

# GT RAPIDFLO™ FUEL PUMP

## INSTRUCTION MANUAL



### INTRODUCTION

Thank you for purchasing a Macnaught Model GT RAPIDFLO™ Fuel Pump.

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

### DESCRIPTION

Your Macnaught GT RAPIDFLO Fuel Pump is an impellor type pump incorporating a gearbox for high output and easy operation. Materials used in the construction of this pump include Aluminium, Carbon Steel, Nitrile rubber and Viton rubber.

The features of your pump include long life, anti-static rubber hose with support springs, weather protected nozzle holder, nozzle and lockable handle. The locking device in the handle accepts 6mm diameter shackle padlock (not supplied).

An optional Model VA 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. It features a 10-micron fast flow filter element to ensure only clean fuel reaches your valuable machinery. (Not suitable for AV gas).

### IMPORTANT

This pump is designed for use only with petroleum fuels, such as leaded/unleaded petrol, diesel, kerosene & light mineral oils to SAE 30. 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.

When using this pump in reverse care must be taken to prevent contaminants entering pump.

For pumping AV gas contact local aviation authorities for the correct aircraft refuel procedures.

### ASSEMBLY

The carton contains the Pump Assembly, Suction tube, Bung Adaptor, hose Assembly & a plastic bag containing a Hose clamp & Crank Handle along with this instruction.

- A) Fit the Crank Handle to the pump drive Shaft and tighten grub screw.
- B) Apply thread sealant tape to both male threads of Suction Tube. Screw the tubes together firmly.
- C) Screw Suction Tube into Pump assembly. Use a pipe wrench to ensure a good tight fit.
- D) Position pump in drum or tank. Loosen Bung Adaptor into drum. Tighten Thumb Screw firmly.
- E) Ensure adaptor is fitted to outlet with thread sealant
- F) Slide Hose Clamp onto hose Assembly. Fit Hose Assembly to adaptor & tighten 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 are at risk. It is your responsibility to know and follow all safety precautions when handling flammable liquids & ensure all equipment operators have adequate

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

## OPERATION

A) Place Nozzle into tank or approved receiving vessel. Rotate handle in a clockwise direction to prime the pump & maintain a continuous flow of fuel. Take care to avoid fuel splashing or spillage.

B) Occasionally, rapid rotation of handle for a few revolutions may be required to prime the pump. Slow down once the pump is primed.



## IMPORTANT

This pump is fitted with a 180-micron mesh strainer on the suction tube side of the pump to prevent foreign matter damaging the pump. If pumping in reverse, fit a strainer (stocking or similar) to the Hose Nozzle.

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

D) When finished pumping, return the nozzle to the nozzle holder & move Crank handle vertically down. **Under certain conditions this pump may syphon.** Hose outlet must be above fluid level in drum or tank to prevent syphoning.

E) To lock pump, push the lock bracket (located inside handle, see Fig 2) over the lug on underside of pump body and fit padlock (not supplied).

F) The strainer fitted to this pump may require cleaning. Loosen the two screws securing the Strainer Retainer Plate. Swing the Retainer Plate down then remove Strainer.



## WARNING

Pumping should only occur in well ventilated areas. Never fill containers in confined areas, e.g. inside a vehicle. Do not operate 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 which could ignite the liquid.

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

Your Macnaught GT RAPIDFLO is supplied with an anti-static hose to reduce the opportunity for static charge to accumulate. Always use Macnaught anti-static hose when pumping petrol & other flammable

Fuel storage tanks & drums should be metal and grounded to earth. Ensure the floor or ground where fuel is stored or dispensed is & remains electrical conductive. Keep storage and dispensing areas clean because fuels, oils, resins, waxes or other materials may insulate storage tank/drum, 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 & wash skin contact areas promptly with soap and water.

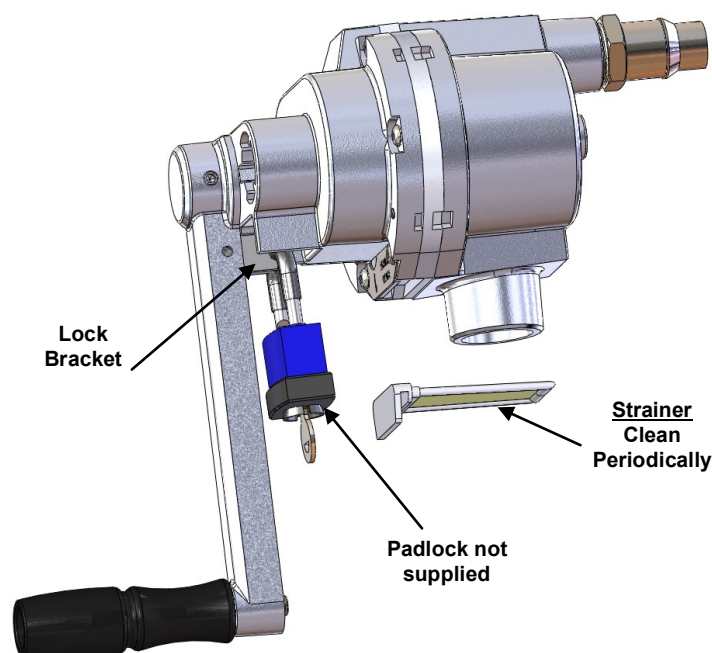
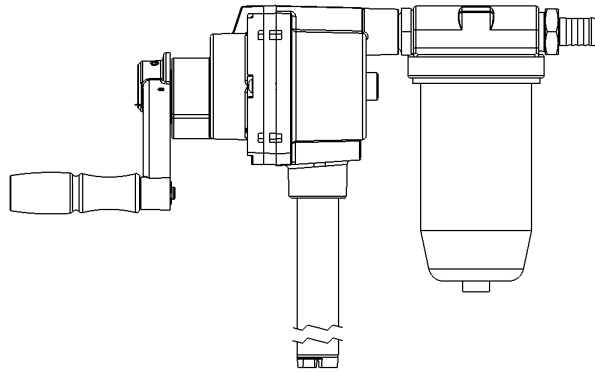


Fig 2

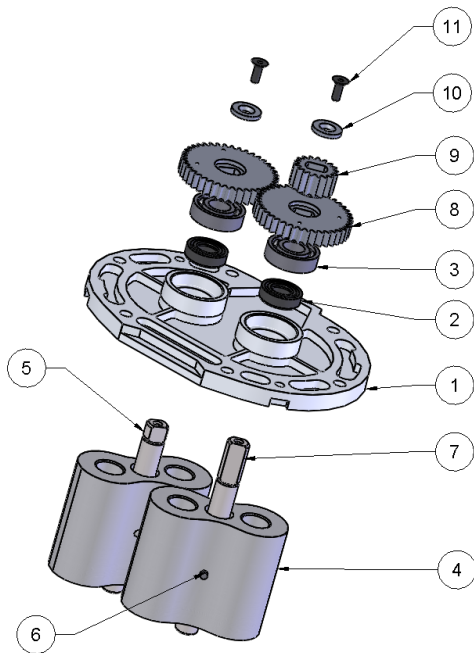
## OPTIONAL VA FUEL FILTER

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



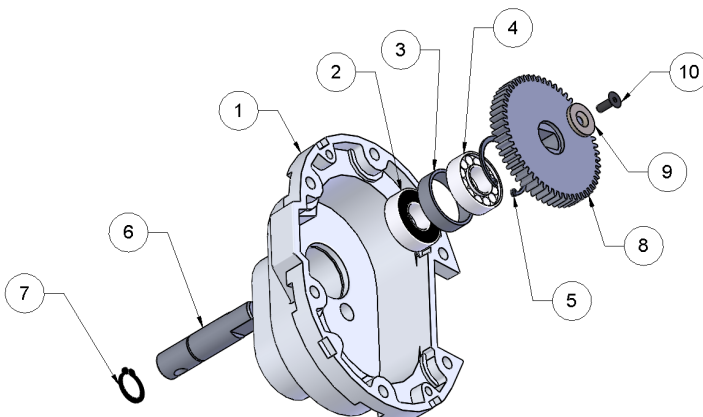
## PARTS DIAGRAMS & PARTS LISTS

### Bearing Housing & Impellers



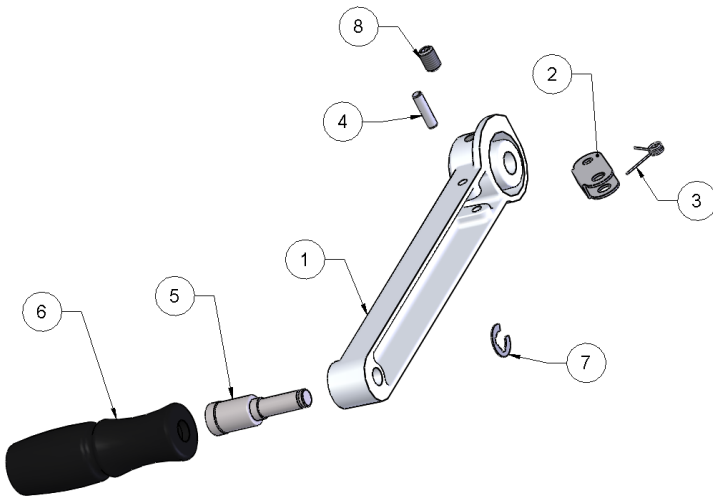
ITEM	DESCRIPTION	QTY.	SPARE PART
1	Gear Base	1	GM2S
2	SEAL	2	GM-1K
3	BALL BEARING	2	
4	IMPELLER	2	GM20S
5	Follower Shaft	1	
6	4 x 20 mm Groove Pin	2	
7	Primary Shaft	1	GM23S
8	GEAR	2	
9	GEAR	1	
10	WASHER	2	
11	SCREW M4 CSK PHILIP HEAD	2	

### Pump Cover



ITEM	DESCRIPTION	QTY.	SPARE PART
1	PUMP COVER	1	GM3S
2	BEARING	1	N615S
3	SPACER	1	
4	BEARING	1	
5	CIRCLIP	1	GM12S
6	LEVER SHAFT	1	
7	CIRCLIP	1	
8	IMPELLER GEAR	1	
9	RETAINER WASHER	1	
10	SCREW M4 CSK PHILIP HEAD	1	

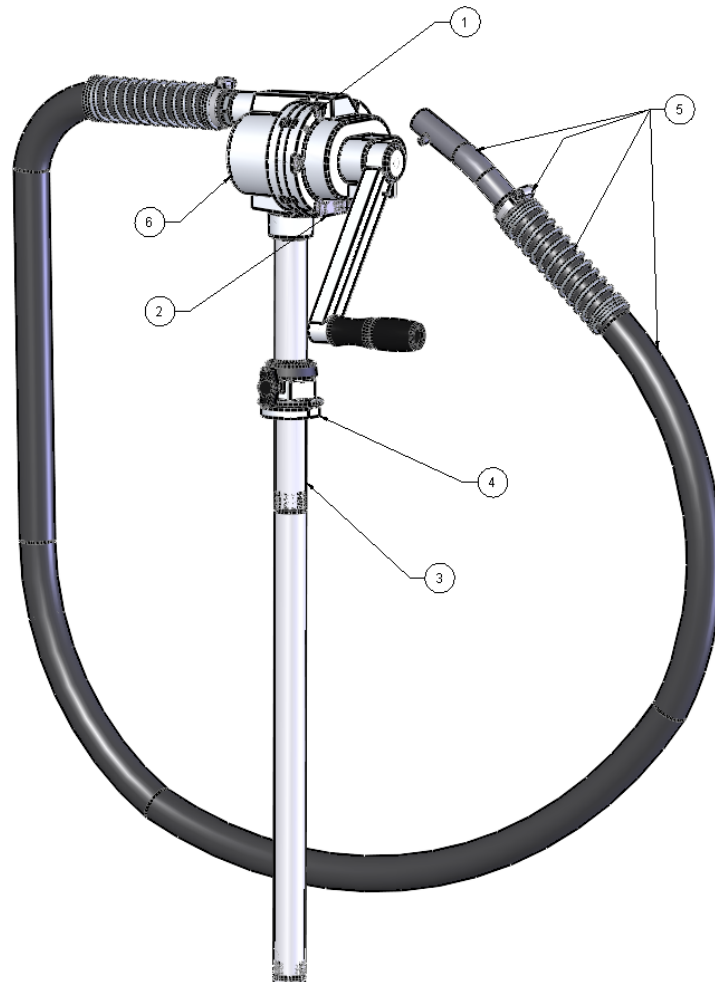
## HANDLE ASSY GM4S



ORDER GM4S FOR PUMP HANDLE ASSEMBLY

### Other Spare Parts

ITEM	Description	QTY	Spare Part
1	Cover screws	6	N95S
2	Filter and retaining plate	1	GM5S also in kit GM-1K
3	Suction Tube assy	1	ST005AS
4	Bung Adaptor	1	GR34S
5	Hose and Nozzle assy	1	GM70S
6	Pump Body	1	GP-1K





## CAUTION

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

## TROUBLE SHOOTING GUIDE

TROUBLE	CAUSE	REMEDY
Pump feels hard to turn, or is hard to prime.	Blocked strainer	Clean strainer - see page 2
		a) Loosen the 2 socket head screws holding stainer retainer plate in place
		b) Swing retainer plate away and remove strainer.
		c) Clean and re-fit strainer.
Pump is hard to prime.	Air leaking past suction tube threads.	Seal suction tube threads:
		a) Apply Teflon tape or similar thread sealant to both male threads on suction tube.
		b) Tighten lower tube to top tube and top tube to Pump body
Pump leaks at cover or drive shaft.	Worn or damaged seals	Replace seals
		a) Remove 6 screws
		b) Use a pin punch to remove 2 parallel pins
		c) Remove cover assy.
		d) Gently tap bearing housing to break seal to body and remove bearing housing assy.
		e) Remove screws gears and impellers
		f) Push out old bearings and seals
		g) Reassemble using new bearings and seals.
		<b>IMPORTANT</b>
		<b>Apply a very thin film of a Gasket compound such as "Form-a-Gasket", between gear base &amp; pump cover. Too much will jam impellers. Align the timing marks on the Gears when assembling to shafts.</b>
<b>Apply a very thin film of a Gasket compound such as "Form-A-Gasket" or similar between gear base &amp; pump cover</b>		
Handle will not turn.	Foreign matter jamming impellers	Disassemble pump as in "Replace Seals" above. Clean thoroughly. Smooth off any high spots with fine emery paper. Reassemble as above.

## **SPECIFICATIONS**

<b>Flow Rate:</b>	<b>Up to 100 l/min</b>
<b>Output per Revolution:</b>	<b>0.8 l/rev approx.</b>
<b>Maximum Viscosity:</b>	<b>SAE 30 at 20°C</b>
<b>Maximum Suction Head:</b>	<b>2m (7')</b>
<b>Maximum Discharge:</b>	<b>4m (14')</b>
<b>Mass:</b>	<b>6.5kg approx</b>



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