

# User manual

## Water pump range



**⚠ WARNING!** Read and understand all safety warnings and instructions carefully before using this machine. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury. Save this manual for future reference.

**⚠ ATTENTION!** Products covered by this manual will vary in appearance, assembly, inclusions, description and packaging.

**⚠ NOTE!** This manual covers multiple styles of product as well as options / accessories that may not be suitable for the machine you have purchased.



# Index

Index.....	1
Safety .....	2
Parts Diagram.....	6
Before Use.....	7
Getting Started .....	8
Engine Oil .....	8
Connecting the Battery (if equipped).....	8
Fuel.....	9
Petrol Four Stroke Engines.....	9
Diesel 4-Stroke Engines .....	9
Petrol 2-Stroke Engines.....	10
Connecting the water Inlet .....	11
Connecting the water Outlet .....	11
Priming the water pump .....	12
Starting a 4-Stroke Petrol Engine.....	13
Starting a Diesel 4-Stroke Engine .....	14
Priming the fuel system.....	14
Key start.....	14
Pull start.....	15
Adjusting the Throttle .....	16
Stopping the Engine.....	16
Starting a Petrol 2-Stroke Engine.....	16
Troubleshooting .....	17
Maintenance .....	18
Changing the Oil .....	18
Air Filter .....	18
Spark plug service (petrol engines).....	19
Cleaning the Pump Body .....	19
Storing your Pump .....	19
Specifications .....	23
Appendix.....	26

# Safety



It is important you read and reduce the risk of injury or damage, do not adjustments, changing accessories, or understand the instruction allow any other persons within a radius of 5 metres of your own position.



Safety precautions must be observed to reduce the risk of personal injury when operating this machine.



It is strongly recommended that a comprehensive training course on machine use, fuel handling safety and engine operation be completed before attempting to use this machine.

**DANGER!** Keep clear of moving parts.

**IMPORTANT!** Like all equipment this product must be handled carefully.

**BEFORE USE!** If you are not familiar with the safe operation / handling of this equipment, or are in any way unsure of any object of this products suitability or correct use for your application you should complete training conducted by a person or organisation qualified in safe use and training related to this product. This includes fuel / electrical handling and safety if applicable to this product or your application.

**ATTENTION!** Some equipment is a potential source of electric shock if misused.

**WARNING!** Read all safety warnings and all instructions. Failure to follow the warnings and instructions may result in electric shock, fire and/or serious injury.

**WARNING!** Do not operate if the equipment is damaged or is in an excessively worn state.

**WARNING!** Do not expose yourself or others to danger. Do not permit others to use the equipment unless they have read this manual and are trained in its operation.

**WARNING!** When using the equipment, basic safety precautions, including the following, should always be followed to reduce risk of fire, electric shock, personal injury and material damage.

**WARNING!** The term "equipment" in all of the warnings refers to your product be that mains, battery or fuel powered products.

## Work area safety

Keep work area clean and well lit. Cluttered or dark areas invite accidents.

Do not operate equipment in explosive atmospheres, such as in the presence of flammable liquids, gases or dust. Engines and equipment create sparks which may ignite the dust or fumes. Keep children and bystanders away while operating equipment. Never allow children to access the equipment. Avoid operating while people, especially children or pets are nearby. To

## Personal safety

Prevent unintentional starting. Ensure equipment switches are in the off-position before connecting to a power source or picking up and carrying the equipment. Carrying equipment with your finger on the switch or energising equipment that has the switch on invites accidents. Stay alert, watch what you are doing and use common sense when operating equipment. Do not use equipment while you are tired or under the influence of drugs, alcohol or medication. A moment of inattention while operating equipment may result in serious personal injury.

Use personal protective equipment. Always wear eye protection. Protective equipment such as a respirator, non-skid safety shoes, hard hat, or hearing protection used for appropriate conditions will reduce personal injuries. Remove any adjusting key or wrench before turning the equipment on. Do not overreach. Keep proper footing and balance at all times. This enables better control of the equipment in unexpected situations. If devices are provided for the connection of dust extraction and collection facilities, ensure these are connected and properly used. Use of dust collection can reduce dust-related hazards. This appliance / equipment / product) is not intended for use by persons with reduced physical, sensory or mental capabilities. Do not use the equipment when there are other persons around unless they are also wearing safety equipment. Keep packaging film away from children - risk of suffocation! The operator must use the equipment correctly. When working with the equipment, consider the local conditions and pay due care and attention to other persons, in particular children, who are nearby. Do not wear loose clothing or jewellery. Keep your hair and clothing away from the work area. Loose clothes, jewellery or long hair can be caught in moving parts. You must wear appropriate protective equipment when operating, servicing, or when in the operating area of the equipment to help protect you from serious injury, including eye injury, inhalation of toxic fumes, burns, and hearing loss. Wear protective clothing and safety goggles to protect against splash back containing water or dirt.

## Equipment use and care

Do not force the equipment. Use the correct equipment for your application. The correct equipment will do the job better and safer at the rate for which it was designed. Do not use the equipment if the On/Off switch does not turn it on and off. Any equipment that cannot be controlled with the On/Off switch is dangerous and must be repaired. If applicable, disconnect the any plugs from a power source and/or the battery pack from the equipment before making any

adjustments, changing accessories, or storing equipment. Such preventive safety measures reduce the risk of starting the equipment accidentally. Do not allow persons unfamiliar with the equipment or

these instructions to operate the equipment. Equipment is dangerous in the hands of untrained users. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the equipment's operation. If damaged, have the equipment repaired before use. Many cutting edges are less likely to bind and are easier to control. Use the equipment and accessories etc. in accordance with these instructions, taking into account the working conditions and the work to be performed. Use of the equipment for operations different from those intended could result in a hazardous situation. Always keep the equipment clean. After use, the equipment and components may still be hot. Never place the equipment in any places where there are flammable materials such as dry grass, combustible gases or combustible liquids etc. Let the equipment cool before storing indoors.

## Service

Have your equipment serviced by a qualified repair person using only identical replacement parts. This will ensure that the safety of the equipment is maintained. Do not attempt any maintenance or repair work not described in this instruction manual. Have all other work performed by an authorised service person. We recommend that you have servicing and repair work carried out exclusively by an authorised service person. Before proceeding to adjust or repair the equipment; be sure to stop the equipment and detach any power source or spark plug (if equipped). Never attempt to make adjustments while the equipment is running. Always make adjustments with the equipment resting on a flat, clear and clean surface. Replace any worn, damaged or removed warning labels immediately. Always clean dust and dirt off the equipment – do not use any grease solvents.

## Fuel safety

Fuel is an extremely flammable. Keep clear of naked flames. Do not spill any fuel – do not smoke near fuel or the equipment. Always shut off the engine before refuelling. Do not fuel a hot engine – fuel may spill and cause a fire. Open the fuel cap carefully to allow any pressure build-up in the tank to release slowly and avoid fuel spillage. Always fuel your equipment in well ventilated areas. If you spill fuel, wipe the equipment immediately – if fuel gets on your clothing, change them immediately.

To reduce the risk of serious or fatal burn injuries, check for fuel leakage. If fuel leakage is found, do not start or run the engine until leak is fixed.

**⚠ WARNING!** Use only clean, fresh non-ethanol 95+ unleaded or fresh clean commercially available pump Diesel (Be sure to confirm whether you have purchased a 4 stroke petrol or Diesel model by looking at the original website you purchased from)

**⚠ DANGER!** Using an engine indoors CAN KILL YOU IN MINUTES. NEVER use an engine indoors.

### Pump Use and Care

Store the idle pump out of reach of children and other untrained persons. Pumps are dangerous in the hands of untrained users. Maintain pump. Keep hoses in proper operating condition. Properly maintained pumps are less likely to malfunction and cause injury. Check for misalignment or binding of moving parts, breakage of parts and any other condition that may affect the pumps operation. If damaged, have the pump serviced before using. Accidents can be caused by poorly maintained pumps.

Always shut off the engine, allow the engine remains hot for a while after stopping the engine. Exhaust may contain chemicals that of starting the pump accidentally. Keep handles dry and clean; free from oil and the assembly process. Do not install or grease which allows for better control of the pump in an explosive pump. Do not use to pump flammable or explosive liquids such as gasoline, fuel oil, not operate the water pump without liquid. kerosene, solvents or thinners. Pump should Do not run the water pump dry.

only be used with liquids compatible with **⚠ WARNING!** The water pump together with pump component materials. Failure to follow associated pipework operates under to this warning can result in serious personal pressure. Do not disconnect water pump or injury, death and/or property damage. Pump pipework until internal pressure has been must be located on a solid level surface. released. Failure to do this could result in Pump could tip or fall causing serious injury, personal injury and damage to property. Do not hold or suspend pump by means of a **⚠ WARNING!** The muffler becomes very hot discharge pipe. Pipe could break or come during operation and remains hot for a loose. Be careful not to touch the muffler period of time after stopping the engine. Be while it is hot. To avoid severe burns or fire careful not to touch the muffler or exhaust hazards, let the engine cool before while it is hot. To avoid severe burns or fire transporting or storing it indoors. The muffler hazards, let the engine cool before becomes very hot during operation and transporting or storing.

**⚠️ IMPORTANT! –** If you are not familiar with the safe operation / handling of this equipment, or are in any way unsure of any object of this products suitability or correct use for your application you should complete training conducted by a person or organisation qualified in safe use and training related to this product. This includes fuel / electrical handling and safety if applicable to this product or your application.



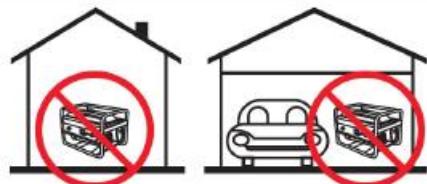
**Some experts believe the use of almost any product could cause serious injury or death. For information that may reduce your risk of serious injury or death consult the points below and additionally, the information available at [www.datastreamserver.com/safety](http://www.datastreamserver.com/safety)**

- Consult all documentation, packaging and product labelling before use. Note that some products feature online documentation which should be printed and kept with the product.
- Check product for loose/broken/damaged/missing parts, wear or leaks (if applicable) before each use. Never use a product with loose/broken/damaged/missing parts, wear or leaks (if applicable).
- Product must be inspected and serviced (if applicable) by a qualified specialist every 6 months assuming average residential use by a person of average weight and strength, above average technical aptitude, on a property matching average metropolitan specification. Intended use outside these guidelines could indicate the product is not suitable for intended use or may require more regular inspection or servicing.
- Ensure all possible users of the product have completed an industry recognised training course before being given access to the product.
- The product has been supplied by a general merchandise retailer that may not be familiar with your specific application or your description of the application. Be sure to attain third party approval for your application from a qualified specialist before use regardless of prior assurances by the retailer or its representatives.
- This product is not intended for use where fail-safe operation is required. As with any product (take an automobile, aircraft, computer or ball point pen for example) there is always a small chance of a technical issue that needs to be repaired or may require replacement of the product or a part. If the possibility of such failure and the associated time it takes to rectify could in any situation inconvenience the user, business or employee or could financially affect the user, business or employee then the product is not suitable for your requirements. This product is not for use where incorrect operation or a failure of any kind, including but not limited to a condition requiring product return, replacement, service by a technician or replacement of parts could cause a financial loss, loss of employee time or an inconvenience requiring compensation.
- If this item has been purchased in error considering the points above simply contact the retailer directly for details of their returns policies if required.

## **DANGER**

**Using an engine indoors CAN KILL YOU IN MINUTES.**

**Engine exhaust contains carbon monoxide. This is a poison you cannot see or smell.**



**NEVER use inside a home or garage, EVEN IF doors and windows are open.**



**Only use OUTSIDE and far away from windows, doors, and vents.**

## **DANGER**



1. DO NOT OPERATE IN A HAZARDOUS LOCATION. SUCH AREAS INCLUDE WHERE THERE IS A RISK OF EXPLOSION OF PETROL FUMES, LEAKING GAS OR EXPLOSIVE DUSTS.
2. DO NOT OPERATE IN A CONFINED AREA WHERE EXHAUST GASES, SMOKE OR FUMES COULD REACH DANGEROUS CONCENTRATIONS.
3. DO NOT REFUEL WHILE ENGINE IS RUNNING.
4. FOR GENERATORS ONLY: THE OUTPUT OF THIS GENERATING SET IS POTENTIALLY LETHAL. THE SET SHOULD NOT BE CONNECTED TO A FIXED ELECTRICAL INSTALLATION EXCEPT BY AN APPROPRIATELY LICENSED PERSON.
5. NOT WEATHERPROOF - PROTECT YOUR MACHINE. THIS MACHINE IS NOT WEATHERPROOF AND SHOULD NOT BE EXPOSED TO DIRECT SUNLIGHT, HIGH AMBIENT TEMPERATURE OR DAMP, WET OR HIGH HUMIDITY CONDITIONS.
6. EXPLOSION HAZARD: NEVER SMOKE WHILE REFUELLED.
7. TAKE CARE NOT TO SPILL FUEL. WHEN REFUELLED THE ENGINE ENSURE THAT THE ENGINE HAS BEEN SWITCHED OFF AND THAT ALL PARTS HAVE BEEN ALLOWED TO COOL. PREVENT THE SPILLING OF FUEL AS THIS MAY ALSO IGNITE WITH A HOT ENGINE. NEVER REFUEL WHILST THE ENGINE IS RUNNING.

# Parts Diagram

**⚠ ATTENTION!** Products covered by this manual will vary in appearance, assembly, inclusions, description and packaging.

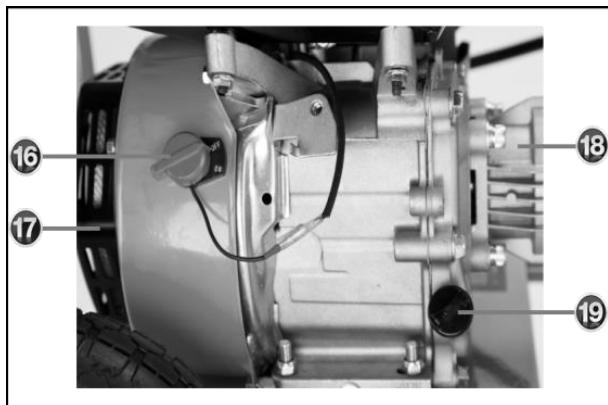
Rear View



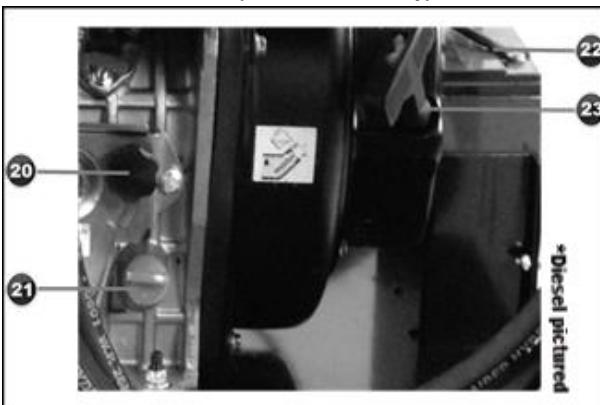
Top View



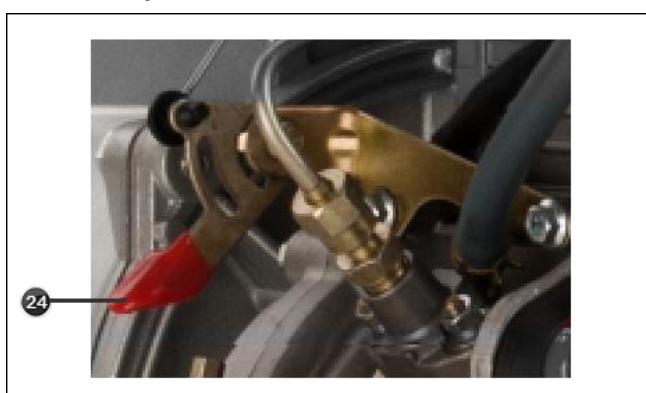
View from side



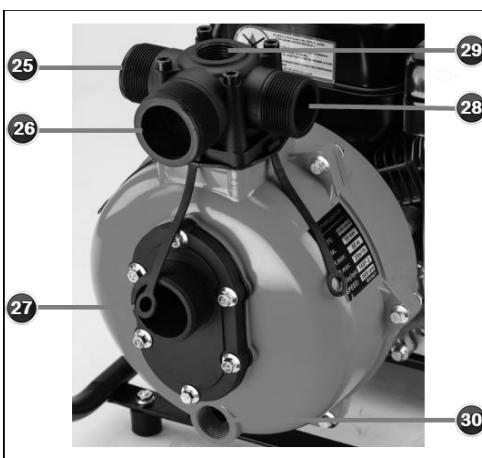
View from side (Diesel model only)



Decompression Lever (Diesel model only)

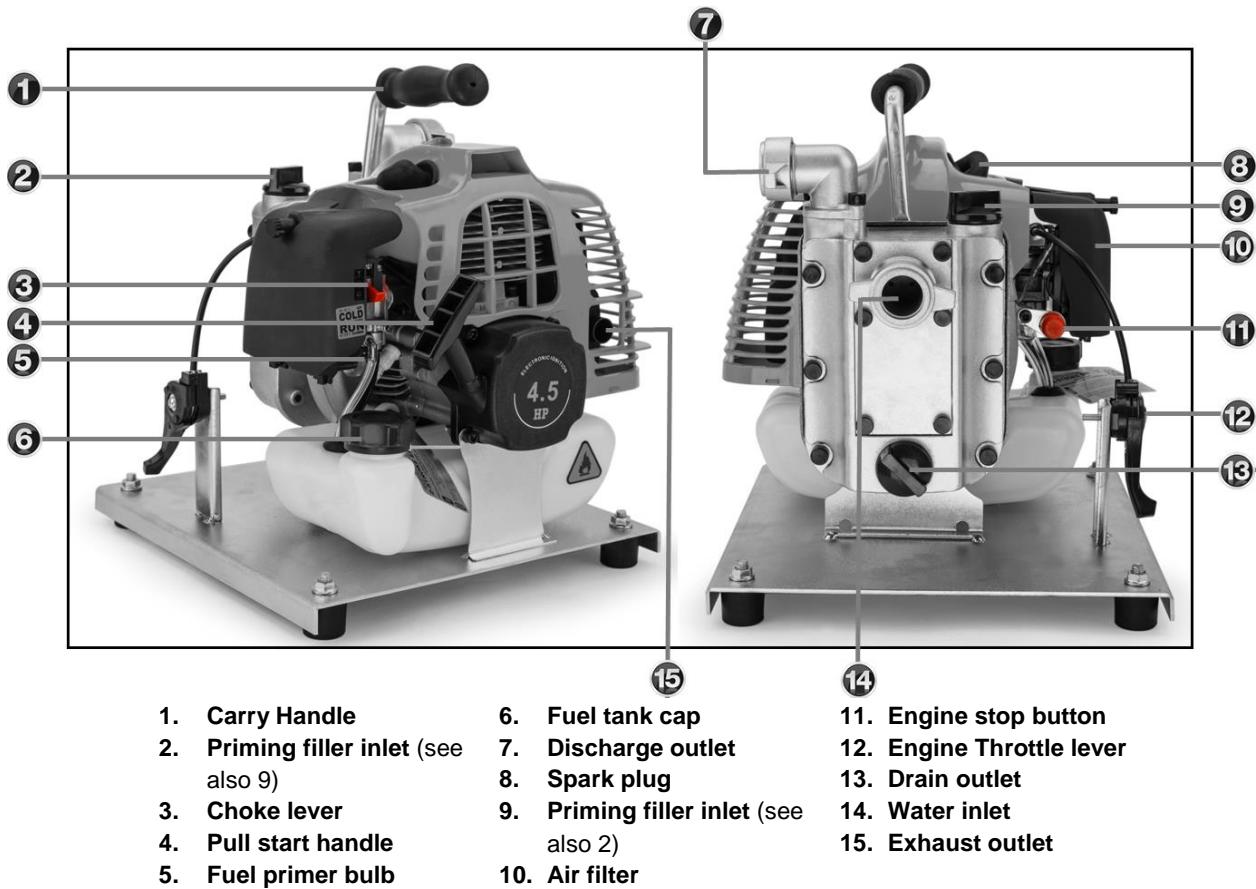


Front View



1. Air Cleaner (see also 11)	12. Throttle lever	22. Battery (if equipped)
2. Throttle lever (see also 12)	13. Water pump (see also 18)	23. Pull start
3. Choke lever	14. Fuel tank (see also 6)	24. Decompression lever (Diesel Engines)
4. Fuel On/Off	15. Fuel filler cap	25. Discharge Outlet
5. Fuel filler cap (see also 15)	16. Engine On/Off switch (if equipped)	26. Discharge Outlet
6. Fuel tank (see also 14)	17. Pull start	27. Discharge Outlet
7. Engine On/Off switch (Petrol Engines)	18. Water pump	28. Water Inlet
8. Pull start (see also 17 & 23)	19. Engine Oil filler cap (Petrol Engines)	29. Priming filler inlet
9. Exhaust muffler	20. Fuel Pump On/Off (*Diesel engines)	30. Drain outlet
10. Spark Plug (if equipped)	21. Engine Oil filler cap	
11. Air Cleaner (see also 1)		

## 2-Stroke Model

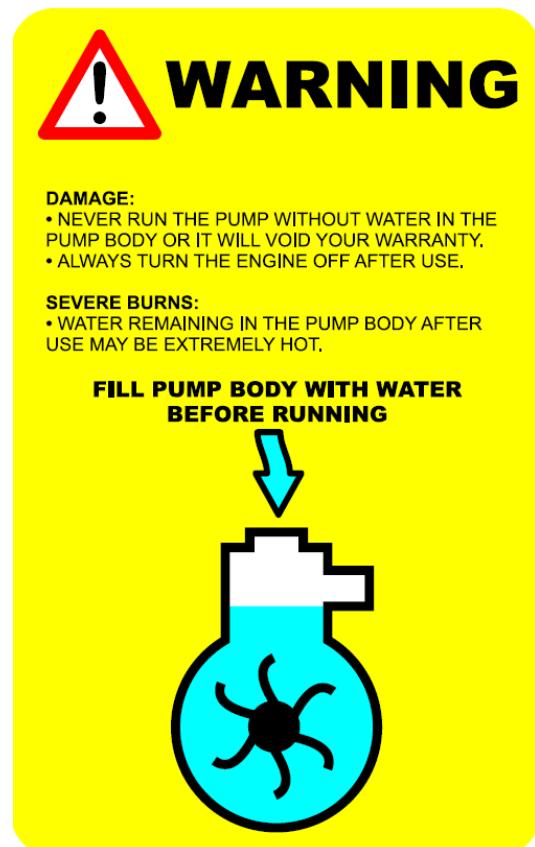


## Before Use

**⚠ WARNING!** Add engine oil to the correct level before operation. Failure to add engine oil will destroy the engine. Engine damage caused by lack of oil is not covered under warranty.

**⚠ ATTENTION!** For safety the connection plugs may have been disconnected from battery (if equipped) before shipping. Please follow the steps in the section "Connecting the battery" to connect your battery.

- Check that oil has been added to the proper level in the engine crankcase (see section adding oil)
- Add the correct fuel to fuel tank (see section adding fuel)
- Check all attached hose connections are secure.
- Check to make sure that there are no kinks, cuts, or damage to the high pressure hose.
- Ensure your water supply is ready and available (never run the pump dry!).
- Read and understand this manual before using the pressure washer.



## Getting Started

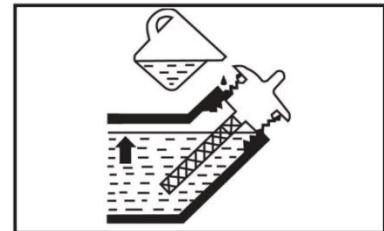
- ⚠ **NOTE!** Ensure the pump is no further than 5m away from the water's edge.
- ⚠ **NOTE!** Keep all hoses short and as straight as possible, failure to do so may decrease the pressure pumps performance.
- ⚠ **NOTE!** It is recommended that a filter and one-way valve (not included) is installed at the end of the suction hose or pipe. This can prevent long priming periods and unnecessary damage to the pump as a result of stones and solid foreign materials entering.
- ⚠ **NOTE!** Reinforced or ridge suction hoses are required on the suction line to prevent the pipe from collapsing due to pressure from suction.
- ⚠ **CAUTION!** All connections must be air tight; failure to do so may result in an air leak which can prevent the pump from priming. It is recommended that a thread sealant (not included) and/or Teflon tape (not included) is used on threads to ensure a water tight seal and prevent any leakage.

### Engine Oil

- ⚠ **WARNING!** Using the wrong oil can damage your engine and void warranty.
- ⚠ **Acceptable Oil Grades:**  
10W30 / 10W40 / 15W30 / 15W40.
- ⚠ **WARNING!** Do not overfill or tilt while filling.
- ⚠ **ATTENTION! 2-Stroke Engines do not require engine oil however:** 2-stroke engines must be used with a 25:1 ratio of fuel to 2-stroke oil mixture (refer to table shown later).

#### With the engine perfectly level:

1. Remove the small engine "oil filler plug" on the side of the engine.
2. Fill with recommended oil until oil starts to run back out of the filler hole.
3. Replace the "oil filler plug".
4. Clean up any excess oil around "oil filler plug"



### Connecting the Battery (if equipped)

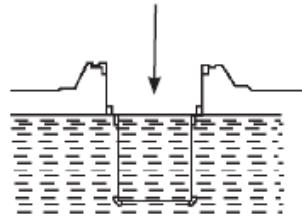
Locate the two battery plugs near the battery (if equipped) and connect by pushing them together.

- ⚠ **NOTE!** The battery is self-charging through general use however there may be need on occasion to remove the battery and charge it with an appropriate charger or jump start the engine (selected 4-Stroke petrol and Diesel versions only).

## Fuel

- ⚠ **WARNING!** Do not use fuel substitutes such as ethanol, methanol or biofuel in your engine, using such fuel will cause damage and void any applicable warranty.
- ⚠ **WARNING!** Use only clean, fresh non-ethanol 95+ unleaded or fresh, clean commercially available pump Diesel, or correctly mixed 2-stroke fuel mix. Only use the correct type of fuel for your engine.
- ⚠ **ATTENTION!** Be sure to confirm whether you have purchased a 2-stroke or 4-stroke petrol or a Diesel model by looking at the original website you purchased from and refer to the corresponding section below.
- ⚠ **ATTENTION!** Before refuelling ensure the engine is switched off and has cooled
- ⚠ **NOTE!** It is normal for smoke to be emitted from the exhaust of a new engine for the first 5 hours of use while running in.
- ⚠ **WARNING!** Be sure to stop the engine before refuelling.
- ⚠ **WARNING!** Do not over fill the fuel tank.
- ⚠ **WARNING!** Do not smoke while refuelling.

1. Clean surface around fuel cap to prevent contamination.
2. Loosen fuel cap slowly. Rest the cap on a clean surface.
3. Carefully pour fuel into the tank. Avoid spillage.
4. Prior to replacing the fuel cap, clean and inspect the gasket.
5. Immediately replace fuel cap and hand tighten. Wipe up any fuel spillage.



## Petrol Four Stroke Engines

- ⚠ **Use only regular unleaded non ethanol fuel with a pump octane rating of 86 or higher.**
- ⚠ **Never use stale or contaminated fuel or an oil/fuel mixture. Avoid getting dirt or water in the fuel tank.**
- ⚠ **Never use Ethanol or other alternative fuel / fuel blends.**

## Diesel 4-Stroke Engines

- ⚠ **Only use fresh clean commercially available pump Diesel.**

**Petrol 2-Stroke Engines**

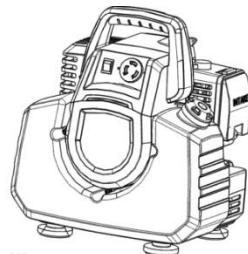
**⚠️ IMPORTANT!** Never use stale or contaminated fuel.

**⚠️ IMPORTANT!**  
Avoid getting dirt and water in the fuel tank.

- Clean surface around fuel cap to prevent contamination.
- Loosen fuel cap slowly. Rest the cap on a clean surface.
- Carefully pour fuel into the tank. Avoid spillage.
- Prior to replacing the fuel cap, clean and inspect the gasket.
- Immediately replace fuel cap and hand tighten. Wipe up any fuel spillage.

**⚠️ IMPORTANT!**  
Tighten the fuel filler cap securely after adding fuel.

**⚠️ IMPORTANT!** Use only clean, fresh non-ethanol 95+ unleaded with 2-Stroke oil (25:1”)



GAS (US Gallons)	0.5	1	2	3
OIL (Ounces)	2,56	5.12	10.24	15.36

PETROL (Litres)	2	4	5	10
OIL (ml)	80	160	200	400

## 2-STROKE ENGINE

**ALWAYS USE  
FRESH FUEL + QUALITY 2 STROKE OIL**

**25:1**

**USA**

Use only a mixture of unleaded gasoline and 2-stroke oil. Minimum 89 octane.  
**Do NOT use gasohol.** Premium non-ethanol unleaded is fine.  
 Mix a ratio of 25:1 (25 parts gas to 1 part of two stroke oil).  
 This equates to 1 Gallon of gas and 5.12 ounces of two stroke oil.

**AUS/EU**

Use only a mixture of normal unleaded petrol and 2-stroke oil. Minimum 89 octane.  
**Do NOT use an ethanol blended petrol.** Premium non-ethanol unleaded is fine.  
 Mix a ratio of 25:1 (25 parts petrol to 1 part of two stroke oil).  
 This equates to 5 Litres of petrol and 200ml of two stroke oil.

## Connecting the water Inlet

- ⚠ NOTE!** Keep all hoses short and as straight as possible, failure to do so may decrease the pressure pumps performance.
- ⚠ NOTE!** It is recommended that a filter and one-way valve (not included) is installed at the end of the suction hose or pipe. This can prevent long priming periods and unnecessary damage to the pump as a result of stones and solid foreign materials entering.
- ⚠ NOTE!** Reinforced or ridge suction hoses are required on the suction line to prevent the pipe from collapsing due to pressure from suction.
- ⚠ CAUTION!** All connections must be air tight; failure to do so may result in an air leak which can prevent the pump from priming. It is recommended that a thread sealant (not included) and/or Teflon tape (not included) is used on threads to ensure a water tight seal and prevent any leakage.
- ⚠ NOTE!** Ensure the collar is tightly fastened onto the suction inlet; failure to do so may result in an air leak.

1. Assemble the hose clamp and filter to the intake side of the suction hose.
2. Tighten the hose clamp tightly ensuring it clamps the hose against the filter.
3. Assemble the hose adaptor by inserting into the collar.
4. Assemble the hose clamp and the assembled inlet adaptor to the outlet side of the suction hose.
5. Add thread sealant (not included) and/or Teflon tape (not included) on to the suction inlet.
6. Align and screw the collar of the assembled inlet adaptor onto the thread on the suction inlet port of the pump.

- ⚠ WARNING!** Before starting please ensure all inspections stated above have been made.
- ⚠ WARNING!** Exhaust gas contains poisonous carbon monoxide. Never use the machine in poorly ventilated locations. Doing so may result in carbon monoxide poisoning.
- ⚠ WARNING!** Do not touch the exhaust and exhaust cover while the machine is running or hot.
- ⚠ NOTE!** These instructions are to be used as a guide only and are not intended to replace the instruction manual. Always read the instruction manual for full details relating to safety instructions, assembly, operation and maintenance of your pump.
- ⚠ WARNING!** When engine is running, do not pull the recoil handle otherwise the engine may be damaged.
- ⚠ CAUTION!** The starter grip can be drawn back very quickly before you can release it. This may pull your hand forcefully toward the engine and cause an injury.
- ⚠ CAUTION!** Do not allow the starter grip to snap back. Return it slowly by hand.

## Connecting the water Outlet

- ⚠ CAUTION!** All connections require being air tight, failure to do so could result in an air leak which can prevent the pump from priming. It is recommended that a thread sealant (not included) and/or Teflon tape (not included) is applied to threads to ensure a water tight seal and prevent any leakage.
- ⚠ NOTE!** Keep all hoses short and as straight as possible, failure to do so may decrease the pressure pumps performance.
- ⚠ NOTE!** Multiple outlets can be used to pump water simultaneously but this will result in lower pressure and flow rate.
- ⚠ NOTE!** If the unused discharge outlets are not blocked off this will result in water expelling out of the discharge outlet.
- ⚠ NOTE!** Ensure the collar is tightly fastened onto the discharge outlet; failure to do so may result in an air leak.

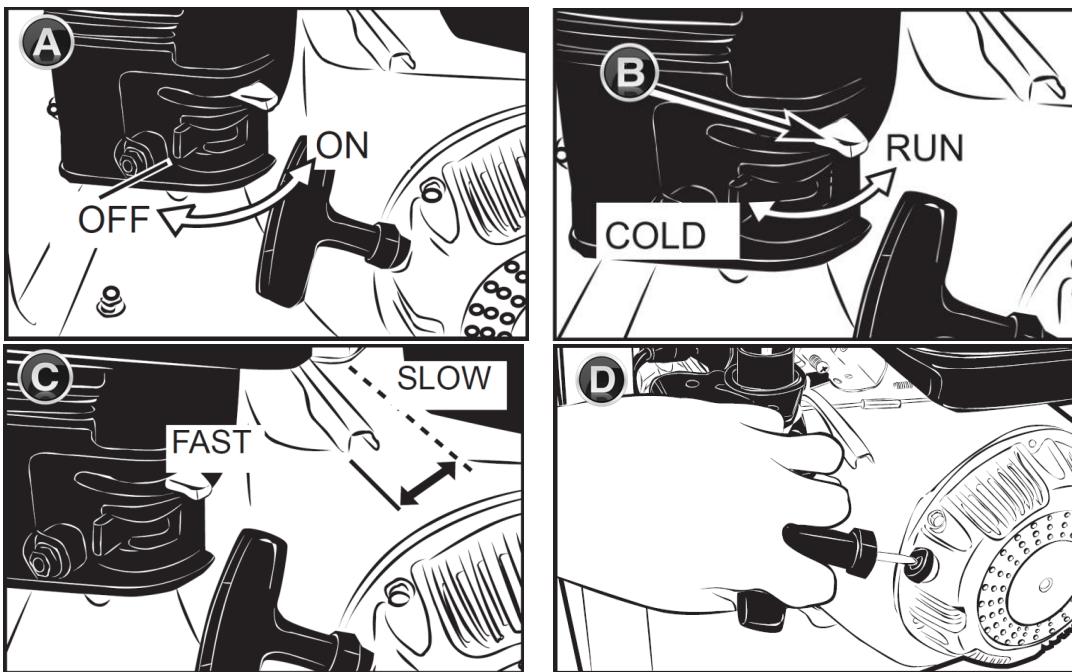
1. Assemble the hose adaptor by inserting into the collar.
2. Determine which discharge outlet port will be used. Screw the outlet caps onto 2 of the 3 discharge outlet that are not going to be used.
3. Add thread sealant (not included) and/or Teflon tape (not included) on to the discharge outlet.
4. Align and screw the collar of the assembled inlet adaptor onto the thread on the discharge outlet port of the pump.

## Priming the water pump

 **Caution: Do not run the pump dry, this may result damage to the pump.**

1. Unscrew the priming cap by turning anti-clockwise. Using a hose, fill the pump by pouring water into the priming plug hole.
2. Ensure both the pump and the suction line is full of water.
3. Replace the priming cap and ensure it is secure.
4. Fully open any shut off mechanisms (e.g. spray nozzle, valves etc.) in the input and output hose or pipe so that the air can escape without obstruction.
5. Start the engine.

## Starting a 4-Stroke Petrol Engine



1. Turn the "Fuel Valve" (A) to "ON".
2. **Set the Choke** (if equipped); move the "choke lever" (B) to the left ("Cold Start" position).
3. Move the throttle lever (C) half way between FAST and SLOW.
4. Start the engine:
  - a. Turn the "Ignition Key" to "ON" (if equipped) otherwise turn the engine switch to "ON"
  - b. **Key Start** (if equipped): If the battery has enough charge, use the ignition key to start the engine by holding the key in the "Start" position for a few seconds (New batteries can have no/little charge; use pull-start, jump start or change battery if needed)
  - c. **Pull Start** (if equipped): Pull the start grip until the engine starts (D).
5. Move the "Choke Lever" (B) to the right ("Run" position).
6. Set the throttle lever (C) at the desired speed.

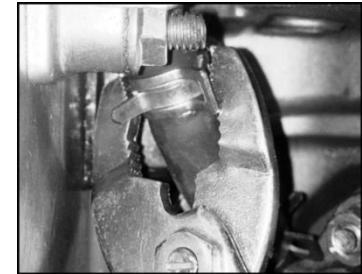
### IF ENGINE WILL NOT START:

1. Repeat the process above but place and leave the "Choke Lever" to the right.
2. Check Oil Level.
3. Charge battery or jump-start if needed (If equipped).
4. See section "Troubleshooting".

## Starting a Diesel 4-Stroke Engine

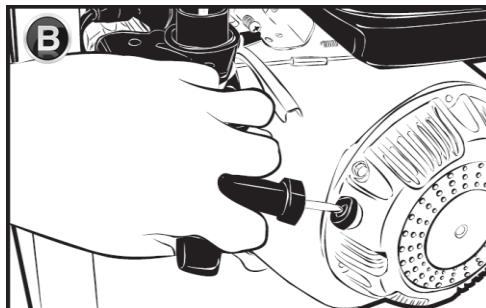
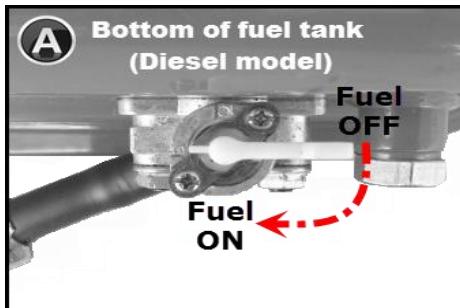
### Priming the fuel system

1. Occasionally, when an engine is new or has been run completely out of fuel it may be necessary to “reprime” the fuel system. This is simply removing any air bubbles from the fuel line.
2. With the fuel tank full of fuel and the fuel tap “ON”:
3. Remove the fuel line from the engine by using a pair of pliers to unclip the hose-clamp.
4. Allow fuel to flow out until there are no more air bubbles. This can be a messy process so use an absorbent rag to catch all the fuel running out of the line.
5. Push the fuel line back onto its connection point and re-fasten the hose clamp.
6. Clean up any spilled fuel.
7. Attempt to start the engine.



### Key start

1. Turn the “Fuel Valve” (A) to “ON”.
2. Turn fuel pump (C) to “RUN” position.



3. Turn the “Ignition Key” “ON” (if equipped) or the engine switch to “ON”.
  - a. **Key Start** (if equipped): If the battery has enough charge, use the ignition key to start the engine by holding the key in the “Start” position for a few seconds (New batteries can have no/little charge; use pull-start, jump start or change battery if needed)

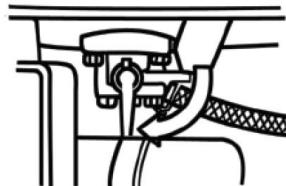
- b. **Pull Start** (if equipped): Push the decompression lever (D) “down” then pull the start grip (B) until the engine starts. Note: Each time you pull start you will need to push the decompression lever down or the pull start will be difficult to use.

## IF ENGINE WILL NOT START:

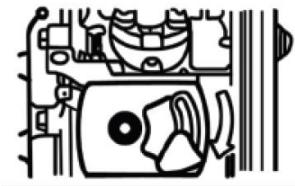
1. Check Oil Level.
2. Charge battery or jump-start if needed.
3. See section “Troubleshooting”.

### Pull start

1. Open the fuel tap to “ON” position.



2. Unlock the throttle and push down to start position and lock.



3. Hold the recoil starter handle.
4. Slowly pull the recoil starter handle all the way out until you feel resistance.



**⚠ NOTE!** Don't pull the recoil starter too fast or hard just yet!

5. Return the starter handle slowly.
6. Push the decompression lever all the way down.



7. Hold the recoil starter handle firmly.
8. Using both hands, pull the recoil starter handle “hard and fast” all the way out.



**⚠ NOTE!** If you don't pull the recoil starter all the way out it may not start.

9. If engine does not start repeat steps 3 to 8.

**⚠ NOTE!** The decompression lever will automatically reset.

**⚠ NOTE!** If motor does not start repeat steps 4 to 6, if the motor still fails to start refer to the trouble shooting section of the manual.

10. Once the motor has started move the lockable throttle knob to the centre throttle position (in the middle of the STOP and START position and let the engine idle no load for 3 minutes.

11. The lockable throttle knob can now be adjusted to obtain the desired pressure at the discharge outlet.

## Adjusting the Throttle

The throttle is used to regulate the RPM of the engine, which also controls the water flow out of the discharge outlet.

1. To increase the speed of the engine and water flow, loosen the lockable throttle knob and push down to the START position and re-tighten the lockable throttle knob.
2. To decrease the speed of the engine and water flow, loosen the lockable throttle knob and move the throttle up to the STOP position and re-tighten the lockable throttle knob.

## Stopping the Engine

1. Decrease the speed of the engine and water flow by moving the throttle up towards the STOP position and allow idling for 2 minutes.
2. Then move the throttle to the STOP position and rotate the fuel tap to the anti-clockwise closed/shut "S" position.

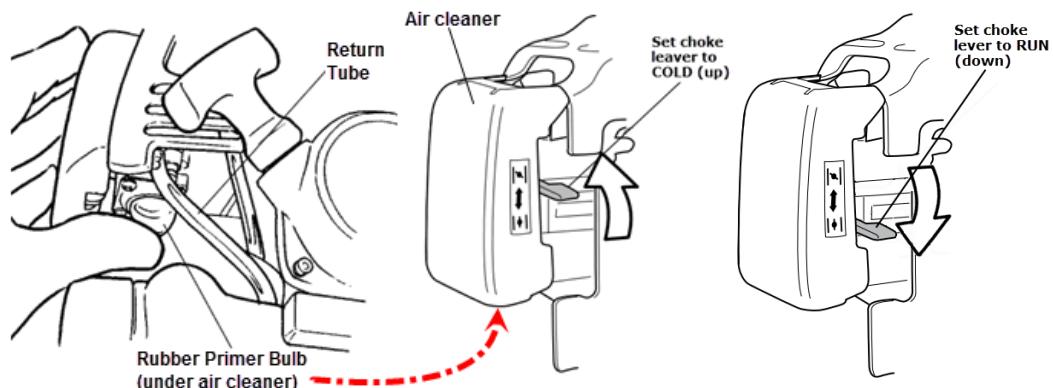
**⚠ Caution:** Suddenly stopping the engine will cause an abnormal increase of temperature which could result in damage to the engine.

## Starting a Petrol 2-Stroke Engine

**⚠ CAUTION!** The starter grip can be drawn back very quickly before you can release it. This may pull your hand forcefully toward the engine and cause an injury.

**⚠ CAUTION!** Do not allow the starter grip to snap back. Return it slowly by hand.

**⚠ CAUTION!** The recoil starter can be damaged by abuse.



**⚠ NOTE!** As the engine starts / warms it will become possible to rev the engine – do this a few times before starting your job. Engines can run rough when cold / first started.

1. Press the "Primer Bulb" 10 times.
2. Set the Choke lever to "COLD" (UP) position.
3. Sharply pull the starter cord 2-3 times until the engine "kicks".
4. Move the "Choke Lever" to the "RUN" (DOWN) position.
5. If needed, pull the starter cord to restart

## If the Engine Fails To Start

Repeat the appropriate starting procedure (warm or cold engine). If the engine fails to start after frequent attempts, the engine may be flooded (too much fuel in engine) If you suspect your engine is flooded go to next section "Starting a flooded engine"

## Stopping the Engine (2-Stroke Models)

Stop the engine by pressing the "STOP SWITCH" until the engine has stopped.

## Troubleshooting

Symptom	Possible Cause	Corrective Action
Unit runs but delivers little or no water	Leak in suction hose or pipes	Tighten suction hoses and use thread sealer
	Clogged suction strainer	Clear debris from suction strainer
	Water level below intake	Lower suction hose into water
	Pump not primed	Turn engine off & fill the pump housing with water
	Water level more than maximum lift the pump is designed to handle.	Move pump close to water level and increase discharge line length if necessary
Unit will not start	No Fuel	Fill with fuel
	Oil level too low	Fill with correct oil
	Air filter clogged / blocked	Check, clean or replace filter
	Temperature too hot or cold for the oil being used	Use only clean, fresh non-ethanol 95+ unleaded or fresh clean commercially available pump Diesel (Be sure to confirm whether you have purchased a 4 stroke petrol or Diesel model by looking at the original website you purchased from)  <b>2-stroke engines</b> - Use only clean, fresh non-ethanol 95+ unleaded with 2-Stroke oil (25:1)
Unit starts but runs and performs poorly.	Air filter clogged / blocked	Check, clean or replace filter
	Engine or Carburettor difficulties	Contact an authorised service centre or call customer service

# Maintenance

## Changing the Oil

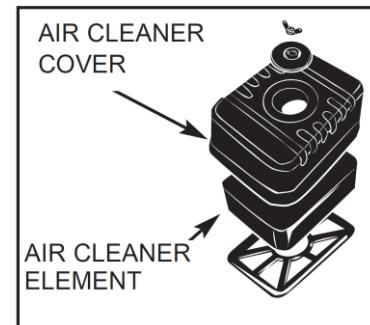
- ⚠ NOTE!** After the first 20 hours of use engine oil needs to be replaced and then every 100 hours after that.
- ⚠ NOTE!** The high pressure pump is shipped without oil. Check the oil level before use.
- ⚠ NOTE!** Always use high quality oils, choosing their viscosity grade according to the operating temperatures.
- ⚠ NOTE!** Ensure the engine is not over filled with oil.

1. Place the high pressure pump on a level surface.
2. Clean around the oil fillers.
3. Remove the oil cap fill plug from either the left or right side of the engine and clean the dip stick and re-insert without screwing down.
4. Remove the dipstick and ensure the oil lies between the min and max marks.
5. Fill the engine with oil up to the max level of the oil gauge.
6. Re-tighten both the left and right oil fill plug.

## Air Filter

The air filter must always be in perfect working order, to prevent debris and dust from being sucked into the engine and reducing the efficiency and life of the machine.

1. Remove the wing nut, washer and air cleaner cover. Check the element for dirt or obstruction. Clean the element if necessary.
2. Clean with warm soapy water, rinse or clean in non-flammable solvent and allow to dry thoroughly.
3. Re-assemble in the reverse order.

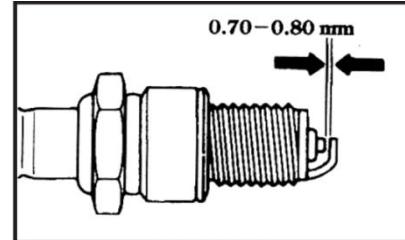


## Spark plug service (petrol engines)

**⚠ WARNING!** If the engine has been running, the exhaust will be very hot. Be careful not to touch the exhaust.

To ensure proper engine operation, the spark plug must be properly gapped and free of deposits.

1. Remove the spark plug.
1. 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.
2. Measure the plug gap with a feeler gauge. The gap should be 0.7-0.8mm (0.028-0.031 in). Correct as necessary by bending the side electrode.
3. Check that the spark plug washer is in good condition, and thread the spark plug in by hand to prevent cross threading.
4. After the spark plug is seated, tighten with a spark plug wrench to compress the washer.



**⚠ NOTE!** If installing a new spark plug, tighten 1/2 turn after the spark plug seats to compress the washer. If re-installing a used spark plug, tighten 1/2-1/4 turn after the spark plug seats to compress the washer

## Cleaning the Pump Body

Use a moist cloth to wipe down the pump housing. Allow to dry thoroughly before storing in a dry location that is protected from bad weather conditions.

If the pump is not going to be used for a long period of time, it is advisable to rinse with water. Ensure the pump is completely dry before storing.

## Storing your Pump

Before storing the pump, it is recommended to empty the pump body of any water. Turn the drain screw anti-clockwise with a spanner and remove from the pump body. This will drain any excess water. Replace the drain screw.

4-Stroke Petrol Engine Service Schedule	Each Use	Every 1 Month or Every 15hrs	Every 3 Months or Every 30hrs	Every 6 Months or Every 60hrs	Every 12 Months or Every 100hrs
		(Whichever comes first)	(Whichever comes first)	(Whichever comes first)	(Whichever comes first)
Engine Oil	CHECK	REPLACE			
Engine Oil Filter (if equipped)				REPLACE	
Check machine for loose nuts/screws	CHECK				
Tighten all nuts & screws			COMPLETE		
Fuel Strainer Cup (If Equipped)	CHECK				
Air Cleaner	CHECK		CLEAN / REPLACE AS NECESSARY		
Fuel Filter (if equipped)			CHECK	REPLACE	
Pressure Washer Pump Oil (Sealed Type) [Pressure Washers Only]			SEALED TYPE PUMP IS MAINTENANCE FREE		
Pressure Washer Pump Oil (Pump with Vent Plug) [Pressure Washers Only]			CHECK	REPLACE	
Hydraulic Fluid [Log Splitters Only]					REPLACE
Cutting Blades / Chain [Items with Blade(s) / Chain Only]	CHECK		REPLACE AS NECESSARY		
Spark Plug			CHECK	REPLACE	
Clean/Flush Fuel Tank					COMPLETE
Fuel Line	CHECK		REPLACE AS NECESSARY		
Adjust Idle Speed					ADJUST
Valve Clearance					ADJUST
Cylinder Head Cover					CHECK
Clean combustion chamber					COMPLETE AS NEEDED

Harsh conditions such as high temperature operation, higher than normal loads and dusty applications will require reduced service intervals.

Max. continuous running time without cool-off / daily check assuming full oil level and no noticeable oil usage or other concerns - 4hrs (except diesel)

The manufacturer recommends that the number of hours per year be within the stated range for optimum machine performance, based on factors including consumable replacement intervals and machine life over an extended warranty period - recommended 260hrs.

Please note: Product failure as a result of not following the service schedule will void warranty. Be sure to keep records/receipts of all maintenance carried out for verification should a warranty query arise. The machine must be kept clean and out of the weather and have all damaged/broken parts replaced in order to be covered by warranty. Items purchased at discount/clearance prices have been known to be treated with less respect than items that are purchased at full retail. Items that show signs of neglect, abuse or lack of care qualify for warranty coverage at the discretion of the provider. In cases where the item has not been well kept, maintained or serviced qualify for warranty coverage at the discretion of the provider.

2-Stroke Petrol Engine Service Schedule	Each Use	Every 1 Month	Every 3 Months	Every 6 Months	Every 12 Months
		or	or	or	or
		Every 15hrs	Every 30hrs	Every 60hrs	Every 100hrs
		(Whichever comes first)	(Whichever comes first)	(Whichever comes first)	(Whichever comes first)
Check machine for loose nuts/screws	CHECK				
Tighten all nuts & screws			COMPLETE	REPLACE	
Fuel Strainer Cup (If Equipped)	CHECK				
Air Cleaner	CHECK		CLEAN / REPLACE AS NECESSARY		
Fuel Filter (if equipped)			CHECK	REPLACE	
Spark Plug			CHECK	REPLACE	
Clean/Flush Fuel Tank			COMPLETE	REPLACE	
Fuel Line	CHECK		REPLACE AS NECESSARY		
Cutting Blades / Chain [Items with Blade(s) / Chain Only]	CHECK		REPLACE AS NECESSARY		
Adjust Idle Speed					ADJUST
Tune Engine			CHECK		
Clean combustion chamber			CHECK	REPLACE	

Harsh conditions such as high temperature operation, higher than normal loads and dusty applications will require reduced service intervals.

Max. continuous running time without cool-off / daily check assuming full oil level and no noticeable oil usage or other concerns - 2hrs

The manufacturer recommends that the number of hours per year be within the stated range for optimum machine performance, based on factors including consumable replacement intervals and machine life over an extended warranty period - recommended 260hrs.

Please note: Product failure as a result of not following the service schedule will void warranty. Be sure to keep records/receipts of all maintenance carried out for verification should a warranty query arise. The machine must be kept clean and out of the weather and have all damaged/broken parts replaced in order to be covered by warranty. Items purchased at discount/clearance prices have been known to be treated with less respect than items that are purchased at full retail. Items that show signs of neglect, abuse or lack of care qualify for warranty coverage at the discretion of the provider. In cases where the item has not been well kept, maintained or serviced qualify for warranty coverage at the discretion of the provider.

Diesel Engine Service Schedule	Each Use	Every 1 Month	Every 3 Months	Every 6 Months	Every 12 Months
		or Every 15hrs	or Every 30hrs	or Every 60hrs	or Every 100hrs
		(Whichever comes first)	(Whichever comes first)	(Whichever comes first)	(Whichever comes first)
Engine Oil	CHECK	REPLACE			
Engine Oil Filter (if equipped)				REPLACE	
Check machine for loose nuts/screws	CHECK				
Tighten all nuts & screws			COMPLETE		
Fuel Strainer Cup (If Equipped)	CHECK				
Air Cleaner	CHECK		CLEAN / REPLACE AS NECESSARY		
Fuel Filter (if equipped)			CHECK	REPLACE	
Pressure Washer Pump Oil (Sealed Type) [Pressure Washers Only]			SEALED TYPE PUMP IS MAINTENANCE FREE		
Pressure Washer Pump Oil (Pump with Vent Plug) [Pressure Washers Only]			CHECK	REPLACE	
Hydraulic Fluid [Log Splitters Only]					REPLACE
Cutting Blades / Chain [Items with Blade(s) / Chain Only]	CHECK		REPLACE AS NECESSARY		
Clean/Flush Fuel Tank			CHECK	REPLACE	
Fuel Line	CHECK		REPLACE AS NECESSARY		
Valve Clearance					ADJUST
Cylinder Head Cover					CHECK
Clean combustion chamber					COMPLETE AS NEEDED

Harsh conditions such as high temperature operation, higher than normal loads and dusty applications will require reduced service intervals.

Max. continuous running time without cool-off / daily check assuming full oil level and no noticeable oil usage or other concerns - 6hrs

The manufacturer recommends that the number of hours per year be within the stated range for optimum machine performance, based on factors including consumable replacement intervals and machine life over an extended warranty period - recommended 260hrs.

Please note: Product failure as a result of not following the service schedule will void warranty. Be sure to keep records/receipts of all maintenance carried out for verification should a warranty query arise. The machine must be kept clean and out of the weather and have all damaged/broken parts replaced in order to be covered by warranty. Items purchased at discount/clearance prices have been known to be treated with less respect than items that are purchased at full retail. Items that show signs of neglect, abuse or lack of care qualify for warranty coverage at the discretion of the provider. In cases where the item has not been well kept, maintained or serviced qualify for warranty coverage at the discretion of the provider.

## Specifications

### PTLPMP-154095



**Manufacturer:** Protégé  
**Pump Type:** Fire Fighting (High Pressure / Lower Volume)  
**Power Output:** 7.5HP/4.8kW/3600rpm  
**Engine Type:** 4-Stoke  
**Engine capacity (cc):** 220  
**Starting System:** Recoil  
**Fuel Type:** 95+ Non Ethanol Petrol  
**Fuel Capacity:** 3.6L  
**Engine Oil Type:** 10W30 / 10W40 / 15W30 / 15W40.  
**Oil Tank Capacity:** 0.5L  
**Inlet Size:** 50mm (2")  
**Outlet Size:** 1 x 40mm (1.5"), 2 x 25mm (1.0")  
**Total head (vertical lift):** 120m  
**Flow Rate:** 12,000 litres / hour

### PTLPMP-205095



**Manufacturer:** Protégé  
**Pump Type:** Transfer Pump (Lower Pressure / High volume)  
**Power Output:** 7.5HP/4.8kW/3600rpm  
**Engine Type:** 4-Stoke  
**Engine capacity (cc):** 220  
**Starting System:** Recoil  
**Fuel Type:** 95+ Non Ethanol Petrol  
**Fuel Capacity:** 3.6L  
**Engine Oil Type:** 10W30 / 10W40 / 15W30 / 15W40.  
**Oil Tank Capacity:** 0.5L  
**Inlet Size:** 50mm (2")  
**Outlet Size:** 1 x 50mm (2")  
**Total head (vertical lift):** 130m  
**Flow Rate:** 33,000 litres / hour

### PTLPMP-225095



**Manufacturer:** Protégé  
**Pump Type:** Fire Fighting (High Pressure / Lower Volume)  
**Power Output:** 7.5HP/4.8kW/3600rpm  
**Engine Type:** 4-Stoke  
**Engine capacity (cc):** 220  
**Starting System:** Recoil  
**Fuel Type:** 95+ Non Ethanol Petrol  
**Fuel Capacity:** 3.6L  
**Engine Oil Type:** 10W30 / 10W40 / 15W30 / 15W40.  
**Oil Tank Capacity:** 0.5L  
**Inlet Size:** 50mm (2")  
**Outlet Size:** 2 x 40mm (1.5")  
**Total head (vertical lift):** 130m  
**Flow Rate:** 33,000 litres / hour

## PTLPMP-308095



**Manufacturer:** Protégé  
**Pump Type:** Transfer Pump (Lower Pressure / High volume)  
**Power Output:** 7.5HP/4.8kW/3600rpm  
**Engine Type:** 4-Stoke  
**Engine capacity (cc):** 220  
**Starting System:** Recoil  
**Fuel Type:** 95+ Non Ethanol Petrol  
**Fuel Capacity:** 3.6L  
**Engine Oil Type:** 10W30 / 10W40 / 15W30 / 15W40.  
**Oil Tank Capacity:** 0.5L  
**Inlet Size:** 80mm (3")  
**Outlet Size:** 80mm (3")  
**Total head (vertical lift):** 130m  
**Flow Rate:** 33,000 litres / hour

## PTLPMP-POTG-6595



**Manufacturer:** BAUMR-AG  
**Pump Type:** Transfer Pump (Lower Pressure / High volume)  
**Power Output:** 4.5hp  
**Engine Type:** 2-Stoke  
**Engine capacity (cc):** 65  
**Starting System:** Recoil  
**Fuel Type:** 95+ Non Ethanol Petrol  
**Fuel Capacity:** 1.2L  
**Oil Type:** 2-Stroke Oil  
**Oil Tank Capacity:** -  
**Inlet Size:** 25mm (1")  
**Outlet Size:** 25mm (1")  
**Total head (vertical lift):** 7m  
**Flow Rate:** 12,000 litres / hour

## DSLMP-40HLE



**Manufacturer:** SPITFIRE  
**Pump Type:** Fire Fighting (High Pressure / Lower Volume)  
**Power Output:** 6hp  
**Engine Type:** Commercially Available Pump Non-Bio Diesel  
**Engine capacity (cc):** 296  
**Starting System:** Recoil & Electric Key Start  
**Fuel Type:** Commercially Available Pump Non-Bio Diesel  
**Fuel Capacity:** 12.5L  
**Engine Oil Type:** 10W30 / 10W40 / 15W30 / 15W40.  
**Oil Tank Capacity:** 0.9L  
**Inlet Size:** 40mm (1.5")  
**Outlet Size:** 2 x 25mm (1")  
**Total head (vertical lift):** 80m  
**Flow Rate:** 24,000 litres / hour

## DSLMP-50HLE



**Manufacturer:** SPITFIRE  
**Pump Type:** Fire Fighting (High Pressure / Lower Volume)  
**Power Output:** 10hp  
**Engine Type:** Commercially Available Pump Non-Bio Diesel  
**Engine capacity (cc):** 406  
**Starting System:** Recoil & Electric Key Start  
**Fuel Type:** Commercially Available Pump Non-Bio Diesel  
**Fuel Capacity:** 12.5L  
**Engine Oil Type:** 10W30 / 10W40 / 15W30 / 15W40.  
**Oil Tank Capacity:** 1.65L  
**Inlet Size:** 50mm (2")  
**Outlet Size:** 1 x 50mm (2")  
**Total head (vertical lift):** 55m  
**Flow Rate:** 36,000 Litres/hour

## DSLMP-70HLE



**Manufacturer:** SPITFIRE  
**Pump Type:** Transfer Pump (Lower Pressure / High volume)  
**Power Output:** 10hp  
**Engine Type:** Commercially Available Pump Non-Bio Diesel  
**Engine capacity (cc):** 406  
**Starting System:** Recoil & Electric Key Start  
**Fuel Type:** Commercially Available Pump Non-Bio Diesel  
**Fuel Capacity:** 12.5L  
**Engine Oil Type:** 10W30 / 10W40 / 15W30 / 15W40.  
**Oil Tank Capacity:** 1.65L  
**Inlet Size:** 100mm (4")  
**Outlet Size:** 100 x 0mm (4")  
**Total head (vertical lift):** 32m  
**Flow Rate:** 70,000 Litres/hour

## Appendix



**Some experts believe the incorrect or prolonged use of almost any product could cause serious injury or death. For information that may reduce your risk of serious injury or death consult the points below and additionally, the information available at [www.datastreamserver.com/safety](http://www.datastreamserver.com/safety)**

- Consult all documentation, packaging and product labelling before use. Note that some products feature online documentation which should be printed and kept with the product.
- Check product for loose / broken / damaged / missing parts, wear or leaks (if applicable) before each use. Never use a product with loose / broken / damaged / missing parts, wear or leaks (if applicable).
- Products must be inspected and serviced (if applicable) by a qualified specialist every 6 months assuming average residential use by a person of average weight and strength, above average technical aptitude, on a property matching average metropolitan specification. Intended use outside these guidelines could indicate the product is not suitable for intended use or may require more regular inspection or servicing.
- Ensure all possible users of the product have completed an industry recognised training course before being given access to the product.

- The product has been supplied by a general merchandise retailer that may not be familiar with your specific application or your description of the application. Be sure to attain third party approval for your application from a qualified specialist before use regardless of prior assurances by the retailer or its representatives.
- This product is not intended for use where fail-safe operation is required. As with any product (take an automobile, aircraft, computer or ball point pen for example) there is always a small chance of a technical issue that needs to be repaired or may require replacement of the product or a part. If the possibility of such failure and the associated time it takes to rectify could in any situation inconvenience the user, business or employee or could financially affect the user, business or employee then the product is not suitable for your requirements. This product is not for use where incorrect operation or a failure of any kind, including but not limited to a condition requiring product return, replacement, service by a technician or replacement of parts could cause a financial loss, loss of employee time or an inconvenience requiring compensation.
- If this item has been purchased in error considering the points above simply contact the retailer directly for details of their returns policies if required.