

# OPERATOR'S MANUAL

# 65875-XC

INCLUDING: SPECIFICATIONS, SERVICE KITS, PARTS, TROUBLESHOOTING  
INCLUDE MANUAL: S-633 GENERAL INFORMATION (PN 97999-625)

RELEASED: 8-1-95  
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(REV. C)

**4-1/4" AIR MOTOR**  
**46:1 RATIO**  
**0 - 6900 PSI RANGE**

## BASIC PUMP CHOP-CHECK TYPE



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

It is the responsibility of the employer to place this information in the hands of the operator. Keep for future reference.

### SERVICE KITS

- Use only genuine ARO® replacement parts to assure compatible pressure rating and longest service life.
- **61268 for repair of Air Motor section.**  
Service Note: The Air Motor Service/Parts Manual is not shipped with the pump but it is included with each Service Kit. If this Service/Parts Information is needed, request the Air Motor Operator's Manual from ARO. (Manual 6544X-X, PN 97999-64).
- **637056 for repair of Lower Pump section (Leather Packings).**
- **637057 for repair of Lower Pump section (PTFE Packings).**
- **637280 for repair of Lower Pump section (UHMW-PE Packings).**

### SPECIFICATIONS

Model Series	66875-XC
Type	Air Operated, Basic Pump Chop-Check
Ratio	46:1
Air Motor Diameter	4-1/4" (108 mm)
Stroke	4" (102 mm)
Air Inlet	1/2" - 14 NPTF - 1 (f)
Material Inlet	Immersed or Follower Plate
Material Outlet	1/2" - 14 NPTF - 1 (f)
Pump Construction	Carbon Steel
Dimensional Data	See Fig.1

### PERFORMANCE

Air Inlet Pressure Range	0 - 150 PSI (0 - 10.3 bar)
Fluid Pressure Range	0 - 6900 PSI (0 - 475 bar)
Displacement In <sup>3</sup> Per Cycle	2.5
Cycles Per Gallon	92.8

Noise Level\* - 81.8 db(A) @ 60 psi, 40 cycles per minute  
\* The pump sound pressure level has been updated to an Equivalent Continuous Sound Level (L<sub>Aeq</sub>) to meet the intent of ANSI S1. 13-1971, CAGI-PNEUROSP S5.1 using four microphone locations.

### GENERAL DESCRIPTION

This model is designed for delivery of heavy viscosity fluids such as grease. Material dispensing accessories and supply lines and fittings must be capable of withstanding pressures developed by pump.

### OPERATING AND SAFETY PRECAUTIONS

**⚠ WARNING** Read the General Information Manual for operating and safety precautions and important information.

### PUMP DATA

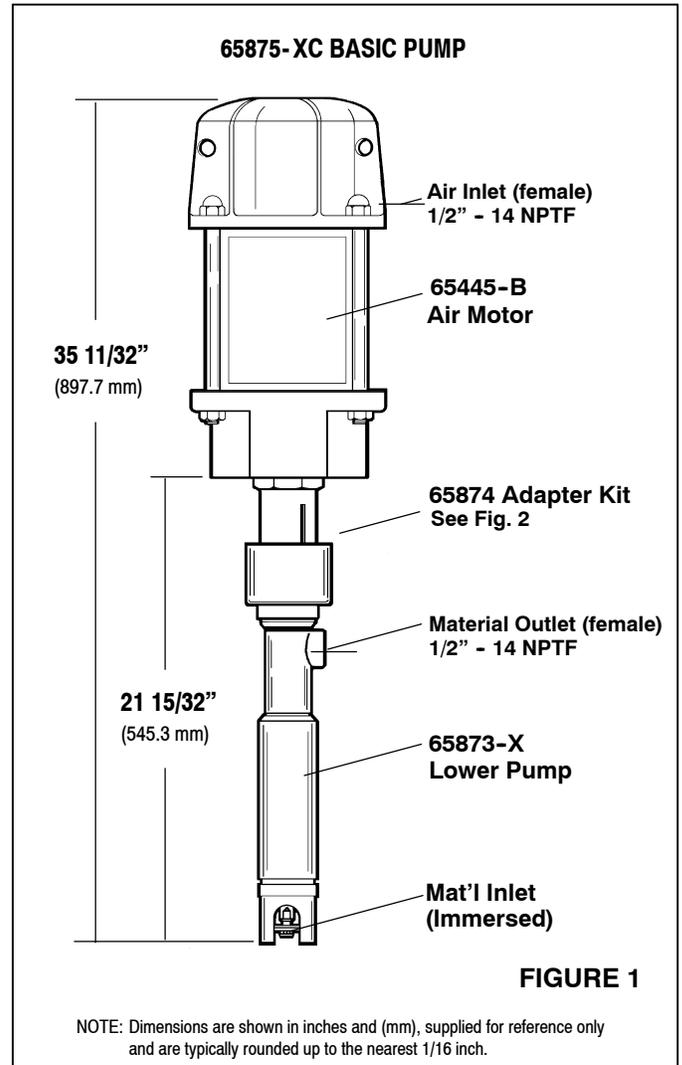


FIGURE 1

NOTE: Dimensions are shown in inches and (mm), supplied for reference only and are typically rounded up to the nearest 1/16 inch.

### IMPORTANT

**This is one of two documents which support the pump. Replacement copies of these forms are available upon request.**

- 65875-XC MODEL OPERATOR'S MANUAL
- S-633 GENERAL INFORMATION LUBRICATION PISTON PUMPS

## INSTALLATION

### FLUSH PUMP

1. Connect fluid hose to pump outlet and be sure all fittings are tight.
2. Turn air regulator knob counter-clockwise until it turns freely.
3. Pump has been tested in oil and a small amount remains for protection against rusting. Immerse lower pump end in compatible solvent.
4. Connect air hose coupler to connector on FRL.
5. Turn air regulator knob clockwise until air motor starts operating.
6. Flush pump with oil.
7. Disconnect air supply from air motor.

## PUMP MODEL CHART

BASIC PUMP	PUMP	SPACER SECTION
*65875-C	65873	65874
*65875-1C	65873-1	65874
65875-2C	65873	65874-1 *
65875-3C	65873-1	65874-1 *
*65875-4C	65873-4	65874
65875-5C	65873-4	65874-1 *

(\* OBSOLETE PUMP MODELS, SHOWN FOR REFERENCE ONLY)

\* 65874-1 uses a 92483-1 Tube in place of a 92483 Tube and a 90742-1 Rod Adapter in place of a 90742 Rod Adapter.

### ADAPTER KIT 65874

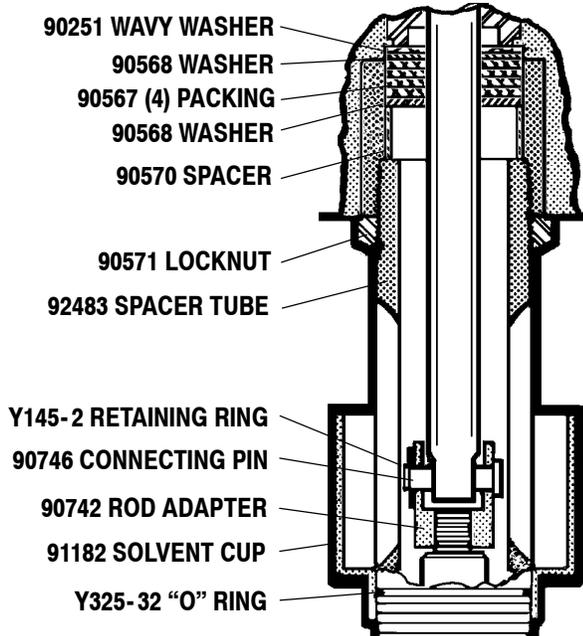


FIGURE 2

## MAINTENANCE

The basic pump consists of two major components: 1. Air Motor, 2. Lower Pump. The motor is connected to the lower pump end by a spacer section. This allows for lubrication of the upper packing gland and prevents motor contamination because of normal wear and eventual leakage through the material packing gland. The air motor is removable and is to be serviced separately. Refer to air motor manual for service and parts. It is recommended that an oiler be installed in the airline as close as possible to the pump. This increases the service life of the pump by reducing wear of the air motor's internal parts.

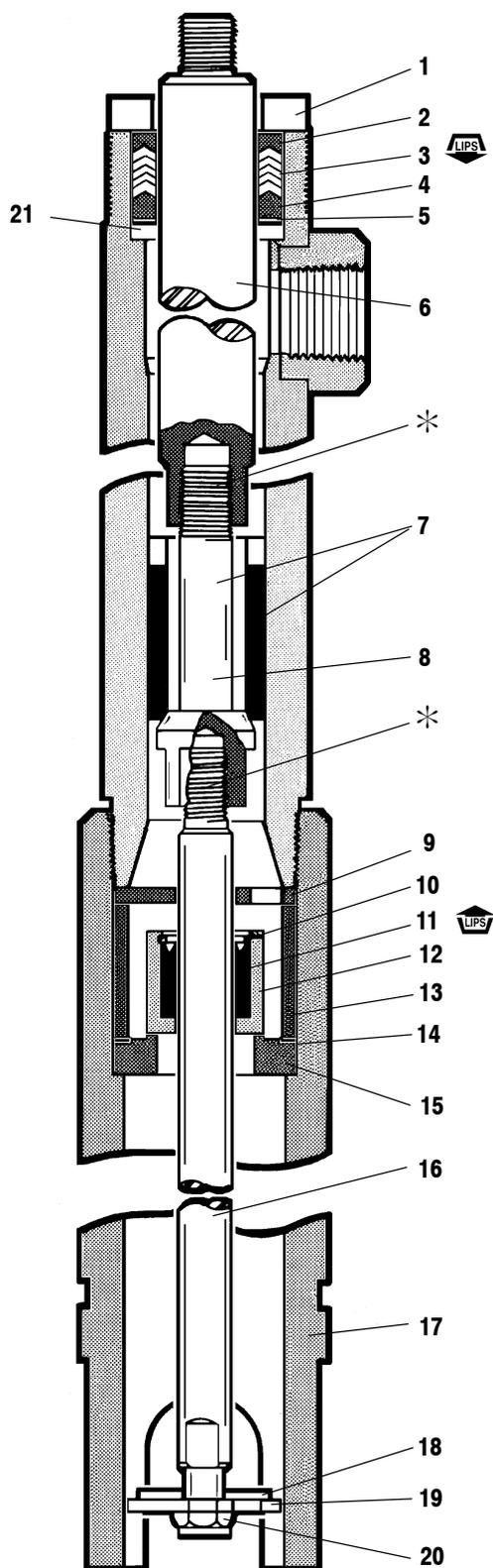
- Periodically flush entire pump system with a solvent that is compatible with the material being pumped.
- Pump disassembly should be done on a clean work bench with clean cloths to keep parts clean.
- If replacement parts are necessary, consult drawing containing parts for identification, include the part name and number when ordering.
- Before assembling, lubricate parts where required. When assembling "O" rings or parts adjacent to "O" rings, care must be exercised to prevent damage to "O" rings and "O" ring groove surfaces.
- If pump is to be inoperative for an unspecified period of time, disconnect air and relieve all pressure.

## PUMP DISASSEMBLY

NOTE: All threads are right hand.

1. Clamp pump assembly in a vise on the air motor base assembly.
2. Unscrew 90571 Lock Nut. (See Figure 2)
3. Place a strap wrench around 92483 tube and loosen by turning counterclockwise. If the wrench slips on the tube, wrap a piece of 400 grit sand paper around tube and under strap wrench.  
Note: Pipe wrench will damage the finish of the tube.
4. After the tube has been pulled down to expose the air motor rod, hold air motor piston rod and remove the Y145-2 retaining ring and 90746 pin from the air motor piston rod.
5. Remove the air motor assembly from the vise.
6. Vise the lower pump and push (6) piston rod until flats on (16) rod are exposed at other end of pump.
7. Unscrew (20) stop nut and remove (19) washer and (18) washer from (16) rod.
8. Unscrew (17) primer tube from (7) tube and sleeve and remove (9) washer, (10) retaining ring, (11) "U" cup, (12) body, (13) sleeve, (14) gasket and (15) valve seat.
9. Hold (6) piston rod and unscrew (16) rod from assembly.
10. Push (6) rod until (8) connector is exposed on other end of (7) tube.
11. Unscrew and remove (8) connector from (6) rod.

## PARTS LIST / LOWER PUMP SECTION



\* APPLY LOCTITE 271 TO THREADS

FIGURE 3

ITEM	Description	Qty	Part No.
1	Washer	1	90747
2	Female Washer	1	90748
✓3	Packing (65873) Leather	5	93714-1
	Packing (65873-1) PTFE	5	93714-2
	Packing (65873-4) UHMW-PE	5	93714-4
4	Male Washer	1	90749
✓5	Bowed Washer	1	90744
□6	Piston Rod	1	90753
7	Tube & Sleeve	1	65871
8	Connector	1	90738
9	Washer	1	90136
✓10	Retaining Ring	1	Y147-77
✓11	"U" Cup	1	90757
12	Body	1	90756
13	Sleeve	1	4170
✓14	Gasket	1	92845
15	Valve Seat	1	4169
16	Rod	1	90739
17	Primer Tube	1	92485
18	Washer	1	90133
19	Washer	1	90686
20	Stop Nut	1	Y109-428
21	Washer	1	90741

✓PARTS INDICATED ARE INCLUDED IN 637056, 637057 & 637280 SERVICE KITS

### PUMP REASSEMBLY

1. Place (21) washer, (5) bowed washer, (4) male washer, (3) packings and (2) female washer into (7) tube and sleeve. Slide piston rod through upper packings and screw (8) connector into (6) piston rod.
2. Screw (16) rod into (8) connector. Place (15) valve seat, (14) gasket, and (13) sleeve into (17) primer tube.
3. Place (9) washer over (16) rod and into position next to (7) tube and sleeve.
4. Place (12) body, (11) "U" cup and (10) retaining ring onto (16) rod.
5. Install (1) gasket in throat of air motor base.
6. Thread rod assembly into piston rod of air motor.

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## TROUBLE SHOOTING

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### **No Material. (Stalled Pump.)**

- Obstructed Material Line. Disconnect air supply. Relieve all fluid pressure in pump. Remove Obstruction in system.

### **No Material (Pump Continually Cycles.)**

- Empty material supply. Shut down system. Replenish material supply.

### **Material on one stroke only. (Fast Downstroke.)**

- Item (11) "U" Cup is worn. Remove the "U" Cup. Replace "U" Cup.

### **Material on one stroke only. (Fast Upstroke.)**

- Item (12) body seat is not properly seating on (15) valve seat. Remove the seat. Clean and inspect body and seat. If either is damaged. replace with new parts.