



## Air operated 3:1 oil pump Instruction Manual

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### **WARNING:**

Read carefully and understand all **INSTRUCTIONS** before operating. Failure to follow the safety rules and other basic safety precautions may result in serious personal injury. Save these instructions in a safe place and on hand so that they can be read when required. Keep these instructions to assist in future servicing.

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## GENERAL SAFETY REGULATIONS

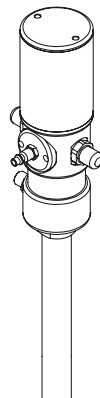


**WARNING:** The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions or situations that could occur. It must be understood by the operator that common sense and caution are factors that cannot be built into this product, but must be supplied by the operator.

1. Keep the work area clean and dry. Damp or wet work areas can result in injury.
2. Keep children away from work area. Do not allow children to handle this product.
3. Use the right tool for the job. Do not attempt to force small equipment to do the work of larger industrial equipment. There are certain applications for which this equipment was designed. It will do the job better and more safely at the capacity for which it was intended. Do not modify this equipment, and do not use this equipment for a purpose for which it was not intended.
4. Check for damaged parts. Before using this product, carefully check that it will operate properly and perform its intended function. Check for damaged parts and any other conditions that may affect the operation of this product. Replace damaged or worn parts immediately.
5. Do not overreach. Keep proper footing and balance at all times to prevent tripping, falling, back injury, etc.
6. DO NOT use the equipment when tired or under the influence of drugs, alcohol, or medication. A moment of inattention while operating this equipment may result in serious personal injury

## TECHNICAL DETAILS

Item No.	1701031G
Compression Ratio	3:1
Operating Pressure(Bar/PSI)	5-8/70-115
Maximum Pressure(Bar/PSI)	8/115
Air Consumption(L/min Gallon/min)	240/63.5
Capacity(L/min Gallon/min)	12/3.2
Tube Diameter(mm/inch)	42/1.65
Suction Tube Length(mm/inch)	270/10-5/8"
Air Inlet Connection	1/4" quick plug/1/4" NPT female
Oil Delivery Connection	Male 1/2"
Max. Viscosity Oil Delivered	SAE 130
Temperature Oil Delivered	-10~50°C
Noise Level(db)	82



### THE MANUAL OF OIL PUMP

Read the following precautions and instructions before you begin assembly or using. Failure to comply with these instructions could result in personal injury or property damage. Keep these instructions in a convenient location for future reference.

### IMPORTANT NOTE

The guarantee will be void if the pump has been altered in any way.

### PROFILE

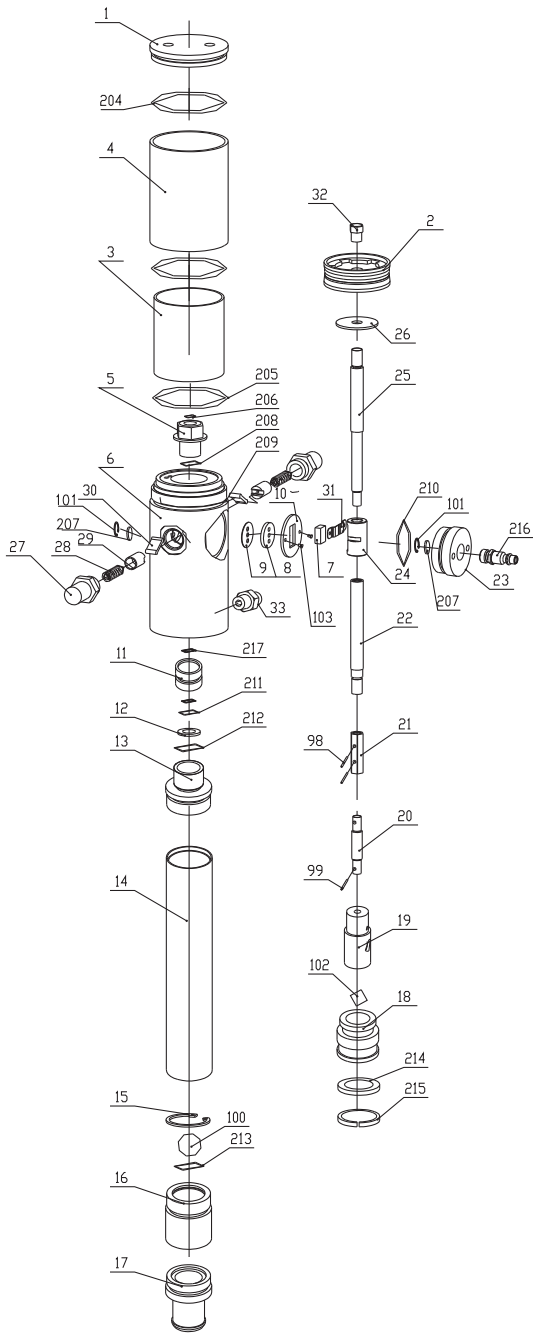
Oil pumps can be used to transfer lubrication oil, waste oil and antifreeze liquids. This manual is applicable to the following pump only, please confirm your pump is included.

## SAFETY PRECAUTIONS

When the pump is connected to the compressed air supply:

1. The compressed air must be filtered to avoid dust and moisture into pump
2. The max compressed air pressure must not exceed 0.8Mpa
3. To deliver oil, press the knob on the delivery pistol; delivery stops when the knob is released but the whole system remains under pressure.
4. Position the pistol so that the circuit can't open accidentally. Otherwise oil could leak onto the ground.
5. Never point the pistol at people or objects.
6. Press the pistol knob.
7. Always cut off the air supply after use so that oil can't leak out in case one of the pump's components should break
8. Use only original spare parts in case the pump has to be repaired or its components have to be replaced
9. Empty all the oil from the pump in case it has to be disposed of.
10. When not in use, turnoff compressed air to stop pump.
11. Do not use the pump near open flames. Do not smoke during this operation.
12. Wear oil-proof gloves
13. Do not throw the oil away. Used oil has to be disposed of according to national Environmental regulations
14. The pumps can be used only to deliver lubricants, used oil or antifreeze liquids. Do not use the pump for any other substance.

### 3:1 SERIES OIL PUMP EXPLODED VIEW



### 3:1 SERIES OIL PUMP PART LIST

#### Appendix

Part No.	Description	Q'ty	Part No.	Description	Q'ty
1	Air motor cover	1	28	Spring	2
2	Piston	1	29	Spring seat	2
3	Air motor shell inside	1	30	Trip shoe guide	2
4	Air motor shell outside	1	31	Press piece	1
5	Bracket	1	32	Nut	1
6	Air control center	1	33	Outlet	1
7	Slider	1	98	Pin	2
8	Gasket	1	99	Pin	1
9	Soft gasket	1	100	Ball	1
10	Securing washer	1	101	Small circlip	2
11	Bracket	1	102	Ball	1
12	Washer	1	103	Screw	2
13	Connect tube	1	204	O-ring	1
14	Suction tube	1	206	O-ring	2
15	Spring circlip	1	207	Silencer	2
16	Valve seat	1	208	O-ring	1
17	Filter or connector	1	209	O-ring	1
18	Piston	1	210	O-ring	1
19	Connecting shell	1	212	O-ring	1
20	Connect shaft	1	213	O-ring	1
21	Connect shell	1	214	U seal	1
22	Middle shaft	1	215	Guiding	1
23	Air center cover	1	217	OD seal	1
24	Slider shell	1	205	O-ring	1
25	Piston shaft	1	211	O-ring	1
26	Washer	2	216	Quick coupling	1
27	Spring shell	2			

#### TROUBLE SHOOTING

Problem	Possible Causes	Solution
The pump continues to operate after the gun trigger has been released	1. There is a oil leak at some point of the circuit 2. Valve sets (part No. 11 or 18 and 214, 215) close incorrectly due to dirt or wearing.	1. Check and tighten unions. Repair the leak. 2. Substitute damaged elements
Reduction of the oil delivery. Or reduced pressure in the oil delivery	1. Silencer (207) dirtied 2. Blocked at some point of the oil circuit 3. Ball valve ( 102) closes incorrectly due to dirt or wearing.	1. Clean or recharge silencer 2. Use clean oil 3. Substitute damaged elements
Air loss through the air exhaust	1. The sliding valve (7) does not close properly 2. Damaged O-ring (204, 205, 206, 208, 209 or 211) 3. Damaged piston (2) 4. Damaged washer (26) 5. Broken spring (28)	1. Disassemble and clean.  Substitute in case of damage 2. Substitute damaged elements
Oil leaks through the air exhaust	Seal set (11) damaged	Substitute damaged elements

If the pump has anything wrong, please contact dealer or their technical supporter.  
We don't recommend customer repair the pump themselves.

## STORAGE AND MAINTENANCE

Pumps are delivered in appropriate cardboard boxes. Packaging material should be properly disposed.

Handling and storage of the new pump do not require any special procedures.

However after the pump has been used, empty the used oil in the suction tube into an appropriate container. This is done by overturning the pump

The dust in compressed air can slow down and even block the motor cylinder. The following steps may prevent this from happening:

- 1) Let in 50 gram of Vaseline oil or other lubricator from the air inlet hole weekly operate the pump for several minutes after having into the pump.
- 2) Turn on the pump for several minutes until moving parts is fully lubricated.
- 3) You may repeat the above operation if necessary.
- 4) The above steps should be carried out on a weekly base.

For the pumps that are attached with compressed air treatment equipment please empty the water retained in the reservoir of the filter-purger frequently.

For the pumps that are attached with a lubricator, please pay close attention to the lubricator's oil level and refill with SAE 20, SAE 30 or antifreeze oil for extreme conditions when necessary.

### NOTE:

The user should perform only routine maintenance operations (such as filters, silencers, cleaning...) with the pump in order not to damage it or compromise its safety. Contact our sales or service centers when the pump needs further maintenance.

## HOW TO USE

### DIRECTLY FITTED PUMPS INTO THE DRUM

1. Insert the suction tube of pump into the drum and secure with ring nut, suitable for commercial drums with 57 diameter hole and threading 2"BSP
2. Fit a oil delivery tube for oil outlet of the air operated pump using only high quality tubes (normally 1/2" or 3/4", according to DIN-SAE norms), by means of 1/2"BSP threading fitting.
3. Oil delivery pistol: Connect delivery tube with delivery pistol using suitable pipe fittings, and point the pistol at right place.
4. Air inlet connection is 1/4" quick plug(or1/4" NPT female) in all versions. Compressed air connection (to be supplied by the customer) should be done using suitable tubes.
5. A pressure regulator to keep the pump's working pressure at the best possible level(max 5-8 bar) between the pump and the compressed air line.
6. A cut-off switch can enable the operator to stop the pump at any given moment by cutting the air supply off between the pump and the compressed air line.
7. Switch on all switch.





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