

OPERATOR'S MANUAL

61287X-X

INCLUDING: OPERATION, INSTALLATION, & MAINTENANCE

RELEASED:4-27-83

REVISED:9-8-93

(REV. C) IPP/PSE

ALSO INCLUDE: Service Sheet 636077 (Z Swivel), 651555-B (Spray Nozzle),
65748 (Control Handle), 772-2 (Safety Precautions), 6641X-X (Air Motor)
With Model 612877-X Only: 640058 (Dolly), 640028 (Follower Plate)
With Model 612878-X Only: 640015-1 (Follower Plate)



61287X-X PUMP ASS'Y.

FOR UNDER BODY
RUST PROOFING MATERIAL

3" AIR MOTOR
17:1 RATIO

THIS MANUAL COVERS:

120 LB. [16 GAL.] DRUM MODELS

612877-D

612877-1D

612877-2D

612877-3D

400 LB. [55 GAL.] DRUM MODELS

612878-D

612878-1D

612878-2D

612878-3D



612877-3D SHOWN
DRUM NOT INCLUDED

AIR MOTOR SERVICE KIT [637090-B]
LOWER PUMP SERVICE KIT [61343]

WARNING: HIGH PRESSURE DEVICE

IMPROPER USAGE OF 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 INJURY CAN BE SERIOUS! IF INJECTION SHOULD OCCUR, CONTACT A QUALIFIED PHYSICIAN FOR IMMEDIATE TREATMENT OF SUCH INJURIES.

DO NOT EXCEED MAXIMUM WORKING PRESSURE OF 2550 PSI [175.8 BAR] AT 150 PSI [10 BAR] AIR INLET PRESSURE.

MODEL 61287X-X
PAGE 1 OF 6



LOWER PUMP END

The 17:1 ratio is an expression of the relationship between the effective air motor area and the effective lower pump end area. When 150 P.S.I. (10 bar) of air pressure is supplied to the air motor, the lower

pump end will develop a maximum of 2550 P.S.I. (175.8 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.

SAFETY INSTRUCTIONS

Use ARO replacement parts to assure compatible pressure rating. Read All Warnings and Safety Instructions carefully before operation of this unit.

Heed All Warnings.

WARNING

Never allow any part of the human body to come in front of or in direct contact with the material outlet. Accidental operation of the pump could cause an injection into the flesh. If injection occurs, medical aid must be immediately obtained from a physician.

Component Rupture — This unit is capable of producing high fluid pressure as stated on the pump model plate. To avoid component rupture and possible injury **do not exceed 75 cycles per minute or operate at an air inlet pressure greater than 150 P.S.I. (10 bar).**

Servicing — Before servicing, cleaning or removing any components, always disconnect or shut-off power source and carefully relieve all fluid pressure from the system.

CAUTION: Materials and solvent being pumped must be compatible with the parts of the pump that become wetted when in contact

with material or solvent. Wetted parts consist of the following: Steel, Buna "N", Zinc, Brass and Teflon.

CAUTION: When pumping, flushing or recirculating volatile solvents, the area must be adequately ventilated.

CAUTION: Keep solvents away from heat, sparks and open flames, keep containers closed when not in use.

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 solvents, paints, lacquers, etc. and wherever discharge of static electricity is a hazard.

Use grounded hoses (static wire) and be sure the object being serviced is grounded, if it can produce a static charge.

Continuity (a good static wire connection) of a hose can be checked by using 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.

AIR AND LUBE REQUIREMENTS

Excessive air pressure will shorten the life of the pump. **Do Not operate pump above recommended maximum air pressure of 150 pounds per square inch (10 bar) of 75 cycles per minute.** Failure to observe warnings may cause personal injury and damage to the pump.

Filtered and oiled air will allow the pump to operate more efficiently and yield a longer life to operating parts and mechanisms.

A filter capable of filtering particles larger than 5 microns should be used with an oiler.

INSTALLATION SEE FIGURE 3

Assemble the parts that are shipped loose as follows:

1. Connect the **C** Hose to the 6847 Adapter at the material outlet.
2. Connect the other end of the **C** Hose to the 3/8" NPT end of the 4280 Connector.
3. The remaining end of the 4280 Connector is then connected to the 1/8" NPTF male end of the 636077 swivel.
4. The 1/8" NPTF end of the **2** adapter is then connected to the female end of the 636077 swivel.

5. The 3/8" NPTF end of the **2** adapter is then screwed into the **1** undercoating gun.

6. Assemble gun spray tip option to the gun outlet as shown in Figure 1.

CAUTION: When assembling the drum cover on a drum by use of the thumb screws, be sure drum is centered under the cover. If not centered, the follower will not follow the material down. Exceptionally large dents in the side of the drum will also not allow the follower to follow the material down.

The unit has been thoroughly inspected and pressure tested prior to packing for shipment. A film of undercoating material, from testing operations remains on the working parts; therefore, flush the pump with a suitable solvent before operating unit and each time material is changed or when pump is not being used for a period of time.

1. When pump is installed and ready to operate, adjust knob on the air regulator counterclockwise (out) until it turns freely.
2. Connect air line.

1. If unit should completely fail to operate, the following procedure will be helpful in determining the cause.
 - a. Check air pressure at pump to insure air line is not obstructed and air is being supplied to pump.
 - b. If insufficient air is not the trouble, disconnect the 210 Speed Coupler and then open control handle to relieve pressure in material line. Now detach material hose from the 6847 adapter. Remove slowly as pressure may be built up in pump. Hold rag at this point and apply air to pump. If

OPERATION

3. Adjust knob on the air regulator clockwise (in) until the air motor slowly starts to cycle (approx. 20-30 PSI). Increase the pressure to a reading between 60 PSI to 80 PSI; this should adequately pump most materials. It is advisable to disconnect the air supply when pump is not in use.

NOTE: For adjustment of the 65748 control handle, consult the operators manual.

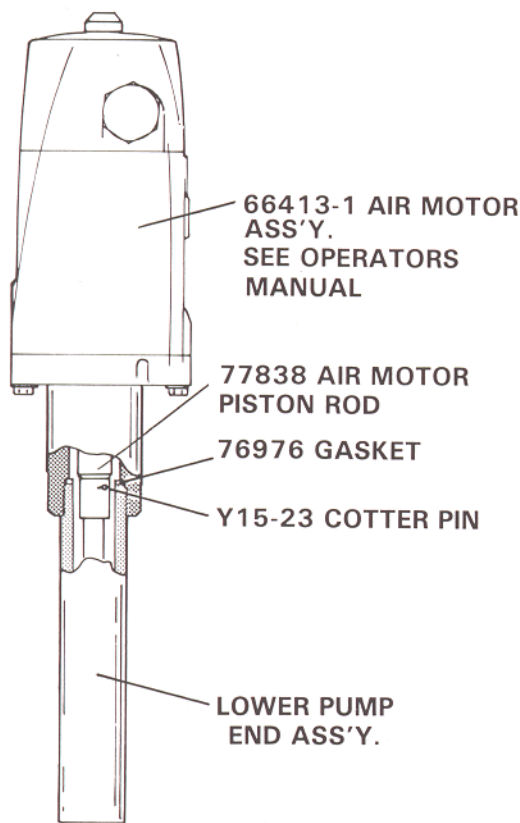
TROUBLE SHOOTING

pump now operates there is an obstruction in the material hose or control handle. If, however, the pump still does not operate, consult local dealer or The Aro Corporation.

2. Should pump operate, but dispense little or no material, check for:
 - a. Inadequate supply of material.
 - b. Dirt or foreign matter between the Y16-32 Ball and the 76966 Ball seat, or worn or damaged 61308 piston in the lower pump section. (See page 6)

BASIC PUMP ASS'Y.

FIGURE 1



LOWER PUMP END DISASSEMBLY

NOTE: Reference letters "A" & "B" (shown here) apply to figures 1 & 4 only.

NOTE: All threads are right hand.

1. Secure air motor with clamp.
2. Place strap wrench around **A** tube and loosen by turning counterclockwise. If the wrench slips on the **A** tube, wrap a piece of 400 sand paper around **A** tube and under strap wrench. (NOTE: Pipe wrench will damage the finish of the tube.)
3. After the **A** tube has been pulled down to expose the **B** rod and Y15-23 cotter pin, remove Y15-23 cotter pin and unscrew the **B** rod from the 77838 air motor piston rod.
4. Remove 76966 ball seat.
5. Remove the Y16-32 ball from the 76966 ball seat.
6. Remove the Y325-124 "O" Ring from the 76966 ball seat.
7. Remove 77904 ball guide from **A** tube.
8. Pull **B** rod from tube and remove Y109-624 nut, 76968 washer, and 61308 piston ass'y.

LOWER PUMP END ASSEMBLY

NOTE: Clean all parts thoroughly before ass'y.

For assembly of lower pump end, reverse the disassembly instructions.

61287X-X PUMP ACCESSORY PARTS LIST

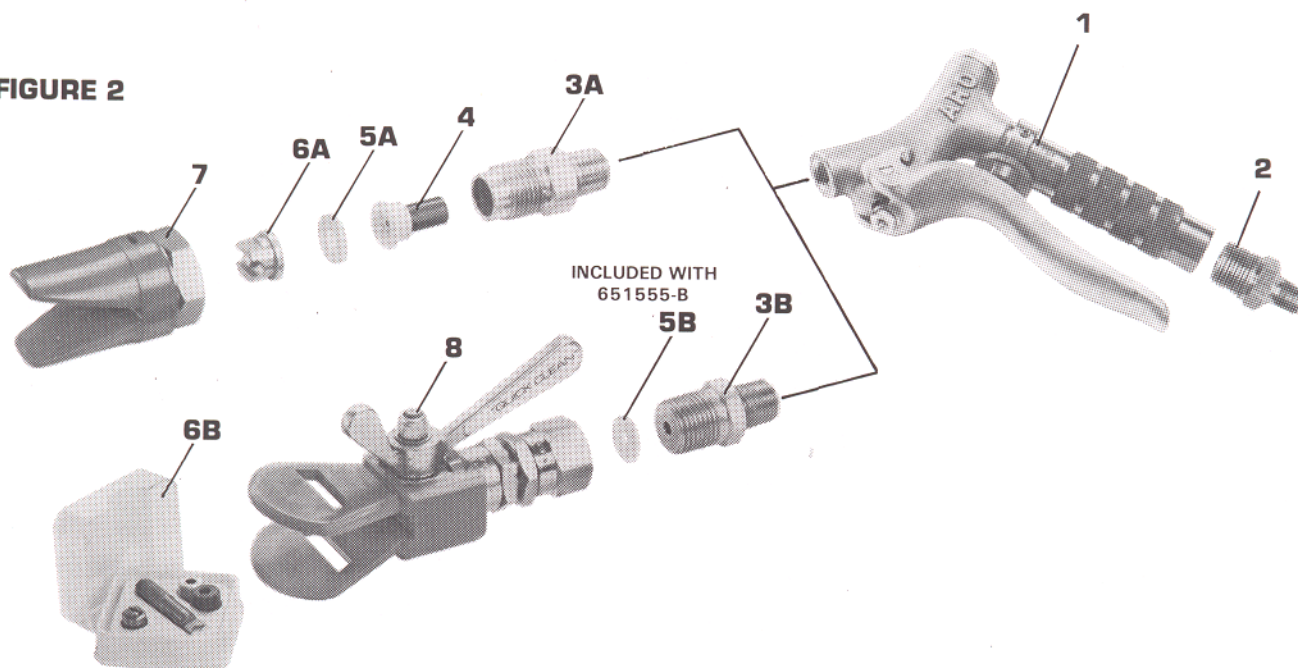
DARKENED AREAS INDICATE WHERE USED
SEE VIEW ON PAGE 3.

*SEE OPERATORS MANUAL

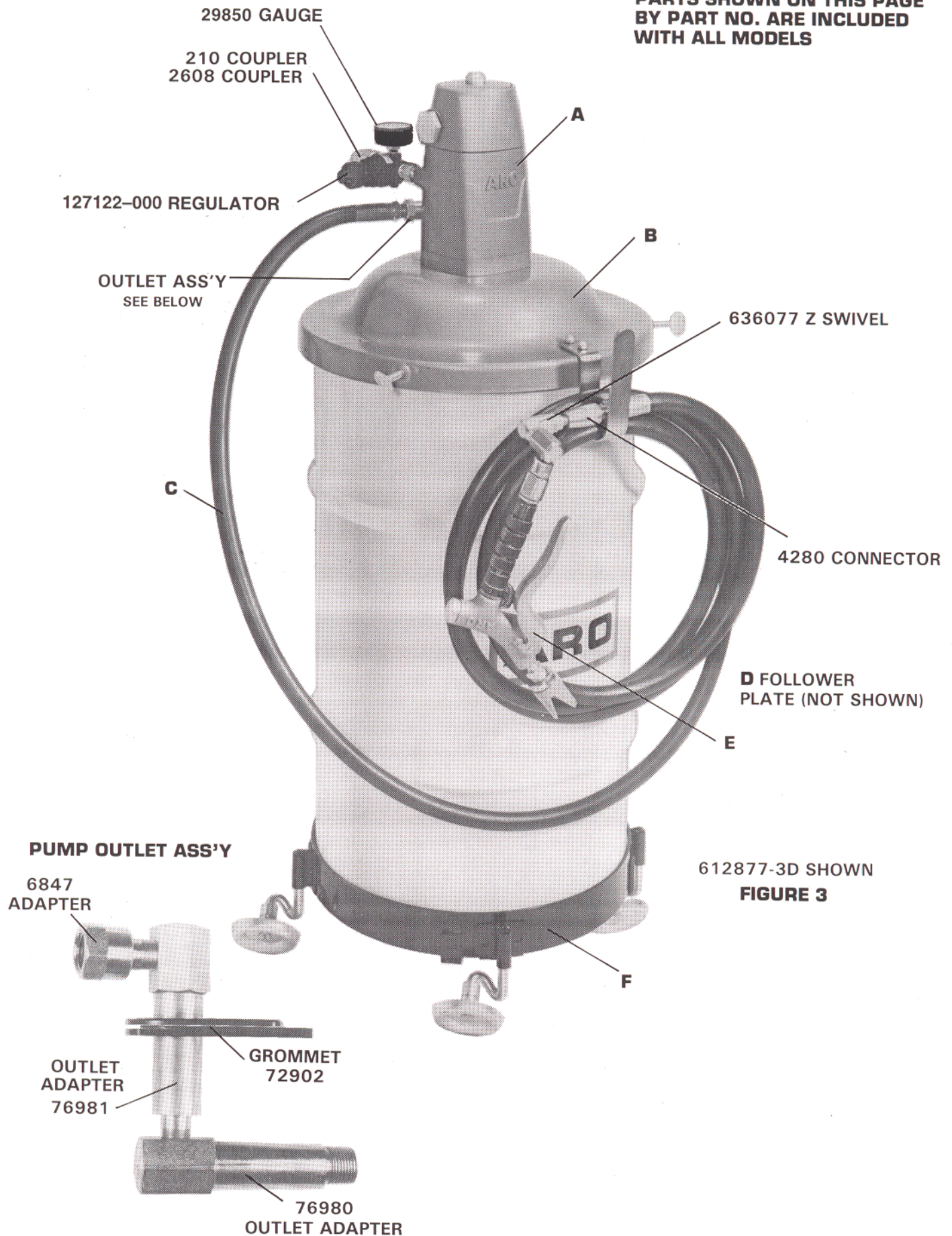
REF. DESCRIPTION	PART NO.	MODEL							
		612877-D	612877-1D	612877-2D	612877-3D	612878-D	612878-1D	612878-2D	612878-3D
A PUMP (120 LB.) SEE PAGE 6	61685-2D								
PUMP (400 LB.) SEE PAGE 6	61685-4D								
B COVER (120 LB.)	61103-2								
COVER (400 LB.)	77422-1								
C HOSE 15	623401-15								
HOSE 25	623401-25								
D FOLLOWER PLATE 120 LB. DRUM	*640028-ZZ								
FOLLOWER PLATE 400 LB. DRUM	*640015-1								
E TIP & CONTROL HANDLE KIT	61197								
SEE BELOW	61198								
SEE BELOW	61199								
F DOLLY	*640058								

		KIT NO.			
TIP & CONTROL HANDLE KIT		MODEL	61197	61198	61199
REF.	DESCRIPTION	PART NO.			
1	GUN ASS'Y	*65748			
2	ADAPTER	72290			
3A	ADAPTER	76751			
3B	ADAPTER	77413			
4	FILTER	65809-9			
5A	WASHER	75815			
5B	WASHER	90427			
6A	TIP (.018 ORIFICE)	TC-1850			
6A	TIP (.018 ORIFICE)	TC-1850-D			
6B	TIP (.026 ORIFICE)	TC-2650-D			
7	CAP & GUARD ASS'Y.	66504			
8	REVERSIBLE SPRAY NOZZLE	*651555-B			

FIGURE 2



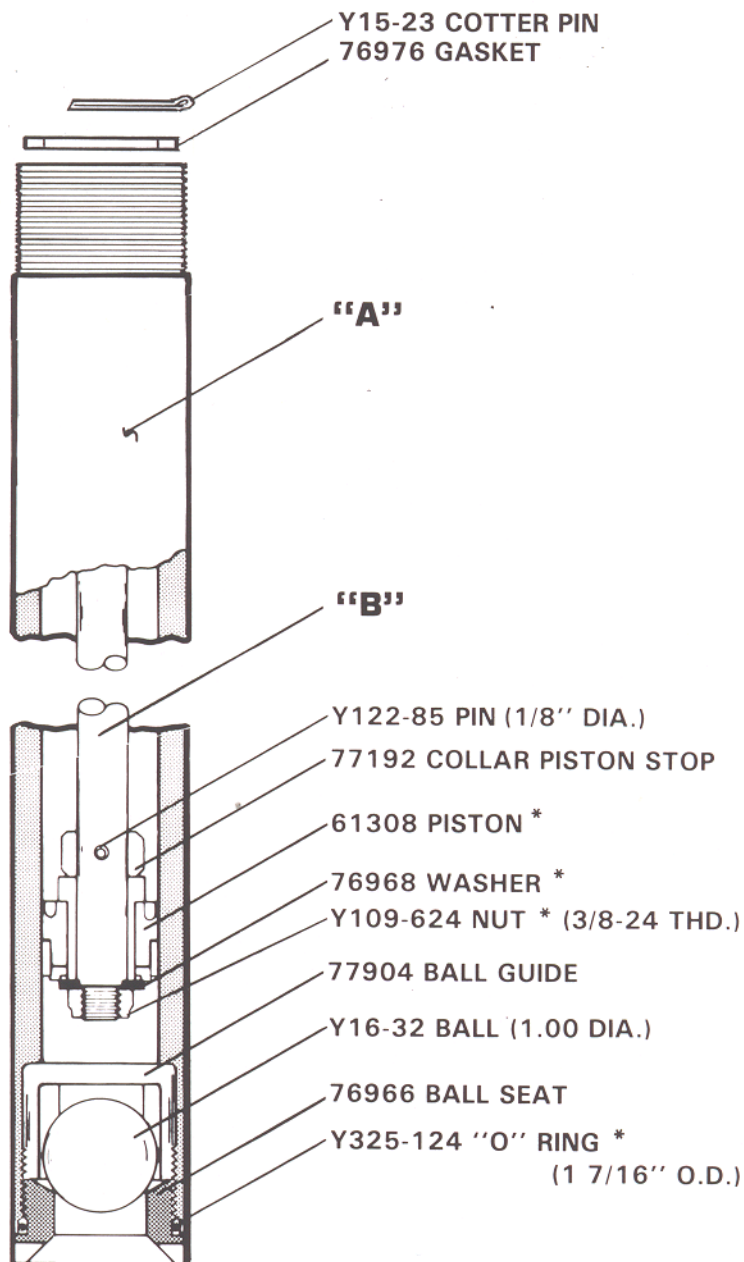
**PARTS SHOWN ON THIS PAGE
BY PART NO. ARE INCLUDED
WITH ALL MODELS**



LOWER PUMP END PARTS LIST

NOTE: ALL MODELS IN THIS MANUAL USE
66413-1 AIR MOTOR. CONSULT 6641X-X
OPERATORS MANUAL FOR PART LIST AND
SERVICE INFORMATION.

*PARTS SO MARKED ARE
INCLUDED IN 61343
SERVICE KIT



MODEL	PUMP NO.	"A" TUBE	"B" ROD
612877-X	61685-2D	77905-12	77839-2
612878-X	61685-4D	77905-14	77839-4



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