

# OPERATOR'S MANUAL

INCLUDING: OPERATION, INSTALLATION & MAINTENANCE

# 61140X

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REVISED: 8-26-94  
(REV. C) IPP/PSE

## HAND OPERATED LUBRICATION PUMP

**611402**  
25-40 LB DRUM

**611403**  
120 LB DRUM

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

### OPERATING PRECAUTIONS

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** 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 whenever discharge of static electricity is a hazard.

**⚠ 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 container closed when not in use.

**⚠ CAUTION** Materials and Solvents being pumped must be compatible with the parts of the pump that become wetted when in contact with material or solvent.

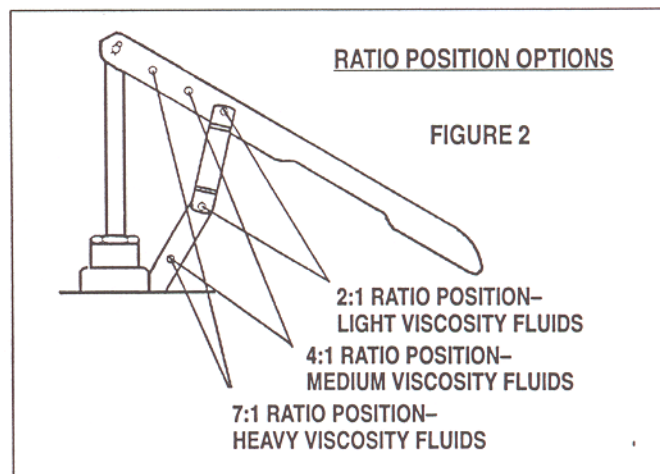
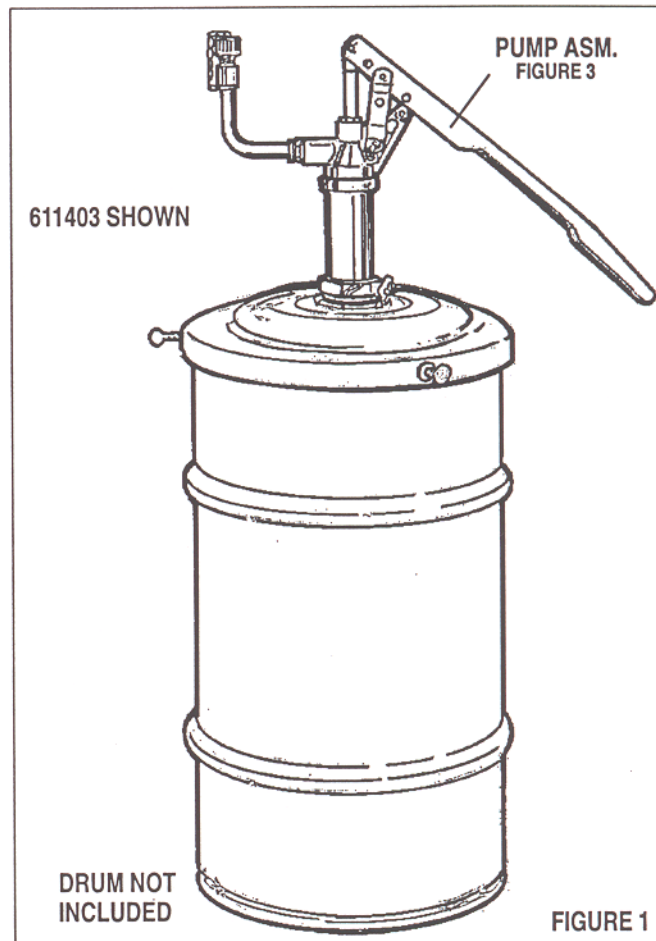
### RATIO ADJUSTMENT

The Aro Multi-purpose hand operated pumps are designed so the ratio can be easily adjusted to handle fluids of any viscosity.

The lower the ratio is set, the more volume of fluid will be dispensed with each stroke. The heavier the the viscosity of the fluid the higher the ratio should be and the volume per stroke will be reduced accordingly.

Use the ratio setting where the pump delivers the most volume and operates with the least effort.

The diagram in Figure 2 illustrates the location of the linkage to obtain any one of the three different ratios.



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## GENERAL INFORMATION

### INSTALLATION

1. Remove the pins, clips and link from bag. Install hand lever (28) onto the top of the piston rod (17) using pin (10) and use (11) retainer.  
The last hole in the end of the lever should be used. The linkage assembly attaches to the main pump body and the top end of the linkage connects to setting on the hand lever as shown in Figure 2. **Always install the link so that the arrow on the side points upward.** Be sure the cross-pin in the link is "UP" next to the handle. Other ratios may be had by assembling the link according to the number stamped on the pump hand lever.
2. Assemble the (9) Bushing and (10) Nut in the material outlet of the (8) Pump Body Assembly.
3. Screw the (5) Tube into the (10) Nut and attach (4) Loader assembly on (5) tube.
4. Place drum cover on the pump. Place thumb screws on the cover but don't tighten
5. On model 611402, place follower on the pump and slide as shown in Figure 3.
6. Set pump in grease pail or drum which ever the case. Tighten down thumb screws. Adjust pump to proper position to pump all material from the container.
7. Remove the cap to the (10) loader assembly and put approximately 1/4 pint of light oil into unit to prime.

### TROUBLE SHOOTING

- If the pumps fails to operate, the ratio setting may be too low for the material being pumped. If this is not the cause, check suction tube for damage or obstruction.
- If the pump operates, but dispenses little or no material, remove the foot valve assembly and check for foreign matter which may be holding the valve plate off the seat. Also, make sure the valve plate or seat is not bent or scored.
- If leakage occurs between plunger rod and gland, tighten nut just enough to stop leakage. Do not over tighten as this will cause excessive packing wear and harden pumping action.

### MAINTENANCE

Disassembly should be done on a clean work bench with clean cloths to keep parts clean.

Periodically flush pump with a solvent that is compatible with material being pumped.

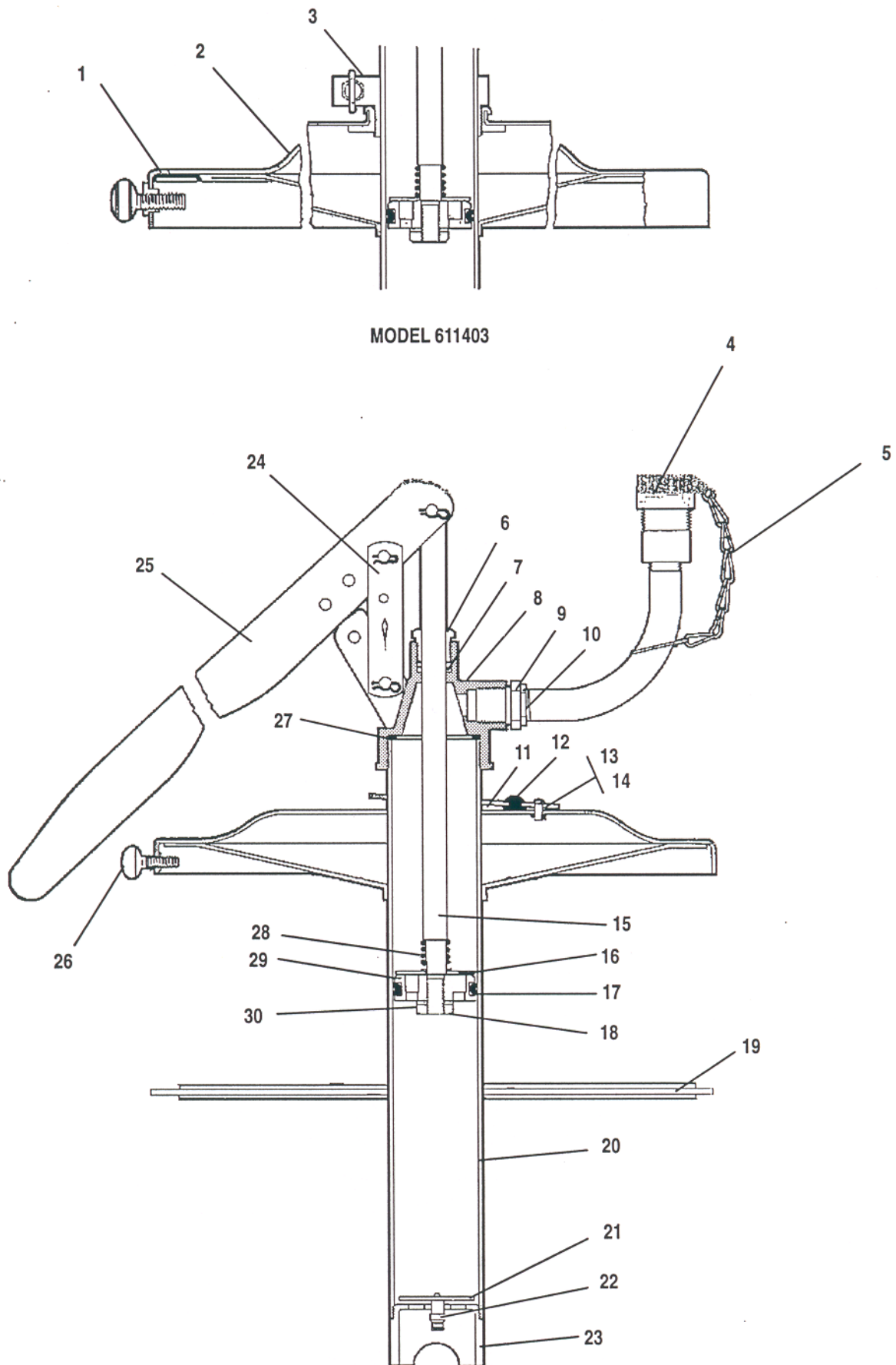
Caution should be used at all times to keep the material covered and free from contamination which could damage the piston rod assembly.

## PARTS LIST

ITEM	Description	(Qty)	Part No.
1	Seal (611403 Only) Part of 72096	(1)	70414
2	Cover Assembly (Model 611402)	(1)	72006
	Cover Assembly (Model 611403)	(1)	72096
3	Bung Adapter (611403 Only)	(1)	71092
4	Loader Assembly	(1)	60430
5	Tube	(1)	71442
6	Gland	(1)	72058
7	Seal	(2)	72021
8	Body	(1)	72012
9	Bushing	(1)	Y45-106-C
10	Nut	(1)	71489
11	Holder	(1)	72052
12	Grommet	(1)	72047
13	Pin	(1)	72048
14	Cotter Pin	(1)	Y15-31
15	Rod (Model 611402)	(1)	72022-1
	Rod (Model 611403)	(1)	72022-3

ITEM	Description	(Qty)	Part No.
16	Plate	(1)	72042
17	Seal	(1)	72061
18	Nut	(1)	Y11-106-C
19	Follower Plate	(1)	640095-3-B
20	Tube (Model 611402)	(1)	72019-2
	Tube (Model 611403)	(1)	72019-3
21	Plate	(1)	F58-2
22	Pin	(1)	71201
23	Foot Valve	(1)	72064-1
24	Link & Pin Asm	(1)	72062
25	Lever	(1)	72001-1
26	Screw (Model 611402)	(3)	Y66-55-C
	Screw (Model 611403)	(3)	Y66-358-C
27	Seal	(1)	72056
28	Spring	(1)	72018
29	Piston	(1)	72017
30	Washer	(1)	Y1-616

# PARTS LIST





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