

## Hand-Operated Pump

### Description

The major components of the pump assembly in the 7530 model series consist of a:

- hand-operated reciprocating pump
- drum cover assembly
- nozzle assembly with delivery hose (model 7534-4)
- loader coupler and follower plate (model 7538-4)

#### Models 7534-4 and 7538-4

Pump model 7534-4 is accessorized to dispense gear oils from their original 16-gallon containers.

Model 7538-4 contains a loader coupler and follower plate to dispense grease from 120-pound containers. See **Figure 1**.

**A loader fitting is also included. It must be used in place of an existing fitting to ensure compatibility.**

### Pump Delivery

#### Oil versus Grease

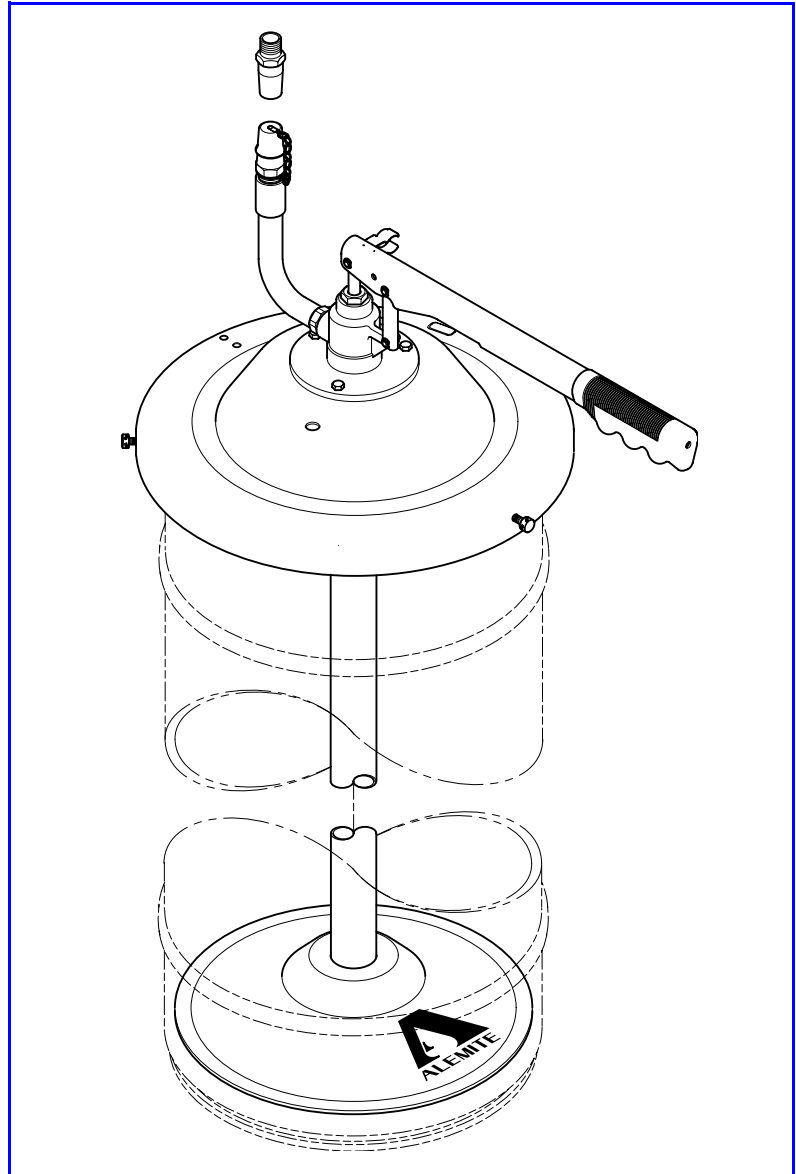
The pump delivers approximately 1 quart (0.95 liter) of oil in ten strokes

Grease is delivered in a quantity of approximately 1 pound (0.45 kg) in six strokes.\*

### Model Assembly

Refer to **Figure 2** for details on the assembly of all packaged components.

\* In cold environments, the pump delivers approximately 1 pound (0.45 kg) in ten strokes.



Pump Model	Product	Nozzle and Hose Assembly	Loader Coupler and Follower Plate	Overall Height (including Drum)	
				Inches	Meter
7534-4	Oil	●		36-3/8	0.92
7538-4	Grease		●	38-1/8	0.97

**Figure 1** Hand-Operated Pump Models 7534-4 and 7538-4  
Model 7538-4 Shown

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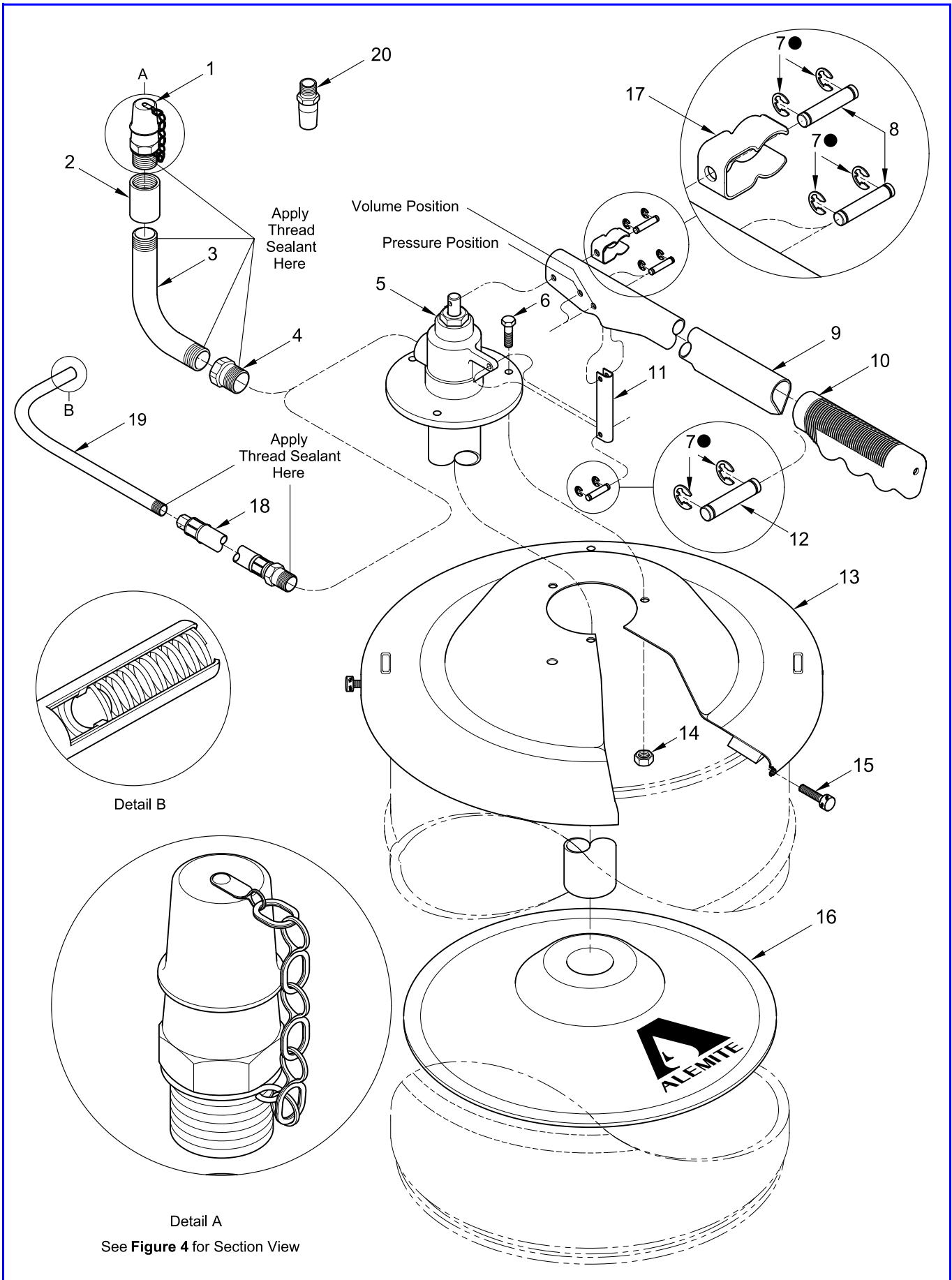


Figure 2 Hand-Operated Pump Model 7530 Series - Exploded View

Item No.	Part No.	Description	Qty	Notes	Numeric Order Part # (Item #)
	317219	Adapter and Elbow Assembly, Loader	1	Model 7538-4 Only	48018 (15)
1	306741	Coupler Assembly, 3/8 " NPTF (m)	1	Model 7538-4 Only	77650 (14)
2		Coupling, 3/8 " NPTF (f)	1	Model 7538-4 Only	77787 (6)
3	317256	Elbow, 3/8 " NPTF (m)	1	Model 7538-4 Only	131586 (4)
4	131586	Bushing, 3/8 " NPTF (f) x 1/2 " NPTF (m)	1	Model 7538-4 Only	171606 (7)
5		Tube Assembly, Pump	1	See Figure 3	305378 (17)
6		Capscrew, 1/4 " -20 x 5/8 "	3		306610 (19)
7		Ring, Retaining	6	●	B306740 (20)
8	339961-2	Pin	2		306741 (1)
9	316320	Lever	1		309702 (2)
10		Grip	1		316320 (9)
11	328253-3	Link	1		317219
12	339961-1	Pin	1		317256 (3)
13	328244-B4	Cover Assembly (w/ Gasket)	1		317809-5F (18)
14		Nut, 1/4 " -20	3		328244-B4 (13)
15	48018	Screw, Thumb, 1/4 " -28	3		328253-3 (11)
16	338803	Plate, Follower	1	Model 7538-4 Only	328255-C4 (5)
17		Clip, Spring	1		338334 (10)
18	317809-5F	Hose, Material, 1/2 " ID (5-1/2 ' Long)	1	Model 7534-4 Only	338803 (16)
19	306610	Nozzle Assembly	1		339961-2 (8)
20	B306740	Fitting, Loader	1	Model 7538-4 Only	339961-1 (12)

**Legend:**Part numbers left blank (or in *italics*) are not available separately

● designates a repair kit item

**Repair Kit**

Part No.	Kit Symbol	Description
394261-1	●	Kit, Repair (Includes items on <b>Figure 2</b> and <b>Figure 3</b> )

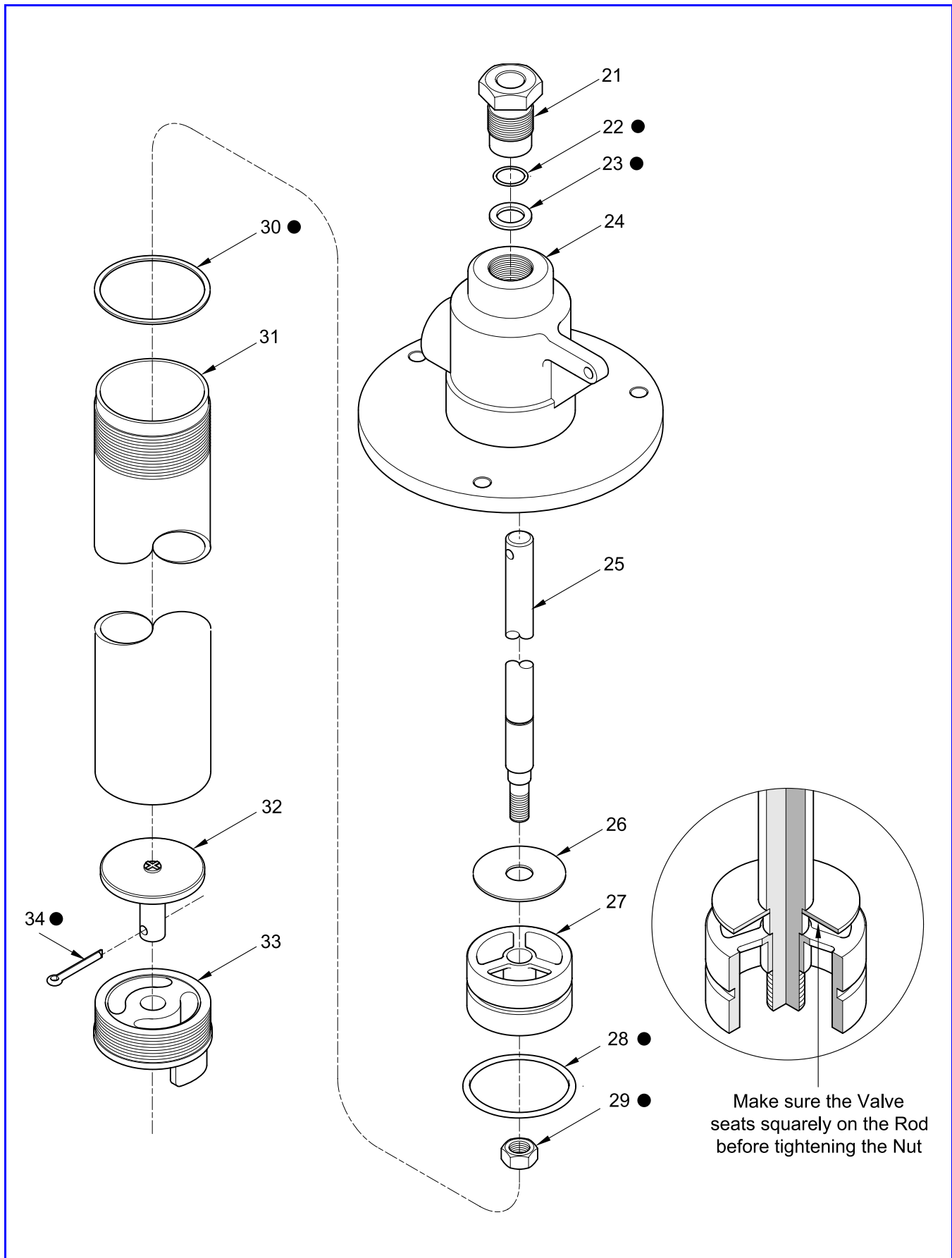


Figure 3 Pump Tube Assembly for Model 7530 Series - Exploded View

Item No.	Part No.	Description	Qty	Notes	Numeric Order Part # (Item #)
21	324733	Nut, Packing	1		<i>17070</i> (29)
22	X171009-2	O-Ring, 1/2 " ID x 5/8 " OD	1	●	50712 (33)
23		Gasket	1	●	131315 (32)
24	328254-4	Body, Outlet	1		<i>131472</i> (30)
25	328257-5	Rod	1		171001-23 (28)
26	324747	Valve, Upper	1		171009-2 (22)
27		Body, Plunger	1		<i>172212-14</i> (34)
28	X171001-23	O-Ring, 1-1/4 " ID x 1-1/2 " OD	1	●	<i>319320</i> (27)
29		Nut, Elastic Stop, 5/16 " -18	1	●	324733 (21)
30		Gasket	1	●	324747 (26)
31	328256-3	Tube	1		<i>326784</i> (23)
32	131315	Valve, Foot	1		328254-4 (24)
33	50712	Body, Foot Valve	1		328256-3 (31)
34		Pin, Cotter, 3/32 " x 5/8 " Long	1	●	328257-5 (25)
<b>Legend:</b> Part numbers left blank (or in <i>italics</i> ) are not available separately Part numbers with an X prefix indicate a quantity of ten (10) ● designates a repair kit item					

### Repair Kit

Part No.	Kit Symbol	Description
394261-1	●	Kit, Repair (Includes items on <b>Figure 3</b> and <b>Figure 2</b> )

## Hand-Operated Loader Pump

Hand-Operated pump model 7538-4 contains a loader coupler for loading lever-operated hand guns.

### CAUTION

**The Loader Fitting on the lever gun must mate with the Loader Coupler. The pump will not operate if the components are not compatible.**

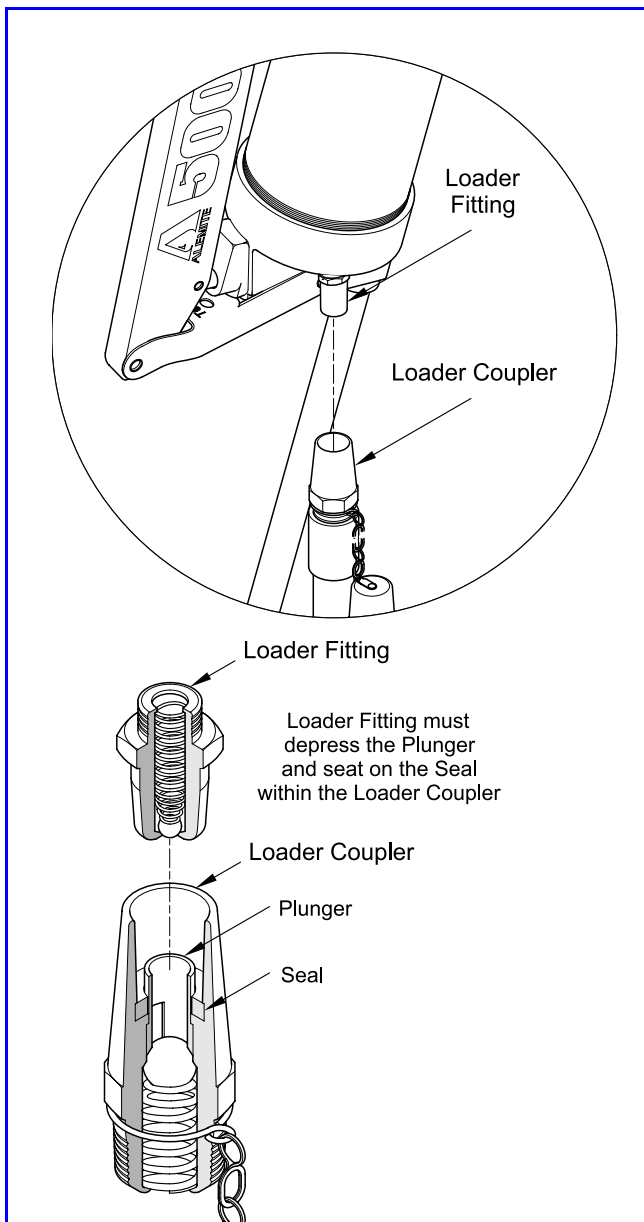
Lever guns equipped with an **Alemite** loader fitting can connect directly to the loader pump.

Non-compatible loader fittings must be replaced with the included loader fitting.

**NOTE:** Optional loader fitting B322610 is available for fibrous or heavy greases.

### Loading Operation

1. Make sure the follower rod on the hand gun is engaged with the back-up plate.
2. Remove the cap on the pump's loader coupler.
3. Seat the Loader Fitting into the loader coupler. See **Figure 4**.
4. Operate the pump and view the movement of the follower rod.
5. Discontinue pump operation once the groove on the follower rod is visible.



**Figure 4** *Loader Fitting and Loader Coupler Section View*

## Overhaul

Prior to performing any maintenance procedure, the following safety precautions must be observed. Personal injury may occur.



### WARNING

**Do not use halogenated hydrocarbon solvents such as methylene chloride or 1,1,1-trichloroethane in this pump. An explosion can result within an enclosed device capable of containing pressure when aluminum and/or zinc-plated parts in the pump come in contact with halogenated hydrocarbon solvents.**

**Never point a control valve at any portion of your body or another person. Accidental discharge of pressure and/or material can result in injury.**

**Read each step of the instructions carefully. Make sure a proper understanding is achieved before proceeding.**

## Disassembly

**NOTE:** Refer to **Figure 2** for component identification on the following procedures.

### Separate Pump Tube from Cover and Lever

1. Unscrew Material Hose (18) from Pump Tube Assembly (5) [model 7534-4 only].
  - Unscrew Nozzle Assembly (21) from the Material Hose as required.
2. Remove Capscrews (6) and Nuts (14) that secure the Pump Tube Assembly to Cover (13).
  - Remove the Pump Tube Assembly from the Cover.
3. Unscrew Elbow (3) from the Pump Tube Assembly [model 7538-4 only].
  - Disassemble the Loader Adapter and Elbow Assembly as required.
4. Remove Retaining Rings (7) from one end of Pins (8) and Pin (12).
5. Remove the Pins that secure the Lever to Pump Tube Assembly (5) and Link (11).
  - Remove Spring Clip (18).
6. Remove the Pin that secures the Link to the Pump Tube Assembly.

## Pump Tube

**NOTE:** Refer to **Figure 3** for component identification on the pump tube procedures.

7. Remove Bushing (4) from Outlet Body (24) as necessary [model 7538-4 only].
8. Unscrew Tube (31) from the Outlet Body.
9. Remove the Tube from the inner components of the Pump Tube Assembly.

### Foot Valve Body

10. Unscrew Foot Valve Body (33) from the Tube.
11. Remove Cotter Pin (34) from Foot Valve (32).
12. Remove the Foot Valve from the Foot Valve Body.

### Outlet Body

13. Remove the Rod assembly from the Outlet Body.
14. Remove Gasket (30) from the Outlet Body.
15. Unscrew Packing Nut (21) from the Outlet Body.
  - Remove Gasket (23) and O-Ring (22).

### Rod Assembly

16. Unscrew Nut (29) from Rod (25).
17. Remove Plunger Body (27) and Valve (26) from the Rod.
18. Remove O-Ring (28) from the Plunger Body.

## Clean and Inspect

**NOTE:** Use the repair kit for replacement parts. Make sure all the components are included in the kit before discarding used parts.

1. Clean all metal parts in cleaning solvent. The solvent should be environmentally safe.
2. Inspect all parts for wear and/or damage.
  - Replace as necessary.
3. Inspect Rod (25) closely. Use a magnifying glass to detect any score marks.
  - Replace as necessary.
4. Closely inspect the mating surfaces of all check valve components for any imperfections. Ensure a smooth and clean contact is obtained when assembled.

## Assembly

**NOTE:** Prior to assembly, certain components require lubrication in clean oil. Refer to **Table 2** for details.

### Foot Valve Body

**NOTE:** Refer to **Figure 5** for a section view of the pump tube assembly.

1. Install Foot Valve (32) into the top of Foot Valve Body (33).
2. Install Cotter Pin (34) into the Foot Valve.
3. Screw the Foot Valve Body assembly into the bottom of Tube (31).
  - Do not tighten at this time.

### Rod Assembly

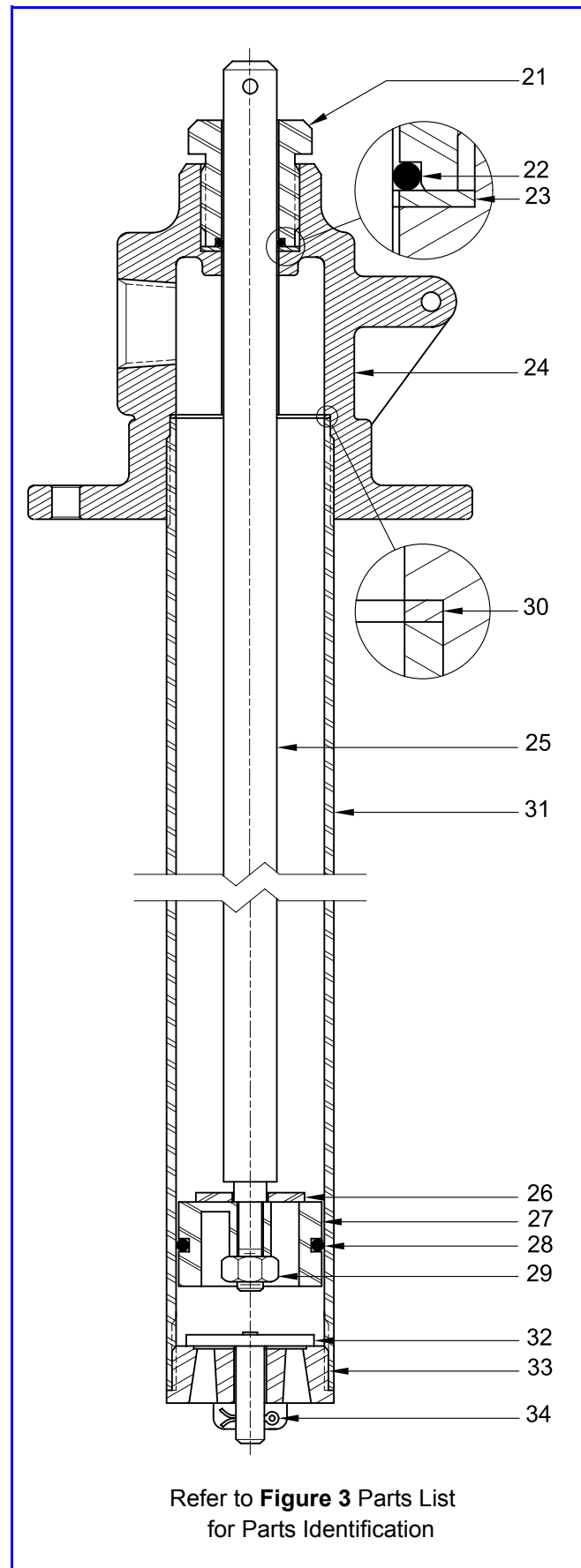
4. Install Valve (26) and Plunger Body (27) [ribs upward] onto the bottom of Rod (25).
5. Screw Nut (29) onto the Rod.
  - Tighten the Nut securely.
6. Install O-Ring (28) onto the Plunger Body.

### Outlet Body

7. Install and seat Gasket (30) into the bottom of Outlet Body (24).
8. Install the Rod assembly into the Outlet Body.
9. Install and seat Gasket (23) into the Outlet Body.
10. Install O-Ring (22) carefully past the cross-hole on the Rod.
11. Screw Packing Nut (21) into the Outlet Body.
  - Tighten the Packing Nut securely.
12. Install the Tube assembly over the Rod assembly and screw into the Outlet Body.
13. Tighten the Tube securely into the Outlet Body and at the same time the Foot Valve Body into the Tube.

Item No.	Description
22	O-Ring, 1/2 " ID x 5/8 " OD
28	O-Ring, 1-1/4 " ID x 1-1/2 " OD

**Table 2** Components Lubricated in Clean Oil



Refer to **Figure 3** Parts List for Parts Identification

**Figure 5** Pump Tube Assembly 328255-C4 - Section View



### Attach Pump Tube to Cover and Lever

14. Install Pin (12) that secures Link (11) to Pump Tube Assembly (5).
15. Position Spring Clip (18) to the front hole on Lever (9).
16. Install Pins (8) that secure the Lever to the Pump Tube and Link.
17. Install Retaining Rings (7) onto the ends of all Pins.

**NOTE:** Procedures 18 through 23 are applicable to model 7538-4 only.

18. Screw Bushing (4) [with thread sealant] into the Outlet Body.
  - Tighten the Bushing securely.
19. Screw Elbow (3) [with thread sealant on both ends] into the Bushing.
  - Tighten the Elbow securely.
20. Screw Coupling (2) onto the Elbow.
  - Tighten the Coupling securely.
21. Screw Coupler Assembly (1) [with thread sealant] into the Coupling.
  - Tighten the Coupler securely.
22. Place Follower Plate (16) onto the top of the product.
  - With a wobbling motion, eliminate any air that may be trapped underneath the Plate by forcing the product through the hole in the center.
23. Position the Pump Tube Assembly onto Cover (13) as illustrated in **Figure 2**.
  - Make sure the hole in the cover for Nozzle Assembly (19) is properly oriented [model 7534-4 only].
  - Guide the pump tube into the Follower Plate [model 7538-4 only].
24. Install Nuts (14) and Capscrews (6) that secure the Pump Tube Assembly to the Cover.
  - Tighten the Nuts securely.
25. Fit the Cover onto the container and secure the Cover with Thumb Screws (15).
26. Screw Material Hose (18) [with thread sealant] into the Outlet Body [model 7534-4 only].
  - Tighten the Hose securely.
27. Screw Nozzle Assembly (19) [with thread sealant] into the Material Hose [model 7534-4 only].
  - Tighten the Nozzle Assembly securely.

### Priming the Pump

**NOTE:** The following procedures are for priming grease (model 7538-4 only).

1. Remove the cap on Coupler Assembly (1).
2. With a suitable tool, depress the plunger in the Coupler Assembly. See **Figure 4**.
3. Cycle the Lever until grease is visible at the Coupler Assembly.

If the pump assembly does not prime, refer to the **Troubleshooting Chart** for details.

4. Continue to cycle the pump until the grease is free of air.

## Troubleshooting Chart

Pump Indications	Possible Problems	Solution
Pump does not cycle	Pump tube jammed and/or contains loose components	Rebuild pump tube
Pump will not prime	Pump leaking internally	See <b>Internal Leaks</b>
Pump cycles easily	Product source empty	Replenish product
<b>External Leaks</b>		
Product leakage visible at Packing Nut (22)	<ol style="list-style-type: none"> <li>1. Worn or damaged O-Ring (22)</li> <li>2. Damaged Gasket (23)</li> </ol>	<ol style="list-style-type: none"> <li>1. Replace O-Ring (22)</li> <li>2. Replace Gasket (23)</li> </ol>
Product leakage at bottom of Outlet Body (25)	<ol style="list-style-type: none"> <li>1. Tube (31) not sufficiently tight</li> <li>2. Damaged Gasket (30)</li> </ol>	<ol style="list-style-type: none"> <li>1. Tighten Tube (31) into Outlet Body (24)</li> <li>2. Separate Tube (31) from Outlet Body (24) and replace Gasket ( )</li> </ol>
<b>Internal Leaks</b>		
Pump does not prime	<ol style="list-style-type: none"> <li>1. Foreign material between Valve (26) and Plunger Body (27)</li> <li>2. Foreign material between Foot Valve (32) and Foot Valve Body (33)</li> <li>3. Worn or damaged Valve (26)</li> <li>4. Worn or damaged Plunger Body (27)</li> <li>5. Worn or damaged Foot Valve (32)</li> <li>6. Worn or damaged Foot Valve Body (33)</li> <li>7. Worn or damaged O-Ring (28)</li> </ol>	<p>Locate and eliminate source of foreign material</p> <p>Disassemble pump tube, clean, inspect, and replace worn or damaged components</p>

### Changes Since Last Printing

Replaced Cotter Pins with Retaining Rings