

ROTARY BOOSTER FUEL PUMP

INSTRUCTION MANUAL

INTRODUCTION

Thank you for purchasing a Macnaught Rotary Booster fuel pump.

The Macnaught Rotary Booster fuel pump, complete with hose and dispensing nozzle, is designed to reliably dispense fuels and light lubricating oils

Macnaught also manufacture a complete range of retractable hose reels, oil dispensing nozzles, fuel pumps, positive displacement flowmeters, greasing equipment and a complete range of accessories.

GENERAL INFORMATION

This manual assists you in operating and maintaining your new rotary oil pump. The information contained will help you ensure many years of dependable trouble free operation.

Please take a few moments to read through this manual before installing and operating your new rotary fuel pump. If you require further assistance please contact your local Macnaught distributor.

Please read and retain this instruction manual to assist you in the operation and maintenance of this quality product.

ROTARY BOOSTER PUMP FEATURES:

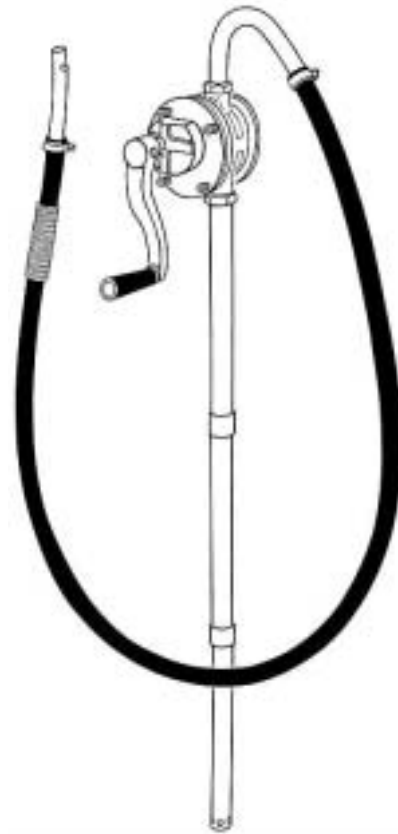
- * Precision, fully machined pressure die cast body for leak free operation.
- * 3:1 ratio gearbox.
- * Three piece suction tube.
- * Light weight but strong.
- * Approximately 75 litres/minute pumping diesel.
- * Sliding 2" BSP bung adaptor.
- * Rotary action, pumps both ways.
- * Complete with 1.8m (6ft) hose, and nozzle assembly.

Optional VA Fuel Filter kit available (order VA-01), recommended for diesel fuel and petrol.

DESCRIPTION

The Rotary Booster pump is designed to pump diesel fuel, petrol, and light viscosity mineral based engine and gear oils, from 60 litre to 205 litre drums or tanks up 900mm deep.

NOTE: Chemicals, solvents, or water will cause premature failure of seals, o'rings or other components.



SAFETY INFORMATION

The following information is important for your safety when pumping flammable liquids.

Precautions are necessary to minimise the build up of static electricity which could cause a spark and therefore an explosion.

The storage drum or tank should be metal and should be grounded to earth.

Procedures for using the pump with a hose and nozzle.

1. Disconnect the hose from the pump and nozzle. Cut a length of heavy duty multi-strand copper electrical wire to the length of the hose plus 100mm. Run the copper wire up inside the hose.
2. Reconnect the nozzle to the hose ensuring the wire is in firm contact with clean metal on the nozzle in the area under the hose clamp.

- 3) Scrape the paint from a section of the pump outlet tube. Reconnect the hose to the pump ensuring the wire makes firm contact with the exposed metal in the area under the hose clamp.

Apply suitable thread sealant to all the male threads on the suction tube.

Do not use teflon tape if using flammable liquids.

ASSEMBLY

The carton contains the pump assembly, three piece suction tube with bung adaptor, hose and nozzle assembly, hose clamp, crank handle and this instruction sheet.

- 1) Fit the crank handle (1) to the pump drive shaft (8) and tighten the screw (2).
- 2) Apply thread sealant to the male threads on the 3 tubes (19, 21, 22). Assemble and tighten the tubes firmly together using the 2 tube adaptor sleeves (20).
- 3) Slide the bung adaptor assembly (23, 24, 25) over the top of the upper suction tube.
- 4) Screw the remaining end of the upper suction tube (22) into the pump assembly. Use a pipe wrench to ensure a good tight fit.
- 5) Fit the hose assembly (27, 28, 29, 30) to the pump and tighten the hose clamp (27).

PUMP DISASSEMBLY

- 1) Remove the crank handle (1) from the drive shaft (8).
- 2) Remove the 5 screws (13), holding the coverplate / gearbox assembly (5-12) to the pump body (18).
- 3) Remove the coverplate / gearbox assembly (5-12) from the pump body (18).
- 4) Remove the 4 gearbox screws (11) and separate the gearbox assembly (3-10) from the coverplate (12).
- 5) Remove the pinion gear (10) from the gearbox.
- 6) Remove the drive shaft and impellor gear assembly (5-8) from the gearbox.
- 7) Remove the rotor and vanes assembly (14-17) from the pump body (18).

Check all parts for wear or damage and replace if necessary.

PUMP REASSEMBLY

- 1) Assemble the 2 x vanes (15), pin (16) and spring (17) into the rotor. Holding the 2 x vanes (15) in place, insert the rotor and vane assembly (14, 15, 16, 17) into the pump body (18).
- 2) Insert the drive shaft and impellor gear assembly (5-8) into the gearbox housing (3).
- 3) Insert the pinion gear (10) onto the pinion gear shaft in the gearbox housing (3).

Note: Ensure the impellor gear and pinion gears are spinning freely before assembling the gearbox assembly to the coverplate.

- 4) Use fuel and oil resistant sealant to the face on the gearbox (3) which comes into contact with the coverplate (12).
- 5) Carefully align the gearbox assembly (3-10) to the coverplate (12) and tighten the 4 gearbox screws (11).

Note: Rotate the drive shaft to check that the rears inside the gearbox assembly are running freely.

- 6) Use fuel and oil resistant sealant to the face of the pump body (18).

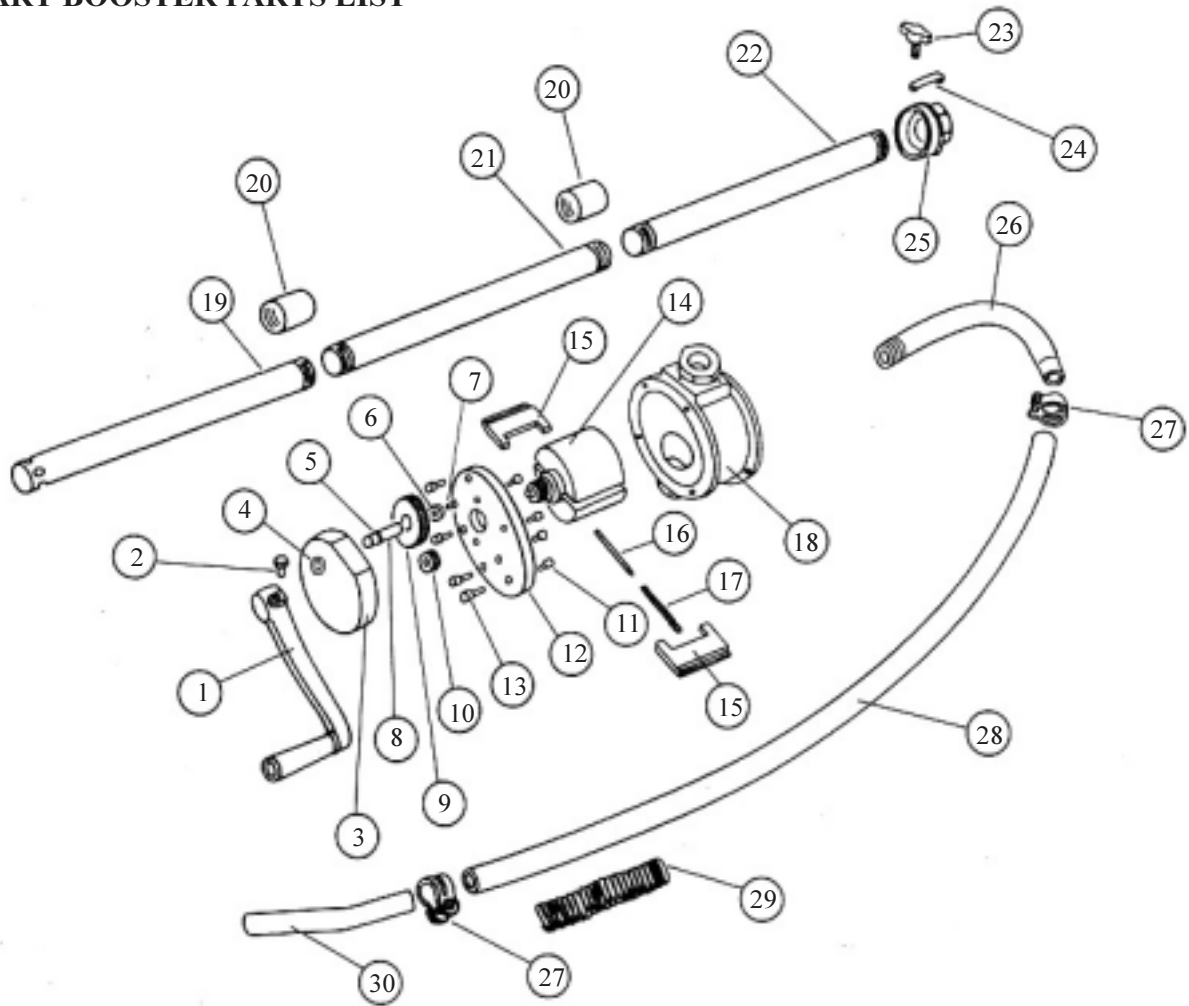
NOTE:

When re-fitting the coverplate and gearbox assembly to the pump body correct alignment is essential.

COVERPLATE ALIGNMENT

- 1) Place the gearbox and coverplate assembly over the rotor and pump body assembly.
- 2) Rotate the coverplate assembly until it is aligned with the pump body.
- 3) Replace the cover plate screws and hand tighten.
- 4) Fit the handle to the drive shaft.
- 5) Turn the handle to ensure the pump rotates freely. If the handle does not turn freely, adjust the position of the coverplate slightly until the handle does rotate freely.
- 6) Tighten the coverplate screws.
- 7) Check handle rotation.

ROTARY BOOSTER PARTS LIST



ORDER FOR REPLACEMENT					
ITEM	PART No.	No. off	PART or SET	KIT. REF	DESCRIPTION
1	VR69	1	VR69s		HANDLE and CRANK
2	N22	1			SCREW
3	VR50	1	VR55s	VR50s	GEARBOX HOUSING
4	VR53	1			BUSH
5	BS011	1			O'RING SEAL
6	GM14	1			WASHER
7	N94	1			SCREW
8	VR55	1			DRIVE SHAFT
9	GM8	1			IMPELLOR GEAR
10	VR72	1			PINION GEAR
11	MS312	4			SCREW
12	VR51	1			COVER PLATE
13	N28	5			SCREW
14	VR58	1			ROTOR
15	VR39	2			VR58s incl
16	VR9	1			PIN
17	VR59	1			SPRING
18	VR70	1	VR70s incl VR68		PUMP BODY
19	VR63	1			LOWER SUCTION TUBE
20	VR64	2	VR62s		ADAPTOR SLEEVE
21	VR62	1		MIDDLE SUCTION TUBE	
22	VR61	1		UPPER SUCTION TUBE	
23	VR66	1	VR65s		CLAMP SCREW
24	VR67	1		CLAMP PLATE	
25	VR65	1			BUNG ADAPTOR
26	VR68	1	VR68s		OUTLET TUBE
27	N369	2	AA92s		HOSE CLAMP
28	AA92	1		HOSE	
29	AA95	1		HOSE SPRING	
30	AA91	1		OUTLET NOZZLE	

SPECIFICATIONS

FLOWRATE: Up to 75 Liters / Minute (Diesel)
WETTED PARTS: Aluminium, Mild Steel, Bronze, Cast Iron, Nitrile Rubber, BMC plastic.
FLUID COMPATIBILITY: Diesel, Petrol and Light Viscosity Mineral Oils

WARRANTY POLICY

Macnaught Limited ("Macnaught") warrants that Products purchased after 1st of July 1999 will be free from any defects caused by faulty materials or workmanship for a period of (5) years from the date of purchase of the product.

For componentry contained in the product which are subject to wear, the warranty period will be (12) months from the date of purchase of the product.

Provided that during the Warranty period:

- 1) Macnaught receives notice setting out full details of any defect in any product and details of the time and place of purchase.
- 2) The Purchaser, at their own cost returns the product to the nearest authorized Macnaught service center.

Macnaught shall, at its option repair or replace any product found defective by its inspection.

This warranty does not cover failure of parts or components due to normal wear or damage, which in the judgment of Macnaught, arises from misuse, abrasion corrosion, negligence, accident, substitution of non-Macnaught parts, faulty installation or tampering.

If Macnaught inspection discloses no defect in material or workmanship, repair or replacement and return will be made at customary charges.

Macnaught's liability and the purchaser's rights under this Warranty shall be limited to such repair or replacement and in particular, shall not extend to any direct, special, indirect or consequential damage or losses of any nature.

The foregoing warranty supersedes, voids and is in lieu of all or any other warranties. Note:

This warranty does not form part of, nor does it constitute, a contract between Macnaught and the purchaser. It is additional to any warranty given by the seller of the products and does not exclude, limit, restrict or modify the rights and remedies conferred upon the purchaser, or the liabilities imposed on the seller, by any statute



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