



# PNEUMATIC MOBILE GREASE PUMP OWNER'S MANUAL



**WARNING:** Read carefully and understand all ASSEMBLY AND OPERATION INSTRUCTIONS before operating. Failure to follow the safety rules and other basic safety precautions may result in serious personal injury.

Item # 37900



## PNEUMATIC MOBILE GREASE PUMP OWNER'S MANUAL

Thank you very much for choosing a Roughneck™ Product! For future reference, please complete the owner's record below:

Model: \_\_\_\_\_ Purchase Date: \_\_\_\_\_

Save the receipt, warranty and these instructions. It is important that you read the entire manual to become familiar with this product before you begin using it.

This machine is designed for certain applications only. The distributor cannot be responsible for issues arising from modification. We strongly recommend this machine is not modified and/or used for any application other than that for which it was designed. If you have any questions relative to a particular application, DO NOT use the machine until you have first contacted distributor to determine if it can or should be performed on the product.

For technical questions, please call 1-800-222-5381.

**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.

### INTENDED USE

Grease pumps are designed for transferring grease from drum to where it would be used.

- Compressed air operated reciprocating pumps are designed for high pressure greasing.
- Applicable to the manipulation of all types of grease (up to NLGI-2 consistency) from its original drums.

### TECHNICAL SPECIFICATIONS

Model	37900		
Pressure ratio	50:1	Suction tube diameter	1.18in.
Air inlet working pressure	70-115 PSI	Suction tube length	14.5in.
Max. working pressure	120 PSI	Air inlet/ Grease outlet	1/4in.
Max. oil outlet pressure	5600 PSI	Max. air consumption	32 gal/ min.
Air motor effective diameter	2.4in.	Delivery hose	1/4in. x 13ft.
Max. flow rate	1.76lbs./min.	Tank capacity	30lbs.

### GENERAL SAFETY REGULATIONS

**WARNING:** Read and understand all instructions.


**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. Store idle equipment. When not in use, tools and equipment should be stored in a dry location to inhibit rust. Always lock up tools and equipment, and keep out of reach of children.
4. 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 pump was designed. It will do the job better and more safely at the capacity for which it was intended. Do not modify this pump, and do not use this pump for a purpose for which it was not intended.



5. 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.
6. Do not overreach. Keep proper footing and balance at all times to prevent tripping, falling, back injury, etc.
7. DO NOT use the pump 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.
8. Industrial applications must follow OSHA requirements.

### SPECIFIC OPERATION WARNINGS

 **WARNING:** This 50:1 grease pump is designed to pump grease only. Any other use can cause unsafe operating conditions and result in component rupture, fire or explosion, which can cause serious injury, including fluid injection.

 **WARNING:** To prevent personal injury, perform the Pressure Relief Procedure before and after operating the pump and before performing any disassembly or assembly.

 **WARNING:** Failure to follow these warnings could result in serious personal injury or even death.

#### When the pump is connected to the compressed air supply:

- The compressed air must be filtered to avoid dust into pump.
- The max compressed air pressure must not exceed 120 PSI.
- To deliver grease, press the trigger on the delivery control valve; delivery stops when the trigger is released but the whole system remains under pressure.
- Position the control valve so that the fluid line can't open accidentally. Failure to do so could cause grease could leak onto the ground.
- Never point the control valve at people.
- Press the control valve trigger only after you are sure that the control valve is in the right place so that the grease doesn't leak onto the ground.
- Always cut off the air supply after use so that grease can't leak out in case that one of the pump's components breaks.
- Use only original spare parts in case the pump has to be repaired or its components have to be replaced.
- Ensure the tightness of all joints and assembly points.
- When no load, cut off compressed air to stop pump.
- Do not use the pump near open flames. Do not smoke during use.
- Wear oil-proof gloves.
- The pump can be used only to deliver grease. Do not use the pump for any other substance.

### INSTALLATION

#### 1. CONNECTION OF THE AIR INLET LINE

Air inlet connection is 1/4" NPT female. Compressed air connection (to be supplied by the customer) should be done using suitable tubes. A compressed air treatment unit (filter and regulator) is recommended to be attached to the pump. In order to improve the efficiency of the pump, the installation of a lubricator is also recommended.

#### 2. CONNECTION OF THE REGULATOR

The lubricator must be placed as close as possible to the air inlet, followed by the pressure regulator and finally, the filter. In the case of pumps not installed on wall support it is very important to equip the pump's air inlet with an adaptor for quick coupling and the air inlet hose with a quick connector.



### OPERATION INSTRUCTIONS

#### 1. PRESSURE RELIEF PROCEDURE

(1) **Skin injection hazard:** The equipment stays pressurized until pressure is manually relieved. To reduce the risk of serious injury from pressurized fluid, fluid from the valve or splashing fluid, follow this procedure whenever you:

- Stop dispensing
- Check, clean or service any system equipment
- Install or clean dispensing devices

#### (2) Pressure relief procedure


- ①. Close the pump air regulator and the bleed-type master air valve.
- ②. Hold a metal part of the dispensing valve firmly to a grounded metal waste container and trigger the valve to relieve the fluid pressure.
- ③. Open the air line valve and grease line valve.
- ④. Close the control valve after the pressure is relieved.


#### (3) Clean the obstruction in the grease system, when any of the following cases occurs:

- ①. Problem on control valve, flexible hose, rigid tube or manual/auto tip.
- ②. Pressure can not be relieved enough after above procedures are done.
- ③. It takes a very long time to relieve the pressure thoroughly.

#### 2. Operation

**NOTE:** When the pump is primed, and with sufficient air supplied, the pump starts when the dispensing valve is opened and shuts off when it is closed.

 **WARNING:** The maximum working pressure of each component in the system may not be the same. To reduce the risk of over pressurizing any component in the system, be sure you know the maximum working pressure of each component. **Never exceed the maximum working pressure of the lowest rated component in the system.** Over pressurizing any component can result in rupture, fire, explosion, property damage, and serious injury. The maximum pressure in the system is equal to air input pressure times pump ratio. Regulate air to the pump so that air line or fluid line component or accessory is not over pressurized.

 **CAUTION:** Never allow the pump to run dry of the material being pumped. A dry pump will quickly accelerate to a high speed, possibly damaging itself. If your pump accelerates quickly, or is running too fast, stop it immediately and check the material supply. If the supply container is empty and air has been pumped into the lines, prime the pump and lines with material, or flush it and leave it filled with a compatible solvent or a small amount of alcohol. Be sure to eliminate all air from the material lines.

- 1) If the pump has already been primed and the compressed air feed is connected to the appropriate work pressure level (70-115 PSI) the pump will start automatically when the nozzle or gun situated at the end of the grease delivery circuit is opened.
- 2) To stop the pump, simply close the nozzle or disconnect the air inlet line.

### TROUBLE SHOOTING

 **WARNING:**

1. To reduce the risk of serious injury, relieve pressure whenever you are instructed.
2. **MOVING PARTS HAZARD.** Never operate the pump with the warning plate or the identification plate removed. These plates protect your fingers from pinching or amputation by moving parts in the air motor.
3. Relieve pressure before you check or service any system equipment.

Problem	Possible Cause	Corrective Action
The pump continues to operate after the trigger of control valve has been released	1. Grease missing around the suction filter	1. Remove cover and take out pump. Fill the tank or replace it for a full one.
	2. There is a grease leak at some point of the line	2. Check and tighten unions. Repair the leak.
	3. Valve (part No. 15) closes incorrectly due to dirt or wearing.	3. Disassemble and clean valves. Replace them if danged
Reduction of the grease delivery. Or reduced pressure in the grease delivery	1. Air in the grease tank	1. Remove cover and take out pump. Fill the tank or replace it for a full one.
	2. Clogged silencer (210)	2. Clean or recharge silencer
	3. Blocked at some point of the grease line	3. Use clean grease
	4. Ball valve (103) closes incorrectly due to dirt or wearing.	4. Remove the dirt or replace damaged elements
	5. Damaged O-ring (216)	5. Replace damaged O-ring
Air loss through the air exhaust	1. The sliding valve (7) does not close properly	1. Disassemble and clean. Replace them if damaged
	2. The press piece (36) broken	2. Replace damaged press piece
	3. Damaged O-ring (208, 209 or 211)	3. Replace damaged O-ring
	4. Damaged piston (2)	4. Replace damaged piston
	5. Damaged washer (31)	5. Replace damaged washer
	6. Broken spring (33)	6. Replace damaged spring
Grease leaks through the air exhaust	1. Seal set (11) damaged	1. Replace damaged elements

**MAINTENANCE**

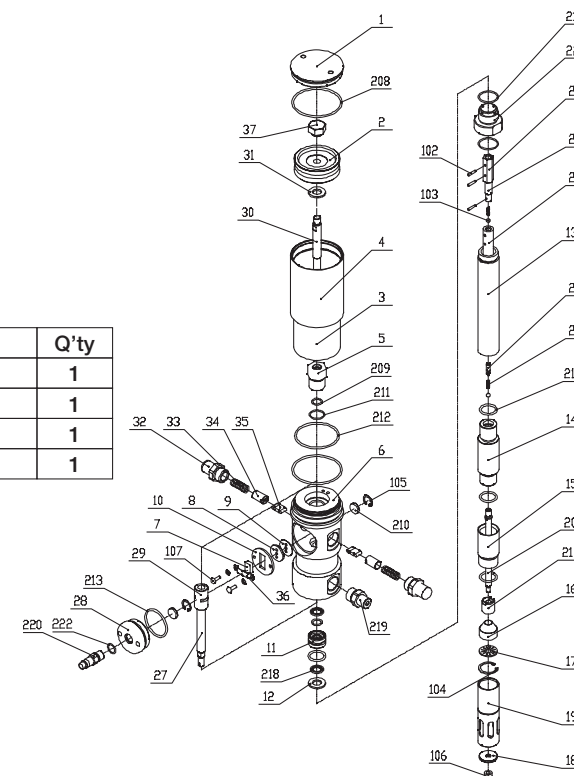
1. Store the pump in a dry place with good ventilation. Do not expose it to excessive heat, humidity or sunlight. Never let it touch any corrosive substances.
2. Store it out of the reach of children.
3. Always keep the pump at least 4 feet away from any heat source.
4. The dust in compressed air can slow down or even block the motor cylinder. The following steps may prevent this from happening:
  - 1) Let in 50 grams of Vaseline oil or other lubricator from the air inlet hole weekly, operate the pump for several minutes after having lubricator 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 basis.

**DIAGRAMS AND PARTS LIST**



Part No.	Description	Q'ty
1	Pump	1
2	Tank	1
3	Grease control valve	1
4	Delivery hose	1

① PUMP





Part No.	Description	Q'ty	Part No.	Description	Q'ty
1	Air motor cover	1	30	Piston shaft	1
2	Piston	1	31	Washer	2
3	Air motor shell inside	1	32	Spring shell	2
4	Air motor shell outside	1	33	Spring	2
5	Bracket	1	34	Spring Seat	2
6	Air control center	1	35	Trip shoe guide	2
7	Slider	1	36	Press piece	1
8	Gasket	1	37	Nut	1
9	Soft gasket	1	102	Pin	3
10	Securing washer	1	103	Ball	2
11	Bracket	1	104	Circlip	1
12	Washer	1	105	Small circlip	2
13	Connect tube	1	106	Nut	1
14	Piston shell	1	107	Screw	2
15	Valve seat	1	208	O-ring	2
16	Taper washer	1	209	O-ring	2
17	Filter	1	210	Silencer	2
18	Shovel washer	1	211	O-ring	1
19	Suction tube	1	212	O-ring	1
20	Shovel rod	1	213	O-ring	1
21	Valve	1	214	O-ring	2
22	Piston	1	215	O-ring	3
23	Spring	2	218	OD-ring	2
24	Spring seat	1	219	Outlet	1
25	Connect shaft	1	220	Quick coupling	1
26	Connect shell	1	221	Connector	1
27	Middle shaft	1	222	O-ring	1
28	Air center cover	1			
29	Slider shell	1			

For replacement parts and technical questions, please call 1-800-222-5381.



**WARRANTY**  
One-year limited warranty



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