

# OPERATOR'S MANUAL

INCLUDING: OPERATION, INSTALLATION & MAINTENANCE

ALSO INCLUDE MANUAL: 635142 METER (Model 611166-B)

# 611166-B

# 611167-B

RELEASED: 1-7-59

REVISED: 2-8-95

(REV. G) IPP/PSE

## HAND OPERATED LUBRICATION PUMP

### 611166-B

(WITH METER)

### 611167-B

(WITHOUT METER)



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

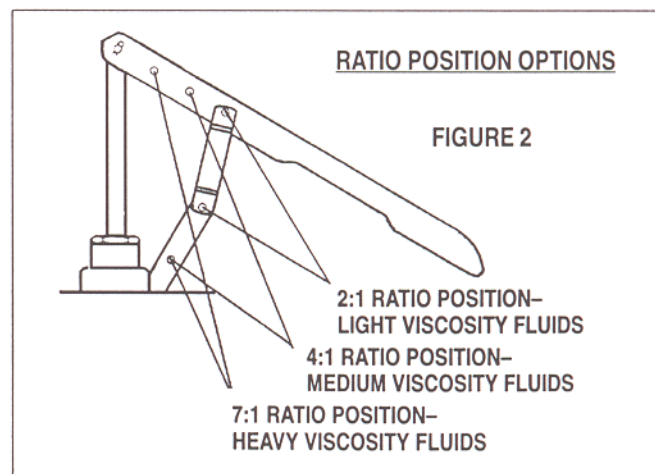
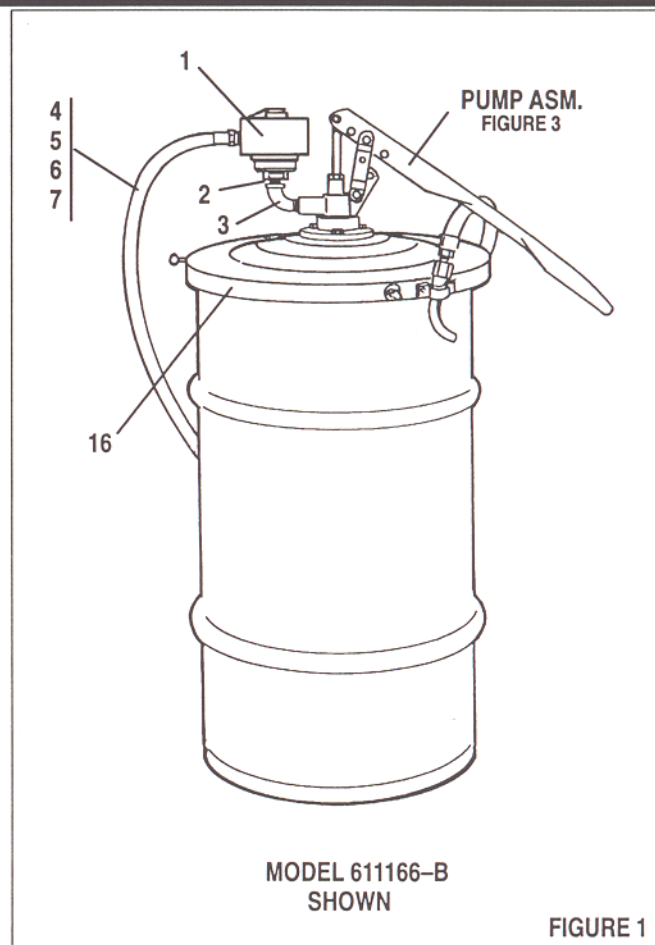
### RATIO ADJUSTMENT

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

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### INSTALLATION

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1. Slip (16) cover over suction tube of pump and secure with three (13) screws, three (14) nuts and three (15) lockwashers.
2. Remove the pins, clips and link from bag. Install hand lever (8) 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.
3. Assemble the (3) St elbow in the material outlet of the (20) Pump Body Assembly. (Model 611166-B only.)
4. Screw the (2) Nipple into the material inlet of the 635142 Meter. Screw the Meter and Nipple into the St. Elbow. (Model 611166-B only)
5. Assemble (4) hose to the material outlet. Be sure all connections are tight.

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### TROUBLE SHOOTING

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- 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.

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### MAINTENANCE


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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    | Meter (model 611166-B only)  | (1)   | 635142  |
| 2    | Nipple (Model 611166-B only)   | (1)   | Y27-4-C   |
| 3    | Elbow (Model 611166-B only)  | (1)   | Y43-4-C   |
| 4    | Hose Asm.  | (1)   | 621502-5  |
| 5    | Ball   | (1)   | Y16-14  |
| 6    | Spring   | (1)   | 2384  |
| 7    | Nozzle Asm. (Includes 2707 Retainer, 61858 Valve Asm. 77835 Nozzle, 77836 Adapter) | (1)   | N/A  |
| 8    | Lever  | (1)   | 72001-1   |
| 9    | Pin  | (2)   | 72834   |
| 10   | Pin  | (1)   | 72833   |
| 11   | Retainer   | (3)   | 72835   |
| 12   | Link   | (1)   | 72027   |
| 13   | Screw (5/16-18)  | (3)   | Y6-52-C   |
| 14   | Nut  | (3)   | Y12-5-C   |
| 15   | Lockwasher   | (3)   | Y14-516   |
| 16   | Cover Asm.   | (1)   | 61339   |
| 17   | Rod  | (1)   | 72022-3   |
| 18   | Gland  | (1)   | 72058   |
| 19   | Packing  | (2)   | 72021   |
| 20   | Pump Body  | (1)   | 72013-1   |
| 21   | Gasket   | (1)   | 72056   |
| 22   | Tube   | (1)   | 72019-9   |
| 23   | Spring   | (1)   | 72018   |
| 24   | Valve Plate  | (1)   | 72042   |
| 25   | Seal Ring  | (1)   | 72061   |
| 26   | Piston Body  | (1)   | 72017   |
| 27   | Lockwasher   | (1)   | Y1-616-C  |
| 28   | Nut (3/8-24)   | (1)   | Y11-106-C   |
| 29   | Intake Valve Asm. (Includes F58-2 Plate, 72064-1 Body, 71201 Rivet)                | (1)   | 72046   |

 This assembly is not available. Order parts separately.

## MODELS 611166-B & 611167-B

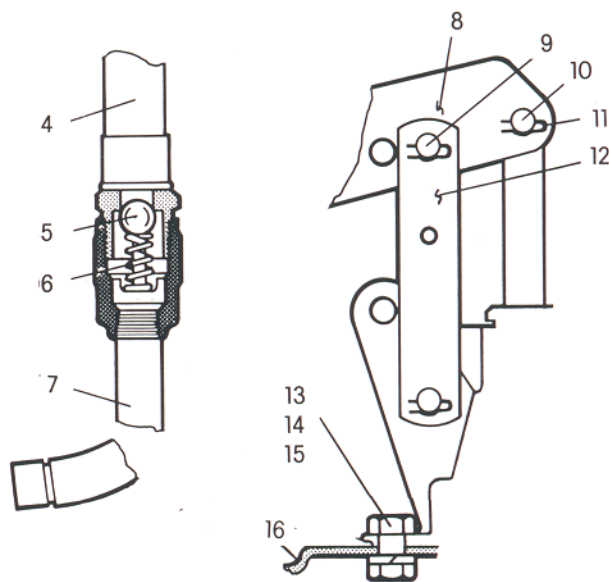


FIGURE 3

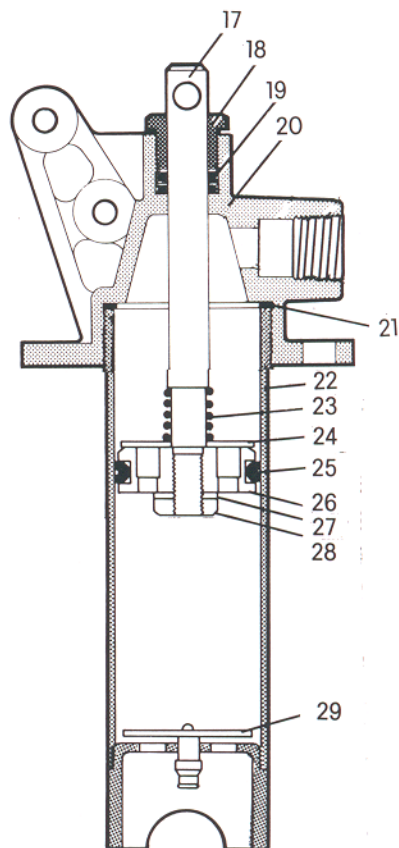


FIGURE 4



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