

R500 5:1 RATIO AIR OPERATED OIL PUMP

INSTRUCTION MANUAL

INTRODUCTION

Thank you for purchasing a Macnaught R500 5:1 air operated oil pump. The R500 oil pump has been designed for use in medium to large workshops where the transfer of lubricating oils over varying distances and through hose reels with dispensing nozzles and / or meters are required.

The R500 oil pump is suitable for use with engine oil, gear oil, automatic transmission fluid, anti-freeze/anti-boil and compatible fluids.

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

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

GENERAL INFORMATION

With the appropriate care combined with the Macnaught guarantee of dependable after sales service, provided by its worldwide distribution network, you will be assured of continuous safe, efficient and reliable product operation.

Please take a few moments to read through this manual before installing and operating your new R500 oil pump. If you experience problems with this product, refer to the trouble shooting sections of this manual. If you require further assistance please contact your local Macnaught distributor or authorised Macnaught service center.

IMPORTANT INFORMATION



**READ THIS INFORMATION
CAREFULLY BEFORE USE**

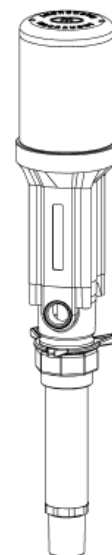
Please retain this instruction manual for future reference.

Your safety is important to us. Please read, understand and follow all safety instructions listed below. Some of these instructions alert you to the potential for personal injury. "Cautions" listed throughout the manual advise of potential practices or procedures which may cause damage to your equipment.

Before connecting the air supply, the user should add a 'Stop' compressed air cock.

NOTE: The air cock must be a 1/4 turn type (allowing quick closure) and should be located close to the body of the pump and be easily recognised

Make sure all operators have access to adequate instructions about safe operating and maintenance procedures.



Do not exceed the maximum recommended air inlet pressure of 1035 kPa/ 150 psi / 10.3 bar. The pumps require a minimum air inlet pressure of 400 kPa / 60 psi / 4 bar and we recommend that you operate the unit at 690 kPa / 100 psi / 6.9 bar.

Do not strike the unit if it fails to operate. Refer to "Trouble Shooting Guide" or return the unit to your nearest Macnaught distributor or Authorised Macnaught Service Centre

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

Never 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. Be certain that any and all system components will withstand the pressures being developed. Never exceed the pressure rating of any component installed in the system.

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

OPERATION

- 1) Ensure the drum or tank is "vented".
- 2) Partially open the on/off air valve. The pump will prime automatically.
- 3) Open the delivery outlet / nozzle. The pump will start automatically
- 4) Adjust on/off air valve to regulate the flow. Close delivery outlet/nozzle to stop flow.



CAUTION

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

MAINTENANCE



CAUTION

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

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

PUMP DISASSEMBLY

Note: Disconnect the air supply and release fluid pressure.

The R500 pump has been designed to allow the air motor assembly, and air seal (10) to be serviced without removing the pump from the installation.

To service the Air Motor and Piston Rod Seal without removing pump from the installation.

- 1) Disconnect the air supply and release oil line pressure.
- 2) To remove the air motor cap (1), insert two correct size steel bars or pin punches into the holes located on the top of the air motor cap (1). Hold both steel bars or pin punches in position. Place a screw driver in between the two bars or punches and unscrew the air motor cap anti-clockwise.
- 3) Using a strap pipe wrench, carefully unscrew and remove the air motor housing (50).
- 4) Pull the air motor and piston rod assembly upwards to allow easy access the air motor bolts (53).
- 5) Use a 6mm Allen key to unscrew the 4 air motor bolts (53)
- 6) Lift up the top adaptor (9) to expose the exhaust holes located on the piston rod (41).
- 7) To retain the piston rod (41), insert the correct size steel bar or pin punch into one of the exhaust holes on the piston rod (41).
- 8) Remove the three air valve screws (2), washers (3) and spacers (4) from the air valve assembly, then remove air valve cap (49).
- 9) Unscrew the piston rod bolt (48), and remove the air valve assembly.
- 10) Remove the top adapter assembly (9,10,53,54,55,57) from the piston rod.
- 11) Carefully remove the air seal (10), o'ring (57) and o'rings (55) from the top adapter (9).

Note: Ensure you do not damage piston rod (41) during Disassembly or assembly.

- 12) Remove body (11) and silencer (40)

- 13) Clean and inspect all parts. Pay special attention to items 37 and 38 as these are easily damaged. Replace any suspect, worn or damaged components.

- 14) Assembly is the reversal of disassembly.

Note: Use Loctite 222 (or similar retaining compound) on the piston rod bolt thread (48) and the three Allen screws (2) when re-assembling the air motor.

COMPLETE PUMP DISASSEMBLY

- 1) Disconnect air supply and release oil line pressure.
- 2) Remove oil discharge hose from pump outlet.
- 3) Withdraw pump from the oil drum/tank. (Use a clean bench to carry out maintenance).
- 4) Hold air motor housing firmly in a vice and carefully unscrew and remove the pump tube (20) assembly.

Note: Care should be taken not damage air motor housing during disassembly.

- 5) For air motor disassembly see previous section "Pump Disassembly", To service the air motor and piston rod seal section follow items 2 - 12 on this page.
- 6) Using a suitable size pin punch (1/8") remove the roll pin (36) from the Piston rod (41).
- 7) Unscrew and remove the joining pin (35), valve housing (23) and piston assembly from the piston rod (41).
- 8) Dismantle the valve housing (23) and piston assembly (26).
- 9) Remove the piston rod (41) from the bottom adapter (15).
- 10) Remove circlip (12) from the bottom adapter (15) and remove oil seal assembly (14) and o'ring (13).
- 11) Remove foot valve assembly (28) from the pump tube (20).
- 12) Dismantle foot valve assembly.

PUMP ASSEMBLY

- 1) Clean and inspect all parts. Replace any, suspect, worn or damaged parts.
- 2) Ensure that all parts have the correct orientation. If parts are assembled upside down, the pump will not work. Check the parts diagram for correct orientation.

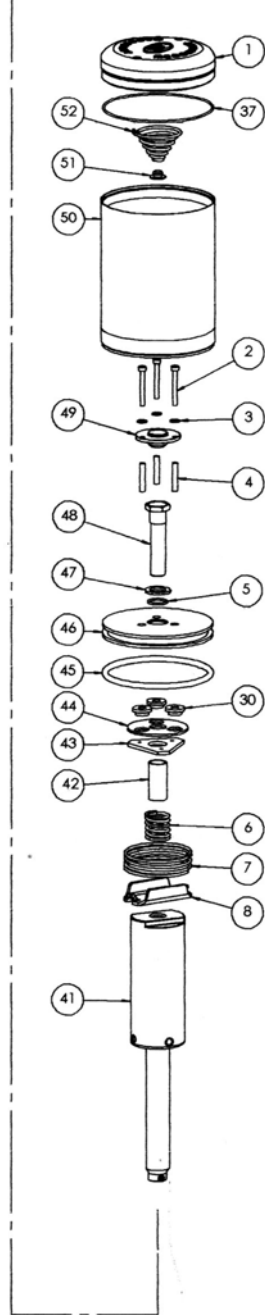
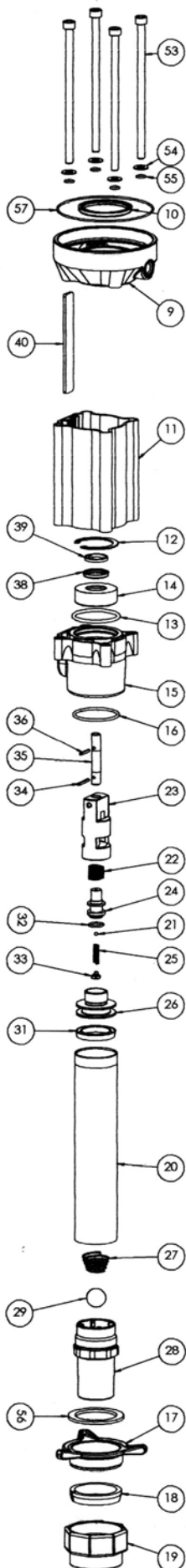
Note: Use Loctite 222 (or similar retaining compound) on the piston rod bolt thread (48) and the three air valve screws (2) when re-assembling air motor.

Use Loctite 222 (or similar retaining compound) when assembling the pump piston (26) to the valve housing (23)

Ensure correct orientation when fitting the seal carrier (14), place the side with the oil seal (38) into the bottom adapter first, be careful you do not damage the seal during assembly.

- 3) Assembly of the pump is a reversal of the disassembly procedure.
- 4) Fit the pump to your drum/tank and re-connect the oil hose and air supply. Open dispensing nozzle to ensure correct operation.

PARTS DIAGRAM



PARTS LIST

			Order for replacement		
Item	Part no	No off	Part or Set	Kit ref	Description
			TG01-1K (A)		OVERHAUL SEAL KIT
			TG01-2K (B)		AIR MOTOR OVERHAUL KIT
			TG01-3K (C)		LOWER PUMP SERVICE KIT
1	TG001	1	TG001s incl BS045		AIR MOTOR CAP
2	N35	3		B	AIR VALVE SCREW
3	N117	3		B	AIR VALVE WASHER
4	TG031	3		B	AIR VALVE SPACER
5	BS016	3		A B	O'RING
6	TC38	1		B	SPRING
7	TG007	1		B	SPRING
8	TG008	1		B	RETAINER
9	TG010	1	TG010s		TOP ADAPTOR (BSP)
9	TG021	1	TG021s		TOP ADAPTOR (NPT)
10	TG012	1		A B	AIR MOTOR SEAL
11	TE006	1	TE006s incl TE020		BODY
12	N247	1			CIRCLIP
13	BS225	1	TG014s incl TG027, TG028	A C	O'RING
14	TG014	1			OIL SEAL CARRIER
15	TG015	1	TG015s		BOTTOM ADAPTOR (BSP)
15	TG022	1	TG022s		BOTTOM ADAPTOR (NPT)
16	BS134	1		A C	O'RING
17	TE026	1			STAR NUT
18	TG016	1	TG016s incl TG006		SPACER
19	TE024	1			LOWER BUNG NUT
20	TG017	1	TG017s		PUMP TUBE (STUB)
20	TG018	1	TG018s		PUMP TUBE (DRUM)
21	N404	1			STEEL BALL 5/32"
22	TB3	1			SPRING
23	TG020	1	TG020s incl TB4, BS015, B36		VALVE HOUSING
24	TB47	1			PRESSURE RELIEF VALVE
25	TB46	1			SPRING
26	TB48	1			PUMP PISTON
27	TB8	1		C	FOOTVALVE SPRING
28	TB15	1	TB15s incl TB8, N418		FOOTVALVE (STUB) BSP
28	TB34	1	TB34s incl TB8, N418		FOOTVALVE (STUB) NPT
28	TG019	1	TG019s incl TB8, N419		FOOTVALVE (DRUM)
29	N418	1		C	STEEL BALL 7/8"
30	TG011	3		A	RUBBER BUSH
31	TB4	1		A C	PLUNGER SEAL
32	BS015	1		A C	O'RING
33	PA16	1		A C	RESET END PLUG
34	N349	1		A C	PIN
35	TF004	1	TF004s incl N349, N350		JOINING PIN (STUB)
35	TF014	1	TF014s incl N349, N350		JOINING PIN (DRUM)
36	N350	1		A C	PIN
37	BS045	1		A B	O'RING
38	TG027	1		A C	OIL SEAL
39	TG028	1		A C	GUIDE RING
40	TE020	1	order TE006s		SILENCER
41	TG013	1	TG013s		PISTON ROD
42	TG036	1		B	SPACER
43	TG030	1		B	SEAL PLATE
44	TG032	1		B	WASHER
45	BS343	1		A B	O'RING
46	TG004	1		B	PISTON
47	TG005	1		B	WASHER
48	TG003	1		B	PISTON ROD BOLT
49	TE011	1		A B	AIR VALVE CAP
50	TG002	1	TG002s incl BS045, BS046		AIR MOTOR HOUSING
51	TE003	1	TE002s	B	BUFFER STOPPER
52	TE002	1		B	SPRING
53	TE004	4			BOLT
54	N104	4	TE004s		WASHER
55	BS011	4		A	O'RING
56	TG006	1		A	WEATHER SEAL
57	BS046	1		A B	O'RING

TROUBLE SHOOTING

TROUBLE	CAUSE	REMEDY
Air motor operates without pressing trigger	1. Drum or tank is empty	1. Change drum or fill tank
	2. Foreign matter in footvalve (28)	2. Remove footvalve, clean and reassemble
Air motor operates but little or no oil flows	1. Drum or tank is empty	1. Change drum or fill tank
	2. Foreign matter in footvalve (28)	2. Remove footvalve, clean and reassemble
	3. Faulty plunger (23) / piston (26) assembly	3. Inspect plunger assembly and replace damaged or faulty parts
Air continuously leaks through the exhaust	1. Air seal (10) worn or damaged	1. Replace air seal (10)
	2. Air valve cap (49) is worn or damaged	2. Replace air valve cap (49)
	3. O'ring (55) under the air motor bolts (53) are leaking	3. Replace damaged o,ring (55)
Oil leaks through the exhaust	Oil seal (38) is worn or damaged	Replace oil seal (38)
Pump is operating erratically and there is air in the oil	1. Suction tube is sucking air (R300S)	1. Re-seal the suction. (use either Teflon tape or suitable thread sealant)
	2. Pump tube (20) of Footvalve is sucking air	2. Re-seal the pump tube (20) or footvalve (28). (Use eitherTeflon tape or suitable thread sealant)

SPECIFICATIONS

Air Motor	104.7mm (4.12") diameter
Maximum Air Pressure	1035kPa / 150psi / 10.3Bar
Minimum Air Pressure	400kPa / 60psi / 4Bar
Air Consumption	18cfm/min
Output (At The Pump)	28 litres / minute of SAE10 oil @ 100psi
Maximum Suction Head	7metres
Maximum Static Head	500metres / 1600ft
Air Inlet Thread	1/4" NPT
Pump outlet Thread	3/4" BSP (3/4" NPT USA)
Pump Intlet Thread	1" BSP (1" NPT USA)
Bung Adapter Thread	2" (M)
Wetted Components	Aluminium, Nitrile Rubber, Zinc plated carbon steel, Carbon PTFE
Dimensions	R500S (stub) 635 x 120 x 120
	R500T (drum) 1325 x 120 x 120
Weight	R500S (stub) 5.5kg
	R500T (drum) 6.7kg



macnaught warranty

- Macnaught Pty Ltd ("Macnaught") warrants that all products manufactured by Macnaught and/or supplied by Macnaught under the "Macnaught" brand, excluding M-Series positive displacement meters ("Meters") and components subject to wear, will be free from any defects caused by faulty materials or workmanship ("Warranty") for a period of 5 years from the date of purchase of the product.
- For products (excluding Meters) which carry the "Macnaughtdesign" endorsement, an additional Warranty period of 5 years applies to all mechanical components (excluding electronic and electrical components), giving a total Warranty period of 10 years.
- For Meters, the Warranty period is 12 months from the date of purchase of the product.
- For components contained in all products which are usually subject to wear from normal operation of the products (such as o-rings, seals, springs, hoses and batteries), the Warranty period is 12 months from the date of purchase of the relevant product.
- For products and components which are not manufactured by Macnaught and are supplied by Macnaught under a brand name other than "Macnaught", the Warranty period is the longer of 12 months from the date of purchase of the relevant product and the period of the manufacturer's warranty.
- The warranties contained in clauses 1, 2, 3, 4 and 5 above are conditional on the purchaser, during the relevant Warranty period:
 - delivering to Macnaught a detailed notice setting out full details of any defect in any product and details of the date and place of purchase (together with copies of purchase receipts and/or other supporting documents), and
 - at the purchaser's own cost, returning the defective product to the nearest authorised Macnaught service centre.
- Subject to compliance by the purchaser with clause 6, Macnaught shall, at its option, repair or replace any product or component found defective by its inspection by reason of faulty materials or workmanship of Macnaught.
- This Warranty does not cover the failure of products, parts or components which, in the sole judgment of the Macnaught, arises other than from faulty materials or workmanship of Macnaught, including misuse, abrasion, corrosion, negligence, accident, substitution of non-Macnaught parts, unauthorised modification, improper use, storage or handling, faulty installation or tampering by the purchaser or any third party.
- If Macnaught's inspection discloses no defect in material or workmanship, repair or replacement and return (at Macnaught's sole option) will be made at customary charges, which will be advised to the purchaser.
- Macnaught's liability and the purchaser's rights under this Warranty shall be limited to the repair or replacement of defective products or components and particular, shall not extend to any direct, special, indirect or consequential damage or losses of any other warranties.
- The foregoing Warranty supersedes, voids and is in lieu of any other warranties.
- This Warranty does not form part of, nor does it constitute, a contract between Macnaught and the end-user or purchaser. It is additional to any warranty given by the seller of the products. This Warranty does not exclude, limit, restrict or modify the non-excludable rights or remedies conferred upon the end-user or purchaser, or the non-excludable duties or liabilities imposed on the seller or Macnaught, by Part V, Division 2, 2A, and Part VA of the Trade Act 1974 (Commonwealth) or other rights conferred on the end-user or purchaser or duties or liabilities imposed upon Macnaught.



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Appendix for CE Certification for Macnaught Ratio oil pumps (Models R500 and R1000)

(ENGLISH)

TG030
0908
0001

Read this information carefully before use. Your safety is important to us. Please read and follow all operating and safety instructions listed below. Make sure all operators have adequate access to the following instructions.



CAUTION

Do not exceed the maximum recommended air inlet pressure of 1035 kPa / 150 psi / 10.3 bar. The pump requires a minimum air inlet pressure of 400 kPa / 60 psi / 4 bar and we recommend that you operate the unit at 690 kPa / 100psi / 6.9 bar.

Do not hit the unit if it fails to operate.

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

The ratio oil pumps are fitted with a pressure release valve. This unique feature will protect the pump and the system against damage created by excessive pressure, possibly caused by thermal expansion.

Never allow any part of the human body to come in front of, or in direct contact with a material outlet. Never point the nozzle of the gun at yourself or anyone else.

Most accidents occur because of component rupture. Be certain that any and all system components will withstand the pressures being developed. Never exceed the pressure rating of any component installed in the system.

Weak, worn or damaged hoses are also a hazard. Before each use check hoses for signs of wear, leaks or loose fittings. Tighten all fluid connections regularly and replace weak or damaged hose. Your personal safety and well being are at stake.

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

Assembly

- A) Measure the depth of the drum/tank and attach the appropriate length of threaded pipe to the inlet of the pumps (R500S and R1000S). Alternatively there are a range of telescopic suction tubes available from Macnaught on request. Inlet connections: R500S: 1" BSP (1" NPT USA/Canada), R1000S 1" BSP (1" NPT USA/ Canada).

- B) Remove the bung adapter assembly from the pump and screw it into the drum/tank opening. Carefully lower the pump through the bung adapter and tighten the ring nut firmly.
- C) Connect the appropriate hose and / or dispensing equipment to your pump outlet,
- D) Before connecting the air supply, the user should add a 'stop' compressed air cock.

Note: The air cock must be a ¼" turn type (allowing quick closure) and should be located close to the body of the pump and be easily recognized.

Operation

- A) Ensure that the drum or tank is 'vented'.
- B) Partially open the on/off air valve, the pump will proceed to prime automatically.
- C) When the oil delivery outlet/nozzle is opened the pump will automatically start.
- D) Adjust the on/off air valve to regulate the flow. Close the delivery outlet/nozzle to stop flow



CAUTION

Do not run the pump dry. Remember to switch the air supply to the pump if not using for an extended period of time.(eg. At the end of each working day)



CAUTION

Before carrying out any maintenance disconnect the air supply and release the fluid pressure in the system Inspect your oil pump and associated hoses weekly for any signs of damage. Replace any suspect or damaged parts or components as required.

Specifications

	R500	R1000
Maximum Air Pressure	1035 kPa / 150 psi / 10.3 bar	1035 kPa / 150 psi / 10.3 bar
Minimum Air Pressure	400kPa / 60 psi / 4 bar	400kPa / 60 psi / 4 bar
Typical Air Consumption	18cfm @ 690kPa / 100 psi / 6.9 bar	18cfm @ 690kPa / 100 psi / 6.9 bar
Noise Level	88 Db @ 2 meters	88 Db @ 2 meters
Air Inlet	¼" (F)* See Below	¼" (F)* See Below
Pump Outlet	3/4" (F) * See Below	3/4" (F) * See Below
Pump Ratio	5:1 Ratio	10:1 Ratio
Bung Adaptor	2" (M)	2" (M)
Maximum Static Head	500m (1600ft)	1000m (3200ft)
Output (at the pump)	28 liters / 7.4 US gallons per minute (SAE 10 oil @ 690 kPa / 100 psi / 6.9 bar)	15 liters / 3.69 US gallons per minute (SAE 10 oil @ 690 kPa / 100 psi / 6.9 bar)
Fluids Handled	Mineral based oils (eg. Engine oils, gear oils, hydraulic Oils) up to SAE 140	Mineral based oils (eg. Engine oils, gear oils, hydraulic Oils) up to SAE 140
Cunstruction	Wetted Components: Zinc, Carbon Steel, Aluminium, Brass, Nitrile Rubber,	Wetted Components: Zinc, Carbon Steel, Aluminium, Brass, Nitrile Rubber,
Manufacture Date	Week / Year located next to the oil outlet	Week / Year located next to the oil outlet

*These threads are NPT (National Pipe Thread) in the USA/Canada and BSP (British Standard Pipe Thread) for all other countries, unless specified other.

Annexe pour la conformité de la CE pour Pompes

(FRENCH)

d'huile de rapport de Macnaught (modèles R500 et R1000)

Lire cette information soigneusement avant l'emploi. Votre sûreté est importante pour nous. Lire et veuillez suivre toutes les opération et instructions de sûreté indiquées ci-dessous. S'assurent tous les conducteurs avoir accès adéquat aux instructions suivantes.



Ne pas excéder la pression recommandée maximum d'entrée d'air 1035kPa / 150psi / 10.3bar. La pompe exige une pression minimum d'entrée d'air 400kPa / 60psi / 4bar, et nous recommandons que vous actionnez l'unité à la barre 690 kPa / 100psi / 6.9 bar.

Ne pas heurter l'unité si elle ne fonctionne pas.

Employer la puaté d'étanchéité appropriée de filet (par exemple. La bande de teflon) sur toutes les garnitures baisées, mais au-dessus de de serrage pour éviter des dommages constitutifs.

Le pompe d'huile de rapport de 5:1/10:1 a été équipée d'une soupape de desserrage de pression. Cette caractéristique unique protégera la pompe et le système contre des dommages produits par la pression excessive, probablement provoquée par dilatation thermique.

Ne jamais permettre à n'importe quelle partie du corps humain de venir devant, ou en le contact direct avec une sortie matérielle. Ne jamais diriger le gicleur du canon à vous-même ou à n'importe qui autrement.

La plupart des accidents se produisent en raison de la rupture constitutive. Être certain qu'et tous les composants de système en supporteront les pressions étant développées. Ne jamais excéder l'estimation de pression de n'importe quel composant installé dans le système.

Les faibles, usés ou endommagés boyaux sont également un risque. Avant que boyaux de chaque vérification d'utilisation pour des signes d'usage, de fuites ou de garnitures desserrées. Serrer tous les raccordements liquides régulièrement et remplacer le faible ou endommagé boyau. Votre sûreté et bien-être personnels sont en jeu.

Avant d'essayer tout l'entretien ou réparations de ce produit, débrancher l'air et réduire la pression de ligne d'huile en serrant le déclenchement de pièce de main / canon.

Assemblée

- A) Mesurer la profondeur du drum/tank et fixer la longueur appropriée de la pipe filetée à l'admission des pompes (R500S / R1000S). Alternativement il y a une gamme des tubes télescopiques d'aspiration fournis par Macnaught sur demande). Raccordements d'admission: R500S: 1 "BSP (1" NPT, USA Canada), R1000S 1"BSP (1" NPT Etats-Unis / Canada),

- B) Enlever l'adaptateur de bondon de la pompe et le visser dans l'ouverture de drum/tank. Abaisser soigneusement pomper par l'adaptateur de bondon et serrer l'écrou d'anneau ferme.

- C) Brancher le boyau approprié et/ou l'équipement dispensant à votre sortie de pompe.

- D) Avant de brancher l'air, l'usager devrait ajouter un ' arrêt ' a comprimé le robinet d'air.

Note: Le robinet de dégagement d'air doit être ¼"un type de tour (permettant la fermeture rapide) et devrait être situé près du corps de la pompe et être facilement décelé.

Fonctionnement

- A) S'assurer que le tambour ou le réservoir ' est exhalé '.

- B) Ouvrir partiellement la soupape à air "Marche/Arrêt", la pompe effectuera à la perfection automatiquement.

- C) Quand la distribution outlet/nozzle d'huile est ouverte la pompe démarrera automatiquement.

- D) Régler la soupape à air "Marche/Arrêt" pour régler l'écoulement. Clôturer la distribution outlet/nozzle pour arrêter l'écoulement



Ne pas mettre en marche la pompe sèche rappellent de commuter l'air à la pompe sinon employant pendant une période prolongée de caler (par exemple. À la fin de chaque jour ouvrable)



Avant d'effectuer n'importe quel entretien débrancher l'air et réduire la pression du liquide dans le système Inspecter votre pompe d'huile et boyaux associés par semaine pour assurer tous les signes des dommages. Remplacer tous les suspect ou pièces ou composants endommagés comme requis.

Caractéristiques

	R500	R1000
Pression atmosphérique Maximum	1035 kPa / 150 psi / 10.3 bar	1035 kPa / 150 psi / 10.3 bar
Pression atmosphérique Minimum	400kPa / 60 psi / 4 bar	400kPa / 60 psi / 4 bar
Consommation Typique D'Air	18cfm @ 690kPa / 100 psi / 6,9 bar	18cfm @ 690kPa / 100 psi / 6,9 bar
Niveau De Bruit	DB 88 @ 2 mètres	DB 88 @ 2 mètres
Entrée D'Air	¼"(F)* Voient Ci-après	¼"(F)* Voient Ci-après
Sortie De Pompe	3/4 "(f) * Voir ci-dessous	3/4 "(f) * Voir ci-dessous
Rapport De Pompe	rapport de 5:1	rapport de 10:1
Adaptateur De Bondon	2 "(m)	2 "(m)
Tête Statique Maximum	500m (1600ft)	1000m (3200ft)
Rendement (à la pompe)	28 litres / 7.4 gallons des USA par minute (huile de SAE 10 @ 690 kPa / 100 psi / 6.9 bar)	15 litres / 3.69 gallons des USA par minute (huile de SAE 10 @ 690 kPa / 100 psi / 69 bar)
Liquides Manipulés	Le minerai a basé des huiles (par exemple. Huiles à moteur, huiles de vitesse, hydrauliques Huiles) jusqu' à SAE 140	Le minerai a basé des huiles (par exemple. Huiles à moteur, huiles de vitesse, hydrauliques Huiles) jusqu' à SAE 140
Cunstruction	Composants Mouillés: Zinc, Acier Du Carbone, Aluminium, Laiton, Caoutchouc De Nitriles,	Composants Mouillés: Zinc, Acier Du Carbone, Aluminium, Laiton, Caoutchouc De Nitriles,
Date De Fabrication	Semaine / année située à côté de la sortie d'huile	Semaine / année située à côté de la sortie d'huile

les filets de *These sont NPT (filet national de pipe) dans l'USACanada et le BSP (filet normal britannique de pipe)pour tous autres pays, à moins que ce ne soit indiqué autre.

Anhang für CER-Bescheinigung für Verhältnis-Ölpumpen Macnaught (Modelle R500 und R1000)

(GERMAN)

Diese Informationen vor Gebrauch sorgfältig lesen. Ihre Sicherheit ist zu uns wichtig. Alles Funktionieren und Sicherheitsvorschriften bitte lesen und befolgen nachstehend aufgeführt. Überprüfen alle Operatoren, ausreichenden Zugang zur folgenden Ausbildung zu haben.



VORSICHT

Den maximalen empfohlenen Lufteinlaßdruck 1035 kPa / 150 psi / 10.3 bar, nicht überschreiten. Die Pumpe erfordert einen minimaler Lufteinlaßdruck 400 kPa / 60 psi / 4 bar, und wir empfehlen, daß Sie die Maßeinheit bei 690 kPa / 100psi / 6.9 bar, laufen lassen.

Die Maßeinheit nicht schlagen, wenn sie funktionieren nicht kann.

Geeignete Gewindedichtungsmasse benutzen (z.B.. Teflonklebeband) auf allen geschraubten Befestigungen, aber nicht über ziehen fest, um Teilbeschädigung zu vermeiden.

Diese 5:1 / 10:1 Verhältnis-Ölpumpe ist mit einem Druckfreigabeventil befestigt worden. Diese einzigartige Eigenschaft schützt die Pumpe und die Anlage gegen die Beschädigung, die durch den übermäßigen Druck verursacht wird, vielleicht verursacht durch thermische Expansion.

Irgendeinem Teil des menschlichen Körpers nie erlauben, vor oder in direktem Kontakt mit einem materiellen Anschluß zu kommen. Die Düse des Injektors nie auf selbst oder jedermann sonst zeigen.

Die meisten Unfälle treten wegen des Teilabbruchs auf. Sicher sein, daß irgendwelche und alle Anlagebauteile den Drücken widerstehen, die sich entwickelt werden. Die Druckbewertung jedes möglichen Bauteils nie überschreiten, das in die Anlage angebracht wird.

Schwache, getragene oder beschädigte Schläuche sind auch eine Gefahr. Bevor Schläuche jedes Gebrauchchecks für Zeichen der Abnutzung, der Lecks oder der losen Befestigungen. Alle flüssigen Anschlüsse regelmäßig festziehen und schwachen oder beschädigten Schlauch ersetzen. Ihre persönliche Sicherheit und Wohl stehen auf dem Spiel.

Bevor Sie irgendeine Wartung oder Reparaturen dieses Produktes versuchen, die Druckluftversorgung trennen und den Ölliniendruck freigeben, indem Sie den Auslöser des Handstückes / Injektor zusammendrücken.

Montage

- A) Die Tiefe des drum/tank messen und die passende Länge des verlegten Rohres zum Eingang der Pumpen anbringen (R500S / R1000S). Wechselweise es gibt eine Strecke der teleskopischen Absaugungschläuche, die von Macnaught auf Antrag vorhanden sind). Eingangsanschlüsse: R500S: 1" BSP (1" NPT USA/Canada), R1000S 1" BSP (1" NPT USA /Canada),

- B) Den Pfpfenadapter von der Pumpe entfernen und ihn in die drum-tanköffnung schrauben. Sorgfältig senken durch den Pfpfenadapter pumpen und die Ringmutter fest festziehen.

- C) Den passenden Schlauch und/oder die zugeführte Ausrüstung an Ihren Pumpenanschluß anschließen,

- D) Bevor er die Druckluftversorgung anschließt, sollte der Benutzer einen 'Anschlag' hinzufügen zusammendrückte Lufthahn.

Anmerkung: Der Lufthahn muß ein Drehung 1/4" baumuster sein (schnelles Schliessen erlaubend) und sollte nah an der Karosserie der Pumpe sich befinden und leicht erkannt werden.

BETRIEB

- A) Sicherstellen, daß die Trommel oder das Becken 'gelüftet ist'.

- B) Das AN/AUS-Druckluftventil teilweise öffnen, die Pumpe fortfährt zur höchsten Vollkommenheit automatisch.

- C) Wenn die Ölanlieferung outlet/nozzle geöffnet ist, beginnt die Pumpe automatisch.

- D) Das AN/AUS-Druckluftventil einstellen, um den Fluß zu regulieren. Die Anlieferung outlet/nozzle schließen, um Fluß zu stoppen



VORSICHT

Die trockene Pumpe nicht laufen lassen sich erinnern, die Druckluftversorgung zur Pumpe beim Verwenden zu schalten nicht während einer ausgedehnten Periode von Zeit festsetzen (z.B.. Am Ende jedes Arbeitstages)



VORSICHT

Bevor Sie irgendeine Wartung durchführen, die Druckluftversorgung trennen und den flüssigen Druck in der Anlage freigeben Ihre Ölpumpe und dazugehörigen Schläuche auf alle mögliche Zeichen der Beschädigung wöchentlich überprüfen. Allen möglichen Verdächtigen oder beschädigten Teile oder Elemente ersetzen, wie gefordert.

Spezifikationen

	R500	R1000
Maximaler Luftdruck	1035 kPa / 150 psi / 10.3 bar	1000 kPa / 150 psi / 10.3 bar
Minimaler Luftdruck	400 kPa / 60 psi / 4 bar	400 kPa / 60 psi / 4 bar
Typischer Luftverbrauch	18cfm @ 690 kPa / 100 psi / 6.9 bar	18cfm @ 690 kPa / 100 psi / 6.9 bar
Geräuschpegel	DB 88 @ 2 Meter	DB 88 @ 2 Meter
Lufteinlaß	1/4"(F)* Sehen Unten	1/4"(F)* Sehen Unten
PumpenAnschluß	3/4 "(f) * Unten sehen	3/4 "(f) * Unten sehen
PumpenVerhältnis	5:1 Verhältnis	10:1 Verhältnis
PfpfenAdapter	2 "(M)	2 "(M)
Maximaler Statischer Kopf	500m (1600ft)	1000m (3200ft)
Ausgang (an der Pumpe)	28 Liter / 7.4 US-Gallonen pro Minute (Öl SAE 10 @ 690 kPa / 100 psi / 6.9 bar)	15 Liter / 3.69 US-Gallonen pro Minute (Öl SAE 10 @ 690 kPa / 100 psi / 6.9 bar)
Flüssigkeiten Angefaßt	Mineral gründete Öle (z.B.. Motoröle, Gangöle, hydraulisch Öle) bis zu SAE 140	Mineral gründete Öle (z.B.. Motoröle, Gangöle, hydraulisch Öle) bis zu SAE 140
Cunstruction	Naßgemachte Bauteile: Zink, Kohlenstoffstahl, Aluminium, Messing, NitrilGummi,	Naßgemachte Bauteile: Zink, Kohlenstoffstahl, Aluminium, Messing, NitrilGummi,
HerstellungsDatum	Woche / Jahr gelegen nahe bei dem Ölan Anschluß	Woche / Jahr gelegen nahe bei dem Ölan Anschluß

*These-Gewinde sind NPT (nationales Rohrgewinde) im USA/Canada und im BSP (britisches Standardrohrgewinde) für alle weiteren Länder, wenn nicht anders angegeben anderes.

Apéndice para la certificación del CE para Bombas del aceite del cociente de Macnaught (modelos R500 y R1000)

(SPANISH)

Lea esta información cuidadosamente antes del uso. Su seguridad es importante para nosotros. Lea y siga por favor todo el funcionamiento e instrucciones de seguridad enumerados abajo. Se cercioran de todos los operadores tener acceso adecuado a las instrucciones siguientes.



PRECAUCIÓN

No exceda la presión recomendada máxima de la entrada de aire 1035 kPa/ 150 psi / 10.3 bar. La bomba requiere una presión mínima de la entrada de aire 400 kPa / 60 psi / 4 bar y recomendamos que usted funcione la unidad en 690 kPa / 100psi / 6,9 bar.

No golpee la unidad si no puede funcionar.

Utilice el sellante conveniente del hilo de rosca (eg. La cinta del Teflon) en todas las guarniciones atornilladas, pero concluido no aprieta para evitar el daño componente.

Esta bomba del aceite del cociente de 5:1/ 10:1 se ha ajustado con una válvula del lanzamiento de la presión. Esta característica única protegerá la bomba y el sistema contra el daño creado por la presión excesiva, causada posiblemente por la extensión termal.

Nunca permita que cualquier parte del cuerpo humano venga delante, o en del contacto directo con un enchufe material. Nunca señale la boquilla del arma en se o cualquier persona .

La mayoría de los accidentes ocurren debido a la ruptura componente. Esté seguro que cualesquiera y todos los componentes del sistema soportarán las presiones que son convertidas. Nunca exceda el grado de la presión de cualquier componente instalado en el sistema.

Los manguitos débiles, usados o dañados son también un peligro. Antes de que manguitos de cada verificación del uso para las muestras del desgaste, de los escapes o de las guarniciones flojas. Apriete todas las conexiones fluidas regularmente y substituya el manguito débil o dañado. Su seguridad y bienestar personales son en juego.

Antes de procurar cualquier mantenimiento o reparaciones de este producto, desconecte el suministro de aire y libre la presión de la línea del aceite exprimiendo el disparador del pedazo / arma de la mano.

ASAMBLEA

- A) Mida la profundidad del drum/tank y una la longitud apropiada de la pipa roscada a la entrada de las bombas (R500S / 1000S) Alternativamente hay una gama de los tubos telescópicos de la succión disponibles de Macnaught a petición. Conexiones de la entrada: R500S: 1 "BSP (1 " NPT USA/Canada), R1000S 1"BSP (1 "NPT, USA / Canadá),

- B) Quite el montaje del adaptador del tapón de la bomba y atorníllelo en la abertura de drum/tank. Baje cuidadosamente bombee a través del adaptador del tapón y apriete la tuerca del anillo firmemente.

- C) Conecte el manguito apropiado y/o el equipo que dispensa con su enchufe de la bomba,

- D) Antes de conectar el suministro de aire, el usuario debe agregar una 'parada ' comprimido el martillo del aire.

Nota: El martillo de aire debe ser ¼" un tipo de la vuelta (que permite el encierro rápido) y debe ser situado cerca de la carrocería de la bomba y ser reconocido fácilmente.

OPERACIÓN

- A) Asegúrese de que el tambor o el tanque ' esté expresado '.

- B) Abra parcialmente la válvula de aire con./desc., la bomba procederá a la prima automáticamente.

- C) Cuando se abre la entrega outlet/nozzle del aceite la bomba comenzará automáticamente.

- D) Ajuste la válvula de aire con./desc. para regular el flujo. Cierre la entrega outlet/nozzle para parar el flujo

PRECAUCIÓN

No funcione la bomba seca recuerdan cambiar el suministro de aire a la bomba si no usa por un período extendido de mida el tiempo (eg. En el final de cada día laborable)

PRECAUCIÓN

Antes de realizar cualquier mantenimiento desconecte el suministro de aire y libre la presión del líquido en el sistema Revise su bomba del aceite y manguitos asociados semanalmente para saber si hay cualquier muestra del daño. Substituya a cualquier sospechoso o piezas o componente dañadas según lo requerido.

Especificaciones

	R500	R1000
Presión De Aire Máxima	1035 kPa / 150 psi / 10.3 bar	1035 kPa / 150 psi / 10.3 bar
Presión De Aire Mínima	400kPa / 60 psi / 4 bar	400 kPa / 60 psi / 4 bar
Consumición Típica Del Aire	el 18cfm @ 690kPa / 100 psi / 6.9 bar	el 18cfm @ 690kPa / 100 psi / 6.9 bar
Nivel De ruidos	DB 88 @ 2 metros	DB 88 @ 2 metros
Entrada De Aire	¼"(F)* Ven Abajo	¼"(F)* Ven Abajo
Enchufe De la Bomba	3/4 "(f) * Vea abajo	3/4 "(f) * Vea abajo
Cociente De la Bomba	cociente de 5:1	cociente de 10:1
Adaptador Del Tapón	2 "(m)	2 "(m)
Carga Estática Máxima	el 500m (los 1600ft)	los 1000m (los 3200ft)
Salida (en la bomba)	28 litros / 7.4 galones de los US. por el minuto (aceite del SAE 10 @ 690 kPa / 100 psi / 6.9 bar)	25 litros / 6.5 galones de los US. por el minuto (aceite del SAE 10 @ 690 kPa / 100 psi / 6.9 bar)
Líquidos Manejados	El mineral basó los aceites (eg. Aceites de motor, aceites del engranaje, hidráulicos Aceites) hasta SAE 140	El mineral basó los aceites (eg. Aceites de motor, aceites del engranaje, hidráulicos Aceites) hasta SAE 140
Cunstruction	Componentes Mojados: Cinc, Acero De Carbón, Aluminio, Latón, Caucho Del Nitrile,	Componentes Mojados: Cinc, Acero De Carbón, Aluminio, Latón, Caucho Del Nitrile,
Fecha De la Fabricación	Semana / año situado al lado del enchufe del aceite	Semana / año situado al lado del enchufe del aceite

los hilos de rosca de *These son NPT (hilo de rosca nacional de la pipa) en el USA/Canada y el BSP (hilo de rosca estándar británico de la pipa) para el resto de los países, a menos que se especifique otro.