



PETROL WATER PUMP USER MANUAL

All information, illustrations, directions and specifications included in this publication are based on the latest product information available at the time of approval for printing. We reserve the right to make changes without incurring any obligation. No part of this publication may be reproduced without written permission.

Table of Contents

- PETROL WATER PUMP 1
- INTRODUCTION 1
- 1. SAFETY INSTRUCTION..... 2
 - 1.1 Operation Safety 2
 - 1.2 Maintenance Safety..... 2
- 2. COMPONENTS 3
- 3. PREPARATION..... 4
 - 3.1 Check the engine conditions..... 4
 - 3.2 Connect the inlet hose 4
 - 3.3 Connect the discharge hose 4
 - 3.4 Check the level of Engine oil..... 4
 - 3.5 Check the level of fuel 5
 - 3.6 Check air cleaner filter element 6
 - 3.7 Priming Water..... 6
- 4. STARTING THE ENGINE 7
- 5. STOPPING THE ENGINE..... 8
- 6. MAINTENANCE..... 8
 - 6.1. Oil Change and Oil Drainage 9
 - 6.2. Maintain the air cleaner: 9
 - 6.3. Maintenance of the spark plug: 9
- 7. HANDLING AND STORAGE 10
 - 7.1 Handling..... 10
 - 7.2 Storage..... 10
- 8. TROUBLESHOOTING 11
- 9. MAINTENANCE TIMETABLE..... 12

INTRODUCTION

Thank you for purchasing our petrol water pump.

It is important that anyone operating the water pump read and understand the manual prior use otherwise, our company will not be responsible for any personal injury or mechanical failure caused by improper operation of the water pump.

All information in this publication is based on the latest product information available at the time of approval for printing. We reserve the right to make changes at any time without notice and/or incurring any obligation. No part of this publication may be reproduced without written permission.

This manual describes the basic operation and maintenance instructions of the water pump. If you have any question, or want to know other information about the pump, please contact the local dealer.

1. SAFETY INSTRUCTION

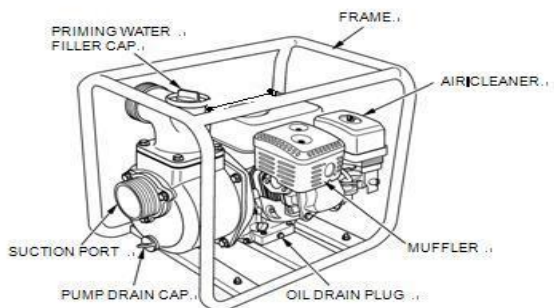
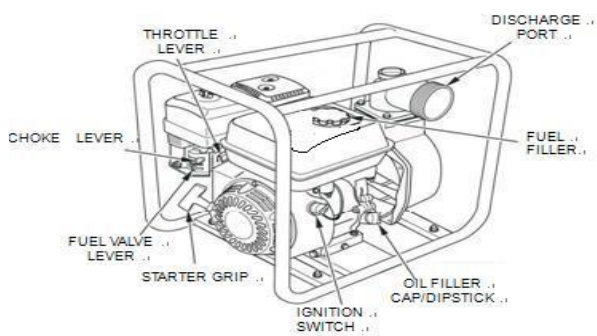
1.1 Operation Safety

- Always perform a pre-operation check before starting the engine.
- Properly clean and maintain the equipment.
- Operate the generator according to instructions for safe and dependable service.
- Read user manual carefully before operating this product! Failure to do so may result in serious harm to the user and to the equipment.
- Before operating the water pump, read the user manual carefully. Otherwise, it may result in personal injuries or equipment damage.
- Never run the water pump in an enclosed area to avoid harm from exhaust emissions of a poisonous carbon monoxide gas.
- Be careful not to touch the exhaust system during operation due to risk of burns.
- Place the water pump at least 3 meter away from buildings or other equipment during operation.
- Pay attention to the warning labels. The engine exhaust system will become heated during operation and remain hot immediately after the engine is stopped.
- Petrol is a highly flammable and explosive liquid. Refuel in a well ventilated area with the engine stopped.
- When refueling the engine, keep it away from cigarettes, open flames, smoke and/or sparks.
- Run the water pump on a level surface. Tilting the water pump may result in fuel spills.
- Do not touch the spark plug while the engine is operating or shortly after the engine has been shut down.

1.2 Maintenance Safety

- After any maintenance is performed, wash immediately using soap and clean water because repeated exposure to lubricant may cause skin irritation.
- Do not clean the filter element with flammable liquids like petrol because an explosion may occur.
- Turn off the engine before performing any maintenance. Otherwise it can cause severe personal injury or death.
- Allow the engine set to cool down before performing any maintenance.
- Always wear safety glasses when cleaning the water Pump set with air.
- Do not clean the water pump set with a pressure washer because it can cause damage to the water pump set.
- Use rubber gloves when coming into contact with engine oil.
- Always stop the water pump set before removing the oil filler cap.

2. COMPONENTS



3. PREPARATION

3.1 Check the engine conditions

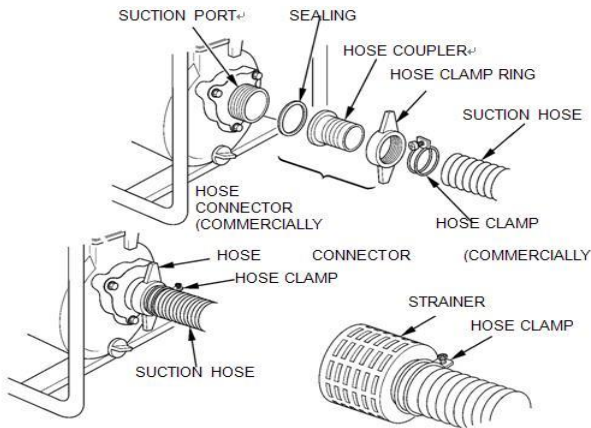
- a. Check around the engine if it has petrol or oil leakage
- b. Get rid of dirt and fragment, especially, around the muffler and startup
- c. Check the mark of damage
- d. Check the cap if it is tight, and the connection is firm

3.2 Connect the inlet hose

Use a commercially available hose, hose connector, and hose bands. The suction hose must be of reinforced, no collapsible wall or wire braided hose to prevent suction collapse. The suction hose length should not be longer than necessary. The pump will have the optimum performance when the distance between the pump and water source is not far.

The self-suction time is directly proportional to the inlet water pipe length.

The filter should be fitted on the end of inlet water pipe with the clamp, as shown on figure below.



3.3 Connect the discharge hose

Use a commercially available hose, hose connector, and hose band. A short, large-diameter hose is most efficient. A long or small-diameter hose increases fluid friction and reduces pump output.

Tighten the hose band securely to prevent the hose from disconnecting under high pressure

3.4 Check the level of Engine oil

ATTENTION:

- The petrol engine pump set is free of the Lub oil when ex-factory. Please fill the engine with the SAE 10W/30 or equivalent one before the first time usage. The dirt oil or other engine oil is not allowed.
- When checking the oil level, the engine should be stopped and on a level surface.
- Check the oil level by reinserting the oil filler cap without rotating it. Remove the oil filler cap and examine the oil level. If the oil level is at or below the lower level, refill the oil to the upper limit mark. Reinsert the oil filler cap and tighten securely.
- If oil level is too low, add the oil to the top of filling hole.

WARNING:

Engine oil is a major factor affecting engine performance and service life. Non-detergent, vegetable oils and 2-stroke are not recommended.

3.5 Check the level of fuel

- Check the fuel level by removing the fuel tank cap to visually check the level.
- Refill the tank if the fuel level is low. Do not fill above the shoulder of the fuel strainer.
- Use **UNLEADED** petrol with a pump octane rating of 90 or higher. Do not mix the engine oil and petrol.
- Fuel can damage paint and some types of plastic. Be careful not to spill fuel when filling your tank. Damage caused by spilling fuels not covered under warranty
- Avoid getting dirt or water in the fuel tank.
- Occasionally you may hear light “spark knock” or “pinging” (metallic rapping noise) while operating under heavy loads. This in no cause for concern.
- If spark knock or pinging occurs at a steady engine speed, under normal load, change brands of petrol. If spark knock or pinging persists, see an authorized water pump dealer.
- Running the engine with persistent spark knock or pinging can cause engine damage. Running the engine with persistent spark knock or pinging is misuse, and the Distributor’s Limited Warranty does not cover parts damaged by misuse.

ATTENTION:

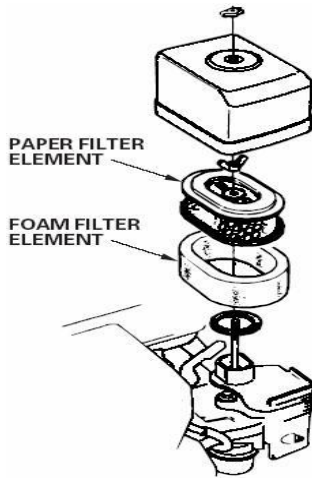
- Do not allow the fuel oil to overflow the oil tank. After adding, tighten the cover firmly.
- Do not use fuel contains alcohol.
- Do not allow the fuel oil to spray out, if it is so, clean and wipe it off before starting the engine.
- Avoid your skin to contact with petrol for a long time and put it on the place where the children cannot reach.

WARNING:

Petrol is highly flammable and explosive under certain conditions. Refuel in a well-ventilated area with the engine stopped. Do not smoke or allow open flames or sparks in the area where the water pump is being refueled or where petrol is stored. Do not overfill the tank. Be careful not to spill fuel when refueling. Wipe up any spilled petrol and let the area dry before starting the engine. Petrol substitutes such as ethanol are not recommended. They may be harmful to the fuel system components.

3.6 Check air cleaner filter element

- Remove butterfly nut, washer and air cleaner cover.
- Check the filter element, if necessary, clean it.



ATTENTION:

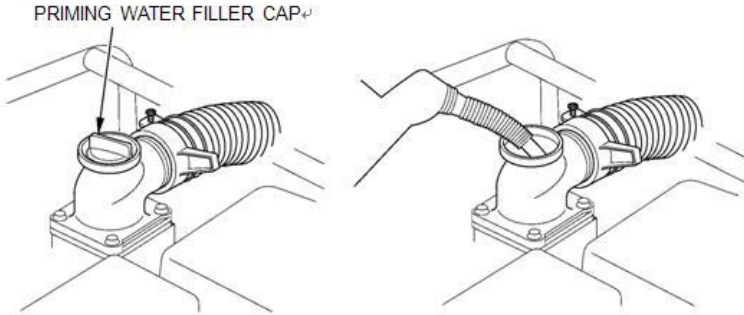
When the air cleaner is not mounted on the engine, the engine should not be started, otherwise, the dirt will be sucked into engine through the carburetor, then the engine will worn out easily.

3.7 Priming Water

- Before working, the pump chamber must be completely filled up with water.

ATTENTION:

Don't operate when there is no water in the pump or the temperature of the pump is too high, Otherwise, the pump seal will be damaged. If you find the pump operates without water, stop the engine immediately and add water into pump after it cools down.

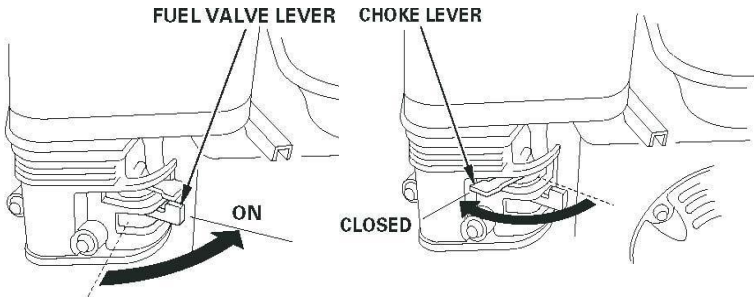


4. STARTING THE ENGINE

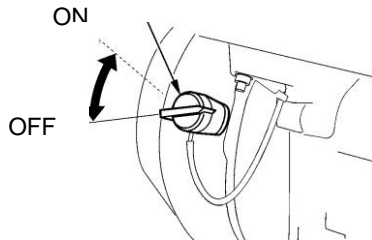
- 4.1 Open the fuel valve.
- 4.2 Close the choke LEVER.

ATTENTION:

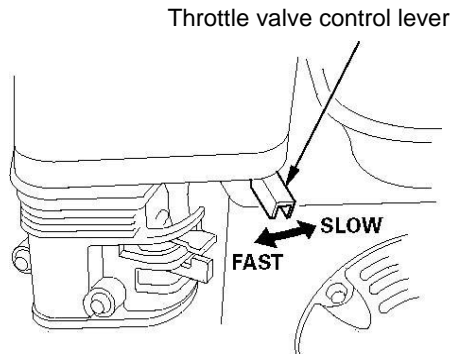
When engine is in hot condition or the surrounding temperature is very high, it's unnecessary to use the choke (that means do not close the choke before start).



- 4.3 Put the engine switch to "ON" position.



4.4 Move the throttle control lever to left side slowly.



4.5 Pull the starting handle slightly till the resistance force is felt, then, Pull it up quickly.

ATTENTION:

Slowly release the starting handle when engine has started, the starter would be damaged due to sudden release.

4.6 Push the choke lever to the OPEN position as the engine warms up.

The choke is used to provide the proper mixture when the engine is cold. It can be opened and closed by operating the choke lever manually by moving the lever to the closed position to enrich the mixture for cold starting.

4.7 Put the throttle valve at the preset speed position.

5. STOPPING THE ENGINE

- a. Move the throttle valve control lever to the right end.
- b. Put the engine switch to the "OFF" position.
- c. Put the fuel oil valve to "OFF" position.

ATTENTION:

Stop the engine in emergency situation. Directly put the engine switch to "OFF" position.

6. MAINTENANCE

In order to keep this water pump in good performance, it is necessary to check and adjust it periodically, which can help to extend the life of the pump.

ATTENTION:

Before maintenance, be sure to stop the engine. If the maintenance must be carried out in a running state, make sure the engine is at a ventilated place. The exhaust gas of Co is very harmful for your health.

If this pump has to be used for pumping sea water, please pump the fresh water immediately after that to reduce the corrosion and to flush out the remaining sea water.

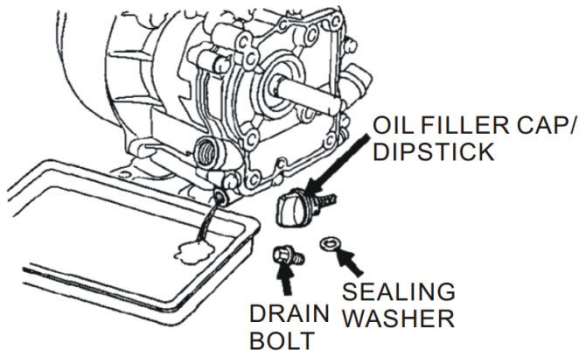
6.1. Oil Change and Oil Drainage

Drain the oil while the engine is still warm to assure rapid and complete draining.

- a. Remove the oil dipstick and drain plug, then start draining the used oil.
- b. Refit the oil drain plug and tighten it firmly.
- c. Add the new engine oil up to required level.

The oil capacity is 0.6L

If you contact engine oil, please wash hands with soap and clean water.



ATTENTION:

Change the engine oil after initial usage of the pump set for one month or 20 hours, after that, change the oil every six months or every 300 hours regularly.

6.2. Maintain the air cleaner:

A dirty air cleaner will block the air flow into the carburetor. Please clean the air cleaner periodically. If the working environment is very dirty, the maintenance frequency for air cleaner should be increased.

- a. Remove butterfly Nut, take off the cover of cleaner, and then take out the filter element.
- b. Clean the filter element with unflammable or high-flame-point solvent. Then let it dry thoroughly.
- c. Soak the filter element into the clean engine oil, squeeze out the surplus engine oil, otherwise the engine will have smoke with initial startup.
- d. re-assemble the filter element and cleaner cover.

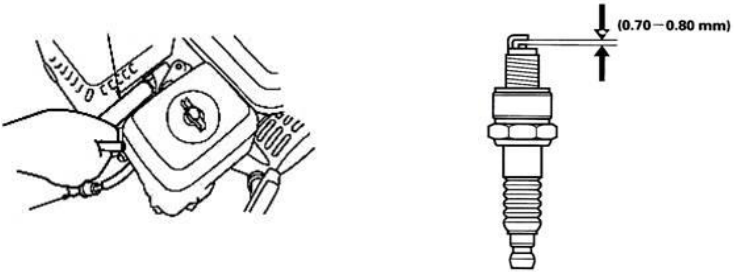
ATTENTION:

When the air cleaner is not mounted on the engine, do not operate the engine, otherwise, the dirt will be sucked into engine, which will shorten the life of the engine.

6.3. Maintenance of the spark plug:

In order to ensure the normal start of the engine, make sure that the spark plug have proper clearance or gaps, and there is no carbon laydown.

- a. Disconnect and remove the spark plug using a wrench.
- b. Visually inspect the spark plug. Discard it if the insulator is cracked or chipped. Clean the spark plug with a wire brush if it is to be reused.
- c. Measure the electrode gap with a spark plug gauge and adjust as necessary by bending the side electrodes. Ensure that the gap is between 0.7 and 0.8mm
- d. Check that the sparkplug washer is in good condition, and Reinsert the plug carefully. Tighten with a spark plug wrench.
 - Tighten $\frac{1}{2}$ turn when installing a new spark plug.
 - Tighten $\frac{1}{4}$ turn when re-installing an old spark plug.



ATTENTION:

Make sure to tighten the spark plug firmly, if it is not so, it will be overheating and thus to damage the engine easily. Do not use the spark plug with unsuitable calorific value range to avoid damage of the engine.

WARNING:

When engine is running, the muffler will be very hot. Do not touch the muffler.

7. HANDLING AND STORAGE

7.1 Handling

- a. Turn off the engine switch and the fuel valve when transporting the water pump.
- b. Do not touch engine until the engine has cooled down
- c. Keep the water pump at a level position in order to prevent spillage

7.2 Storage

Before storing the water pump for an extended period:

- a. Ensure that the storage area is free of excess humidity and dust.
- b. Clean the Pump Interior
Sediment will settle in the pump if it has been used in muddy or sandy water, or water containing heavy debris. Pump clean water through the pump before shutting down or the impeller may be damaged when restarting. After flushing, remove the pump drain plug, and drain as much water as possible from the pump housing. After the pump is dry, spray MULTI PURPOSE LURE AND RUST PENETRANT into the pump housing through the inlet port, outlet port, and drain hole, then install the drainplug

- c. Draining the Fuel Tank
 1. Turn the engine switch off.
 2. Remove the fuel tank cap and the debris screen under the cap.
 3. Empty the fuel tank using a siphon and an approved petrol container.

- d. Draining the Carburettor
 1. Turn the engine switch OFF.
 2. Turn the fuel valve ON.
 3. Position a suitable container under the carburetor drain screw to catch fuel; loosen the screw.
 4. Allow fuel to drain completely into container.

- e. Retighten drain screw
 1. Remove the Spark Plug and pour about a tablespoon of clean engine oil into the cylinder. Crank the engine several revolutions to distribute the oil, then reinstall the spark plug.
 2. Slowly pull the starter grip until resistance is felt. At this point, the piston is coming up on its compression stroke and both the intake and exhaust valves are closed. Storing the engine in this position will help to protect it from internal corrosion.
 3. Check the air cleaner and clean as necessary.
 4. Cover the water pump to keep out dust.

8. TROUBLESHOOTING

Common issues can be fixed by following the instructions in this guide. If the unit will not function after following these instructions, contact technical support before attempting to use or repair the products.

| Issue | Cause | Action |
|------------------------------|--------------------------------|--------------------------------------|
| Engine is not starting | No Fuel | Refill fuel tank |
| | Fuel valve is closed | Fully open fuel valve |
| | Fouled spark plug | Remove, clean and replace spark plug |
| | Not enough oil | Add more oil |
| Engine cranks slowly | Engine oil is too heavy | Replace with recommended oil |
| Black exhaust | Choke stuck in closed position | Open choke |
| | Dirty air filter | Clean air filter |
| | Rich fuel mixture | Contact customer service |
| Engine stops | No fuel | Refill fuel tank |
| | Not enough oil | Add more oil |
| Engine has difficulty idling | Loose spark plug cable | Reconnect or repair cable |
| | Faulty spark plug | Remove, clean or replace spark plug |
| | Water pump not level | Move water pump to a level |

| | | |
|------------------------|---|---|
| | | surface |
| | Dirty fuel filter | Replace air filter |
| Pump not pumping water | Pump not fully primed | Fill the pump with water until its full and lets it settle. Repeat the process for few times. |
| | Strainer clogged | Clean the strainer |
| | Loose suction hose connection to the pump | Ensure the hose bands installed securely |
| | Suction head too high | Check the max suction depth |
| | Suction hose damaged | Replace the suction hose |

9. MAINTENANCE TIMETABLE

| Regular Maintenance | | per time | 20 hours/ first month | 50 hours/ three months | 100 hours/ six months | 300 hours/ one year |
|---------------------|-------------------------|---------------|--------------------------|---------------------------|--------------------------|------------------------|
| oil | Inspection of oil level | ○ | | | | |
| | Replacement | | ○ | | ○ | |
| Air filter | Inspection | ○ | | | | |
| | Clear | | | ○ (1) | | |
| Spark plug | Clear | | | | ○ | |
| | Replacement | | | | | ○ |
| Valve clearance | Adjustment | | | | | ○ (2) |
| Cylinder cover | Clear and wash | 300 hours (2) | | | | |
| Fuel tank | Clear and wash | 200 hours (2) | | | | |
| Filter gauze | | | | | | |
| Oil pipe | | | | | | |
| fan | Inspection | | | | | ○ (2) |
| Fan clearance | | | | | | |
| Bottom valve | | | | | | |

(1) Maintenance should be strengthened in high dust area.

(2) All the items above should be assisted by local agency.