3:1 MEDIUM PRESSURE PUMP

PART NO B13760, –61 & 62 / ART.NR. B13760, –61 & 62 / ART.NR. B13760, – 61 UND 62

General

Thank you for choosing a high quality pump. These 3:1 pump models are designed to deliver a range of light weight oils including gear oils. The pump's 2" bung adapter allows installation directly onto original containers or bulk tanks. The stub pump accepts a variety of different length and types of extension and/or suction tubes.

A pump's ability to deliver oil is based on the pressure (bar/psi) and quantity of air supplied to the air-motor and the amount of material discharge (back) pressure to he overcome within the system.

WARNING! Do NOT use solvents or other explosive fluids. An explosion can result in the pump when aluminium and zinc parts come into contacts with certain solvents. Never point a control valve at any portion of your body or another person. Accidental discharge of pressure and/or material can result in injury. Read these instructions carefully before installation, operation or service.

TECHNICAL DATA

PART NO / ART.NR	B13760	B13761	B13762
Pump Ratio	3:1	3:1	3:1
Maximum air pressure	10 bar (150psi)	10 bar (150psi)	10 bar (150psi)
Minimum air pressure	3 bar (45 psi)	3 bar (45psi)	3 bar (45psi)
Delivery per minute	25L (6,6 gpm)	25L (6,6 gpm)	26L (6,6 gpm)
Air Inlet	1/4" BSP (F/Inv)	1/4" BSP (F/Inv)	1/4" BSP (F/Inv)
Fluid Outlet	3/4" BSP (F/Inv)	3/4" BSP (F/Inv)	3/4" BSP (F/Inv)
Fluid inlet		3/4" BSP (F/Inv)	
Pump tube length	905mm (35.6")	200mm (7.8")	700mm (27.5")
Pump tube diameter	Ø34mm (1.3")	Ø34mm (1.3")	Ø34mm (1.3")
Pump total length	1200mm (47.2")	494mm (19.4")	992mm (39")

(*) Motor oil SAE 10-30 at 20ºC, air pressure 10 bar (150psi) and free flow

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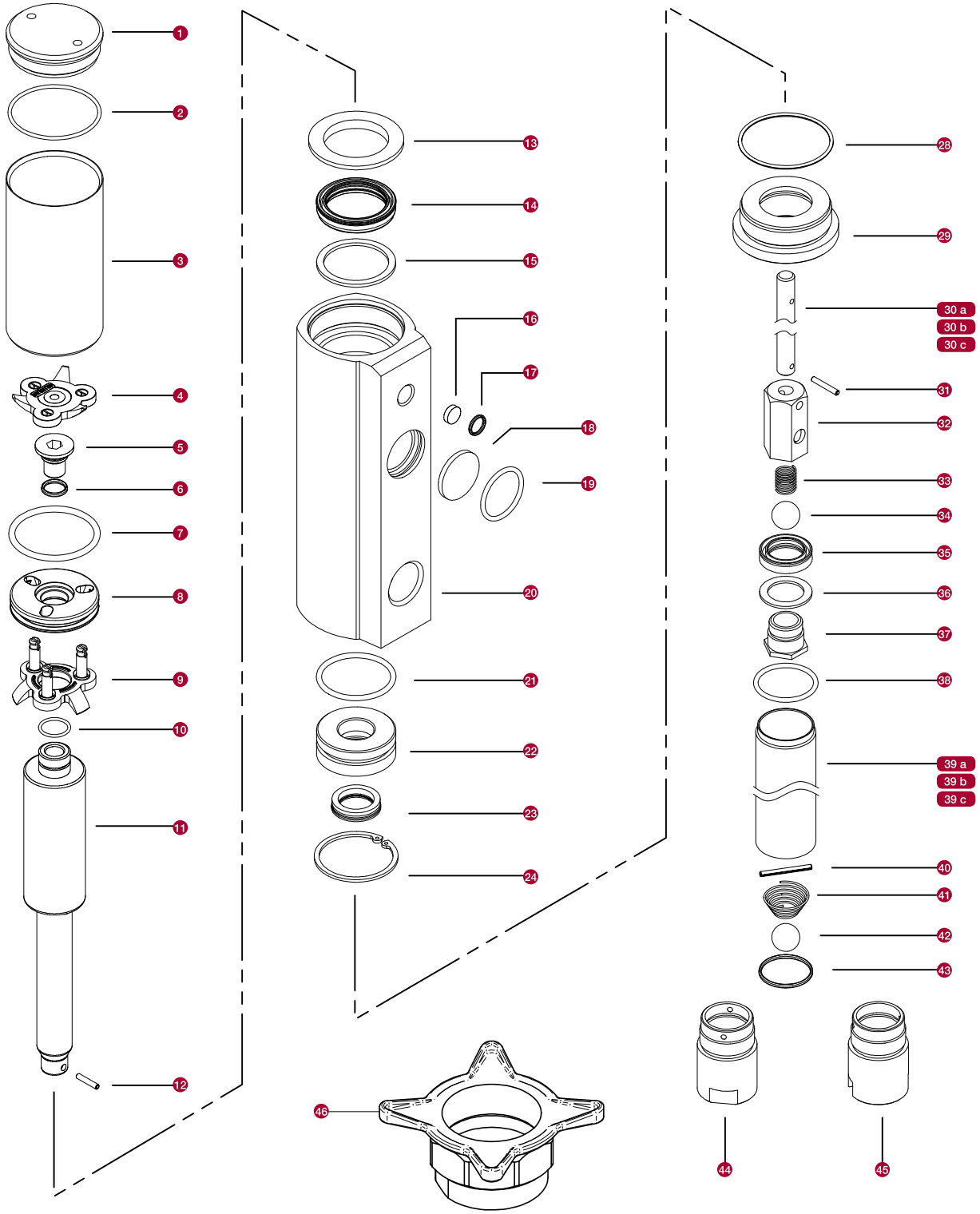
SPARE PARTS

POSITIONER		B13760	B13761	B13762
4, 5, 6, 7, 8, 9, 13	Air-valve	1517391	1517391	1517391
1, 2, 3, 13	Air cylinder	1518645	1518645	1518645
7, 12, 13, 14, 15, 21, 22, 23, 24, 35	Packing kit	1517395	1517395	1517395
11, 12, 13, 14, 15, 21, 22, 23, 24	Central bar	1517397	1517397	1517397
31, 32, 33, 34, 35, 36, 37	Piston kit	1517399	1517399	1517399
40, 41, 42, 43, 44/45	Foot valve	1517402 (45)	1517403 (44)	1517402 (45)
37	Bung adapter	1117705	1117705	1117705



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PRODUCT SAFETY INSTRUCTIONS

- The pump is intended for non-corrosive and petroleum based liquids. It may NOT be used for other purposes or for pumping gasoline or other explosive liquids
- Check that all components used are suitable for the operating pressure of the system
- Do not use higher pressure than required for the satisfactory functioning of the system
- Before a system is put into operation it is recommended that the system be pressurised to 1.3 times maximum working pressure
- Before work is undertaken on the pump the compressed air should be disconnected from the pump and the whole system should then be de pressurised
- Check all components thoroughly for damage and leakage
- Ensure that the compressed air is disconnected from the pump and the system is de pressurised when the system is not in use I.e overnight or during longer shut down periods as there is always a risk of hoses bursting or pipe work leaking etc.

General

The pump is made up of two main parts: A compressed air operated two way piston air motor and double acting liquid pump. The liquid is sucked into the pump via the bottom valve. When the piston moves upwards liquid is forced out of the fluid outlet. The fluid is forced out of the pump when the piston is moving in both directions. The relationship between the air piston and the pump piston determines the ratio of the pump. If the pump ratio is 3:1 the theoretical fluid pressure will be 3 times the air pressure when the pump stalls out. The air exhaust from the pump via a sound attenuator.

Installation/Operation

1. To achieve long pump life, we recommend that filter regulator to be installed prior to the air inlet of the pump
2. Remove the protective packaging from the pump and also the protective plugs
3. Fit the 2” pump adaptor firmly on to the barrel
4. Mount the pump into the pump adaptor and lock into position
5. Fit and secure the outlet hose
6. Fit and secure the air inlet hose, slowly increase the air pressure letting the pump slowly build up fluid pressure
7. Ensure there are no leaks either on the air inlet or the fluid outlet. To obtain maximum vacuum all connections should be sealed and tight
8. Slowly increase the air pressure to optimum working pressure

Warning! The maximum permitted air pressure is 10 bar, do not exceed this limit. Service: Before any service work is carried out the compressed air must be turned off to the pump or the air coupling disconnected and the fluid outlet must be de pressurised completely.

Maintenance

1. Before any service work is carried out the compressed air must be turned off to the pump or the air coupling disconnected and the fluid outlet must be de pressurised completely
2. Clean the air filter, remove all pollutants including condensed water
3. Check system for any air of fluid leaks
4. Always keep the equipment clean and remove foreign objects, ensure no pollutants enter the barrel as these will be pumped into the system
5. When changing the barrel make sure the pump remains clean (Do not put on to the floor otherwise the oil will become polluted)
6. When de pressurising the system or removing the outlet hose from the pump ensure there is a container available to drain the excess grease into

Service

1. For your personal safety ensure the air is disconnected from the pump and the fluid discharge is de pressurised before any service is carried out. Be cautious when re pressurising the system after any service work is carried out.
2. During service procedures it is important to avoid any scratching or any other damage to gasket or bearing surfaces. Keep tools and benches clean. Be extremely cautious when assembling or dismantling v-packings and o-rings. Exchange all worn or damaged parts no matter how slightly damaged they seem.
3. Clean and grease all gasket, bearing surfaces including o-rings and gaskets with teflon grease when reassembling the pump
4. Try to use paraffin to clean pump parts. If water based cleaners are used, wipe parts clean & dry immediately to avoid corrosion

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Troubleshooting

SYMPTOM	POSSIBLE REASON	SOLUTION
The pump is not working or there is no oil delivery	1. Not enough air pressure 2. Some outlet line component is clogged or closed	1. Increase the air pressure 2. Clean or open the outlet circuit
The pump begins to operate very fast without delivering oil	1. The drum is empty 2. Oil Level is beneath the suction tube inlet	1. Replace the drum 2. Lower the suction tube
The pump keeps on operating although the oil outlet is closed	1. There is an oil leak in some point of the outlet circuit 2. Contamination in the upper valve(37) or foot valve (44/45)	1. Verify and tighten or repair 2. Disassemble and clean, replace if damaged
Oil leaks out through the air outlet muffler (14).	Oil has by-passed to the air motor caused by worn or damaged packing set	Replace the fluid packing set
Air leaks out through the air outlet muffler (14).	1. The air piston o-ring is worn or damaged (7) 2. The air motor cylinder is scratched (3) 3. The upper part of the central bar is damaged or scratched (11) 4. The air valve mechanism is worn or damaged (4-9)	1. Disassemble and clean, replace 2. Replace the air motor cylinder 3. Replace the central bar 4. Replace air valve mechanism
Decrease of the oil delivery	Contamination in the upper valve (37) or foot valve (44/45)	Disassemble and clean, replace if damaged

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