

SELF PRIMING PUMPS INSTALLATION & OPERATING INSTRUCTIONS

These Instructions and the accompanying engine manufacturer's instructions must be delivered with the pump to the operator. This and the engine manufacturer's instructions should be carefully read prior to pump installation and operation.

NOTE:

- Your pump is fitted with a four stroke engine **WHICH REQUIRES LUBRICATING OIL IN THE SUMP**. (Prior to operation, please read the engine manufacturer's instructions)
- Petrol engines require **UNLEADED** petrol in the fuel tank.
- Diesel Engines require diesel fuel in the fuel tank.
- Read ALL instructions to avoid equipment failure which may not be covered by warranty or guarantee.
- Fill engine sump with oil and the pump with water before starting.
- Many diesel engines do not have low oil protection. Regularly check oil levels and maintain oil level to the minimum level (check at least daily).

Engine: Fill sump with oil to correct level before starting the four stroke engine. Operation of the engine driven pump at high altitudes, high temperatures and/or high humidity will reduce engine performance.

IMPORTANT NOTICE FOR HONDA PETROL MOTORS:

Honda petrol powered engines fitted to self priming pumps have an automatic oil level cut-out which will stop the engine and/or prevent starting when oil level is low and/or when engine is tilted.

IN EMERGENCY CIRCUMSTANCES ONLY: Oil level cut-out may be disabled by disconnecting yellow lead to starting switch at 'bullet' junction.

NOTE: WARRANTY FROM THE ENGINE MANUFACTURERS MAY BE JEOPARDISED BY SUCH ACTIONS AND SHOULD THE ENGINE RUN WITHOUT LUBRICATING OIL IT WILL SUBSTANTIALLY SHORTEN ENGINE LIFE AND MAY CAUSE PERMANENT ENGINE FAILURE WITHIN A VERY, VERY SHORT TIME PERIOD.

READ ALL INSTRUCTIONS BEFORE OPERATING PUMP

WARNING: Engine manufacturer's instructions must be followed to ensure safe operation of this product and to avoid possible engine damage or reduced engine life. Engines of all type are dangerous and should not be used by children or infirm persons and must not be used as a toy by children.

PUMP LOCATION:

For most efficient operation, site the pump as close to the water as practical. It is essential for the correct function of the engine that it be located on a horizontal surface. If allowed to run at an inclination, the oil lubrication system of the engine may not operate correctly. Subsequent engine failure would not be covered by the manufacturer's warranty.

The pump should be positioned in a well drained location to avoid possible property damage by leaking hose fittings, pump seals and/or spilled engine fuel etc.

If you intend to operate your pump on a hard surface, we suggest a suitable resilient mounting to be fitted to your pump and engine.

SUCTION PIPE:

A reinforced or non-collapsible hose should be used for the pump suction. The minimum suction pipe size should be 38mm (1 1/2") I.D. The internal diameter of the hose should be equal to or greater than the internal diameter of the pump inlet. A strainer should always be fitted to the bottom of the suction pipe. The strainer should be kept out of sand, mud etc., to avoid particles being drawn into the pump and causing damage by abrasion.

Always locate the pump so that the rise of suction pipe from water to pump is even with no humps or hollows where air may be trapped.

All pipe connections must be air tight for best priming and operation – check that washers in nuts and tails are in good order. Any air leakage may result in an inability for the pump to self prime.

DELIVERY PIPE:

Care should be taken on correct selection of pipe pressure rating some pumps are capable of delivering pressures of more than 750 kPA (100psi).

PUMP PRIMING:

To prime the pump initially, it is necessary to fill the pump body with water before starting the engine.

This is done by removing the plug at the top of the pump. Unscrew the plug by turning anti-clockwise. Fill the pump body with clean water and replace the plug. Screw down tightly, to seal the "O" Ring keep the plug and its surrounding free from sand and grit. Occasionally apply a suitable silicon based rubber grease (petroleum based greases are not acceptable) to the "O" Ring. The pump drain plug is identical in operation to the fill plug. It must be tightened to create a seal against the "O" Ring.

Follow the engine manufacturer's instructions to start engine, open discharge then allow the pump to run until it is drawing water.

The pump will establish prime better at higher engine speeds. Allow up to 3 minutes for long or deep suction.

If the pump fails to prime, then it may be due to the pump flap valve not seating properly, an air leak in the suction pipe or fittings, a blocked suction pipe, or the bottom end of the pipe embedded in mud.

NOTE: When transporting your Self Priming Pump, water from the casing may leak back past the priming flap. Before attempting to self prime the pump you may need to check that the pump casing is full of water. We suggest that you always refill the pump (as previously described).

PUMP OPERATION:

High performance can be obtained from these pumps if the engine speed is increased, however, we do not recommend the pumps be operated over 3600rpm for extended periods, as this may overload the engine and reduce its working life. Operating the engine at full throttle for extended periods will shorten engine life and may result in premature failure. For operations such as irrigation or dam and tank filling, the throttle should be closed to slow the engine. (We recommend $\frac{2}{3}$ to $\frac{3}{4}$ throttle, this should correspond to 2800 to 3000 rpm)

AVOIDING PUMP DAMAGE:

Pumping water containing sand, dirt or other abrasive materials will result in accelerated pump wear and seal failure. Damage of this kind is not covered by warranty.

Pumping water containing chemicals or high concentrations of salt may damage pump components. If the pump is used for this kind of service, life will be extended by always washing thoroughly with clean water after use. However, we cannot accept responsibility for damage caused by chemicals, salt or corrosive fluids.

Pumping hydrocarbon based liquids, even in diluted form, is likely to cause damage to internal pump components and such failure is not covered by warranty.

STORAGE OF UNIT:

The pump unit should be drained of water and normal engine storage procedure should be followed.

- Turn the fuel off. Run unit until fuel is exhausted, drain and fill sump with fresh oil
- The unit should be stored in a dry place
- Before starting pump after storage it should be checked to make sure that it is free to rotate by pulling Engine Starter with ignition off

Note: Failure to remove the water can result in cracked pump bodies. The water freezes, expands and cracks the body. This is not covered by warranty.

REMOVAL OF IMPELLER:

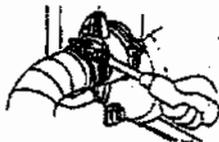
Pump impeller is screwed clockwise on to the engine shaft. To remove the impeller remove the engine recoil starter, lock the engine to prevent its rotation and unscrew the impeller anti-clockwise. The internal of the pump can now be checked and inspected.

PUMP INSTRUCTION

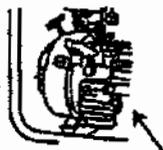
1. FILL UP WATER



2. MAKE SURE THE HOSE BAND TO
OUTLET TIGHTLY



3. POUR OIL INTO ENGINE



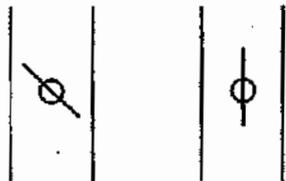
4. POUR GASOLINE INTO FUEL TANK



6. TURN ENGINE SWITCH ON



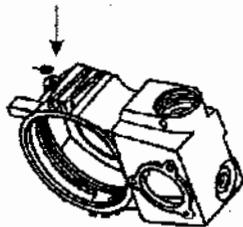
6. ADJUST VALVE FIRST BEFORE RECOILING



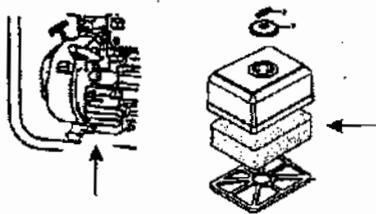
Before recoiling

After recoiling

7. DISCHARGE OUT ALL OF WATER
WHEN THE TASK IS DONE



8. CHANGE ENGINE OIL AND AIR CLEANER
PER 50 HOURS



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