KING TONY

AIR OPERATED GREASE PUMP

INSTRUCTION&PART LIST
OPERATION MANUAL

- Use to measure and accurately find the piston TDC position.
- This tool has to use with TDC Indicator 9AT3-F02.

This machine is a portable type / fixed type lubricator that is indispensable for grease lubrication for machines and vehicles. This lubricator can not be used for oil lubrication.
The applicable grease is limited to a type of NLGI No.2 or less in the normal operating conditions.
If the lubricator is used in an extremely cold or low-temperature environment or any grease type exceeding NLGI No.2 is used, the discharge volume will be remarkably lowered.
Silicone grease is not applicable.

NO.9TU10-20

Please wear proper safety gear while working.

Operation instruction

An air regulator permits adjusting the supply air pressure to the pump and reducing unnecessary pump motion, thereby improving the work efficiency and extending the life of the pump.
When the knob of the air regulator is turned clockwise, the air pressure will be increased (the indicator of the pressure gauge gradually goes from " 0" to a larger number). When the knob is turned counterclockwise, the air pressure will be reduce (the indicator of the pressure gauge goes back to" 0").

(1) Thread the air line into Air coupler.

(2) If use Air Pressure Regulator, set air pressure within 4-9 bar (4-9 kg/cm2, 60-130 psi, 0.4-0.9 MPa) and will get 180-405 bar (180-405 kg/cm2, 2600-5800 psi, 18-40.5 MPa) fluid output pressure.
Wipe the grease nipple to be used for greasing cleanly. After that, push the chuck at the end of grease gun against the nipple to perform chucking as vertically as possible.

(3) Pull the gun lever to supply grease. When grease is normally injected, old grease will be squeezed out from the groove or clearance near the nipple.

(4) Remove the chuck at the end of grease gun. Since pressure is applied to the chuck, the head of the nipple may be broken if it is suddenly pulled. Incline the chuck to bleed the internal pressure, and the chuck can be easily removed.

(5) The pump will stop automatically when the resultant force at two terminals of pump is in equilibrium.

(6) If your air line system doesn't set oilier for lubricating air. For daily, manual lubrication, disconnect the quick air coupler, place about 15 drops of light machine oil in the air inlet, reconnect the hose and turn on the air supply to blow oil into the motor.

(7) Always shut off the supply air of the pump and release all pressure in system before disconnecting or servicing any parts of system. At reassemble, be sure to tighten all threaded connections securely.

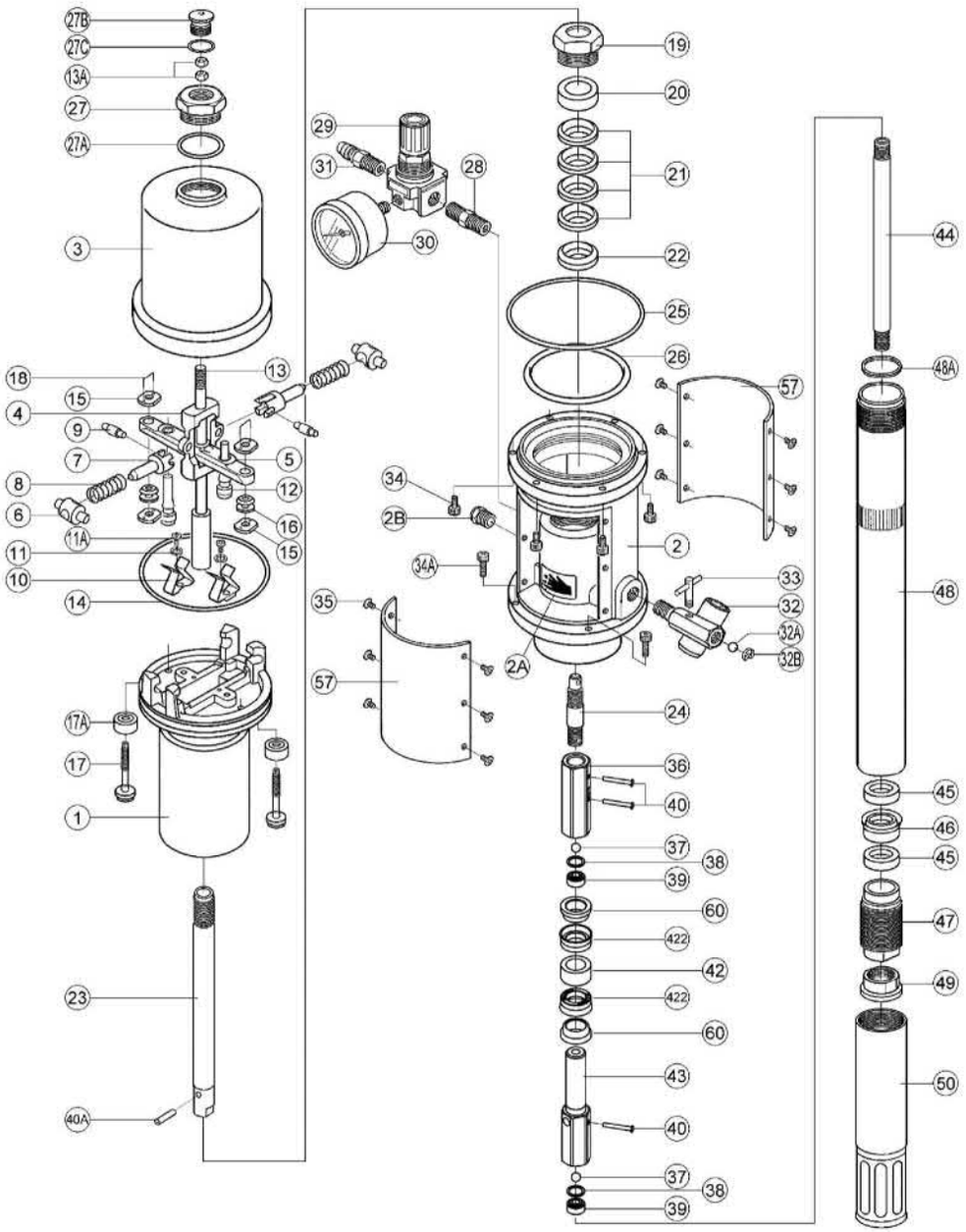
(8) Never allow the pump to run dry of material. A dry pump will quickly accelerate to a high speed, possibly damaging itself, If your pump accelerate quickly or is running to fast, stop it immediately and check the material supply. If the supply container is empty and air has been pumped into line, prime pump and line with material.

Problems and soutions

Relieve pressure before you check or service any system equipment.

Problems	Possible causes	Solutions
Pump fails to operate	Inadequate air supply pressure or restricted air lines	Increase air supply and/or clear restriction
	pump valves	
	Clogged fluid line, hose, valve, pump valves or other accessory	Relief Pressure, Clean obstruction
	Damaged air motor	Assess damage, and service air motor
The pump is operated but no fluid comes out	Exhausted fluid supply	Refill fluid
Continuous air exhaust	Worn or damaged air motor gasket or seal	Assess damage, and service air motor
Erratic pump operation	Exhausted fluid supply	Refill fluid
	Worn pump seals	Replace
	Damage check seat	Replace pump piston or shovel rod (or other damaged part)
Grease leaking from muffler plates	Worn throat seal	Replace

Parts drawing for air motor & lower pump



Parts list
Air motor

Ref No	Description	Q'ty
1	Piston	1
2	Air motor base	1
2A	Warning paper	2
2B	Silencer	1
3	Cylinder	1
4	Shuttle	1
5	Air valve bar	1
6	Rocker arm	2
7	Toggle arm	2
8	Spring	2
9	Toggle pin	2
10	Spring clip	2
11	Washer	2
11A	Screw	2
12	Rubber valve	2
13	Trip rod	1
13A	Nut	2
14	O-ring	1
15	Adjusting nut	4
16	Rubber grommet	2
17	Stem valve	2
17A	Valve seal	2
18	Lock wire	2
19	Throat packing nut	1
20	Bearing	1
21	Packing	4
22	Guide	1
23	Air piston tube	1
24	Connecting rod for 20l pump	1
25	O-ring	1
26	O-ring	1
27	Cylinder cap nut	1
27A	O-ring	1
27B	Nut	1
27C	O-ring	1
28	Coupler	1
29	Air regulator	1
30	Air pressure gauge	1
31	Quick coupler	1
32	Check valve	1
32A	Steel ball	1
32B	Spring	1

Air motor

Ref No	Description	Q'ty
33	Needle valve	1
34	Bolt	6
34A	Bolt	4
35	Bolt	12
57	Nameplate	2

Lower pump

Ref No	Description	Q'ty
36	Coupling	1
37	Steel ball	2
38	Gasket	2
39	Valve seat	2
40	Rivet	3
40A	Roll pin	3
42	Guide	1
422	Packing	2
43	Piston	1
44	Displacement tube	1
45	Guide	2
46	Packing	1
47	Packing retaine	1
48	Cylinder tube for 20l Pump	1
48A	Copper washer	1
49A	Shovel	1
50	Tube	1
60	Guide	2
61	Follower Plate	1