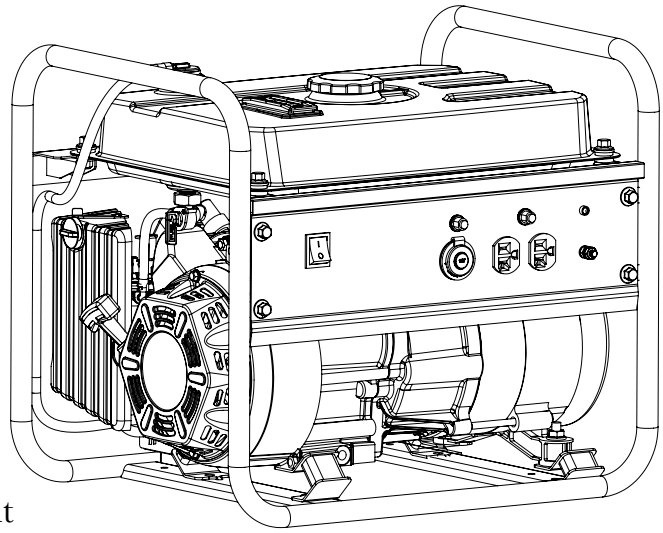
1600W PORTABLE GENERATOR



For replacement parts visit
WENPRODUCTS.COM

Model # 56160
bit.ly/wenvideo

IMPORTANT:

Your new tool has been engineered and manufactured to WEN's highest standards for dependability, ease of operation, and operator safety. When properly cared for, this product will supply you years of rugged, trouble-free performance. Pay close attention to the rules for safe operation, warnings, and cautions. If you use your tool properly and for intended purpose, you will enjoy years of safe, reliable service.

NEED HELP? CONTACT US!

Have product questions? Need technical support?
Please feel free to contact us at:

800-232-1195 (M-F 8AM-5PM CST)

techsupport@wenproducts.com

WENPRODUCTS.COM

NOTICE: Please refer to wenproducts.com for the most up-to-date instruction manual.

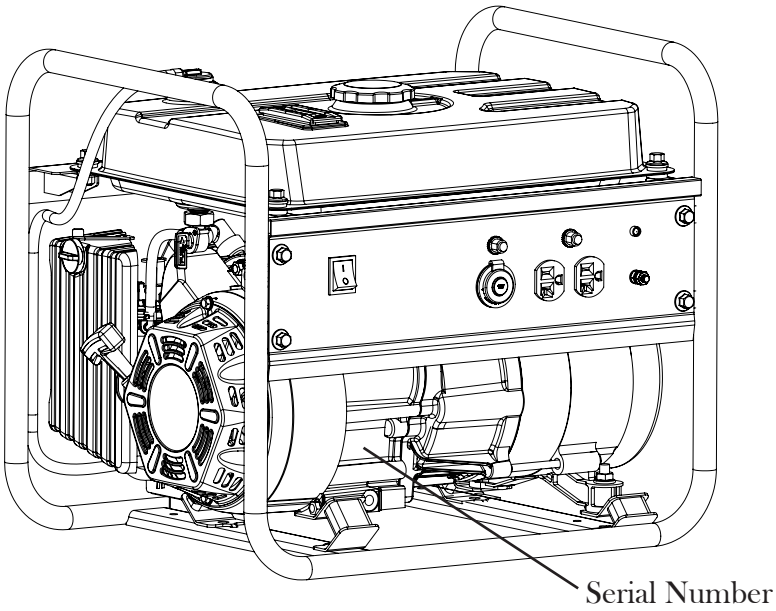
TABLE OF CONTENTS

GENERATOR IDENTIFICATION

If assistance for information or service is required, please contact the Customer Service Help Line by calling 800-232-1195; customer will be asked to provide generator information when calling.

Refer to the illustration below for the location of the serial number. Record generator information in the spaces provided below.

DATE OF PURCHASE: _____
PURCHASED FROM: _____
ENGINE SERIAL NUMBER: _____



SERVICE RECORD

Record Service Dates:

	Date	Date	Date	Date	Date	Date
Change Oil						
Change Spark Plug						
Clean Fuel Tank						
Clean Air Filter						

INTRODUCTION

Thank you for purchasing a WEN Generator. This manual provides important information regarding the safe operation and maintenance of this product. Read all the information carefully before the assembly and operation of your generator to avoid personal injury and damage to the machine.

Please keep this manual available to all users during the entire life of the generator.

IMPORTANT: This manual contains special messages to bring attention to potential safety concerns and generator damage as well as helpful operating and servicing information. Please read all the information carefully to avoid injury and machine damage.

QUESTIONS? PROBLEMS?
In order to answer questions and solve problems in the most efficient and speedy manner, contact Customer Service at (800) 232-1195, M-F 8-5 CST.

NOTICE REGARDING EMISSIONS
Engines that are certified to comply with U.S. EPA emission regulations for SORE (Small Off Road Equipment), are certified to operate on regular unleaded gasoline, and may include the following emission control systems: (EM) Engine Modifications and (TWC) Three-Way Catalyst (if so equipped).

SAFETY INFORMATION

NOTE: The following safety information is not meant to cover all possible conditions and situations that may occur. WEN reserves the right to change this product and specifications at any time without prior notice.

Before operating this generator read and observe all warnings, cautions, and instructions both on the generator and in this owner's manual.

The safety alert symbol is used to identify safety information about hazards that can result in personal injury.

A signal word (DANGER, WARNING, or CAUTION) is used with the alert symbol to indicate the likelihood and the potential severity of injury. In addition, a hazard symbol may be used to represent the type of hazard.

DANGER indicates a hazard, which, if not avoided, will result in death or serious injury.

WARNING indicates a hazard, which, if not avoided, could result in death or serious injury.

CAUTION indicates a hazard, which, if not avoided, might result in minor or moderate injury.

CAUTION when used without the alert symbol, indicates a situation that could result in damage to the machine.

SAFETY INFORMATION

SAVE THESE INSTRUCTIONS – This manual contains important instructions for the WEN generator that should be followed during installation and maintenance of the generator.

For any questions regarding the hazard and safety notices listed in this manual or on the product, please call (800) 232-1195 M-F 8-5 CST or email techsupport@wenproducts.com before using the generator.

DANGER: CARBON MONOXIDE

Using a generator indoors CAN KILL YOU IN MINUTES. Generator exhaust contains carbon monoxide (CO). This is a poison gas you cannot see or smell. If you can smell the generator exhaust, you are breathing CO. But even if you cannot smell the exhaust, you could be breathing CO.

NEVER use a generator inside homes, garages, crawl spaces, or other partially enclosed areas. Deadly levels of carbon monoxide can build up in these areas. Using a fan or opening windows and doors does NOT supply enough fresh air. ONLY use a generator outside and far away from windows, doors, and vents. These openings can pull in generator exhaust.

Even if you use a generator correctly, CO may leak into the home. ALWAYS use a battery-powered or battery-backup CO alarm in the home. If you start to feel sick, dizzy, or weak after the generator has been running, move to fresh air RIGHT AWAY. See a doctor. You may have carbon monoxide poisoning.

WARNING: The exhaust from this product contains chemicals known to the State of California to cause cancer, birth defects, or other reproductive harm.

WARNING: This generator may emit highly flammable and explosive gasoline vapors, which can cause severe burns or even death if ignited. A nearby open flame can lead to explosion even if it isn't directly in contact with gasoline.

WARNING: If this generator is used as a supply for a building's wiring system, the generator must be installed by a qualified electrician and connected to a transfer switch as a separately derived system in accordance with the National Electrical Code, NFPA 70. The generator shall be connected to a transfer switch that switches all conductors excluding the equipment grounding conductor. The frame of the generator shall be connected to an approved grounding electrode.

WARNING: This generator produces heat when running. Temperatures near exhaust can exceed 150^0 F (65^0 C). DO NOT TOUCH HOT SURFACE.

NOTE: For power outages, permanently installed stationary generators are better suited for providing backup power to the home. Even a properly connected portable generator can become overloaded. This may result in overheating or stressing of the components, possibly leading to a generator failure.

GENERATOR SAFETY RULES

1. ONLY use a generator outside and far away from windows, doors and vents. Using a generator indoors can kill you in minutes.

2. Do not operate near open flame. This generator may emit highly flammable and explosive gasoline vapors, which can cause severe burns or even death if ignited.

3. Do not smoke near generator.

4. Do not use in rainy or wet conditions.

5. Always operate on a dry, firm, level surface.

6. Only use generator for its intended purposes.

7. Do not allow children or non-qualified persons to operate the generator.

8. ALWAYS ground the generator before using it (see the "Ground the Generator" portion of the "Generator Preparation" section).

9. Do not overfill fuel tank. Gasoline may expand during operation. Do not fill to the top of the tank. Allow for expansion.

10. Always check for spilled fuel before operating.

11. Make sure to have damaged items repaired or replaced before operation.

12. Do not use plugs or cords that show signs of damage such as broken or cracked insulation.

13. Use a ground fault circuit interrupter (GFCI) in highly conductive areas such as metal decking or steel work. GFCIs are available in-line with some extension cords.

14. NEVER connect the generator to a building's electrical system without a qualified electrician. Such connections must comply with local electrical laws and codes. Failure to comply can create a back-feed, which may result in serious injury or death to utility workers.

15. Do not touch bare wires or receptacles (outlets).

16. Do not touch hot surfaces. See warning labels on the generator identifying hot parts of the machine.

17. Allow generator to run for several minutes before connecting electrical devices.

18. Do not exceed the wattage capacity of the generator by plugging in more electrical devices than the unit can handle.

19. Do not turn on electrical devices until after they are connected to the generator.

20. Generators vibrate in normal use. During and after the use of the generator, inspect both the generator as well as extension and power supply cords for damage resulting from vibration.

21. Have damaged items repaired or replaced as necessary. Do not use plugs or cords that show signs of damage such as broken or cracked insulation.

22. Allow generator to cool down after use before touching engine or areas of the generator that become hot during use.

23. Turn off all connected electrical devices before stopping the generator.

24. Shut off and disconnect any malfunctioning devices from generator.

25. Always turn generator off before refueling. Allow generator to cool for at least 2 minutes before removing fuel cap. Loosen cap slowly to relieve pressure in tank.

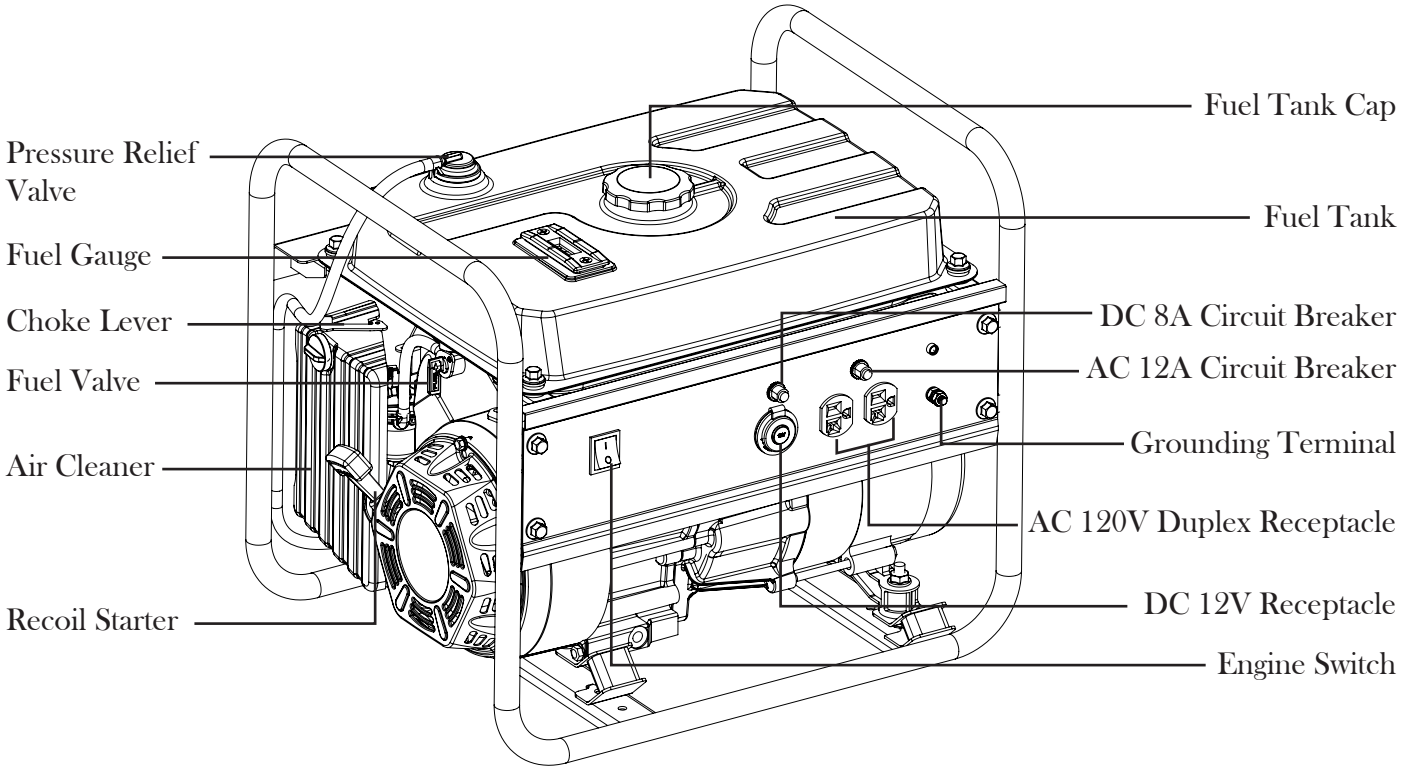
26. Turn the engine switch to "OFF" position when the engine is not running.

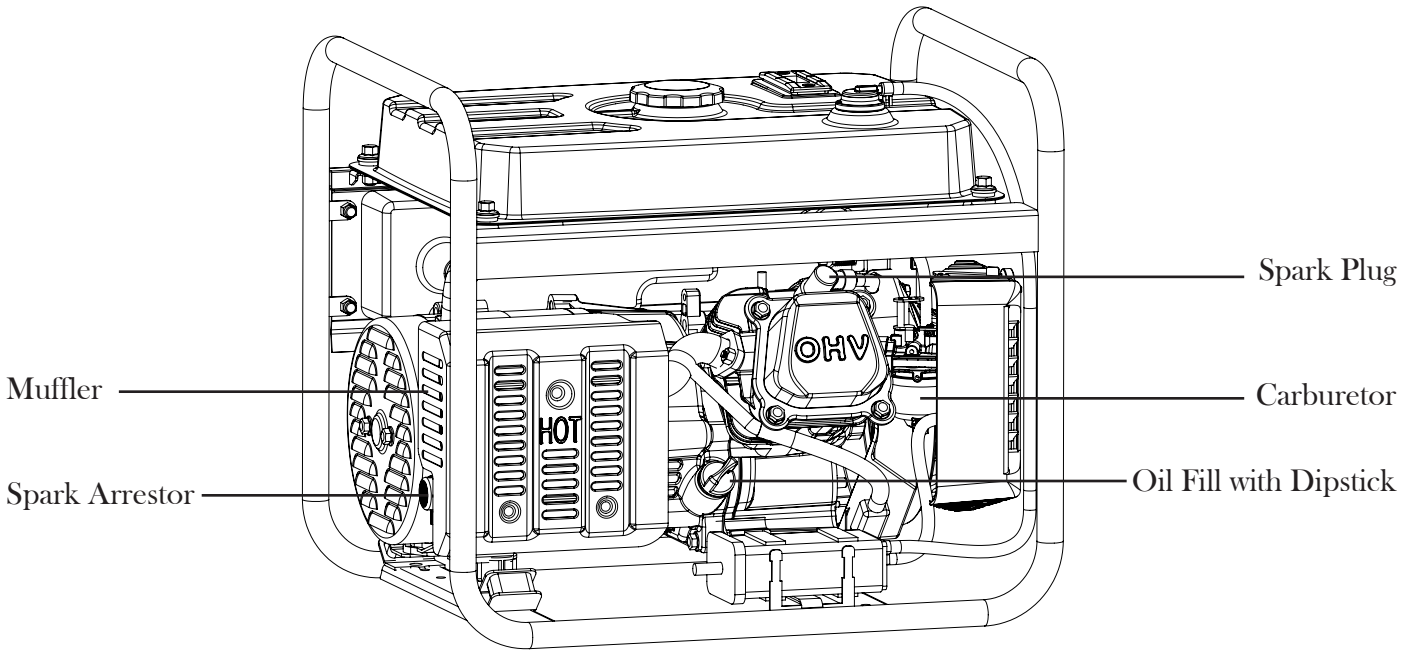
27. Empty fuel tank before storing or transporting the generator.

CAUTION: Misuse of this generator can damage it or shorten its life.

KNOW YOUR GENERATOR

Carefully unpack and remove all contents from the box. Use the illustrations below to become familiar with the locations and functions of the various components and controls of this generator. If any part is damaged or missing, please contact our customer service at (800) 232-1195, M-F 8-5 CST or email techsupport@wenproducts.com.





GENERATOR PREPARATION

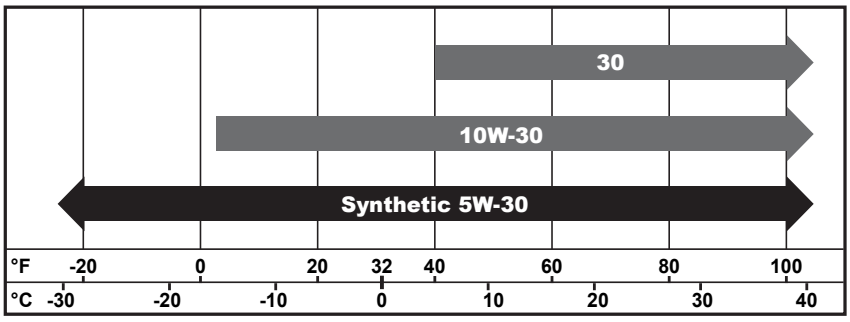
CAUTION: The following section describes the necessary steps to prepare the generator for use. If after reading this section, you are unsure about how to perform any of the steps please call (800) 232-1195 M-F 8-5 CST for customer service. Failure to perform these steps properly can damage the generator or shorten its life.

STEP 1 - ADD/CHECK OIL

The generator is shipped without oil. A proper amount of oil must be added before operating the generator for the first time. For subsequent operation, the oil level should be checked before each use or after every 8 hours of operation. This is a critical step for proper engine starting to ensure that the engine crankcase contains sufficient lubricant. The oil capacity of the engine crankcase is 11.8 fl. ounces.

Select good quality detergent oil bearing the American Petroleum Institute (API) service classifications SJ, SL, or SM (synthetic oils may be used). Select the SAE viscosity grade of oil from "Engine Oil Recommendations" (Fig. 1) that matches the expected operating temperature.

ENGINE OIL RECOMMENDATIONS



- 30W, 4-stroke engine oil for temperatures above 40°F.
- 10W-30 engine oil for temperatures between 0°F - 40°F.
- Synthetic 5W-30 engine oil for all temperature ranges.

Fig. 1

To fill oil, follow these steps:

1. Make sure the generator is shut off. Place the generator on a level surface. NOTE: Tilting the generator to assist in filling will cause oil to flow into the engine areas and will cause damage. Keep the generator level!

2. Remove the dipstick from the engine (Fig. 2).

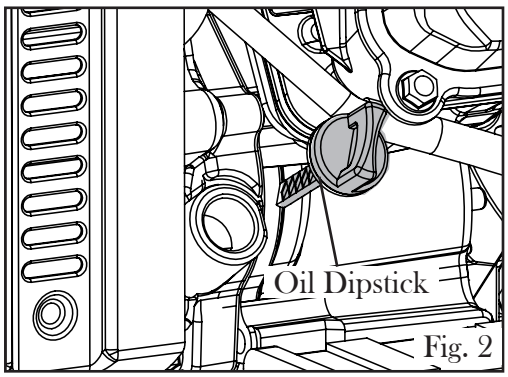


Fig. 2

3. Using an oil funnel or appropriate dispenser, slowly add oil into the oil fill. Fill the crank case to the upper fill line so you can visually see the oil coming up the oil fill threads (Fig. 3). The oil capacity of the engine crankcase is 11.8 fl. ounces. Be careful not to overfill the unit.

4. Reinstall the oil dipstick and wipe clean any spilled oil with a dry rag.

To check/add oil, follow these steps:

1. Remove and wipe the dipstick with a clean rag. Insert the dipstick into the oil fill opening without screwing it in.

2. Remove the dipstick to check the oil mark on the dipstick. Add oil if the oil mark covers less than one half of the dipstick.

3. Slowly add oil and repeat step 2 until the oil mark reaches to the top of dipstick (or when you can see the oil coming up the oil fill threads). Do not over fill the crankcase.

4. Wipe clean any oil leaks and firmly tighten the dipstick.

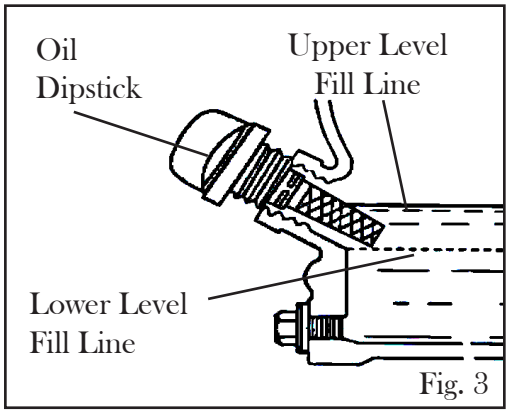


Fig. 3

GENERATOR PREPARATION

WARNING: Keep generator away from open flame. This generator may emit highly flammable and explosive gasoline vapors, which can cause severe burns or even death if ignited. A nearby open flame can lead to explosion even if not directly in contact with gasoline.

Step 2 - ADD/CHECK GASOLINE

Use fresh (within 30 days from purchase), lead-free gasoline with a minimum of 87 octane rating. The capacity of the fuel tank is 1.6 gallons. Do not mix oil with gasoline.

To add gasoline, follow these steps:

1. Make sure the generator is on a level surface and in a well ventilated area.

2. Unscrew the fuel cap and set it aside (Fig. 4). NOTE: The fuel cap may be tight and hard to unscrew.

3. Slowly add unleaded gasoline to the fuel tank. Be careful not to overfill. The capacity of the fuel tank is 1.6 gallons. NOTE: Do not fill the fuel tank to the very top. Leave sufficient room in the tank for gasoline to expand.

4. Reinstall fuel cap and wipe clean any spilled gasoline with a dry cloth.

To check the fuel level:

Check the fuel gauge on the top of the gas tank (Fig. 5). The red arrow indicates the amount of fuel left in the gas tank. "E" indicates Empty and "F" indicates Full. Add fuel when fuel level is low.

STEP 3 - GROUND THE GENERATOR

WARNING: Failure to properly ground the generator increases your risk of electric shock.

Ground the generator by tightening the grounding nut on the front control panel against a grounding wire (Fig. 3). A generally acceptable grounding wire is a No. 12 AWG (American Wire Gauge) stranded copper wire. This grounding wire should be connected at the other end to a copper, brass, or steel-grounding rod that is driven into the earth. Wire and grounding rods are not included with the generator.

Grounding codes can vary by location. Contact a local electrician to check the area codes.

IMPORTANT:

- Use only UNLEADED gasoline.
- Never use an oil/gasoline mixture.
- Never use old gasoline.
- Avoid getting dirt or water into the fuel tank.
- Never store generator for extended periods of time with fuel in the tank.

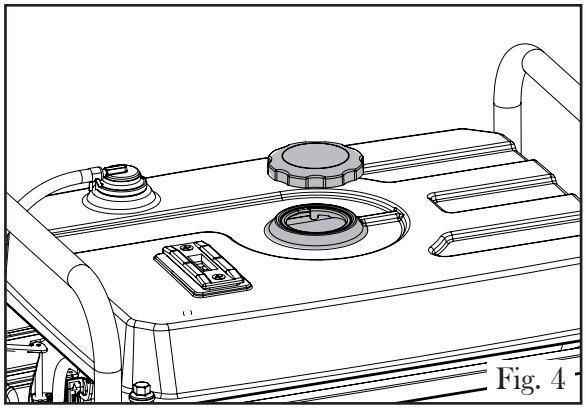


Fig. 4

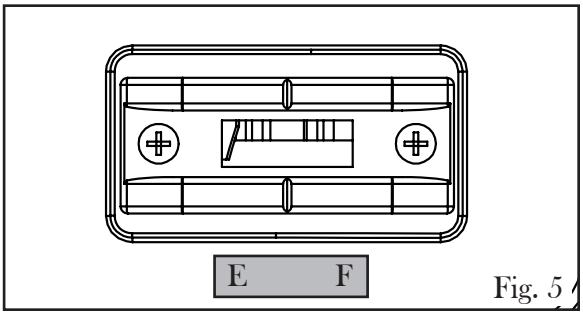


Fig. 5

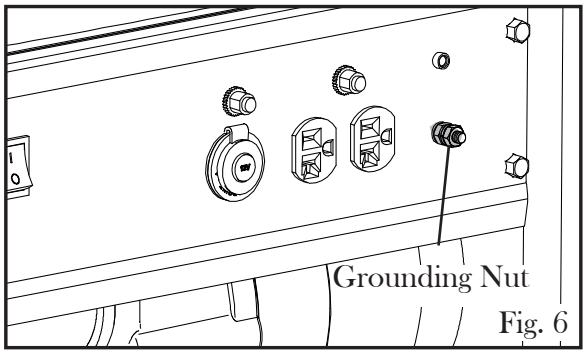


Fig. 6

After completing the above preparation, the generator is ready to be started.

STARTING THE GENERATOR

DANGER: CARBON MONOXIDE - USING A GENERATOR INDOORS CAN KILL YOU IN MINUTES.

Using a generator indoors CAN KILL YOU IN MINUTES. Generator exhaust contains carbon monoxide (CO). This is a poison gas you cannot see or smell. If you can smell the generator exhaust, you are breathing CO. But even if you cannot smell the exhaust, you could be breathing CO.

NEVER use a generator inside homes, garages, crawl spaces, or other partially enclosed areas. Deadly levels of carbon monoxide can build up in these areas. Using a fan or opening windows and doors does NOT supply enough fresh air. ONLY use a generator outside and far away from windows, doors, and vents. These openings can pull in generator exhaust.

Even if you use a generator correctly, CO may leak into the home. ALWAYS use a battery-powered or battery-backup CO alarm in the home. If you start to feel sick, dizzy, or weak after the generator has been running, move to fresh air RIGHT AWAY. See a doctor. You may have carbon monoxide poisoning.

WARNING: This generator may emit highly flammable and explosive gasoline vapors, which can cause severe burns or even death if ignited. A nearby open flame can lead to explosion even if it isn't directly in contact with gasoline. Do not smoke near the generator.

WARNING: Do not use in rainy or wet conditions. Do not touch bare wires or receptacles (outlets). Do not allow children or non-qualified persons to operate.

WARNING: This generator produces heat when running. Temperatures near exhaust can exceed 1500 F (650 C). Do not touch hot surface.

WARNING: This generator produces powerful voltage, which can result in electrocution.

HIGH ALTITUDE OPERATION ABOVE 2000 FEET

The fuel system on this generator may be affected by operation at high altitudes. Proper operation can be ensured by installing an altitude kit at altitudes higher than 2000 feet above sea level. At elevations above 7000 feet, the engine may experience a decrease in performance, even with the proper altitude kit. Operating this generator without the high altitude kit may increase the engine's emissions and decrease both fuel economy and performance.

The high altitude kit can be ordered from wenproducts.com by searching the model number 56160-HA27. The kit should be installed by a qualified mechanic.

NOTE: engines with the high-altitude kit installed operated at lower altitudes could cause severe engine damage and affect emissions compliance. Be sure to uninstall the high altitude kit when operating at altitudes below 2000 feet.

WARNING: To prevent serious injury from fire, follow the kit installation procedures in a well-ventilated area away from ignition sources. If the engine is hot from use, shut the engine off and wait for it to cool before proceeding. Warranty will be void if adjustments are not made for high altitude use.

STARTING THE GENERATOR

Before starting the generator, make sure you have read and performed the steps in the "Generator Preparation" section of this manual. If you are unsure about how to perform any of the steps in this manual please call (800) 232-1195 M-F 8-5 CST for customer service.

STARTING THE GENERATOR

To start the generator, perform the following steps:

1. Place the generator outside on a dry, level surface.

2. Check there is sufficient level of oil in the crankcase. Add oil if necessary (refer to "Add/Check Oil" an page 8).

3. Check there is sufficient level of gasoline in the fuel tank. Add fuel is necessary (refer to "Add/Check Gasoline" on page 9).

4. To maximize safety, make sure the generator is properly grounded (Refer to "Ground the Generator" on page 9).

5. Make sure all electrical devices are unplugged from the generator during ignition. Otherwise it will be difficult for the engine to start.

6. Turn the fuel valve to the ON position (Fig. 7).

7. Move the choke lever to the CLOSE position (Fig. 7).

8. Set the engine switch on the control panel to the ON position.

9. Pull on the recoil starter handle (Fig. 10) slowly until a slight resistance is felt, then pull quickly to start the engine. Return cord gently into the recoil starter. Never allow the cord to snap back.

10. If engine fails to start, repeat step 9.
NOTE: After repeated failed attempts to start the engine, please consult the troubleshooting guide before attempting again. If problems persist please call (800) 232-1195 M-F 8-5 CST.

11. Once the engine has started, slowly return the choke lever all the way to the OPEN position.

12. Allow the engine to run for several minutes before attempting to connect any electrical devices. This allows the generator to stabilize its speed and temperature.

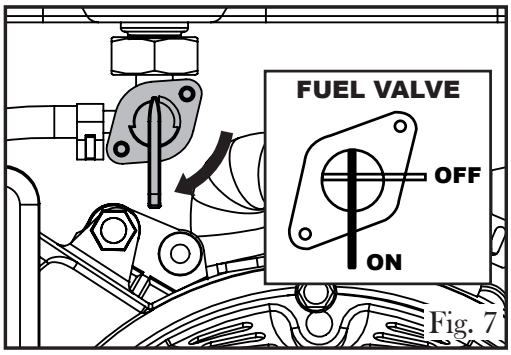


Fig. 7

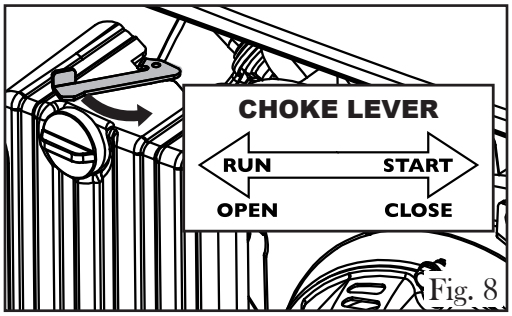


Fig. 8

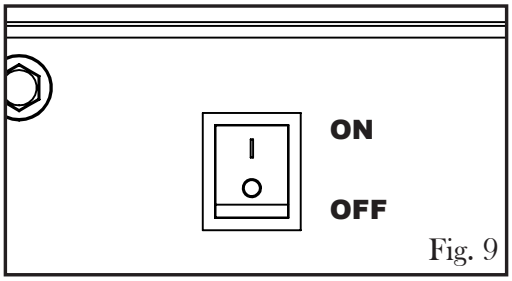


Fig. 9

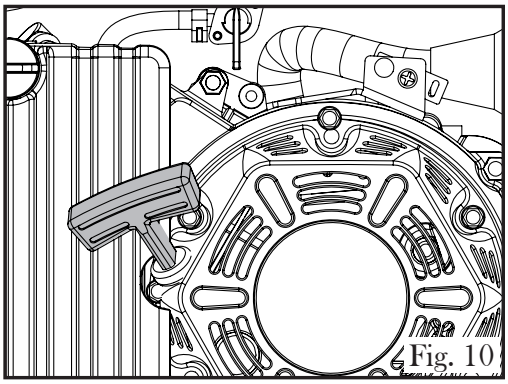


Fig. 10

OIL LEVEL SHUTDOWN

The generator is equipped with a low oil pressure shutoff that shuts down the engine when the oil level is too low to protect the unit from damage. The oil level of the engine should be checked before each start to ensure that the engine crankcase contains sufficient lubricant.

DETERMINING ELECTRICAL DEVICES

The chart below shows the rated and surge wattage of the generator.

Generator	Rated (Running) Wattage	Surge Wattage
56160	1400	1600

Rated (Running) Wattage: the wattage that the generator can produce on a continuous basis. The total running wattage requirement of the electrical devices connected to the generator should not exceed the rated wattage of the generator 1400W.

Surge Wattage: the maximum amount of power the generator can produce for an extremely short period of time (seconds). Many electrical devices such as refrigerators require short bursts of extra power in addition to the rated wattage listed by the device to start their motors. The surge wattage ability of the generator covers this extra power requirement.

To calculate the total wattage requirement of the electrical devices you plan to connect, find the rated (or running) wattage of each device. This number should be listed on the device or in its instruction manual. If this wattage cannot be found, calculate it by multiplying the Voltage requirement by the Amperage drawn: Watts = Volts x Amperes

Tool or Appliance	Running Watts	Surge Watts
Window air conditioner	1200	1800
Saw - miter	1200	1200
Microwave	1000	0
Well water pump	1000	1000
Saw - reciprocating	960	1040
Sump pump	800	1200
Refrigerator freezer	800	1200
Furnace blower	800	1300
Computer	800	0
Electric drill	600	900
Television	500	0
Deep freezer	500	500
Garage door opener	480	0
Stereo	400	0
Box fan	300	600
Clock radio	300	0
Security system	180	0
DVD player / VCR	100	0
Common light bulb	75	0

Fig. 11 - Estimated wattage requirements of common electrical devices

DETERMINING ELECTRICAL DEVICES (CONTINUED)

If the electrical specifications are not available for your electronic devices, estimated wattages are available in Fig. 11 on page 12. Do not solely rely on this chart - all electronics and appliances are built differently. These are not standard wattages across the board, only estimations. Check the wattage listed on the electrical device before consulting this chart.

When the rated wattage requirement of each electrical device has been determined, add these numbers to find the total rated wattage needed. If this number exceeds the rated wattage of the generator, DO NOT connect all these devices. Select a combination of electrical devices, which have a total rated wattage lower than or equal to the rated wattage of the generator.

> **CAUTION:** The generator can run at its surge wattage capacity for only a short time. Connect electrical devices requiring a rated (running) wattage equal to or less than the rated wattage of the generator. Never connect devices requiring a rated wattage equal to the surge wattage of the generator. This can trip the circuit protectors (circuit breakers).

CONNECTING ELECTRICAL DEVICES

1. Before connecting electrical devices, allow the generator to run for a few minutes to stabilize the speed and voltage output.

> **CAUTION:** Become familiar with the markings on the panel (Fig. 12) before connecting electrical devices. Do not connect 50Hz loads to the generator.

2. Make sure that all devices are turned off. Start plugging in each electric device, from the highest wattage to the lowest. Check the power indicator light to ensure the generator is producing power.

3. Do not overload the generator or individual panel receptacles. If an overload occurs, the power indicator light will turn off. Unplug all electrical devices and then press the circuit breaker to reset. Check the total wattage of the devices and reduce the load if it exceeds the capacity of the generator. Then plug the loads back in one by one.

NOTE: If the circuit breaker does not reset, wait several minutes and try again. If the power light still does not come on, call the customer service number for further instructions.

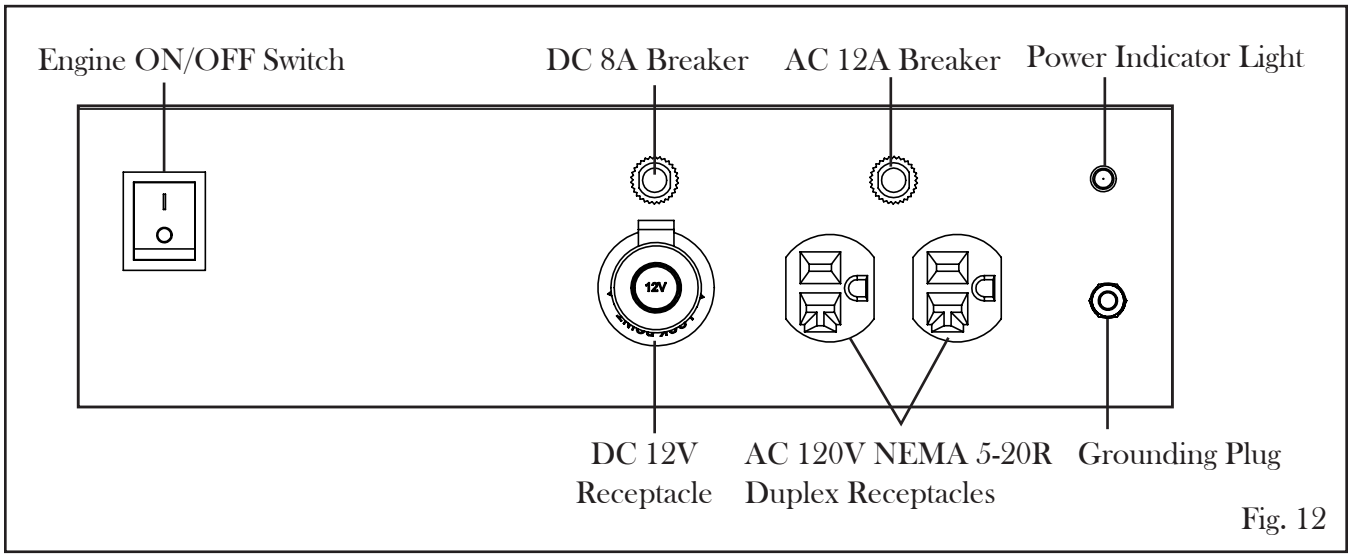


Fig. 12

USING THE GENERATOR

SOME NOTES ABOUT POWER CORDS

Long or thin cords can drain the power provided to an electrical device by the generator. When using such cords, allow for a slightly higher rated wattage requirement by the electrical device. See Fig. 13 for recommended cords based on the power requirement of the electrical device.

Device Requirements		Max. Cord Length (ft) by Wire Gauge				
Amps	Watts (120V)	#8 wire	#10 wire	#12 wire	#14 wire	#16 wire
2.5	300	NR	NR	NR	375	250
5	600	NR	NR	300	200	125
7.5	900	NR	350	200	125	100
10	1200	NR	250	150	100	50
15	1800	NR	150	100	65	NR

*NR = Not Recommended

Fig. 13 - Maximum Extension Cord Lengths by Power Requirement

STOPPING THE GENERATOR

TO SHUT OFF THE GENERATOR

1. Turn off all electrical devices and then unplug the devices from the generator. Unplugging running devices can cause damage to the generator.

2. Turn the engine switch to the OFF position.

3. Turn the fuel valve to the OFF (horizontal) position.

4. Drain the carburetor (See "Draining the Carburetor" on Page 17).

WARNING: Allow the generator to cool for several minutes before touching areas that become hot during use.

CAUTION: Allowing gasoline to sit in the fuel tank for long periods of time can make it difficult to start the generator in the future. Never store the generator for extended periods of time (over 2 months) with fuel in the fuel tank. Refer to "Storing the Generator" on page 19.

MAINTENANCE

Proper routine maintenance of the generator will help prolong the life of the machine. Please perform maintenance checks and operations according to the schedule in Figure 8. If there are any questions about the maintenance procedures listed in this manual, please call (800) 232-1195 M-F 8-5 CST.

IMPORTANT: Drain your carburetor after every use. Do not store the generator with fuel inside the tank for more than 2 months. Run the generator for 15 minutes a month to maximize its lifespan.

CAUTION: Never perform maintenance operations while the generator is running.

Recommended Maintenance Schedule		Each 8 hours or daily	Every 25 hours	Every 3 months or 50 hours	Every 6 months or 100 hours	Every year	As necessary
Engine oil	Check level	x					
	Replace		x*	x*			x
Air cleaner cartridge	Check			x*	x		
	Clean			x*			
Spark plug	Check/ clean/ regap			x	x		
	Change					x	x
Fuel tank	Check level	x					
	Clean					x	
Carburetor	Drain	x					

Fig. 14 - Recommended Maintenance Schedule

* Clean/change more often under dusty conditions or operating under heavy load.

CLEANING THE GENERATOR

Keep the generator clean to prevent improper operation or machine damage from dirt and debris. Inspect all cooling air openings on the generator. These openings must be kept clean and unobstructed. If the generator becomes dirty, use a damp cloth to wipe exterior surfaces. Use a soft bristle brush to loosen dirt and oil and use a vacuum to pick up loose dirt. Only use low pressure air (not to exceed 25 PSI) to blow away dirt.

CAUTION: Never clean the generator when it is running! Never clean with a bucket of water or a hose. Water can get inside the working parts of the generator and cause corrosion or a short circuit.

MAINTENANCE

WARNING: Make sure the generator is shut off before performing any inspection or maintenance procedures.

CHECKING/ADDING THE OIL

Check the oil level of the generator according to the Recommended Maintenance Schedule in Fig. 14. The oil level should be checked before each use or every 8 hours of operation. The oil capacity of the generator engine is 11.8 fl. ounces. Add oil when the oil level is low. For proper type and weight of oil refer to "add oil" portion of the "Generator Preparation" section. This is a critical step for proper engine starting. The generator is equipped with an automatic shutoff to protect it from running on low oil. To check the oil level:

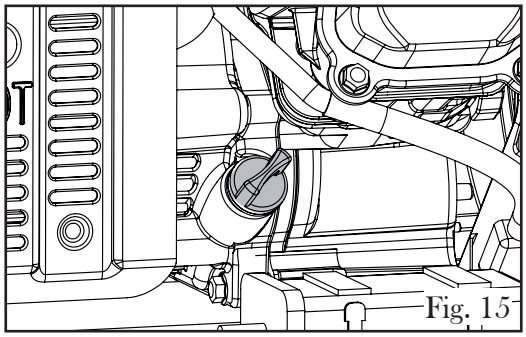


Fig. 15

1. Make sure the generator is on a level surface. Do not tilt the generator to assist in filling as oil will flow into engine areas and cause damage. Keep generator level!

2. Remove the dipstick (Fig. 15) and wipe it with a clean rag.

3. Insert the dipstick into the oil fill opening without screwing in. Remove the dipstick to check the oil mark. Add oil if the oil mark covers less than one half of the dipstick.

4. Using a funnel or appropriate dispenser, slowly add more oil. Repeat step 2 until the oil mark reaches the top of the dipstick (and you can see oil coming up the threads of the oil fill). Do not over fill the crankcase.

5. Reinstall dipstick and wipe clean any spill oil with a rag.

DRAINING THE OIL

Change the oil according to the Recommended Maintenance Schedule in Fig. 14. Change the oil more often if operating under heavy load or high ambient temperatures. It is also necessary to drain the oil from the crankcase if it has become contaminated with water or dirt. Changing the oil when the engine is warm allows for complete drainage. Drain the oil from the generator according to the following steps.

1. Place generator on elevated platform such as table or desk. Prepare a container underneath the oil drain plug next to the oil dipstick to catch the oil as it drains.

2. Unscrew oil drain plug on the size of the crankcase (Fig. 16) and allow the oil to drain from the engine completely.

3. Reinstall the oil drain plug and tighten it securely. Wipe clean any oil spillage.

NOTE: Never dispose of used motor oil in the trash or down a drain. Please call a local recycling center or auto garage to arrange proper oil disposal.

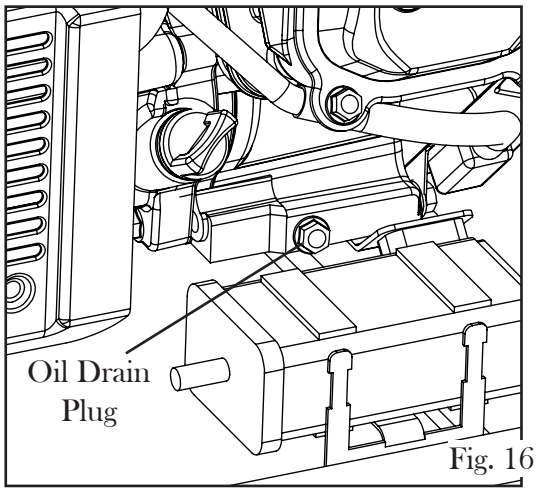


Fig. 16

DRAINING THE CARBURETOR

Draining the carburetor is recommended after every use to prevent the fuel from clogging up the carburetor. The carburetor can be accessed from the backside of the generator between the engine and the air filter (Fig. 17).

1. Turn the fuel valve to OFF position to prevent gasoline from draining from the fuel tank.

2. Open up the carburetor drain plug (Fig. 17) with a screwdriver and drain out any gasoline that has built up inside.

3. Once the fuel has drained, close the drain plug with the screwdriver. NOTE: Make sure to drain your carburetor before storing the generator for long periods of time.

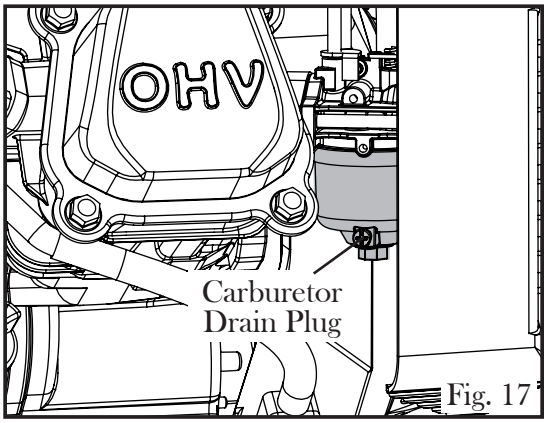


Fig. 17

SPARK PLUG MAINTENANCE

The spark plug is important for proper engine operation. A good spark plug should be intact, free of deposits, and properly gapped. Refer to Recommended Maintenance Schedule in Figure 14 for maintaining the spark plug. To inspect the spark plug:

1. Remove the spark plug boot (Fig. 18). Be careful not to tear any insulation or wire.

2. Unscrew the spark plug from the engine using the spark plug wrench provided.

3. Visually inspect the spark plug for cracks or excessive electrode wear. NOTE: Replace the plug if electrodes are worn, burned or porcelain is cracked. Replace with NGK BPR6HS/BP6HS spark plug.

4. Measure the plug gap with a wire gauge (Fig. 19). The gap should be 0.7 to 0.8 mm (0.028-0.031 in).

5. If re-using the spark plug, use a wire brush to clean any dirt from around the spark plug base then re-gap the spark plug.

6. Screw the spark plug back into the spark plug hole using the spark plug wrench. Recommended tightening of spark plug is ½ to ¾ of a turn after spark plug gasket contacts spark plug hole. Do not over-tighten the spark plug. Reinstall the spark plug boot.

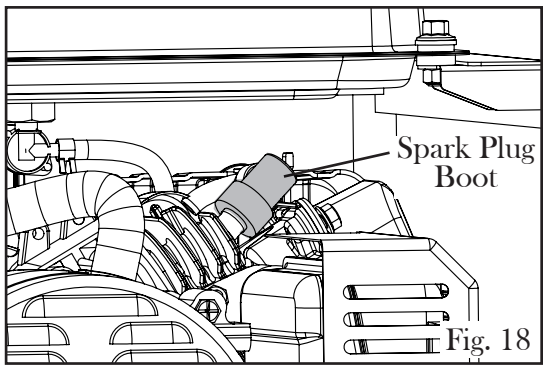


Fig. 18

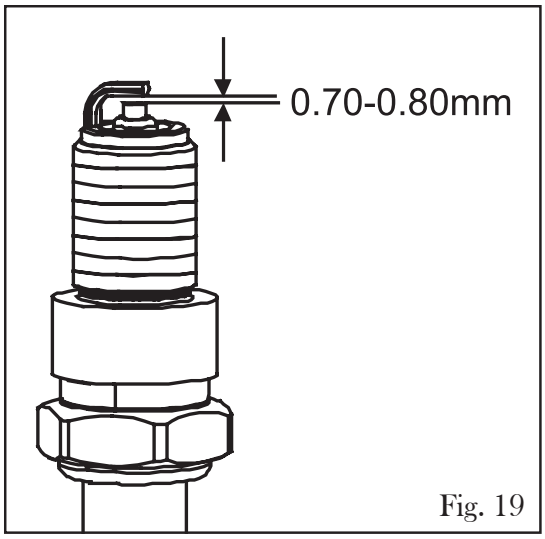


Fig. 19

AIR CLEANER MAINTENANCE

Routine maintenance of the air cleaner helps maintain proper airflow to the carburetor. Occasionally check that the air cleaner is free of excessive dirt. The air cleaner should be checked every 50 hours of use. Refer to Recommended Maintenance Schedule in Fig. 14.

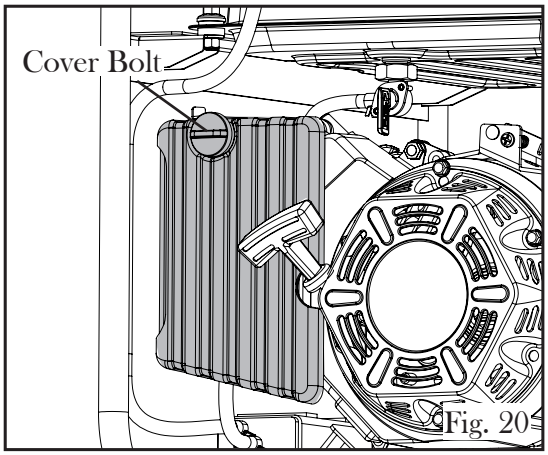


Fig. 20

1. Unscrew the cover bolt (Fig. 20) and remove the air cleaner cover. Remove the air cleaner element from the casing.

2. Check and clean the foam air cleaner element. Good elements can be washed in soapy water, dried and reused. Wipe off excessive oil from the air cleaner case. Small amount of oil in the element is normal and necessary for the engine to work properly. Replace with a new one if the element is damaged.

3. Reinstall the air cleaner element and cover. Secure with the cover bolt.

CAUTION: Running the engine with dirty, damaged or missing air cleaner element will cause the engine to wear out prematurely.

SPARK ARRESTER MAINTENANCE

It is recommended to inspect and clean the spark arrester after every 200 hours of operation.

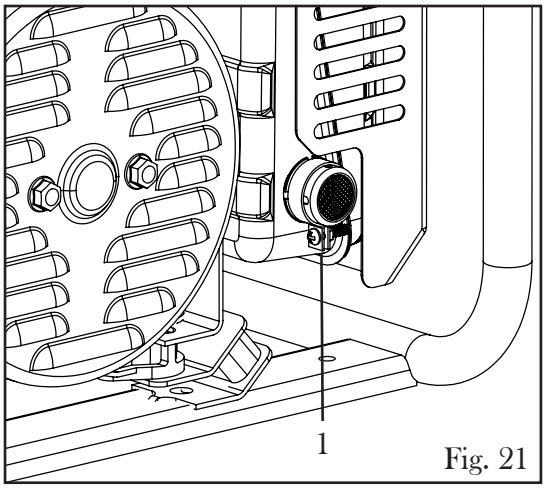


Fig. 21

1. The spark arrester is located outside the muffler. Allow the engine to cool completely before servicing the spark arrester.

2. Remove the screw holding the cover plate which attaches the end of the spark arrester to the muffler (Fig. 21 - 1).

3. Remove the spark arrester screen.

4. Carefully clean and remove the carbon deposits from the spark arrester screen with a wire brush.

5. Replace the spark arrester if it is damaged.

6. Position the spark arrester in the muffler and attach with the screw.

DRAINING THE FUEL TANK

Clean the fuel tank every year and before storing the generator for longer than one to two months. Refer to Recommended Maintenance Schedule in Figure 14. To drain the fuel tank:

1. Turn the fuel valve to the OFF position (Fig. 22).

2. Prepare a suitable container under the carburetor for catching the drained fuel.

3. Open up the carburetor drain plug (Fig. 23) with a screwdriver. Gasoline will start to drain from the carburetor.

4. Open the fuel valve by turning it to the ON position to let the fuel drain completely from the fuel tank.

5. Once the fuel has drained, shut off the fuel valve and close the carburetor drain plug with the screwdriver.

6. Store the emptied gasoline in a suitable place.

CAUTION: Do not store the emptied fuel for more than 3 months.

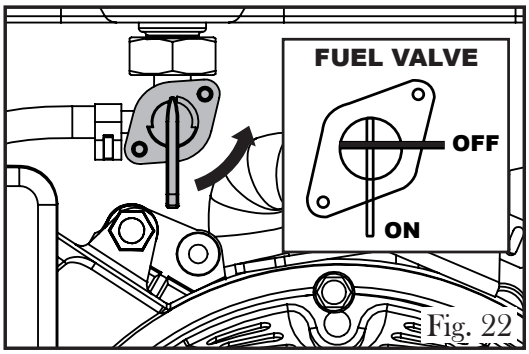


Fig. 22

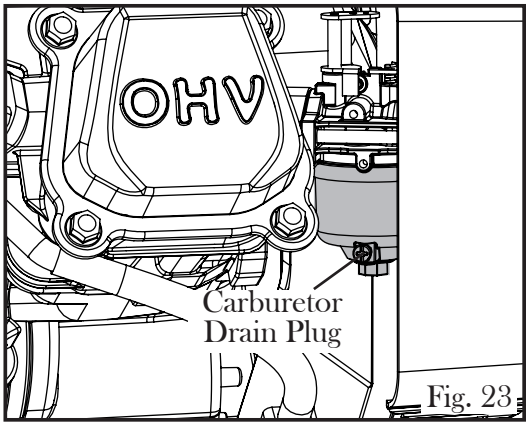


Fig. 23

STORAGE & TRANSPORT

STORING THE GENERATOR

Shut off the generator and allow the unit to cool to room temperature before storage. Never place any type of storage cover on the generator while it is still hot. Do not obstruct any ventilation openings.

Store the generator and fuel in a cool and dry location, away from sources of heat, open flames, sparks or pilot lights. Follow the procedures below for properly storing your generator.

For Short Periods (30 to 60 Days):

- Drain the carburetor.
- Gasoline stored over 30 days can go bad and damage fuel system components. Add fuel stabilizer, following the suggested portions and instructions of your preferred stabilizer. Run the engine for 2 to 3 minutes, allowing the fuel stabilizer to mix with the gasoline and circulate through the carburetor, and then top off with fuel. NOTE: Filling the fuel tank full reduces the amount of air in the tank and helps fight deterioration of fuel.

For Extended Periods (Over 60 Days):

- Drain the carburetor.
- Drain the fuel tank (see Draining the Fuel Tank). Never store with fuel in the tank for more than two months.
- Change engine oil (see Draining the Oil).

IMPORTANT: Run the generator ONCE A MONTH for 15 minutes. This is necessary for prolonging the lifetime of your generator and ensure that the generator can function properly for your next operation. Afterwards, shut off and drain the carburetor. Store the generator with a dry carburetor.

TRANSPORTING THE GENERATOR

- Tighten the fuel cap and turn the fuel valve to OFF position.
- Drain the fuel tank if possible (see Draining the Fuel Tank).
- Keep the generator upright. Never place the generator on its side or upside down. Doing so will make it difficult to start.

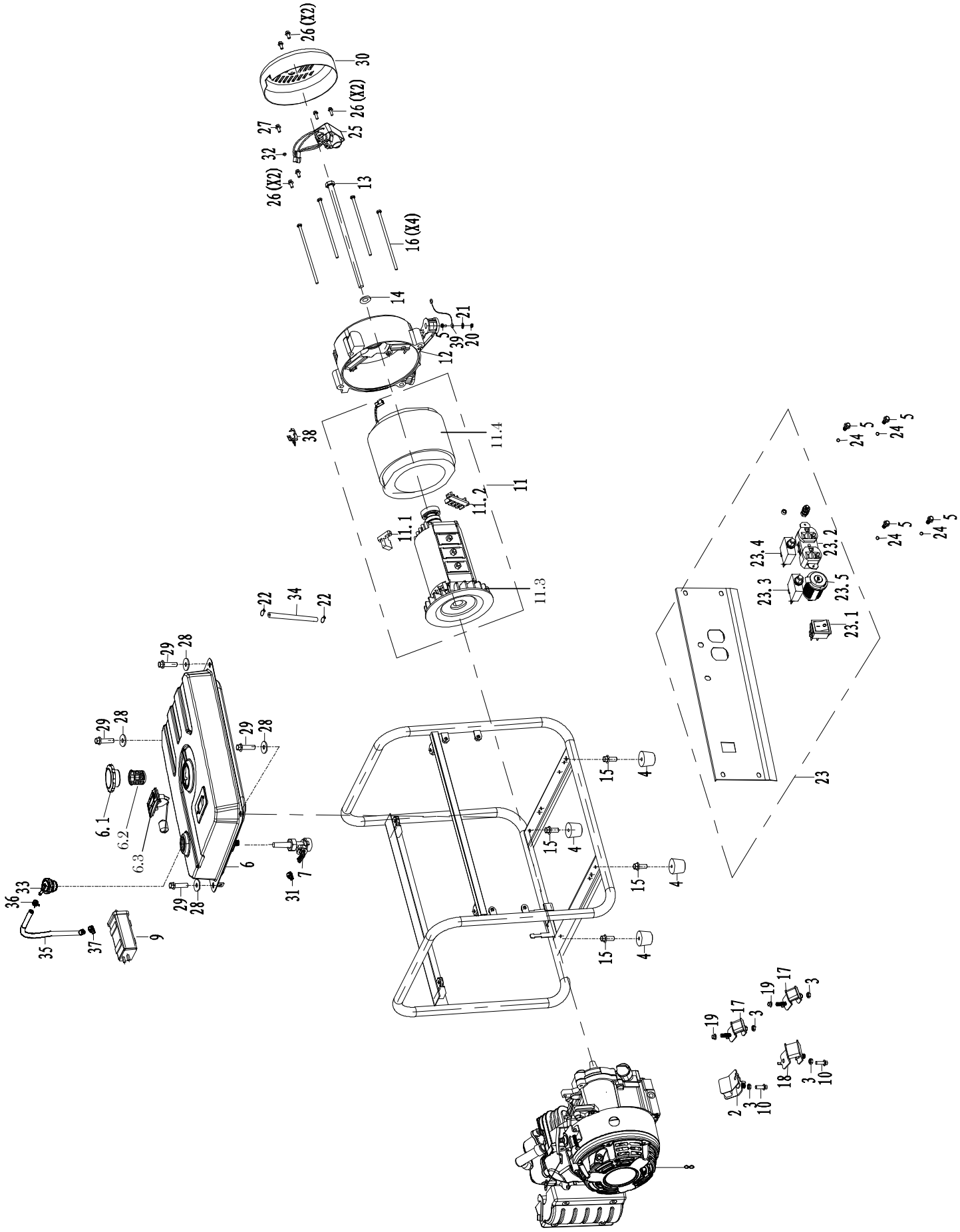
SPECIFICATIONS

Rated Wattage	1400 Watts
Surge Wattage	1600 Watts
Phase	Single
Frequency	60Hz
Rated Voltage	AC: 120V, DC: 12V
Rated Amperage	AC: 12A, DC: 8A
Dimensions	Length: 18.3 in.
	Width: 14.2 in.
	Height: 15.9 in.
Weight	56 lbs

ENGINE

Engine Type	4 stroke, OHV, single cylinder with forced air cooling system
Engine Displacement	98cc OHV
Engine Speed	3600 RPM
Fuel Tank Capacity	1.6 gallons (87 octane minimum)
Oil Capacity	11.8 fl.oz.
Lubrication System	Splash lubrication
Half-Load Run Time	9 hours
Noise Rating	72 dB at 22 feet
Spark Plug Type	NGK BPR6HS/BP6HS
Spark Plug Gap	0.7 - 0.8 mm (0.028 - 0.031 in)
Spark Plug Torque	1/2 - 3/4 turn after gasket contacts base or 15 ft.lb

EXPLODED VIEW AND PARTS LIST

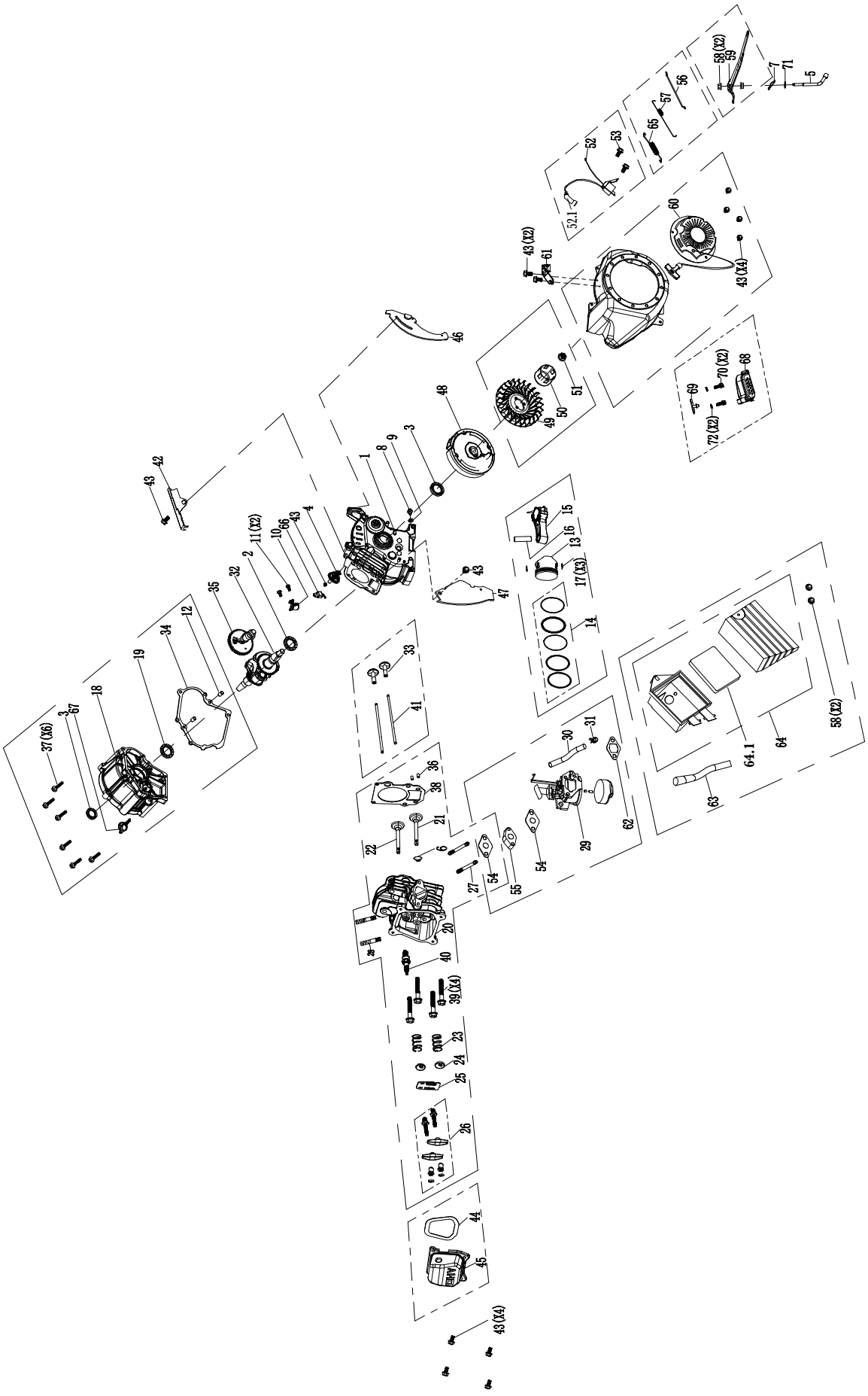


EXPLODED VIEW AND PARTS LIST

No.	Part No.	Description	Qty
1	56160-001	Frame	1
2	56160-002	Isolator A	1
3	56160-003	Nut M8	4
4	56160-004	Rubber Damping Bracket	4
5	56160-005	Bolt M6X12	5
6	56160-006	Fuel Tank Assembly	1
6.1	56160-006.1	Fuel Tank Cap Assembly	1
6.2	56160-006.2	Fuel Tank Filter	1
6.3	56160-006.3	Fuel Gauge Assembly	1
7	56160-007	Fuel Cock	1
8	56160-008	Engine Assembly	1
9	56160-009	Carbon Tank Assembly	1
10	56160-010	Bolt M8X16	2
11	56160-011	Motor Assembly	1
11.1	56160-011.1	Carbon Brush Assembly	1
11.2	56160-011.2	Grounding Post Assembly	1
11.3	56160-011.3	Rotor	1
11.4	56160-011.4	Stator	1
12	56160-012	Motor Stand	1
13	56160-013	Bolt	1
14	56160-014	Gasket, Rotor Bolt Φ8.5Xϕ24X3	1
15	56160-015	Bolt M6X12	4
16	56160-016	Bolt	4
17	56160-017	Isolator B	2
18	56160-018	Isolator B	1
19	56160-019	Nut M8	2

No.	Part No.	Description	Qty
20	56160-020	Nut M6	1
21	56160-021	Tooth Type Gasket Φ6	1
22	56160-022	Clip Φ12	2
23	56160-023	Panel Assembly	1
23.1	56160-023.1	Switch Assembly	1
23.2	56160-023.2	NEMA 5-20R 120V Duplex Receptacle	1
23.3	56160-023.3	Thermal Protector 12A	1
23.4	56160-023.4	Thermal Protector 8A	1
23.5	56160-023.5	12V DC Receptacle	1
24	56160-024	Washer	4
25	56160-025	Automatic Voltage Regulator	1
26	56160-026	Bolt M5X12	6
27	56160-027	Bolt M5X16	1
28	56160-028	Washer, Fuel Tank	4
29	56160-029	Bolt M6X20	4
30	56160-030	Generator End Cover	1
31	56160-031	Fuel Line Clip Φ7.5	1
32	56160-032	Spring Washer Φ5	1
33	56160-033	Manual Choke Assembly	1
34	56160-034	Breather Tube	1
35	56160-035	Connecting Pipe Φ4*Φ10*280Mm	1
36	56160-036	Clip, Fuel Line Φ10.5	1
37	56160-037	Clip, Fuel Line Φ9.5	1
38	56160-038	Clip	1
39	56160-039	Ground Wire	1

EXPLODED VIEW AND PARTS LIST

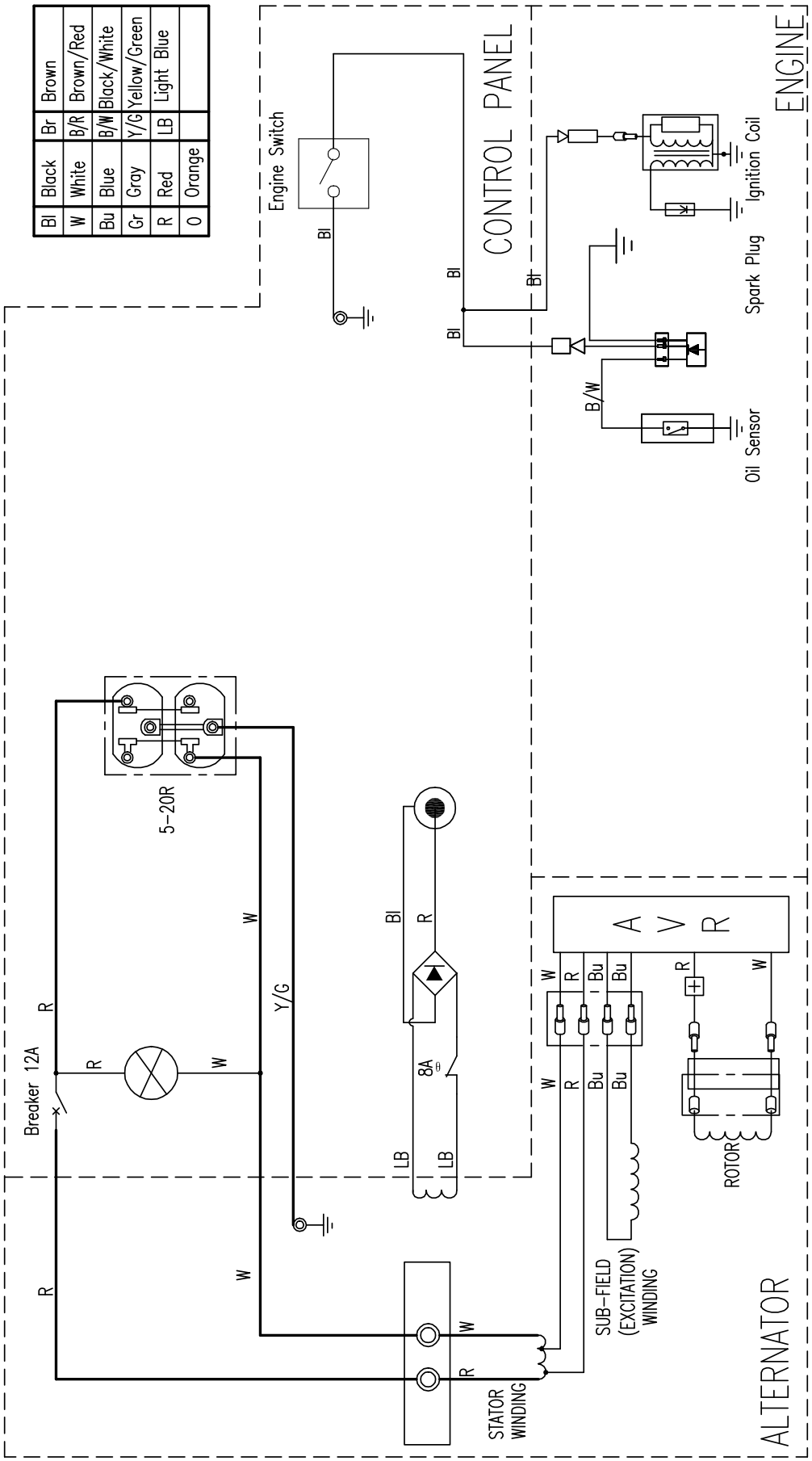


EXPLODED VIEW AND PARTS LIST

No.	Part No.	Description	Qty
1	56160-101	Crankcase	1
2	56160-102	Ball Bearing	1
3	56160-103	Oil Seal	2
4	56160-104	Governor Assembly	1
5	56160-105	Governor Arm Shaft	1
6	56160-106	Intake Valve Returner	1
7	56160-107	Lock Pin	1
8	56160-108	Drain Plug Bolt	1
9	56160-109	Drain Plug Washer	1
10	56160-110	Oil Level Switch Assembly	1
11	56160-111	Bolt M6X12	2
12	56160-112	Casecover Dowel Pin	2
13	56160-113	Piston	1
14	56160-114	Piston Scraper Ring Set	1
15	56160-115	Connecting Rod Assembly	1
16	56160-116	Piston Pin	1
17	56160-117	Piston Clip	2
18	56160-118	Crankcase Cover Assembly	1
19	56160-119	Ball Bearing	1
20	56160-120	Cylinder Head	1
21	56160-121	In Valve	1
22	56160-122	Valve Exhaust	1
23	56160-123	Valve Spring	2
24	56160-124	Seat, Valve Spring, In	2
25	56160-125	Push Rod Guide Plate	1
26	56160-126	Rocker Assembly	2
27	56160-127	Stud Bolt	2
28	56160-128	Stud Bolt	2
29	56160-129	Carburetor Assembly	1
30	56160-130	Fuelv Line Φ4Xϕ8X120Mm	1
31	56160-131	Clip, Fuel Line Φ8	1
32	56160-132	Crankshaft Assembly	1
33	56160-133	Valve Lifter	2
34	56160-134	Casecover Packing	1
35	56160-135	Camshaft Assembly	1
36	56160-136	Dowel Pin	2
37	56160-137	Bolt M6X28	6

No.	Part No.	Description	Qty
38	56160-138	Cylinder Head Gasket	1
39	56160-139	Bolt M8X50	4
40	56160-140	Spark Plug	1
41	56160-141	Rod, Push	2
42	56160-142	Shroud	1
43	56160-143	Bolt M6X12	13
44	56160-144	Headcover Packing	1
45	56160-145	Cylinder Head Cover Assembly	1
46	56160-146	Wind Shield, LH	1
47	56160-147	Wind Shield, RH	1
48	56160-148	Flywheel Assembly	1
49	56160-149	Recoil Starter Fan	1
50	56160-150	Starter Pulley	1
51	56160-151	Nut M12	1
52	56160-152	Ignition Coil Assembly	1
52.1	56160-152.1	Spark Plug Boot	1
53	56160-153	Bolt M6X20	2
54	56160-154	Intake Packing	2
55	56160-155	Carburetor Insulator	1
56	56160-156	Governor Rod	1
57	56160-157	Throttle Return Spring	1
58	56160-158	Nut M6	4
59	56160-159	Governor Arm	1
60	56160-160	Recoil Starter Assembly	1
61	56160-161	Upper Shroud Assembly	1
62	56160-162	Air Cleaner Gasket	1
63	56160-163	Breather Tube	1
64	56160-164	Air Cleaner Assembly	1
64.1	56160-164.1	Air Cleaner Element	1
65	56160-165	Governor Spring	1
66	56160-166	Amplifier	1
67	56160-167	Dipstick	1
68	56160-168	Secondary Gas Injection Filter	1
69	56160-169	Flameout Wire	1
70	56160-170	Bolt M6X12	2
71	56160-171	Governor Arm Shaft Washer	1
72	56160-172	Split Lock Washer	2

WIRING DIAGRAM



TROUBLESHOOTING

IMPORTANT: If trouble persists, please call our customer help line at (800) 232-1195 M-F 8-5 Central Time.

PROBLEM	CAUSE	SOLUTION
Engine will not start.	Engine switch is set to OFF.	Set engine switch to ON.
	Fuel valve is turned to OFF.	Turn fuel valve to ON position.
	Choke is open.	Close the choke.
	Engine is out of gas.	Add gas.
	Engine is filled with contaminated or old gas.	Change the gas in the tank.
	Spark plug is dirty.	Clean the spark plug.
	Spark plug is broken.	Replace spark plug.
	Generator is not on a level surface.	Move the generator to a level surface to prevent low oil shutdown from triggering.
	Oil is low.	Add or replace oil.
	Carburetor is air locked.	Shut off the gas valve and remove the screw from the bottom of the carburetor to allow it to reset.
Engine runs but there is no electrical output.	Circuit reset button is off.	Wait for two minutes and push the circuit reset button to the ON position.
	Bad connecting wires/cables.	If you are using an extension cord, use a different one.
	Bad electrical device connected to the generator.	Try connecting a different device.
Generator runs but does not support all electrical devices connected.	Generator is overloaded.	Perform these steps: 1. Turn off all electrical devices. 2. Unplug all electrical devices. 3. Turn off generator. 4. Wait several minutes. 5. Restart generator. 6. Try connecting few electrical loads to the generator.
	Short circuit in one of the devices.	Try disconnecting any faulty or short-circuited electrical loads.
	Air cleaner is dirty.	Clean or replace air cleaner.

WARRANTY STATEMENT

Remember to save the receipt and to accurately fill out and mail the product registration card. Proof of purchase is required for all warranty work.

WEN® Generators are under warranty to be free from defects in materials and workmanship for a period of two (2) years from date of original purchase. Generators used for Commercial or Rental use have a warranty period of 90 days from date of original purchase. Keep purchase receipt and mail in the product registration card for proof of purchase.

WEN® will repair or replace, at its discretion, any part that is proven to be defective in materials or workmanship under normal use during the two (2) years warranty period. Warranty repairs or replacements will be made without charge for parts or labor. Parts replaced during warranty repairs will be considered as part of the original product and will have the same warranty period as the original product.

To exercise the warranty, DO NOT RETURN TO RETAILER. Instead, call the toll free Customer Service number at (800) 232-1195 and you will be instructed on where to take the generator for warranty service. Take the generator and proof of purchase (the receipt) to the repair facility recommended by the Customer Service Representative. To make a claim under this Limited Warranty, you must make sure to keep a copy of your proof of purchase that clearly defines the Date of Purchase (month and year) and the Place of Purchase. Place of purchase must be a direct vendor of Great Lakes Technologies, LLC. Third party vendors such as garage sales, pawn shops, resale shops, or any other secondhand merchant void the warranty included with this product. Contact techsupport@wenproducts.com or 1-800-232-1195 to make arrangements for repairs and transportation.

When returning a product for warranty service, the shipping charges must be prepaid by the purchaser. The product must be shipped in its original container (or an equivalent), properly packed to withstand the hazards of shipment. The product must be fully insured with a copy of the warranty card and/or the proof of purchase enclosed. There must also be a description of the problem in order to help our repairs department diagnose and fix the issue. Repairs will be made and the product will be returned and shipped back to the purchaser at no charge.

THIS LIMITED WARRANTY DOES NOT APPLY TO ACCESSORY ITEMS THAT WEAR OUT FROM REGULAR USAGE OVER TIME INCLUDING BELTS, BRUSHES, BLADES, ETC.

The warranty does not extend to generators damaged or affected by fuel contamination, accidents, neglect, misuse, unauthorized alterations, use in an application for which the product was not designed and any other modifications or abuse. Labor for warranty parts is only covered for the contiguous United States (48 states).

WEN® is not liable for any indirect, incidental or consequential damages from the sale or use of this product. Any implied warranties are limited to two (2) years as stated in this written limited warranty. Some states do not allow the exclusion or limitation of incidental or consequential damages. Some states do not allow limitation on the length of an implied warranty. This warranty gives you specific legal rights, and you may have other rights that vary from state to state.