

# HP FUEL PUMP LITRESTROKE™ / QUART INSTRUCTION MANUAL



## Introduction

Thank you for purchasing a Macnaught HP Manually Operated Fuel Pump.

Please read and retain this instruction sheet to assist you in the operation and maintenance of this product. Take particular note of all warnings and safety messages.

## DESCRIPTION

Your Macnaught HP Fuel Pump is a piston type pump designed to dispense petrol, diesel and light petroleum based oils.

Features of your pump include a long life, anti-static rubber hose, leaded / unleaded petrol nozzle, covered nozzle holder, lockable handle and an easy, 1 litre per stroke 'rowing' pump action.

An optional Model HA Fuel Filter kit is available from your Macnaught dealer. This kit contains the filter assembly and fittings required to connect the filter to your pump. The filter features a 10 micron, fast flow filter element to ensure only clean fuel reaches your valuable machinery.

## IMPORTANT

**This pump is designed for use with petroleum fuels only, such as unleaded / leaded petrol, diesel, kerosene and light mineral oils up to SAE30. Do not use this pump for dispensing fluids other than those for which it was designed. To do so may damage pump seals and / or other components and will void the warranty.**

Mild Steel components which are liable to rust / corrode are used in the construction of this pump. Macnaught does not recommend this pump for aircraft refuelling. Contact local aviation authorities for aircraft refuelling procedures.

## ASSEMBLY

The carton contains the Pump Assembly, Two Piece Suction Tube, Hose Assembly and a Plastic Bag containing a Hose Clamp and this Instruction Sheet.

- 1) Apply thread sealant tape to the male threads on the Upper and Lower Suction Tubes.
- 2) Screw Upper and Lower suction tubes firmly together.
- 3) Screw the Suction Tube into the pump assembly. Use a pipe wrench to ensure a good fit.
- 4) Screw the Lock Nut up to the top of the thread and screw the pump into the drum / tank bung 4 or 5 turns. Tighten the lock nut firmly onto the bung.
- 5) Slide the Hose Clamp onto the Hose Assembly. Fit the Hose Assembly to the Pump and tighten the hose clamp.



## WARNING

Handling flammable liquids is hazardous. There is the potential for an explosion and / or fire. Your personal safety, and the safety of others is at risk. It is the user's responsibility to know and follow all safety precautions when handling flammable liquid and to ensure all equipment operators have adequate instructions concerning safe procedures.

Follow all recommended safety precautions, including those listed on page 2 of this instruction sheet, when handling flammable liquids such as petrol.

## OPERATION

1) Place the nozzle into the fuel tank or receiving vessel. You will need to pull back the outer sleeve of the nozzle to fit the small, unleaded petrol, filler orifice. Occasionally, apply some light oil to the inner tube, to allow easy movement of the outer sliding tube.

2) If there is a kink in the hose, move one of the hose springs over the kink.

3) The pump primes on the 'push' (towards pump outlet) stroke and delivers on the 'pull' stroke. Take care to avoid fuel splashing or spillage.

4) When finished pumping, return the nozzle to the nozzle holder. Position the lug on the sliding outer nozzle tube so that it rests to the right of the vertical in the holder, that is, the hose must be twisted anti-clockwise to remove the nozzle. This will help prevent the hose from accidentally falling from the holder.

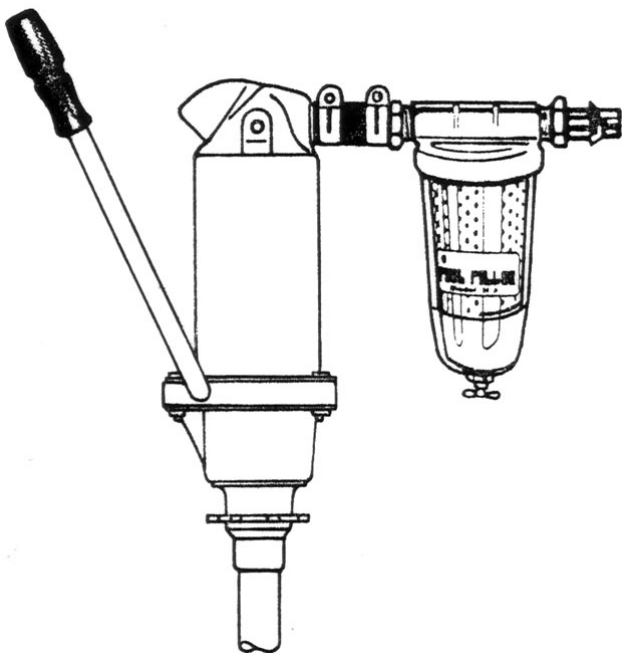
## IMPORTANT

**Under certain conditions this pump may syphon. Always replace the nozzle in the nozzle holder when finished pumping. Slide the outer nozzle tube forward and position the lug so that it rests to the right of vertical in the holder.**

5) Your HP fuel pump is fitted with a handle locking device. Position the handle vertically and place the locking bar over the locking lug welded to the pump. Fit a padlock with a 6mm diameter shackle (not supplied).

## OPTIONAL HA FUEL FILTER

The HA Fuel Filter is particularly recommended for diesel fuel users. The Filter Kit is complete with all the fittings to enable fast, simple installation. The Filter features a 10 micron filter element, a see-through bowl and drain-tap.



## WARNING

**Pumping petrol and other flammable liquids is hazardous.**

An explosion or fire can occur if there is a flammable vapour / air mixture and a source of ignition.

Follow all precautions listed below to reduce the risk of explosion or fire or injury.

\* Pumping should only occur in well ventilated areas. Never fill containers in confined areas e.g. inside a vehicle. Do not operate the pump in areas where vapours can accumulate.

\* Do not smoke while refuelling. Do not fill vehicle or equipment fuel tanks when the engine is running or hot. Keep fuel away from open flame or spark.

Precautions are necessary to minimise the build-up of a static charge, which could cause a spark.

\* Your Macnaught HP Fuel Pump is supplied with a hose designed to reduce the opportunity for static charge to accumulate. Always use a Macnaught branded anti-static hose when pumping petrol and other flammable liquids.

\* Fuel storage tanks and drums should be metal and grounded to earth. Ensure the floor or ground where the fuel is stored or dispensed is and remains conductive. Keep storage and dispensing areas clean because fuels, oils, resins, waxes or other materials may insulate storage tanks / drums, and / or pump operator, and / or receiving vessel / equipment from earth.

\* Wear anti-static or conductive footwear and avoid wearing silk and / or synthetic clothing, unless treated with anti-static solution.

\* Avoid prolonged skin contact with petroleum fuels. Use of protective goggles, gloves and aprons is recommended in case of accidental splashing or spillage. Change saturated clothing and wash skin contact areas promptly with soap and water.

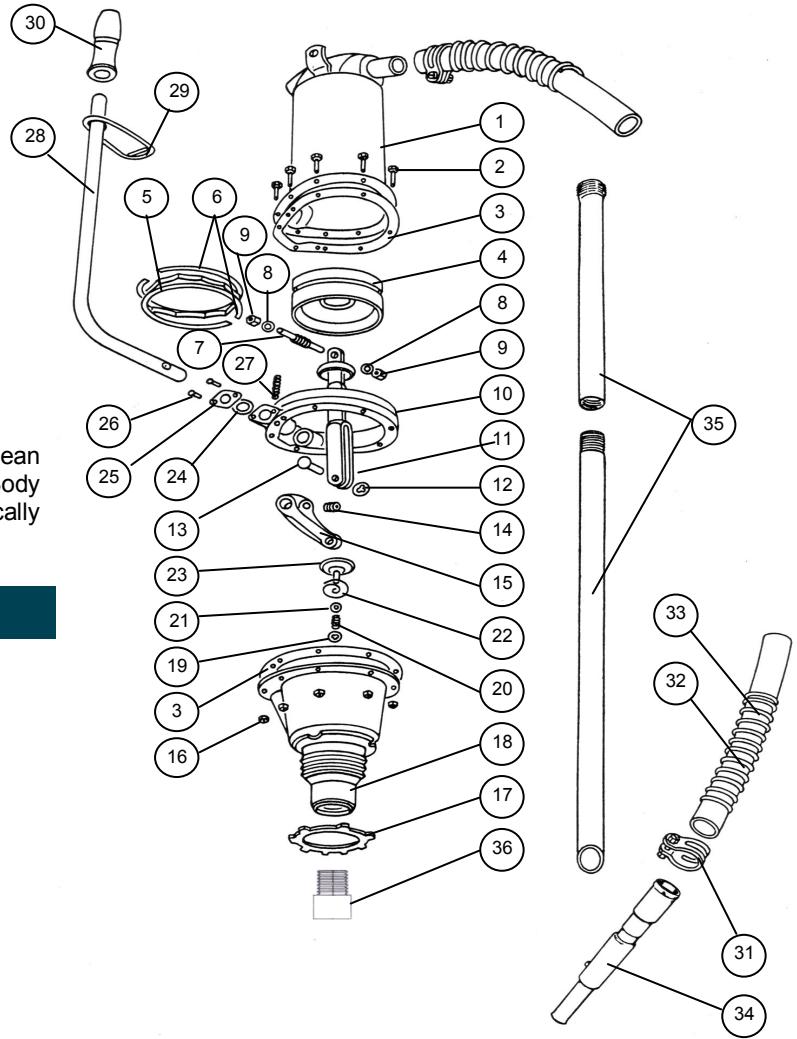
# PARTS DIAGRAM

## IMPORTANT

The Earthing Spring (27) must make good, clean contact with both the Cylinder (1) and the Lower Body Assembly (18) to ensure the continuity of an electrically conductive path through the pump.

## PARTS LIST

ITEM	DESCRIPTION	OVERHAUL KIT	SPARE PART KIT
1	CYLINDER ASSY		HM14S
2	CYLINDER BOLT		
3	GASKET	HO-1K	HM1S
4	PISTON		HM1S
5	EXPANDER RING	HO-1K	HM1S
6	PISTON RING	HO-1K	HM1S
7	CROSS BAR		HM6S
8	WASHER		HM6S
9	NUT		HM6S
10	BEARING		HM50S
11	CON ROD		HM8S
12	RATCHET PLATE	HO-1K	HM8S
13	CON ROD PIN	HO-1K	HM8S
14	CLEVIS SCREW	HO-1K	HM8S
15	CLEVIS	HO-1K	HM8S
16	NUT		N15S
17	LOCK NUT		HM49S
18	LOWER BODY ASSY		HP25S
19	RATCHET PLATE	HO-1K	
20	VALVE SPRING	HO-1K	
21	WASHER	HO-1K	
22	RETAINER	HO-1K	
23	INLET VALVE	HO-1K	
24	O-RING	HO-1K	
25	RETAINER PLATE	HO-1K	
26	SELF TAP SCREW	HO-1K	
27	EARTHING SPRING	HO-1K	
28	PUMP HANDLE		HM25S
29	LOCKING BAR		HM25S
30	HANDLE KNOB		HM25S
31	HOSE CLAMP		HM70S
32	HOSE SPRING		HM70S
33	ANTI STATIC HOSE		HM70S
34	NOZZLE		HM70S
35	SUCTION TUBE SET		ST002AS
36	ADAPTOR		ST002AS





## CAUTION

If carrying out maintenance on this pump, for your own protection, thoroughly drain the pump and hose before disassembly. Clean all components as they are removed from the pump. Follow all precautions when handling flammable liquids. (see page 2)

### Troubleshooting Guide

TROUBLE	CAUSE	REMEDY
Fuel leaks at the retainer plate (25) when pumping.	O'ring seal (24) worn or damaged.	Replace o'ring (24):
		1) Remove the handle knob (30) and the locking bar (29).
		2) Remove the 2 screws (26) and the retainer plate (25).
		3) Remove the old o'ring.
		4) Apply oil to the new o'ring and slide it over the handle (28) and into the groove.
		5) Reassemble.
		<b>Note: Push the plug out of the top of the handle knob (30), hammer the knob onto the handle then replace the plug.</b>
Handle (28) is loose and unit will not pump.	Clevis (15) is broken or the Connecting Rod Pin (13) is dislodged.	Replace the clevis (15) or connecting rod pin(13):
		1) Remove the 8 x nuts (16) and bolts (2).
		2) Separate lower body (18), handle / bearing sandwich assembly and cylinder (1).
		3) Use a hammer and pin punch to remove the connecting rod pin (13).
		4) Remove the clevis screw (14) and clevis.
		5) Withdraw the handle (28) from the bearing sandwich (10) sufficiently to allow fitting of the new clevis (15). Clevis screw (14) must bite into the hole in the handle (28).
		6) Use a socket and hammer to fit the ratchet plate (19) to the connecting rod pin (13).



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For a list of Australian Service Centres see [macnaught.com.au](http://macnaught.com.au)**