



P58 (58:1) GREASE PUMP

Owners Manual



INTRODUCTION

Thank you for purchasing the Macnaught P58 (58:1) air operated grease pump.

Macnaught has designed and manufactured this pump to the highest quality standards using premium quality materials and workmanship.

The P58 grease pump has been designed for the transfer of grease over varying distances, through Macnaught retractable hose reels and Macnaught B2 Booser guns.

The P58 grease pump is suitable for use with greases up to and including NLGI No2 Viscosity.

There is an optional drum cover and follower plate kit available if required, which will fit the P58 to a steel 180kg (400lb) grease drum.

The follower plate features a rubber edge for effective drum wall wipe down, reducing waste and air pockets, plus a suction relief valve and long handle for easy removal from the bottom of empty grease drums.

PLEASE READ THIS SAFETY INFORMATION CAREFULLY BEFORE USE.

Read and retain this instruction manual to assist you in the operation of your new product.



- **Make sure all operators have adequate access to the following instructions.**



SAFETY INSTRUCTIONS

- * Macnaught recommends the use of PPE equipment such as safety glasses, protective gloves, safety shoes etc before handling or using this product.
- * Continual use of this product can potentially cause RSI injury (especially hand or arm injury)
- * Do not modify or alter this product any way
- * Use oil and fuel resistant thread tape or sealant on all threaded connections
- * Never point the material outlet of the product at yourself or anyone else.
- * The outlet nozzle should always be placed on the nozzle holder or in a safe secure location after use to prevent accidental operation.
- * Only physically fit people should be authorised to use this product
- * Ensure that any fluid spillage is cleaned up immediately to prevent slipping or injury.
- * Only use this product in a safe environment, away from heat, fire or explosive atmospheres etc
- * Keep hands are clear of any potential pinch points
- * Ensure that the oil drum or container is always positioned on stable ground
- * Only use genuine Macnaught replacement parts when repairing this product
- * Heavy product - 2 people may be required for lifting product

Note: If the pump is connected to 690 kPa (100psi / 6.9 bar) air pressure this relates to a grease outlet pressure of 40,020kPa (5800psi / 400bar).

Do not exceed the maximum air inlet pressure of 1035kPa (150psi / 10.3bar). The pump requires a minimum air inlet pressure of 400kPa (60psi / 4bar).

DO NOT allow any part of the human body to come in front of, or in direct contact with the material outlet. Never point the nozzle of the control gun at yourself or anyone else.

Most accidents occur because of component rupture. Ensure that any and all components within the system will withstand the pressures being developed.

DO NOT exceed the pressure rating of any component installed in the system.

If accidental injection should occur, seek immediate emergency medical attention.

DO NOT hit the unit if it fails to operate.

Refer to the 'Trouble Shooting Guide' or return the unit to the nearest Authorised Macnaught service centre.

Use suitable thread sealant (eg. Teflon tape) on all screwed fittings, but do not over tighten (to avoid damage).

NOTE: Before attempting any repairs or maintenance of this product, disconnect the air supply and release grease line pressure by operating hand piece / gun trigger.

Should more than one hose reel (grease outlet) be fitted to the system, the installation of high pressure on/off valves are recommended to isolate each reel (outlet) to facilitate maintenance.

CAUTION

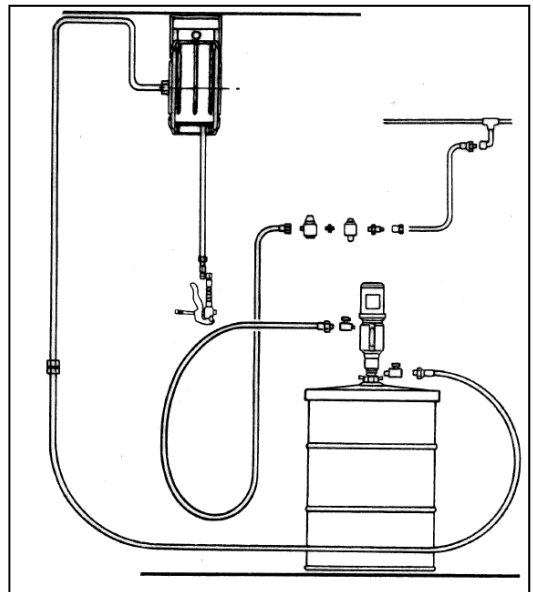
If pipework is required, it must be rated above the maximum working pressure of the pump. All the system components including hose reels, swivel joints and hand pieces must all be capable of with standing the high pressures generated by the pump.

The system is supplied complete with P58 pump, lid and follower plate. If you purchased the pump only you may also require the lid and follower kit

INSTALLATION

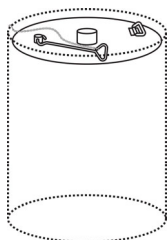
CAUTION

Make sure that all the components used in this grease system will withstand the high pressures being developed by the pump.

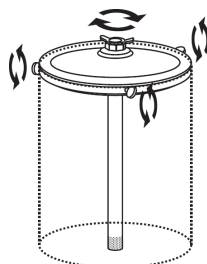


- 1) Before connecting the air supply, the user should add a 'stop' compressed air valve to the air inlet on the pump. The air valve must be 1/4 turn type (allowing quick closure) and should be easily recognised.
- 2) It is recommended that a micro fine (5 micron) air filter be fitted to ensure the maximum efficiency of the pump.
- 3) Use thread tape on all threads and tighten firmly,
- 4) The grease hose must be long enough to allow pump to be removed from drum without disconnecting it.
- 5) Before use remove the air inlet plug, grease inlet cap and grease outlet plug from the pump stem.
- 6) Position grease drum adjacent to air supply and grease line pipework.
- 7) Remove the lid from the grease drum

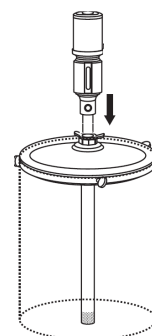
- 8
- 1) Insert follower plate squarely into drum
 - 2) Hook chain to top of drum



- 9
- 1) Fit lid to drum
 - 2) Tighten thumb screws to secure lid
 - 3) Fit bung adapter to centre of the lid



- 10
- 1) Carefully slide pump through the lid and follower plate.
 - 2) Tighten bung adapter star nut to secure pump



- 11) Slowly open the air valve to prime grease through the pump.
- 12) Turn off the air valve as soon as grease appears at the grease outlet on the pump.
- 13) Connect the high pressure grease hose to the pump outlet.

Note:

The pump will stall when the system is full of grease. You will need to purge air in the system at initial start up



CAUTION

Do not run pump dry.

Remember to switch off the air supply to the pump if the pump is not being used for extended periods (e.g. at the end of each day)

MAINTENANCE



CAUTION

Before carrying out any maintenance disconnect the air supply and release grease pressure in the system

Inspect grease pump and associated hoses weekly for any signs of damage. Replace any suspect or damaged parts or components as required

Service Air Motor

(Can be carried out without removing pump from installation if required)

DISASSEMBLY



CAUTION

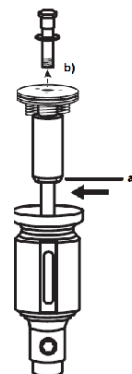
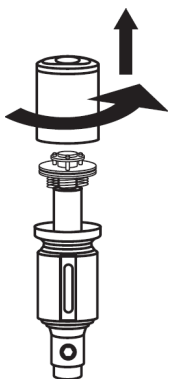
1) Disconnect the air supply and release grease line pressure before disassembly.

2) Remove air cylinder assembly by using a strap spanner

3) Pull air piston up to allow easy access

4) a) Unscrew and remove 3 x screws and washers.
b) Remove air valve cap

5) a) Place a rod through exhaust holes.
b) Hold rod and unscrew piston rod bolt.



Note: Ensure you do not damage piston rod during disassembly.

ASSEMBLY

1) Clean and inspect all parts. Replace any worn or damaged parts.

Note: Assembly is a reversal of the disassembly procedure.

Use Loctite 222 (or similar retaining compound) on piston rod bolt thread and air valve cap screws.

Service Lower Pump

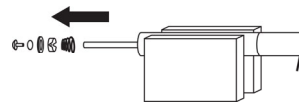
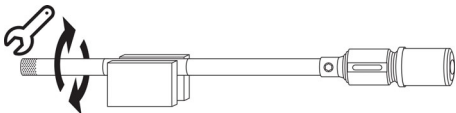
DISASSEMBLY



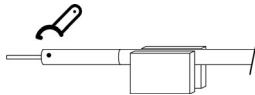
- 1) Disconnect air supply and release grease line pressure.
- 2) Remove grease hose from outlet.
- 3) Withdraw pump from the grease drum (use a clean bench to carry out maintenance)

Note: Always use soft vice jaws (grips) to prevent against any chance of damaging pump tubes.

- 4) a. Hold connecting tube in a vice.
b. Unscrew and remove the strainer tube
- 5) Using the flats provided, carefully unscrew and remove primer, washer, plate seal, primer valve and spring.

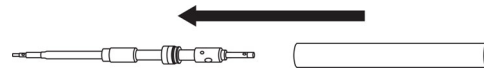
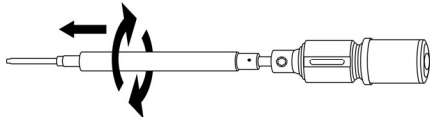


- 6) Hold suction tube in vice, use a 'C' spanner to unscrew connecting tube.
- 7) Remove connecting tube, check circlip inside connecting tube for damage, replace if required.



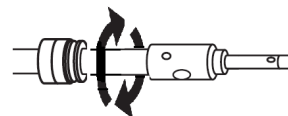
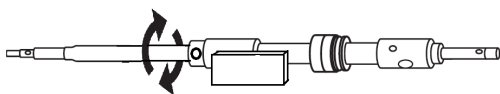
Note: Check for any burrs or damage on outside of connecting tube and repair with file or emery cloth.

- 8) a) Hold suction tube, place a suitable size rod into grease outlet and unscrew from pump body.
b) Pull suction tube down to expose piston rod/connecting rod connection.
- 9) a) Support piston rod, carefully remove spring pin
b) Unscrew and pull out rod assembly from bottom of the suction tube.

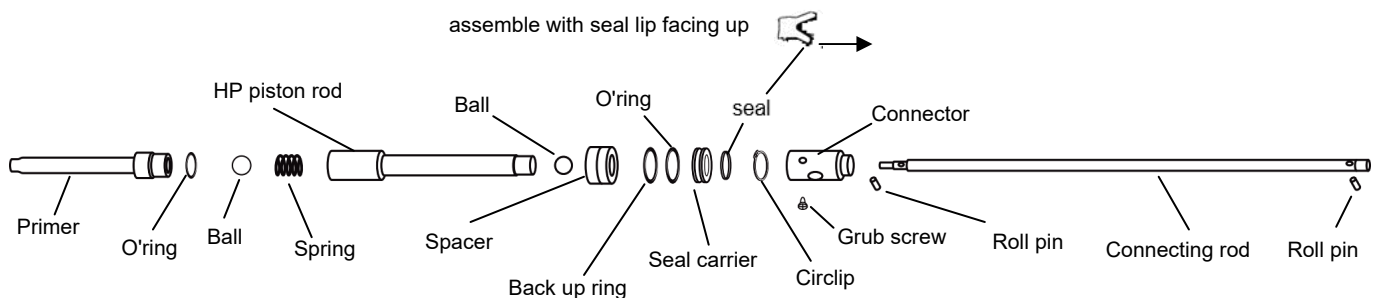


Note: Be carefull not to damage the thread on outlet fitting or rod assembly when unscrewing.

- 10) a) Hold high pressure piston rod,
b) Place a rod through cross hole in primer rod, unscrew and remove primer rod, ball and spring
- 11) Unscrew grub screw on connector and unscrew high pressure piston rod and remove ball.



- 12) Remove seal assembly and spacer from high pressure piston (**take note of correct seal orientation**)

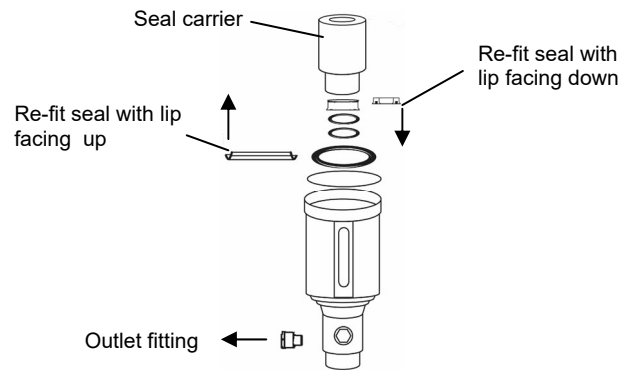


Note: For air motor disassembly refer to 'Service air motor' on page 4

13) Carefully remove piston rod from body.



14) a) Remove outlet fitting and seal carrier from housing.
b) Remove seals and o'rings from body and carrier.



14) Clean and inspect all parts. Replace any worn or damaged parts before re-assembly.

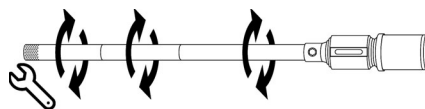
ASSEMBLY

Note: Assembly is a reversal of the disassembly procedure.

**Use Loctite 222 (or similar retaining compound) on piston rod bolt thread and air valve cap screws.
Use Loctite 577 (or similar retaining compound) when fitting outlet fitting to seal carrier.**

Note: Ensure correct orientation of all parts during assembly in particular the high pressure piston seal, seal and air seal. (Check parts diagram for correct orientation)

1) During final assembly, use a spanner on strainer tube flats to tighten suction tube, connecting tube and strainer tubes all at the same time.



2) Re-fit pump to the installation, fit the air regulator, oil lubricator and air fittings

3) Re-fit grease hose to the pump after priming the pump.

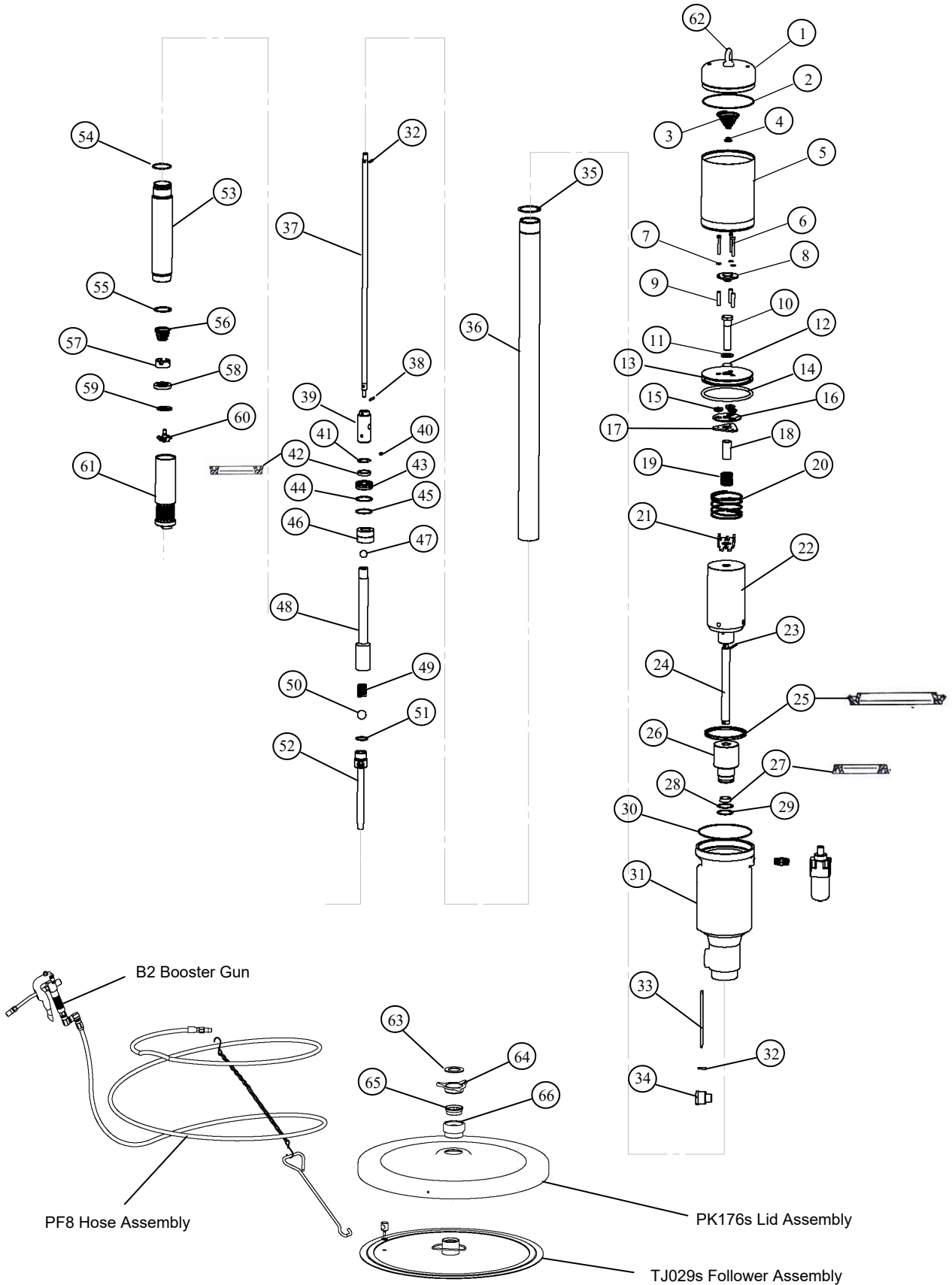
4) Test pump for correct operation.

TROUBLESHOOTING GUIDE

TRUBLE SHOOTING GUIDE

Problem	Cause	Remedy
Air motor runs but does not pump grease	a) The grease is too thick or too cold	a) Use NLGI no 2 or thinner grease. (Store grease in a warm place)
	b) The grease container is damaged causing the follower to stop (stick)	b) Repair or replace container. Follower must be able to move freely.
Air motor runs slower than normal	Air pressure is too low	Increase air pressure. Minimum air pressure is 4000kPa/60psi/4bar. Maximum air pressure is 1035kPa/150psi/10.3bar
Air motor cycles intermittently when not using pump	a) Grease leaking from connections at hose, pipe or grease gun	a) Check all connections. Use thread sealant and tighten leaking connections.
	b) High pressure seal is damaged	b) Replace high pressure seal
Air leaks continuously from the air exhaust	a) Air piston seal is damaged	a) Replace air piston seal

PARTS DIAGRAM



SPARE PARTS LIST

ORDER FOR REPLACEMENT					
Item	Part no	No off	Part or Set	Kit ref	Description
			P58-1K	A	AIR MOTOR OVERHAUL KIT
			P58-2K	B	LOWER PUMP SERVICE KIT
			P58-3K	C	SEAL KIT
1	TJ022	1	TG001s		AIR MOTOR CAP
2	BS045	1		A - C	O'RING
3	TE002	1	TE002s	C	BUFFER SPRING
4	TE003	1		C	BUFFER STOPPER
5	TG002	1	TG002s		HOUSING (AIR MOTOR)
6	N35	3		A - C	SCREW (AIR VALVE)
7	N117	3		A - C	WASHER
8	TE011	1	TE011s	A - C	AIR VALVE CAP
9	TG031	3		A - C	SPACER (AIR VALVE)
10	TG003	1		A	BOLT (PISTON ROD)
11	TG005	1		A - C	WASHER
12	BS016	1		A - C	O'RING
13	TG004	1		A	PISTON
14	BS343	1		A - C	O'RING
15	TG011	3		A - C	RUBBER BUSH
16	TG032	1		A - C	WASHER
17	TG030	1		A	SEAL FLATE
18	TG036	1		A	SPACER
19	TC38	1		A	SPRING (AIR VALVE)
20	TG007	1		A	SPRING (PISTON)
21	TJ008	1		A	RETAINER
22	TJ012	1	TJ012s (incl item 22)		PISTON ROD (LARGE)
23	N245	1		C	SEL LOK PIN (3 X 30)
24	TJ004	1	TJ004s (incl item 22)		PISTON ROD (SMALL)
25	TJ003	1		A - C	SEAL (AIR)
26	TJ010	1			SEAL CARRIER
27	TL005	1	TJ010s	B - C	SEAL
28	TJ038	1		B - C	BACK UP RING
29	BS024	1		B - C	O'RING
30	BS046	1		C	O'RING
31	TJ001	1	TJ001s (incl item 31,32)		BODY
32	N350	2		B - C	PIN (SPRING)
33	TE020	1	TE020s		SILENCER
34	TJ021	1	TJ021s		OUTLET FITTING
35	N254	1		B - C	CIRCLIP
36	TJ009	1	TJ009s (incl item 34)		SUCTION TUBE (180KG)
37	TJ016	1	TJ016s (incl item 37)		CONNECTING ROD (180KG)
38	N349	1		B - C	PIN (SPRING)
39	TJ002	1	TJ002s		CONNECTOR (PISTON ROD)
40	N579	1		B - C	GRUB SCREW
41	N422	1		B - C	CIRCLIP
42	TJ005	1	TJ005s	B - C	HIGH PRESSURE SEAL
43	TJ007	1		B	SEAL CARRIER
44	TJ037	1		B - C	BACK UP RING
45	BS025	1		B - C	O'RING
46	TJ019	1		B	SPACER HP
47	N412	1		B	BALL
48	TJ035	1	TJ035s		PISTON ROD (HIGH PRESSURE)
49	TJ020	1		B - C	SPRING
50	N416	1		B - C	STEEL BALL
51	BS019			B - C	O'RING
52	TJ034	1	TJ034s	B - C	PRIMER ROD
53	TJ018	1	TJ018s (incl item 50)		CONNECTING TUBE
54	BS028	1		B	O'RING
55	N1300-0143APP			B	CIRCLIP
56	TJ060	1		B	SPRING
57	TJ015	1		B	VALVE SEAT
58	TJ014	1	TJ014s	B	PLATE SEAL
59	TJ043	1		B	WASHER (PRIMER)
60	TJ042	1		B	PRIMER
61	TJ013	1	TJ013s		STRAINER TUBE (BOTTOM)
62	TJ044		TJ044s		EYE BOLT
63	TJ031	1		B - C	WEATHER SEAL
64	TE026	1	TJ023s		BUNG NUT (STAR)
65	TJ023	1			CLAMP RING
66	TE024	1			BUNG NUT (BOTTOM)

SPECIFICATIONS

P58 (58:1) SPECIFICATIONS

Pump Ratio	58:01:00
Maximum Air Pressure	1035kPa / 150psi / 10.3Bar
Munimum Air Pressure	400kPa / 60psi / 4Bar
Air consumption	23.5 scfm@ 120psi, 20 deg C
Output (At the pump)	6kg/min (free flow) @ 120psi, 20 deg C
Air Inlet Thread	1/4"NPT
Pump Outlet Thread	3/8"BSP (3/8"NPT USA)
Bung Adapter Thread	2"M

NOTES:



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Note:

This product should be disposed of according to all applicable local and national government environment regulations and guidelines.



For Warranty Terms and Conditions see macnaught.com.au