGEMENT CONTENTIONS FOR
U.S. PATENT NO. 11,143,145
AS ASSERTED AGAINST
GENERAC MODEL DF3500E ET AL.

5. The dual fuel generator of claim 1, wherein the gaseous fuel is LPG and the liquid fuel is gasoline.	Claim 5 is found within Model DF3500E (and, thereby, Model DF7500E) as follows: Champion incorporates by reference in claim 5 the contentions set forth above for claim 1. The gaseous fuel comes from an off-board, pressurized LPG tank and is LPG. The liquid fuel comes from an on-board gasoline tank and is liquid gasoline.
6. (Preamble) The dual fuel generator of claim 1,	Claim 6 is found within Model DF3500E (and, thereby, Model DF7500E) as follows: Champion incorporates by reference in claim 6 the contentions set forth above for claim 1. The electro-mechanical valve system is made up by the solenoid valve, the solenoid switch, the mechanical LPG valve, and the mechanical gasoline valve that are all controlled by the selector switch. The electrical components, namely the solenoid valve and microswitch are powered by electrical power generated by the alternator and stored by the battery. These all work together to control the flow of fuel from both the gasoline tank and LPG tank. 
(a) wherein the switch is an electro-mechanical switch connecting one fuel source to the carburetor and connected to the	Element (a) of claim 6 is found within Model DF3500E (and, thereby, Model DF7500E) as follows: The electromechanical valve system described above is configured to allow a user to switch from one fuel source to the other fuel source while the engine is running by simply turning the fuel selector switch. Turning the fuel selector switch causes the solenoid switch to depress and transmit electrical power from the fuel selector switch housing to the fuel cut-off solenoid for operation.

CHAMPION'S INFRINGEMENT CONTENTIONS FOR
U.S. PATENT NO. 11,143,145
AS ASSERTED AGAINST
GENERAC MODEL DF3500E ET AL.

electrical power generator, and	
(b) wherein the liquid fuel cut-off solenoid is connected to open and close a fuel path to the engine in response to reception of electrical power from the switch.	Element (b) of claim 6 is found within Model DF3500E (and, thereby, Model DF7500E) as follows: As disclosed above, the fuel selector switch controls the solenoid switch to deliver to cut off electrical power to the solenoid valve and the electrical power generator, depending on the position of the fuel selector switch.
7. The dual fuel generator of claim 6, wherein the switch selectively powers the solenoid valve by controlling electrical connection between the solenoid valve and the electrical power generator.	Claim 7 is found within Model DF3500E (and, thereby, Model DF7500E) as follows: Champion incorporates by reference in claim 7 the contentions set forth above for claims 1 and 6. The generator includes an alternator to generate electrical power from the engine's rotational movement, as shown in the wiring diagram, reproduced below. 
10. The dual fuel generator of claim 1, wherein the electrical power generator comprises a magneto or an alternator.	Claim 10 is found within Model DF3500E (and, thereby, Model DF7500E) as follows: Champion incorporates by reference in claim 10 the contentions set forth above for claim 1. The generator includes an alternator to generate electrical power from the engine's rotational movement, as shown in the wiring diagram, reproduced below.

CHAMPION'S INFRINGEMENT CONTENTIONS FOR
U.S. PATENT NO. 11,143,145
AS ASSERTED AGAINST
GENERAC MODEL DF3500E ET AL.

