

# OPERATOR'S MANUAL

# 612035

INCLUDING: OPERATION, INSTALLATION & MAINTENANCE  
ALSO INCLUDE MANUALS: 6534X-X (PN 97999-28) Air Motor

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IPP/PSE

## BASIC OIL PUMP 5:1 RATIO 3 1/4" AIR MOTOR 4" STROKE

## 612035 55 GALLON

**IMPORTANT: READ THIS MANUAL CAREFULLY BEFORE INSTALLING,  
OPERATING OR SERVICING THIS EQUIPMENT.**

### SERVICE KITS

- 637041 Service Kit for Air Motor Repair
- Order Lower Pump End Service Parts Separately. See Fig. 2.

### OPERATING PRECAUTIONS

- DO NOT EXCEED MAXIMUM WORKING PRESSURE OF 750 P.S.I. (52 bar) at 150 P.S.I. (10.3) air inlet pressure.
- Use ARO replacement parts to assure compatible pressure rating.
- HEED ALL WARNINGS.
- WARNING: High pressure device. Improper usage of this equipment could result in serious injury. The possibility of injection into the flesh is a potential hazard. Never allow any part of the human body to come in front of or in direct contact with the material outlet.
- An injection can be serious. If injection should occur, contact a qualified physician for prescribed treatment of such injuries.
- COMPONENT RUPTURE This pump is capable of producing high material pressure as stated on pump model plate.
- Be sure material hoses and other components are able to withstand fluid pressures developed by this pump.
- Do not operate pump continuously at speeds in excess of 75 cycles per minute.
- Disconnect air line from pump air motor when system sits idle for long periods of time.
- SERVICING Before servicing a unit be sure to disconnect air line and carefully bleed pressure from the system.

Materials and solvents being pumped by this pump must be compatible with the parts of this pump that come in contact with the material and solvent.

- WARNING: PREVENT STATIC SPARKING if static sparking occurs, fire or explosion could result. Pump, dispensing valve, and containers must be grounded when handling inflammable fluids such as petroleum products, paints, lacquers, etc. and wherever discharge of static electricity is hazardous.
- Check continuity (a good static wire connection) with an ohmmeter. Place one probe on one hose fitting and the other probe on the other hose fitting, continuity or proper grounding through hose is good when a reading is obtained on the ohmmeter.
- When pumping, flushing or recirculating volatile solvents, the area must be adequately ventilated.
- Keep solvents away from heat, sparks and open flames. Keep containers closed when not in use.

### AIR SUPPLY REQUIREMENTS

- Excessive air pressure will shorten the life of the pump. Do not operate pump above recommended maximum air pressure.

For maximum operating efficiency, the following air supply specification should be maintained to this pump:

- AIR PRESSURE - Refer to maximum pressure not in Operating precautions
- AIR FILTRATION - 50 micron

### PUMP DATA

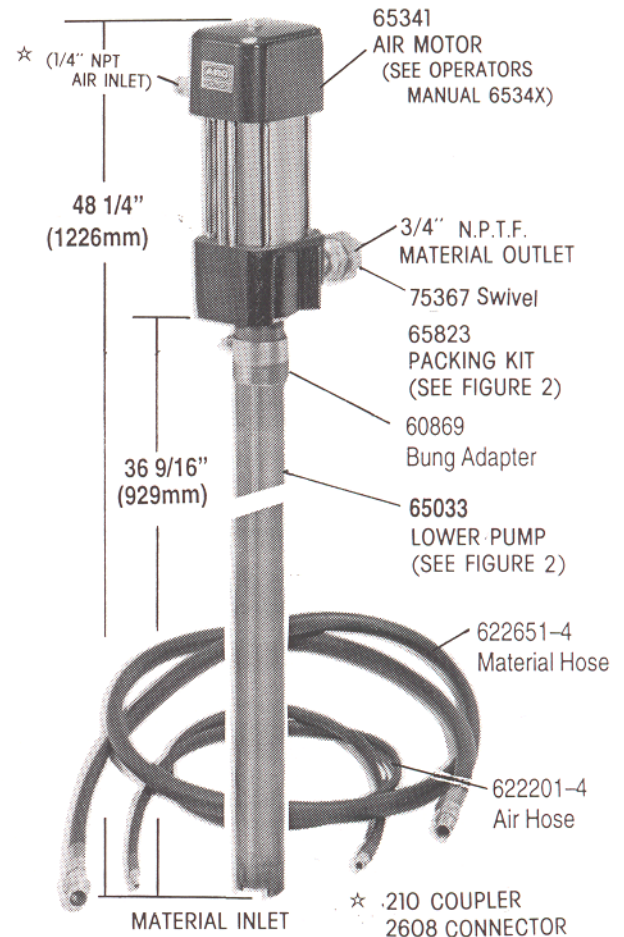


FIGURE 1

- LUBRICATED AIR SUPPLY
- AIR INLET SIZE - 1/4 NPT

- Filtered and oiled air will allow the pump to operate more efficiently and yield a longer life to operating parts and mechanisms.
- Lack of or an excessive amount of lubrication will affect the performance and life of this pump. Use only recommended lubricants.
- DAILY - Fill air line lubricator reservoir with SAE No. 90W non-detergent gear oil. Set to 1 to 2 drops/minute.
- If pump is to be inoperative for more than a few hours at a time, disconnect air supply and relieve all pressure from the system.

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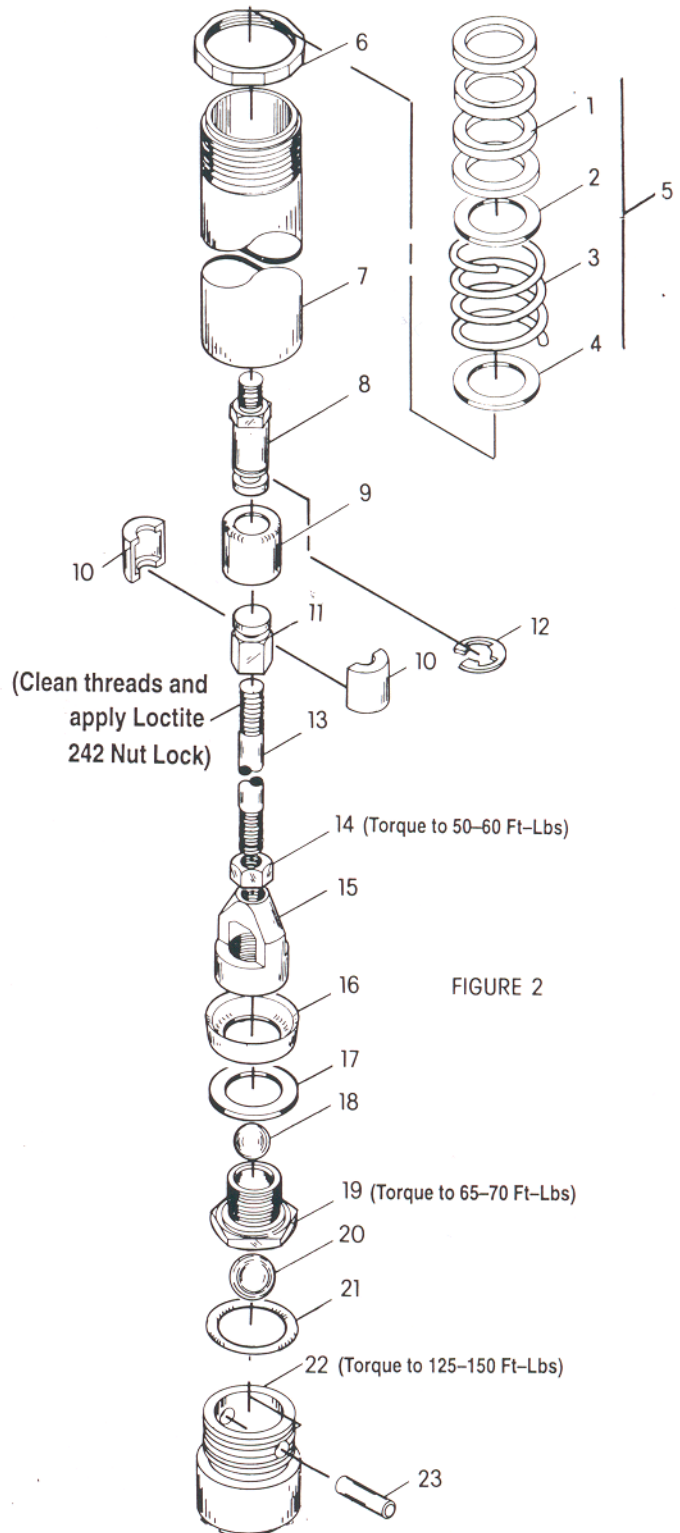


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# 65033 LOWER PUMP

REF	DESCRIPTION	PART NO.
1	Packing (4 req'd.)	91784
2	Washer	90123
3	Spring	90120
4	Washer	90125
5	Packing Kit (Consists of Items 1-4)	65823
6	Locknut	76982
7	Tube	90121
8	Adapter	76661
9	Sleeve	90109
10	Connector (2 req'd.)	90096
11	Adapter	76660
12	Retaining Ring	90102
13	Rod	90122
14	Nut	Y11-108-C
15	Cup Follower	75678
16	Cup (Leather)	75680
17	Washer	75682
18	Ball	Y16-32
19	Inner Check Seat	75681
20	Ball	Y16-238
21	"O" Ring	Y325-223
22	Foot Valve	90119
23	Pin	83009

ITEMS 1-5 ARE NOT PART OF 65033 LOWER PUMP



## OPERATING INSTRUCTIONS

- The 5:1 ratio is an expression of the relationship between the effective air motor area and the effective lower pump area. When 150 PSI (10 bar) of air pressure is supplied to the air motor, the lower pump end will develop a maximum of 750 PSI (52 bar) of fluid pressure (at no flow) as the fluid control is opened, the flow rate will increase as the air motor cycle rate increases to keep up with the demand.
- Flush system. This pump has been tested in kerosene and a small amount remains in the pump end. Kerosene must be flushed from the pump before using. To flush system:
  - Gun or dispensing device should be removed.
  - Immerse fluid or suction hose in a 5 gallon pail of compatible solvent.
  - Place material outlet hose into pail.
  - Regulate air pressure to a few pounds.
  - Connect air supply to air motor inlet.
  - Allow pump to cycle slowly and circulate solvent.
  - Disconnect air supply.

## TROUBLE SHOOTING

- |   |  |
|---|--|
| <b>PROBLEM</b>                                  |  |
| • No material (pump continually cycles)         | <b>CAUSE</b>   |
| Empty material supply                           | <b>REMEDY</b>  |
|   | Disconnect the air. Replenish material supply. Connect the air.  |
| <b>PROBLEM</b>                                  |  |
| • Material on one stroke only (fast downstroke) | <b>CAUSE</b>   |
| (20) ball in (22) foot valve ass'y not seating. | <b>REMEDY</b>  |
|   | Remove the foot valve ass'y. Remove the ball from the foot valve ass'y. Clean and inspect ball and foot valve ass'y. If either ball or foot valve ass'y is damaged, replace. |
| <b>PROBLEM</b>                                  |  |
| • Material on one stroke only (fast upstroke)   | <b>CAUSE</b>   |
| Worn or damaged (16) cup                        | <b>REMEDY</b>  |
|   | Replace with new cup.  |



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