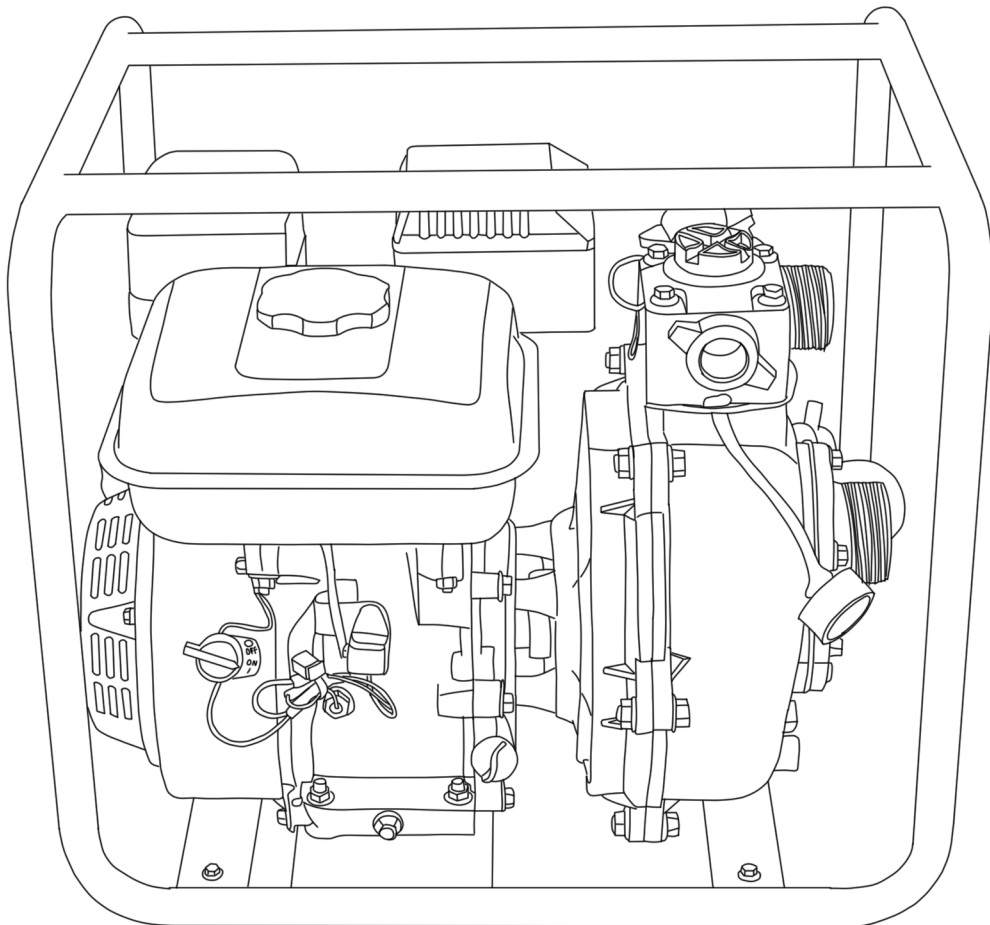


2" TWIN IMPELLER FIRE PUMP USER MANUAL

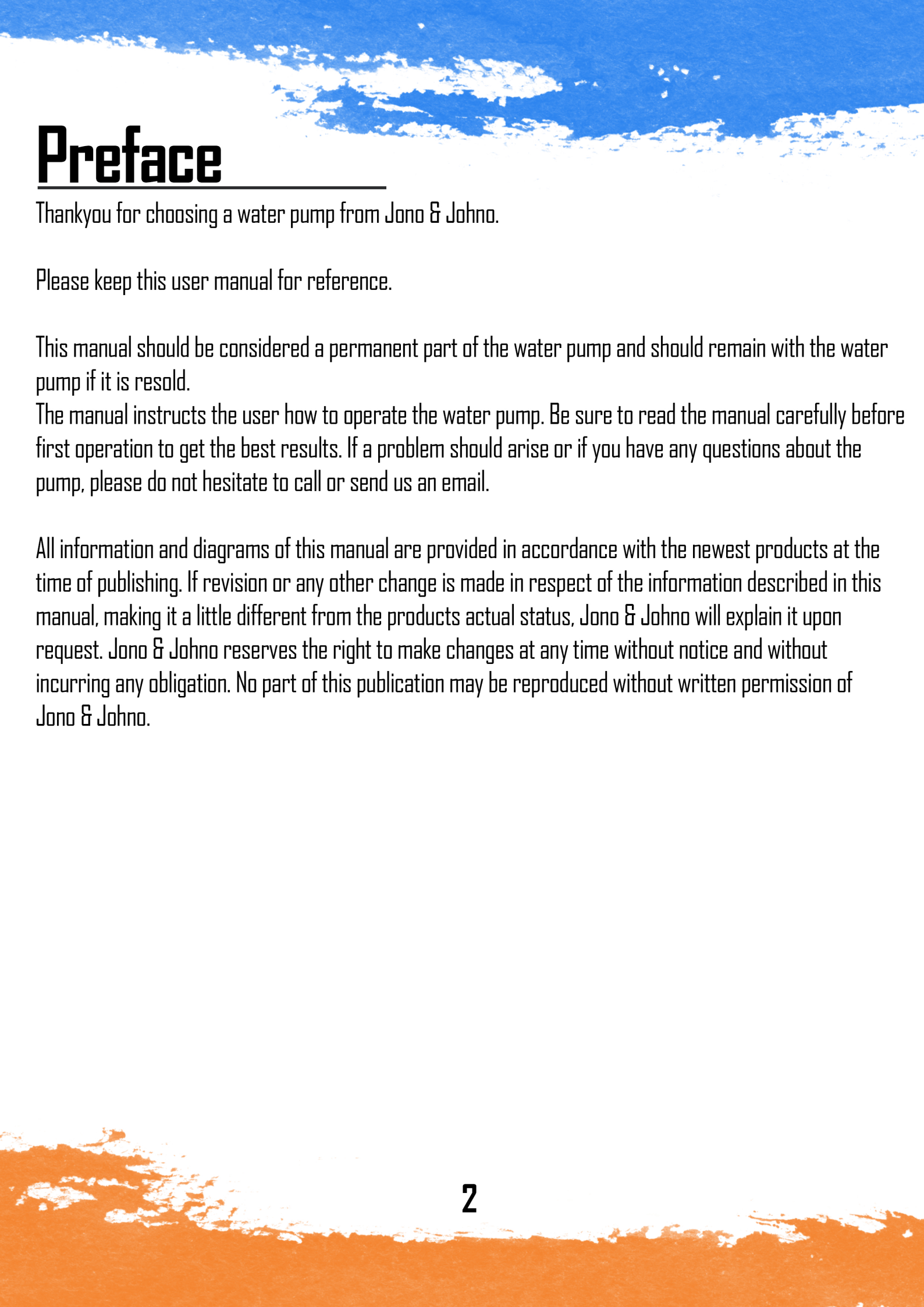


SKU: JWPFTW & JWPFTWES

**JONO
&
JOHNO**



www.chainsawspares.com.au



Preface

Thankyou for choosing a water pump from Jono & Johnno.

Please keep this user manual for reference.

This manual should be considered a permanent part of the water pump and should remain with the water pump if it is resold.

The manual instructs the user how to operate the water pump. Be sure to read the manual carefully before first operation to get the best results. If a problem should arise or if you have any questions about the pump, please do not hesitate to call or send us an email.

All information and diagrams of this manual are provided in accordance with the newest products at the time of publishing. If revision or any other change is made in respect of the information described in this manual, making it a little different from the products actual status, Jono & Johnno will explain it upon request. Jono & Johnno reserves the right to make changes at any time without notice and without incurring any obligation. No part of this publication may be reproduced without written permission of Jono & Johnno.

Contents

1. Safety	3
2. Component Identification	5
3. Control System	6
4. Pre-Operation Inspection.....	8
5. Operation	11
6. Starting the Engine	13
7. Stopping the Engine	14
8. Maintenance	15
9. Storage	19
10. Troubleshooting	20
11. Electric Diagram	22
12. Specifications	23

Safety

Jono & Johnno's water pump is designed to give safe and reliable service if operated according to instructions. Read and understand the User Manual before operating the water pump. Failure to do so could result in personal injury or equipment damage.

Safety Symbols

Your safety and the safety of others is very important. We have provided important safety symbols in this manual and on the water pump and engine. Please read these messages carefully.

A safety symbol alerts you to potential hazards that could hurt you or others. Each safety symbol is preceded by a safety alert symbol  and one of three words: WARNING, CAUTION or NOTICE. These mean:

WARNING

You CAN be KILLED or SERIOUSLY HURT if you don't follow instructions.

CAUTION

You CAN be HURT if you don't follow instructions.

NOTICE

Your water pump or other property could be damaged if you don't follow instructions.

Safety Instruction

The water pump is only designed for pumping clean water.

To prevent fire hazards and to provide adequate ventilation, keep the pump at least 1 meter away from building walls and other equipment during operation. Do not place flammable objects close to the pump and do not fill the fuel tank with petrol before long distance transportation.

The muffler becomes very hot during operation and remains hot for a while after stopping the engine. Be careful not to touch the muffler while it is hot. Let the engine cool before storing the water pump indoors. Petrol is highly flammable and explosive. Don't smoke in the refuelling and fuel storage area.

Place the pump on a firm, level surface. If the pump is tilted or overturned, fuel spillage may result.

Refuel in a well ventilated area with the engine stopped, and in places for refuelling or storing petrol. If a spill occurs, immediately clean it.

After refuelling, ensure the fuel cap is tightly fastened.

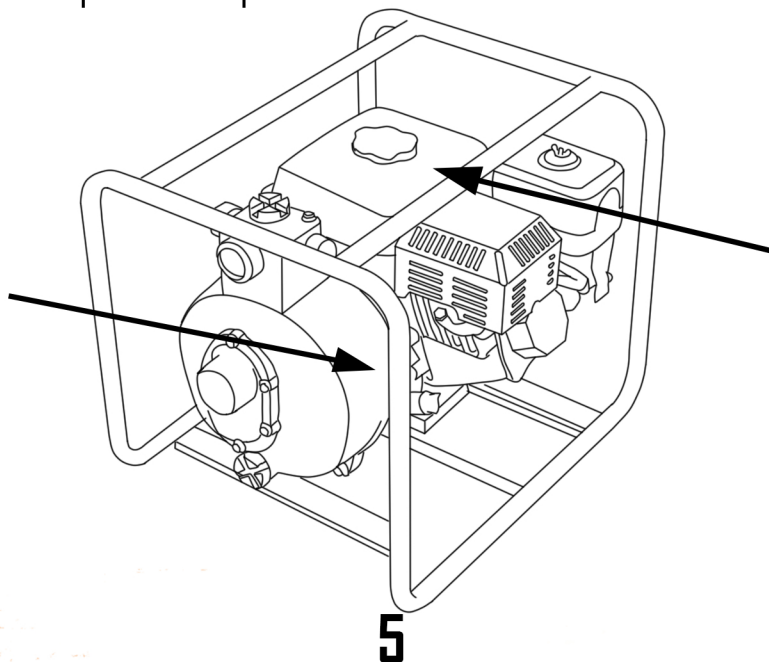
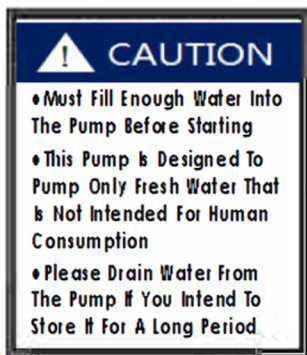
Exhaust fumes contain poisonous carbon monoxide gas that can build up to dangerous levels in closed areas. Breathing carbon monoxide can cause unconsciousness or death.

Don't unscrew anything while the engine is running to avoid damaging the equipment or hurting yourself or bystanders.

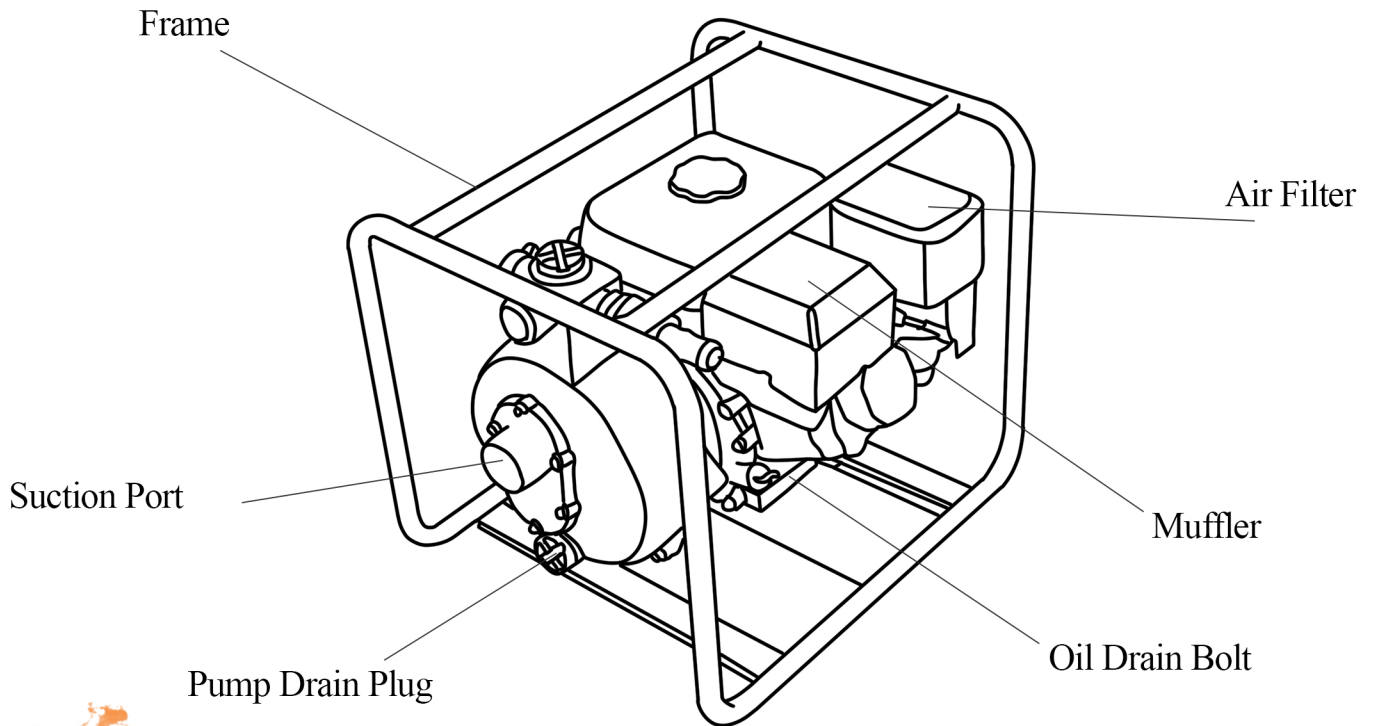
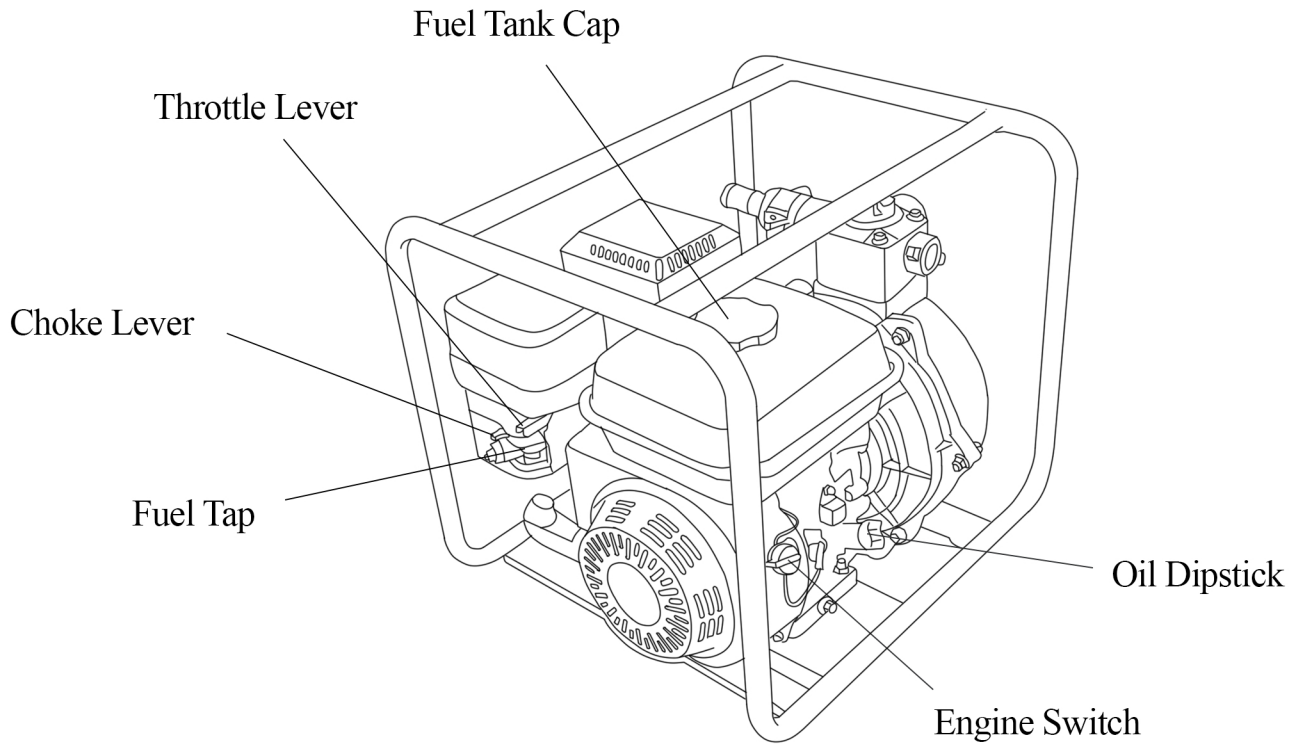
Children and pets must be kept away from the area of operation due to possibility of burns from the hot engine components.

Do not operate the machine in potential explosive environments.

Safety Label



Component Identification



Control System

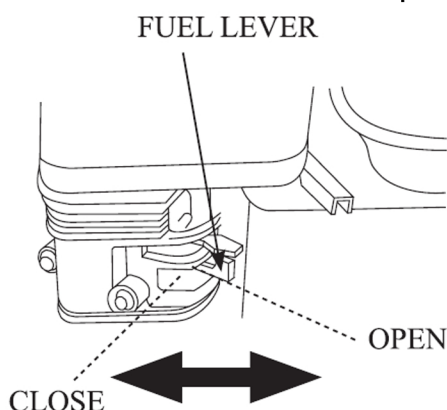
Before operating the water pump, carefully read and understand this manual!

Fuel Tap

The fuel tap is used for fuel flowing from the fuel tank to the carburettor.

Set the fuel lever to the "OPEN" position.

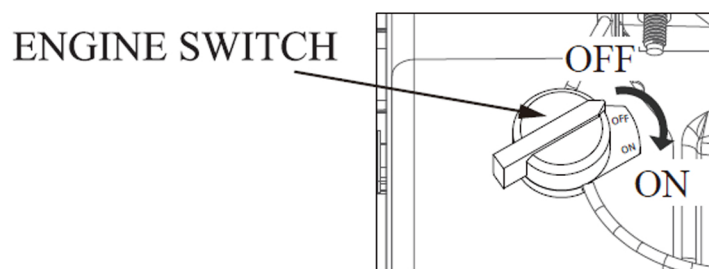
When not operating the engine, set the fuel lever to the "CLOSE" position.



Engine Switch

The engine switch earths the coil, stopping spark..

Set the engine to the "ON" position to run the engine. Set it to the "OFF" position to stop the engine.

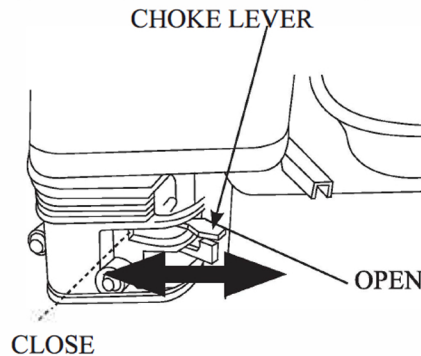


Control System

Choke Lever

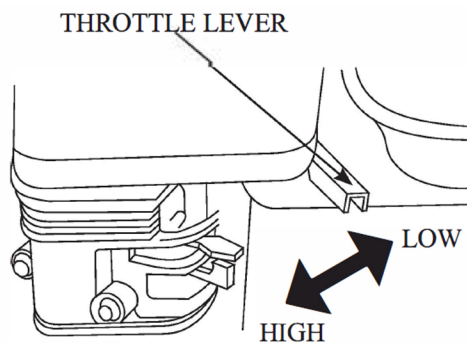
The choke lever is used for opening and closing the choke of the carburettor.

Set the choke to the "CLOSE" position for cold starting. Set the choke lever to the "OPEN" position for normal operation or if you are starting the engine if it is already warm.



Throttle Lever

Adjust the throttle lever to change the speed of the engine and the flow of water. For a higher water discharge, set the throttle lever to the HIGH position. For a smaller water discharge, set the throttle lever to the LOW position.

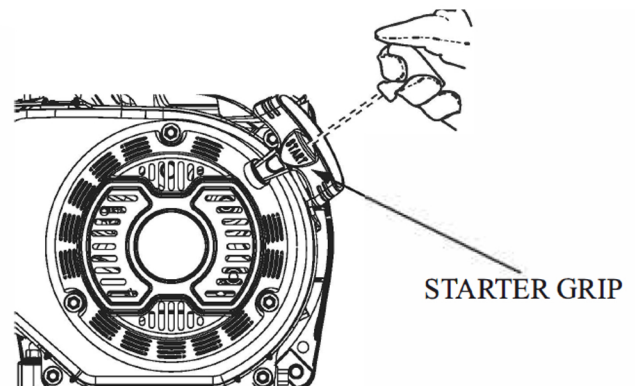


Recoil Starter

Pull the recoil starter to start the engine.

NOTICE Don't allow the starter grip to snap back against the engine. Return it gently to prevent damage to the starter.

Starter Assembly may vary!



Pre-Operation Inspection

For your safety and to maximise the service life of your equipment, it is very important to take a few moments before you operate the pump to check its condition. Be sure to take care of any problem you find or have it fixed by a professional before you operate the pump.



Improperly maintaining this pump or failing to correct problems before operation could cause a malfunction in which you or others could be seriously injured.

Exhaust fumes contain poisonous carbon monoxide. Avoid inhalation of exhaust fumes. Never run the engine in an enclosed space. To prevent fire hazards, keep the pump at least 1 meter away from buildings or other equipment during operation. Do not place flammable objects close to the engine.

Before beginning your pre-operation checks, be sure the pump is on a level surface and the ignition switch is in the OFF position.

Routine Check

Look around and underneath the pump for signs of oil or petrol leaks. Remove any excess dirt or debris, especially from around the engine muffler and recoil starter.

Look for signs of damage. Check fuel, oil levels and air filter.

Check to confirm that all nuts, bolts, screws, hose connectors and clamps are tightened.

Check Suction and Discharge Hoses

Check the general condition of the hoses. Be sure the hoses are in serviceable condition before connecting them to the pump. Remember that the suction hose must be of a reinforced construction to prevent the hose collapsing. Make sure there are no air leaks at the joints.

Check to ensure that the sealing washer in the suction hose connector is present and in good condition.

Check to ensure that the hose connectors and clamps are securely installed.

Check to ensure that the strainer is in good condition and is installed on the suction hose correctly.

Pre-Operation Inspection

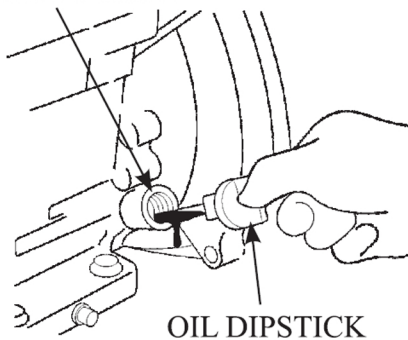
Check Engine Oil



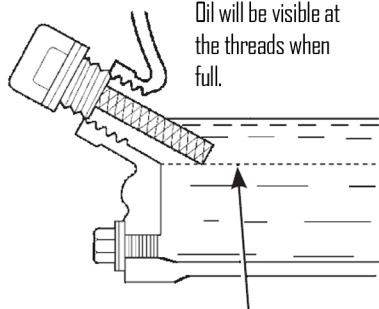
Put the engine on level ground and check the engine oil.

1. Remove the oil filler cap and wipe the dipstick clean.
2. Check the oil level by inserting the dipstick into the filler neck without screwing it in.
3. If the level is low, add the recommended oil to the upper mark on the dipstick. (SAE10W30)
4. After adding oil, ensure you refit and tightly screw down the dipstick.

OILING HOLE



Oil will be visible at the threads when full.



OIL LOWER MARK



Engine operation with low or no oil will cause engine damage. The engine has a low oil switch.

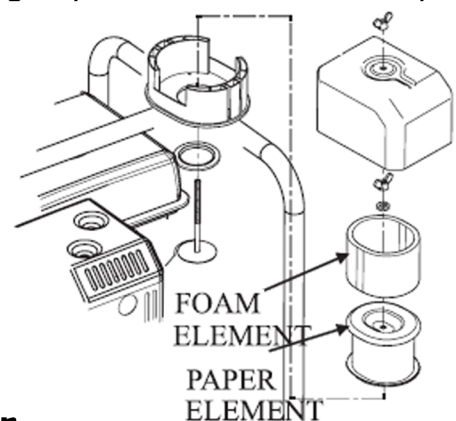
Check Air Filter

A dirty air filter will restrict air flow to the carburettor, reduce engine performance and thereby reduce water pump performance. Check the air filter regularly.

Screw off the butterfly nut and remove the air filter housing. If the element is dirty, clean it. If it is damaged replace it with a new air filter. Reinstall in reverse order and make sure the butterfly nut is tight.



Ensure air filter is assembled correctly! Never run the water pump without the air filter, or if it is damaged. If you do so you may rapidly damage your engine.



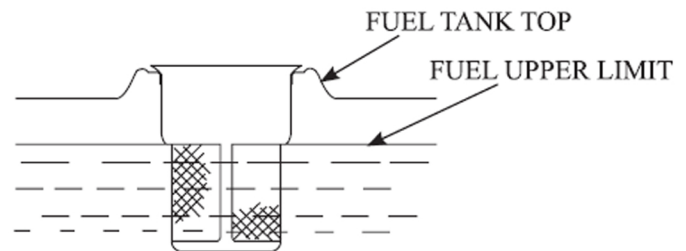
Pre-Operation Inspection

Check Fuel

Before each operation, check the engine fuel level with the water pump stopped and on level ground. Screw the fuel cap off the tank and check the fuel level. If it is low then add more fuel. Ensure the fuel cap is tightened after refuelling.



Do not overfill the tank. No fuel should go over the fuel strainer shoulder (max level)



Refuel in a well ventilated area. If the engine has been running for a while, wait for it to cool down before refuelling.



Fuel can damage paint and plastic. Be careful not to spill fuel when refilling your fuel tank.

Fuel Recommendations

Use petrol with an octane rating >90

We recommend unleaded petrol because it produces fewer engine deposits and spark plug deposits and extends your machines life.

Never use stale or contaminated petrol or oil/petrol mixture. Avoid getting dirt or water in the fuel tank.

HINT: Check inside the tank with a torch to see if there is any dirt or water.

Operation

Safe Operating Precautions

To safely utilise the full potential of your pump, you need a complete understanding of its operation and a certain amount of practice with its controls.

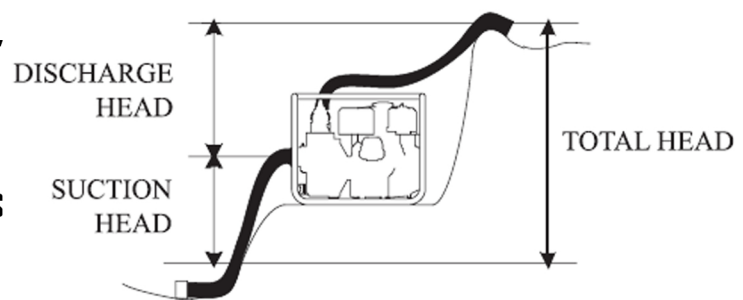
Before operating the pump for the first time please review the "Safety Instructions" and the "Pre-Operation Inspection" pages.

Exhaust fumes contain poisonous carbon monoxide gas that can build up to dangerous levels in enclosed areas. Breathing carbon monoxide can cause unconsciousness or death.

Pump Placement

For best pump performance, place the pump near the water level and use hoses that are no longer than necessary. That will enable the pump to produce the greatest output with the least self-priming time.

As head increases, pump output decreases. The length, type and size of the suction and discharge hoses can also significantly affect pump output. Minimising suction head (placing the pump near the water level) is also very important for reducing self-priming time.



Suction Hose Installation

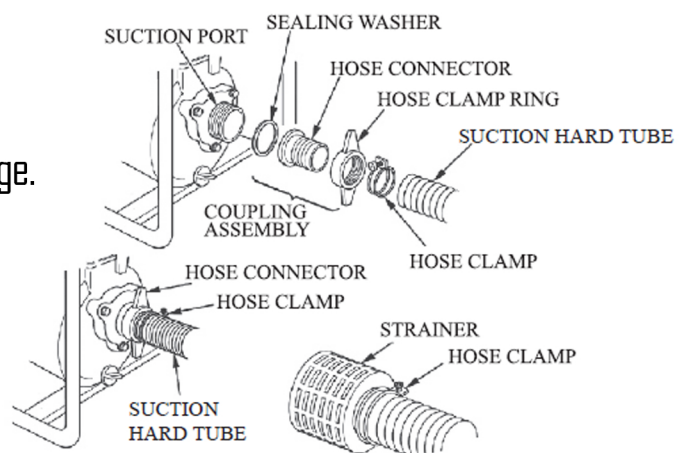
Use the correct size hoses and connectors. Ensure the hose is tightened with clamps. Hard tube dimension should be longer than the water suction port dimension.

Minimum hard tube dimensions for 2" output is 50mm.

Use a hose clamp to securely fasten the hose connector to the suction hose in order to prevent air and water leakage.

Check to ensure that the hose connector sealing washer is in good condition.

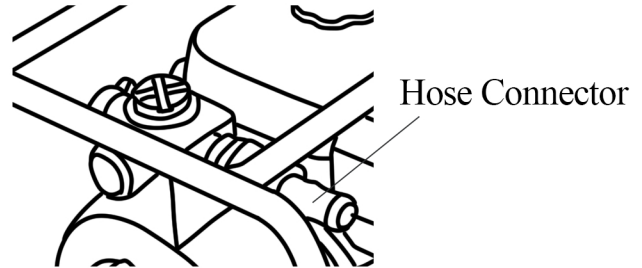
Install the foot valve (provided) on the other end of the suction hose and secure it with a hose clamp. The strainer will help prevent the pump from becoming clogged or damaged by debris.



Operation

Discharge Hose Installation

Use the correct size hose and connectors. Reducing size will cause back pressure. Ensure the connections are tight with clamps. It is best to use a short, large diameter hose. This will reduce fluid friction and improve the pumps output. Tighten the hose clamps securely to prevent the discharge hose from disconnecting under high pressure.



Priming the Pump

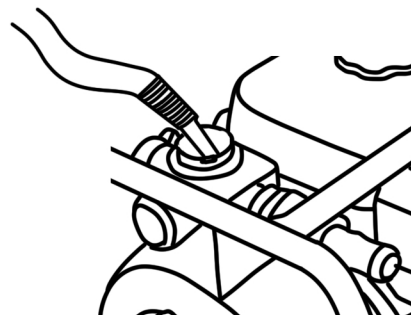
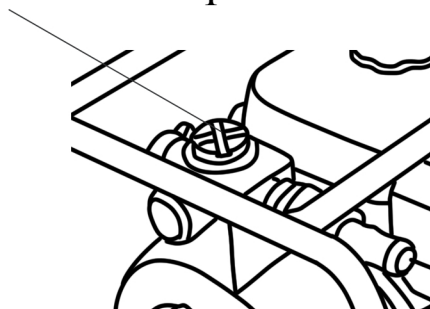
Before starting the engine, make sure to fill the pump with water. Screw off the priming plug and prime the pump fully with clean water. Don't screw off the priming plug during operation of the pump to avoid damaging the equipment and potentially injuring yourself or others. Reinstall the priming plug and tighten it securely after priming. Remember to include the o'rings.

Please also fill the suction hose with water before attaching it to the inlet of the pump. We recommend using a foot valve on your suction hose to prevent water flowing back out of the hose into your water source.



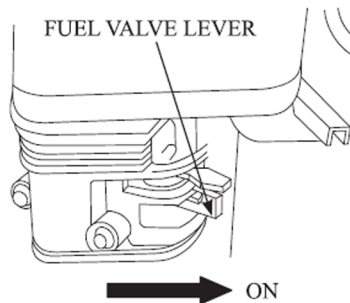
Dry operation of the pump will destroy the pump seal. Water cools and lubricates seal. If the pump has been operated in a dry state stop the engine immediately and allow the pump to cool before being primed.

Priming Water Filler Cap

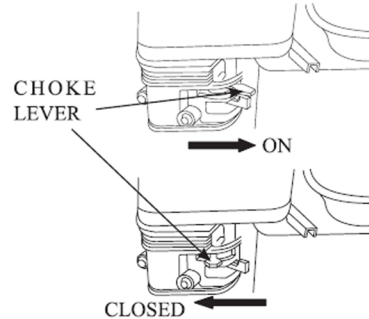


Starting the Engine

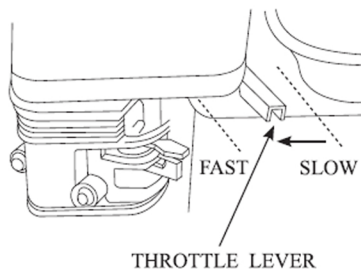
1. Move the fuel tap lever to the "ON" position.



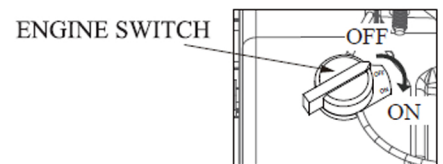
2. Close the choke.



3. Move the throttle lever away from the "SLOW" position about 1/3 of the way toward the "FAST" position.



4. Turn the engine switch to the "ON" position.



5. Pull the starter grip lightly until resistance is felt, then pull it briskly. Do not overextend the rope.

⚠ NOTICE

Do not allow the starter grip to snap back against the engine. Return it gently to prevent damage to the starter.

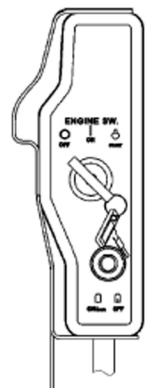
Electric Start

Turn the engine switch to the "START" position and hold it until the engine starts. When the engine starts, move the switch to the "ON" position.

⚠ NOTICE

Do not use the starter for more than 5 seconds or starter motor damage may occur. If the engine fails to start, release the switch and wait 10 seconds before operating the starter again.

ENGINE SWITCH

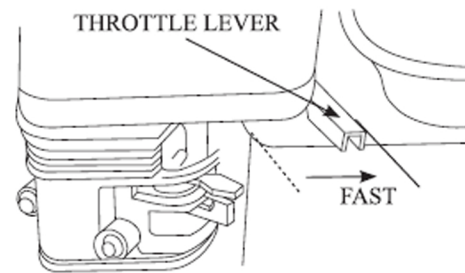


Stopping the Engine

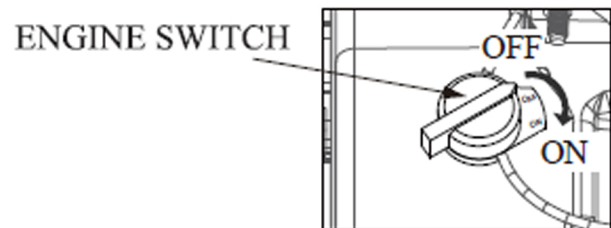
To stop the engine in an emergency, simply turn the engine switch to the OFF position.

Under normal conditions, use the following procedure:

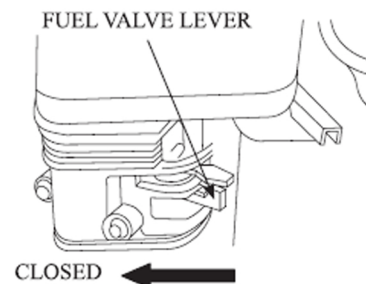
1. Move the throttle lever to the SLOW position.



2. Turn off engine switch:
Turn the engine to the "OFF" position.



3. Turn fuel tap lever off: Turn the fuel tap lever to the OFF position



After use, remove the pump drain plug and drain the pump chamber. Remove the filler cap and flush the pump chamber with clean, fresh water. Allow the water to drain from the pump chamber, then reinstall the filler cap and drain plug.

Maintenance

The engine must be properly maintained to ensure its operation to be safe, trouble free and eco-friendly. In order to keep your petrol engine in good working condition, it must be periodically serviced. The following maintenance schedule and routine inspection procedures must be carefully followed.

Oil should be changed after the first 3 hours of operation

Frequency		Each time	First 1 month or first 20hrs of operation	Thereafter, every 3 months or every 50hrs of operation	Every year or every 100 hrs of operation
Items					
Engine oil	Check- Refill	√			
	Replace		√	√	
Reduction gear oil(if equipped)	Oil level check	√			
	Replace		√	√	
Air filter element	Check	√			
	Clean		√		
	Replace			√	
Deposit Cup(if equipped)	Clean				√
Spark Plug	Check - adjust				√*
Spark arrester	Clean			√	
Idling (if equipped)**	Check - adjust				√
Valve clearance **	Check-adjust				√
Fuel tank & fuel filter **	Clean				√
Fuel line	Check	Every 2 years(change if necessary)			
Cylinder head, piston	Clean up carbon **	< 225cc, Every 125hrs ≥225cc, Every 250hrs			
* These items should be replaced if replacement needed.					
** These items should be maintained and repaired by our authorized dealer, unless the owner has appropriate tools and is proficient with mechanical maintenance.					

⚠ NOTICE

- If the engine is frequently used under high temperature or heavy load, change oil every 25 hours.
- If the engine is frequently used in dusty conditions, clean the air filter every 10 hours, replace every 25.
- Whichever comes first, maintenance period or exact time, service the machine.
- If you have missed the scheduled time to maintain your engine, do it as soon as possible.

Maintenance

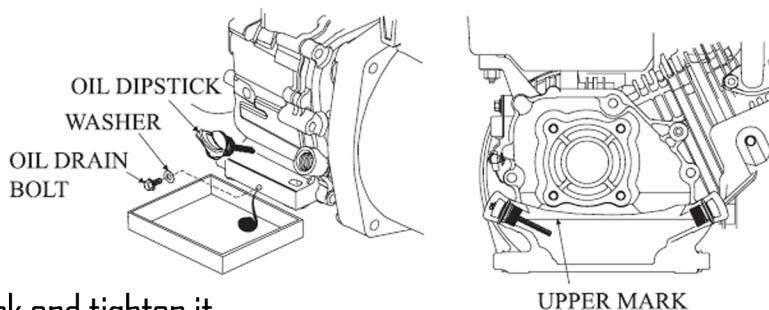
WARNING

Stop the engine before servicing. Put the engine on a level surface and remove the spark plug cap to prevent the engine from starting. Never run your engine in a poorly ventilated room or other enclosed area, be sure to keep good ventilation in working area. The exhaust from the engine may contain poisonous carbon monoxide. Inhalation can cause unconsciousness and even death.

Engine Oil Change

Drain the used oil while the engine is warm. Warm oil drains quickly and completely.

1. Place a suitable container below the engine to catch the used oil, then remove the oil filler cap/dipstick and the drain plug.
2. Allow the used oil to drain completely, then reinstall the drain plug and tighten securely. Please dispose of the used motor oil in a sealed container to your local recycling center. Do not throw it in the trash, pour it on the ground or down a drain.
3. With the engine on a level place, fill it to the upper limit with the recommended oil.



4. Reinstall the oil dipstick and tighten it.

HINT: Fill one side to allow trapped air out of the other side.

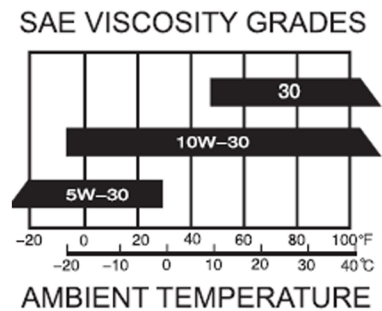
CAUTION

Used engine oil may cause skin cancer if repeatedly left in contact with the skin for prolonged periods. Although this is unlikely unless you handle used oil on a daily basis, it is still advisable to thoroughly wash your hands with soap and water as soon as possible after handling used oil.

Maintenance

Engine Oil Recommendations

Engine oil is a major factor affecting engine performance and service life. Non-detergent and 2-stroke engine oils will damage the engine are not recommended. The recommended oil is SAE-10W30



The recommended operating range of this pump is: -5°C to 40°C.

Air Filter Service

A dirty air filter element will restrict air flow to the carburettor, reducing engine performance. If you operate the pump in very dusty areas, clean the air filter more frequently than whats recommended.



Never run the engine without an air filter or use a damaged air filter. Otherwise, you will damage your engine.

Screw off the wing nut and remove the housing. Screw off the other wing nut and remove the air filter.

1. Wash the air filter with home detergents and warm water. Let it dry. (no flammable solvents)
2. Clean the lower body of the air filter, housing and rubber seal. This prevent dust getting to the carburettor.
4. Reinstall the air filter and make sure all wing nuts are tight.

Maintenance

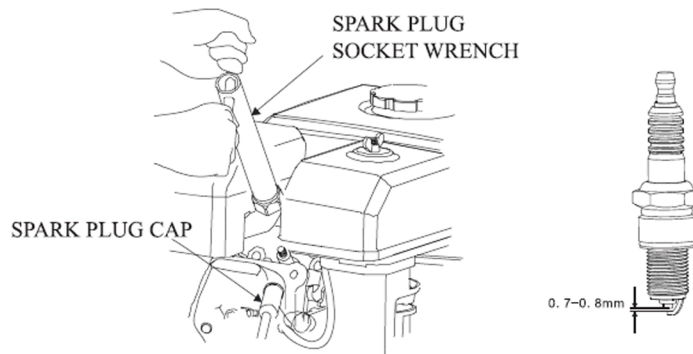
Spark Plug Service

Recommended spark plugs: NGK BPR6ES or equivalents.

NOTICE

Wrong spark plug model can result in engine damage.

1. Remove the spark plug cap and clean any dirt from around the spark plug base.
2. Use the plug wrench to remove the spark plug.
3. Measure the plug gap with a feeler gauge. If the electrode or insulator is damaged, replace the plug. Correct as necessary by carefully bending the side electrode. The gap should be: 0.70-0.80mm.



4. To avoid damage to the thread in the cylinder head, screw in the spark plug carefully by hand.
5. Tighten the spark plug with a spark plug wrench.
6. Reinstall the spark plug cap.

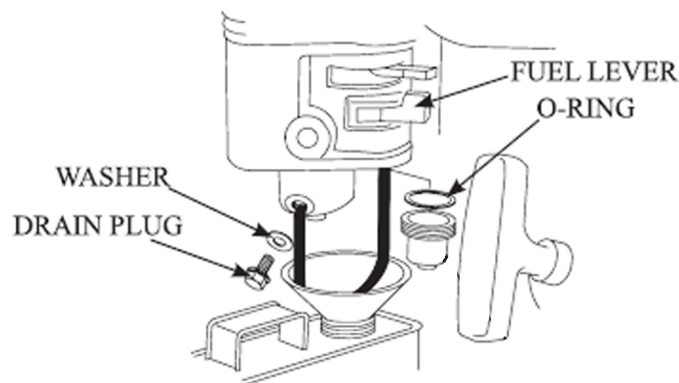
Storage

Remove priming plug and drain plug. Flush the chamber with clean water. Reinstall the priming and drain plug. After stopping the engine, let it cool for at least 30 minutes then clean all outer surfaces and wipe it down.

NOTICE

Higher pressure flushing water can enter into the air filter and muffler, even potentially entering the cylinders, resulting in corrosion and damage. Therefore only do this once the engine is stopped and completely cooled.

1. Remove drain plug of the carburettor and sediment cup, then open the fuel lever. Completely drain the fuel from the carburettor, fuel tank and engine, then reinstall the sediment cup and drain plug and tighten.
2. Drain the pump of any excess water.



3. Pour a tablespoon of clean engine oil into the cylinder. Crank the engine several times to distribute oil in the cylinder. Reinstall spark plug. Check the plug next use and clean or replace if necessary.
4. Pull starter grip slowly until resistance is felt. During this process, ensure the intake and exhaust valves remain closed to restrict moisture entering into the cylinder head. Return starter grip gently.
5. Repair any noticeable damage to the paint and apply a thin film of grease to areas most likely to rust.
6. Use a cover to put over the water pump before putting into storage.

Troubleshooting

Engine

ENGINE WILL NOT START	CAUSE	CORRECTION
Check Control Parts	Fuel valve OFF	Move fuel valve lever to ON position
	Choke open	Move choke lever to CLOSED position unless engine is warm
	Engine switch OFF	Turn engine switch to ON
Check Fuel	Out of fuel	Refuel
	Bad fuel, pump stored without treating or draining petrol. Refuel with bad petrol	Drain fuel tank and carburettor, refuel with fresh petrol
Remove and Inspect Spark Plug	Spark plug faulty, fouled or improperly gapped	Adjust gap or replace with a new spark plug
	Spark plug wet with fuel (flooded engine)	Dry and reinstall spark plug, start engine with throttle lever in FAST position
Machine In Need of Servicing	Fuel filter clogged, carburettor malfunction, ignition malfunction, valves stuck, etc	Replace or repair

ENGINE LACKS POWER	CAUSE	CORRECTION
Check Air Filter Element	Element clogged	Clean or replace the element
Check Fuel	Bad fuel	Drain fuel tank and carburettor, refuel with fresh petrol
Machine In Need of Servicing	Fuel filter clogged, carburettor malfunction, ignition malfunction, valves stuck, etc	Replace or repair

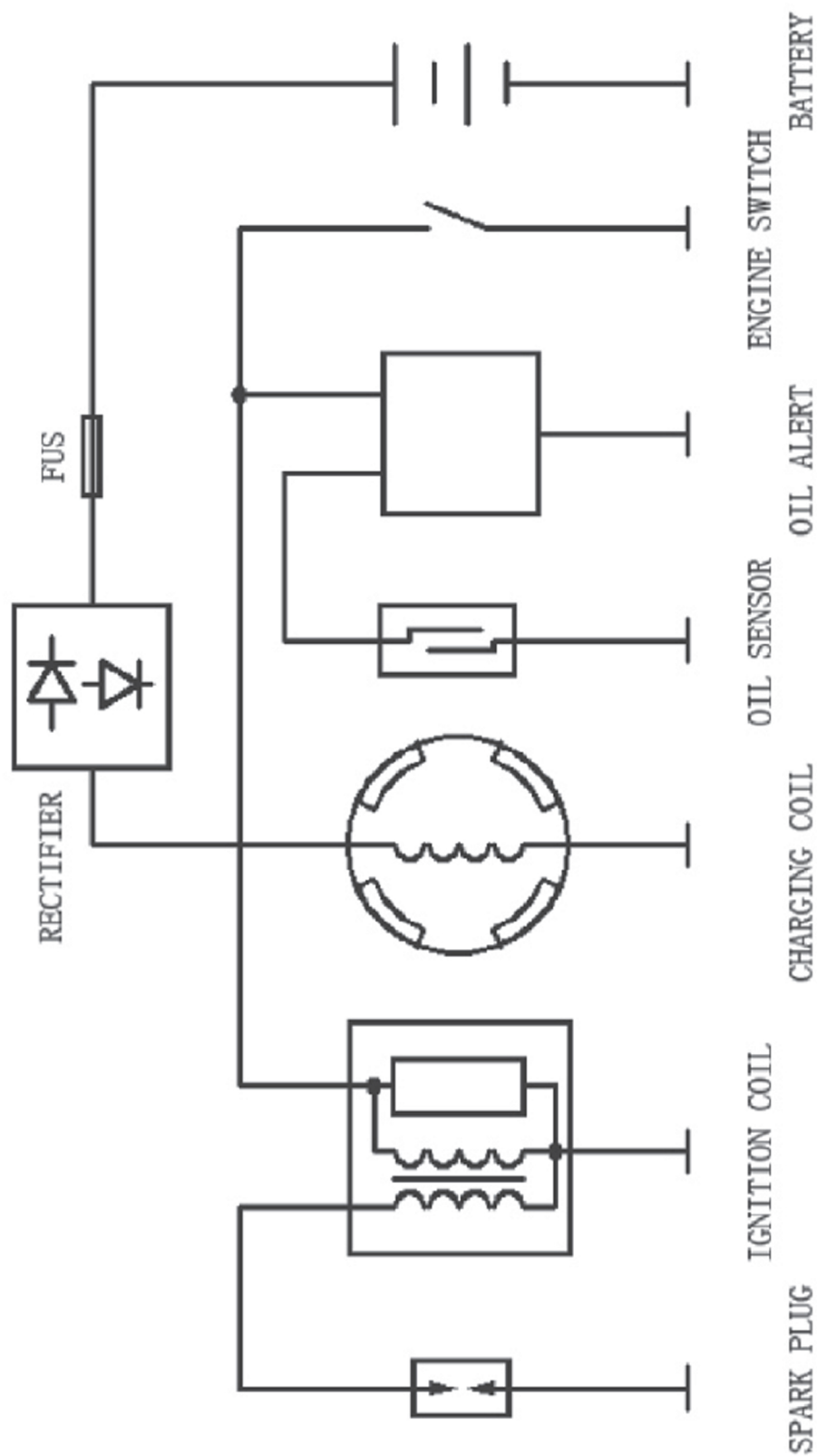
Troubleshooting

Water Pump

NO PUMP OUTPUT	CAUSE	CORRECTION
Check pump chamber	Pump not primed	Prime pump
Check suction hose	Hose collapsed, cut or punctured	Replace Hose
	Strainer not completely underwater	Sink the strainer and the end of a suction hose completely underwater
	Air leak at connector	Replace sealing washer if it is missing or damaged. Tighten hose connector and clamp
	Strainer clogged	Clean debris from strainer
Measure suction and discharge head	Excessive head	Relocate pump and hoses to reduce head
Check engine	Engine lacks power	See "engine lacks power"

NO PUMP OUTPUT	CAUSE	CORRECTION
Check suction hose	Hose collapsed, cut or damaged. Too long or diameter too small	Replace hose
	Strainer not completely underwater	Sink the strainer and the end of a suction hose completely underwater
	Air leak at connector	Replace sealing washer if it is missing or damaged. Tighten hose connector and clamp
Check discharge hose	Hose damaged, too long or diameter too small	Replace discharge hose
Measure suction and discharge head	Critical head	Relocate pump and hoses to reduce head
Check engine	Engine lacks power	See "engine lacks power"

Electric Diagram



Specifications

ITEM	MODEL	JWPFTW
Water Pump	Length (mm)	500
	Width (mm)	425
	Height (mm)	425
	Dry Weight (kg)	24.5
	Suction Port Diameter	50mm (2 in)
	Discharge Port Diameter	40/25/25mm (1.5/1/1 in)
	Suction Head (maximum) (m)	7
	Total Head (maximum)(m)	80
	Discharge Capacity (maximum) (m ³ /h)	16
Engine	Description	
	Type	Air-cooled, 4-Stroke, OHV, single cylinder,EPA approval
	Displacement (cc)	196 / 212
	Power (kW/3600rpm)	3.6 / 3.8
	Fuel Tank Capacity (L)	3.6
	Engine Oil Capacity(L)	0.6
	Oil Grade	SAE 10W30

Noise emission measure according to EN ISO 3744, European Directive 2005/88/EC (revision of 2000/14/EC European Directive)

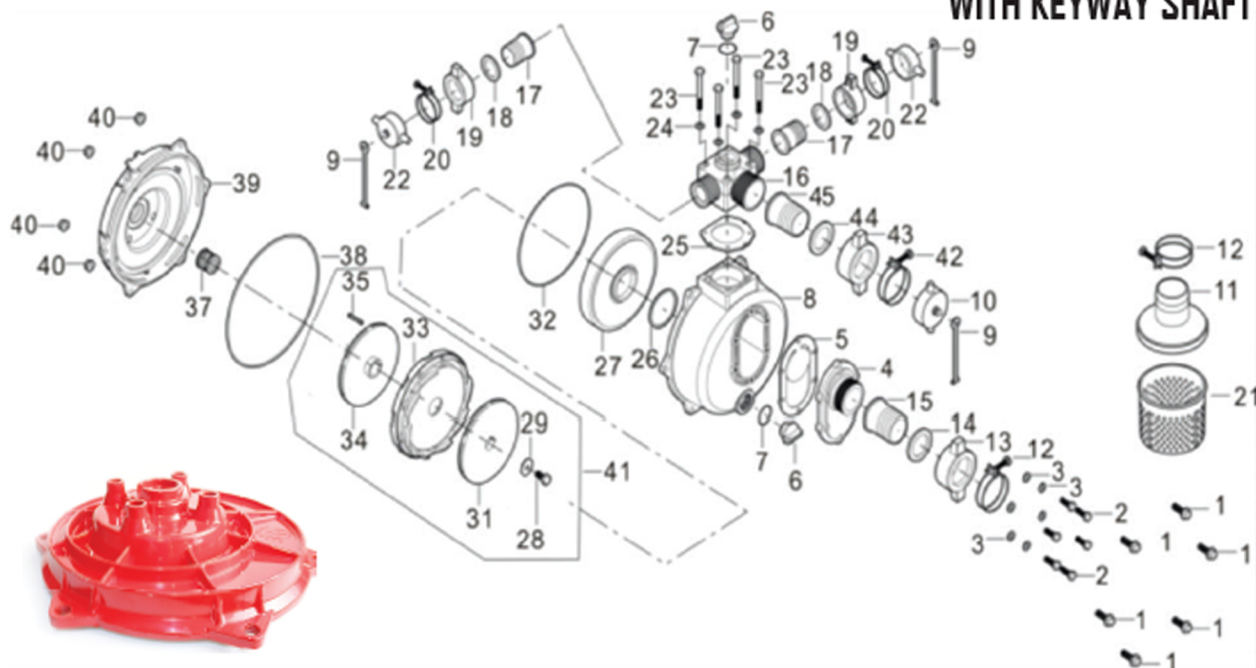
MODEL	Water Pumps
Sound Power(dB)	98

ADJUSTING PARAMETER

Spark Plug Gap	0.70-0.80 mm
Engine Idle Speed	1800±150rpm
Valve Clearance (Cooled)	Intake valve: 0.10-0.15 mm Exhaust valve: 0.15- 0.20 mm

EXPLODED VIEW

JWPFTW & JWPFTWES 7HP TWIN IMPELLER PUMP WITH KEYWAY SHAFT



JWPFTW-7HP-1	body bolt
JWPFTW-7HP-2	Inlet housing bolt
JWPFTW-7HP-3	Inlet housing washer
JWPFTW-7HP-4	Inlet housing
JWPFTW-7HP-5	Inlet sealing gasket
JWPFTW-7HP-6	Screw plug
JWPFTW-7HP-7	O-ring screw plug
JWPFTW-7HP-8	body
JWPFTW-7HP-9	Hanging strip, outlet cap
JWPFTW-7HP-10	Outlet cap 1.5" dia
JWPFTW-7HP-11	Filter cover 2" dia
JWPFTW-7HP-12	Clamp 2" dia
JWPFTW-7HP-13	Pipe joint 2" dia
JWPFTW-7HP-14	Pipe joint sealing gasket 2" dia
JWPFTW-7HP-15	Pipe joint 2" dia
JWPFTW-7HP-16	Outlet housing 1.5" & 2 x 1"
JWPFTW-7HP-17	Pipe joint 1" dia
JWPFTW-7HP-18	Pipe joint sealing gasket 1" dia
JWPFTW-7HP-19	Pipe joint 1" dia
JWPFTW-7HP-20	Clamp 1" dia
JWPFTW-7HP-21	Filter
JWPFTW-7HP-22	Outlet cap 1" dia
JWPFTW-7HP-23	Outlet housing bolt
JWPFTW-7HP-24	Aluminum flat washer outlet housing
JWPFTW-7HP-25	Outlet sealing gasket
JWPFTW-7HP-26	Eddy shell 2 small sealing oring
JWPFTW-7HP-27	Eddy shell 2 Cast Iron
JWPFTW-7HP-28	Impeller bolt
JWPFTW-7HP-29	Aluminum flat washer for impeller bolt
JWPFTW-7HP-30	

JWPFTW-7HP-31	Impeller 2
JWPFTW-7HP-32	Eddy shell 2 sealing Large O-ring
JWPFTW-7HP-33	Eddy shell 1 Alloy
JWPFTW-7HP-34	Impeller 1
JWPFTW-7HP-35	Flat Keyway for impellers
JWPFTW-7HP-36	
JWPFTW-7HP-37	Mechanical seal / ceramic for shaft
JWPFTW-7HP-38	O-ring Pump connection plate housing
JWPFTW-7HP-39	Connection plate housing
JWPFTW-7HP-40	Connection plate housing Nut
JWPFTW-7HP-41	Complete Impeller parts set
JWPFTW-7HP-42	Clamp 1.5" dia outlet
JWPFTW-7HP-43	Pipe joint 1.5" dia outlet
JWPFTW-7HP-44	Pipe joint sealing gasket 1.5" dia outlet
JWPFTW-7HP-45	Pipe joint 1.5" dia outlet
JWPFTW-7HP-46	Complete pump assy all parts 1 to 45
JWPFTW-SEALKIT-NEW	Seal and O-Ring Kit



JWPFTW & JWPFTWES

NOTES

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&
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