

## Foot-Operated High-Pressure Grease Pump

### Description

The major components of model 6299-J4 pump assembly consist of a:

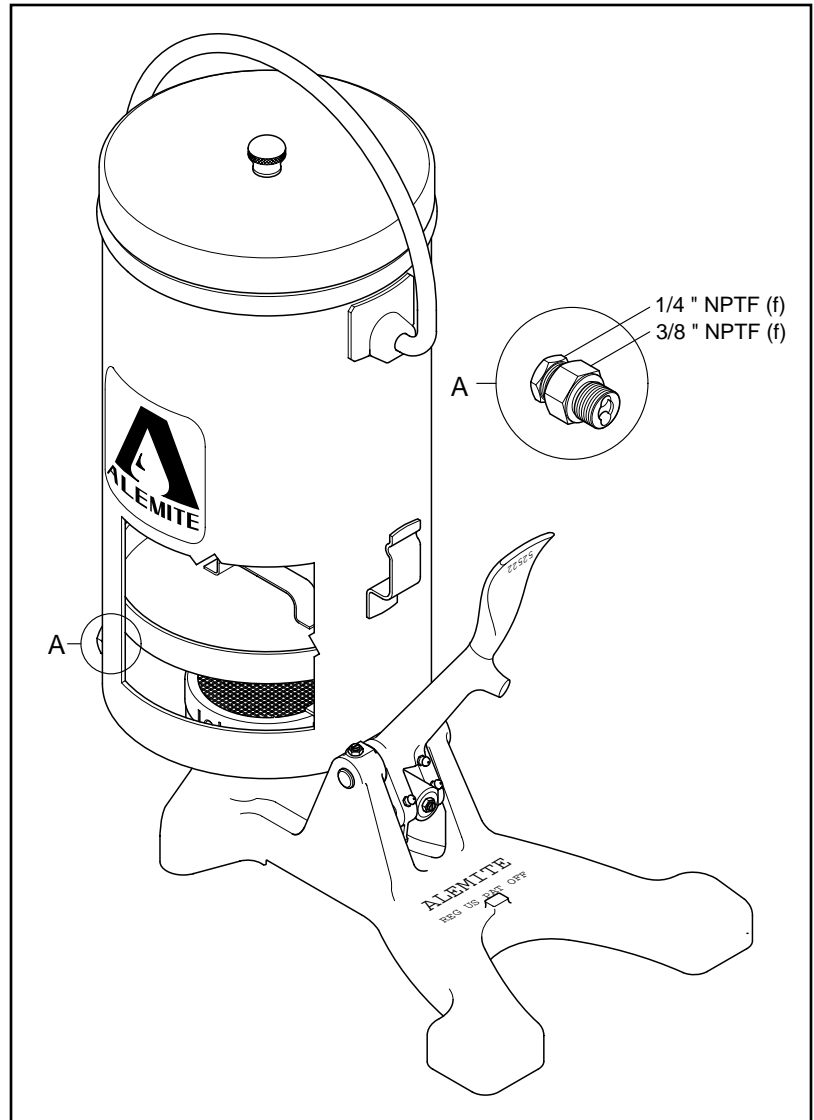
- foot-operated pumping mechanism with bleed valve
- 25 pound (11.4 kg) capacity tank with screen
- follower assembly

### Pump Delivery

The pump delivers approximately 1 ounce (28.4 g) of product in eight strokes.

### Outlet Connection

A bushing at the outlet of the pump allows a delivery hose with a 1/4 " NPTF connection to attach. Remove the bushing and a 3/8 " NPTF connection hose can be utilized. See **Figure 1**.



**Figure 1** Pump Model 6299-J4



### WARNING

The delivery hose that attaches to this pump must have a minimum burst rating of 16,000 psi (1104 Bars).

The use of alternate equipment can result in personal injury.

### Specifications

Outlet Connection	Max. Operating Pressure		Delivery/Stroke		Tank Capacity		Measurements (LWH)		Weight	
	psi	Bars	Ounce	Grams	Pounds	Kg	Inches	Cm	Pounds	Kg
1/4 or 3/8 " NPTF (f)	8000	552	0.125	3.6	25	11.4	21.5 x 9 x 22.5	54.6 x 22.9 x 57.2	42	19.1

**Table 1** Foot-Operated High-Pressure Grease Pump Model 6299-J4 - Specifications

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SER 6299-J4  
Revision (5-98)



Item No.	Part No.	Description	Qty	Notes	Numeric Order Part #	(Item #)
1	54942-B4	Tank Assembly, Lubrication (w/o Decal)	1		1743-B	(18)
2	52548	Ring, Clamp	1		40996	(38)
3	53074	Screen Assembly, Rim	1		45569	(20)
4		Screw, 5/16 " -18 x 7/8 "	5		46971	(12)
5		Washer, Lock, 5/16 "	5		46999	(13)
6		Bail	1		47008	(8)
7		Pin, Cotter, 3/32 " x 5/8 "	2		47123	(31)
8		Knob	1		47124	(32)
9	314852-6	Cover, Tank	1		47967	(19)
10		Washer, Lock, 10	1		51021	(27)
11		Screw, 10-32 x 3/8 "	1		52513	(29)
12	46971	Follower Assembly	1		52520-2	(15)
13	46999	Gasket (Fiber)	1	●	52521	(14)
14	52521	Shaft, Lever	1		52522-2	(16)
15	52520-2	Body	1		52523	(34)
16	52522-2	Lever	1		52526	(22)
17	52534	Pin, Link	1		52527	(35)
18	1743-B	Fitting, Lubrication, Serrated	3		52529	(25)
19		Screw, 10-32 x 17/32 "	2		52530	(26)
20	45569	Nut, 10-32	2		52533	(21)
21	52533	Link	1		52534	(17)
22	52526	Stop, Spring	2		52537	(30)
23	53070	Piston and Cylinder Assembly	1	●	52540	(33)
24	302953	Pin	1	●	52548	(2)
25	52529	Retainer, Spring	1		52550	(6)
26	52530	Spring	1		53070	(23)
27	51021	Gasket, (Fiber)	1	●	53071	(28)
28	53071	Plunger Assembly	1	●	53074	(3)
29	52513	Spring	1	●	54290	(36)
30	52537	Packing	1	●	54942-B4	(1)
31	47123	Screw, Bleed Valve	1		54945	(37)
32	47124	Seat, Bleed Valve	1		61463	(10)
33	52540	Gasket, 1.18 " OD (Copper)	1	●	77772	(11)
34	52523	Body, Valve	1		77817	(4)
35	52527	Nut, Body	1		172207-2	(5)
36	54290	Gasket, 0.99 " OD (Copper)	1	●	172212-14	(7)
37	54945	Adapter	1		302953	(24)
38	40996	Bushing, 1/4 " NPTF (f) x 3/8 " NPTF (m)	1		314852-6	(9)

**Legend:**  
Part numbers left blank (or in *italics*) are not available separately  
● designates a repair kit item

### Repair Kit

Part No.	Kit Symbol	Description
398953-1	●	Kit, Major Repair

## Overhaul

Prior to performing any maintenance procedure, the following safety precaution must be observed.

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**WARNING**

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

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### Disassembly

**NOTE:** Refer to **Figure 2** for component identification on all overhaul procedures.

#### Tank Removal (as Necessary)

1. Remove Tank Cover (9) from Tank Assembly (1).
2. Remove Follower Assembly (12) from the Tank Assembly.
3. Remove all of the product from the Container.
4. Remove Rim Screen Assembly (3) from Clamp Ring (2).
5. Remove Screws (4) and Lock Washers (5) that secure the Clamp Ring and Tank Assembly to Body (15).
  - Remove the Clamp Ring and Tank Assembly from the Body.
6. Remove Gasket (13) from the Body.

#### Lever Assembly

7. Loosen Nut (20) that secures Screw (19) to the Body.
8. Loosen the Screw that secures Lever Shaft (14) to the Body.
  - Remove the Lever Shaft from the Body.
9. Remove Lever (16) [with attached components] from the Body.
10. Remove Spring Retainer (25) from the Piston [part of Piston and Cylinder Assembly (23)].
11. Remove Spring Stops (22) from the Piston and Cylinder Assembly.
12. Loosen Nut (20) that secures Screw (19) to Link (21).

13. Loosen the Screw that secures Link Pin (17) to the Link.
  - Remove the Link Pin from the Lever.
14. Remove Pin (24) from the Piston and Link assembly.
  - Use a small drift pin and hammer.
15. Separate the Link from the Piston.
16. Remove Spring (26) from the Cylinder [part of Piston and Cylinder Assembly (23)].

#### Outlet Assembly

17. Remove Bleed Valve Screw (31) from Bleed Valve Seat (32) as necessary.
18. Unscrew the Bleed Valve Seat from Valve Body (34).
19. Unscrew Body Nut (35) from the Body.
20. Remove the Valve Body (with attached components) from the Body.
21. Separate Spring (29) from Plunger Assembly (28) as necessary.
22. Remove the Cylinder from the Body.
23. Remove Gaskets (33) and (27) from the Cylinder.
24. Remove Packing (30) from the Body.
25. Unscrew Adapter (37) from the Valve Body.
26. Remove Gasket (36) from the Adapter.
27. Unscrew Bushing (38) from the Adapter as required.

### 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 a modified petroleum-based solvent. The solvent should be environmentally safe.
2. Inspect all parts for wear and/or damage.
  - Replace as necessary.
3. Inspect the surface of the Piston and the bore of the Cylinder closely. Use a magnifying glass to detect any score marks.
4. Closely inspect the mating surfaces of Plunger Assembly (28) and the Cylinder for any imperfections
  - Ensure a smooth and clean contact is obtained when assembled.

## Assembly

**NOTE:** Refer to **Figure 3** for a section view of the pump assembly.

### Outlet Assembly

1. Install and seat Fiber Gasket (27) onto the elongated end of the Cylinder [part of Piston and Cylinder Assembly (23)].
2. Install and seat the Cylinder assembly (elongated end first) into Body (15).
  - Make sure the Gasket seats properly.
3. Install and seat Packing (30) and Gasket (33) onto the Cylinder.
4. Install and seat Valve Body (34) [large diameter first] into the Body.
5. Install Body Nut (35) over the Valve Body and into the Body.
  - Tighten the Valve Nut securely.
6. Install Spring (29) onto Plunger Assembly (28).
7. Install the Spring and Plunger assembly [Plunger end first] into the Valve Body.
8. Install Gasket (36) into the Valve Body.
9. Screw Adapter (37) (the Spring automatically seats within the recess) into the Valve Body.
  - Make sure the Gasket does not move.
  - Tighten the Adapter securely.
10. Screw Bushing (38) [with thread sealant] into the Adapter.
  - Tighten the Bushing securely.
11. Screw Bleed Valve Seat (32) [with thread sealant] into the Valve Body.
  - Tighten the Valve Seat securely.
12. Screw and seat Bleed Valve Screw (31) into the Bleed Valve Seat.

### Lever Assembly

13. Lubricate the ball end of Link (21) with grease.
14. Install the Link into the Piston [part of Piston and Cylinder Assembly (23)].
  - Make sure the holes are in alignment.

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## CAUTION

**Make sure Pin (24) does not protrude from either end of the Piston. Damage to components can occur.**

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15. Install Pin (24) that secures the Link to the Piston.
  - Use a small drift pin and hammer.
16. Secure the Link to Lever (16) with Link Pin (17).
  - Make sure the hole in the Link Pin aligns with the hole in the Link.
17. Secure the Link Pin with Screw (19) and Nut (20).
18. Install Spring Retainer (25) [concave end first] over the end of the Piston.
19. Install both Spring Stops (22) into the groove of the Piston.
  - Press the Spring Retainer against the Spring Stops to prevent movement.
20. Install Spring (26) over the Piston and against the Spring Retainer.
  - Once again maintain pressure on the Spring Stops.
21. Install the entire Lever assembly onto the Body.
  - Position the Spring onto the Cylinder and at the same time guide the Piston into the Cylinder bore.
22. Secure the Lever assembly to the Body with Lever Shaft (14).
  - Make sure the hole in the Lever Shaft aligns with the hole in the Body.
23. Secure the Lever Shaft with Screw (19) and Nut (20).

### Tank Installation

24. Install and align Gasket (13) onto the Body.
25. Align Tank Assembly (1) onto the Gasket.
26. Install and align Clamp Ring (2) onto the Tank Assembly.
27. Secure the Clamp Ring and the Tank Assembly to the Body with Screws (4) and Lock Washers (5).
  - Tighten the Screws securely in a criss-cross pattern.

## Filling and Operation

- Force lubricant into Body (15) up to the level of Clamp Ring (2).
  - This aids the priming process.
- Install Rim Screen Assembly (3) onto the Clamp Ring.
- Continue to fill the Tank Assembly.
- Place Follower Assembly (12) onto the top of the product.
  - With a wobbling motion, eliminate any air that may be trapped underneath the Follower Assembly.
- Open Bleed Valve Screw (31).

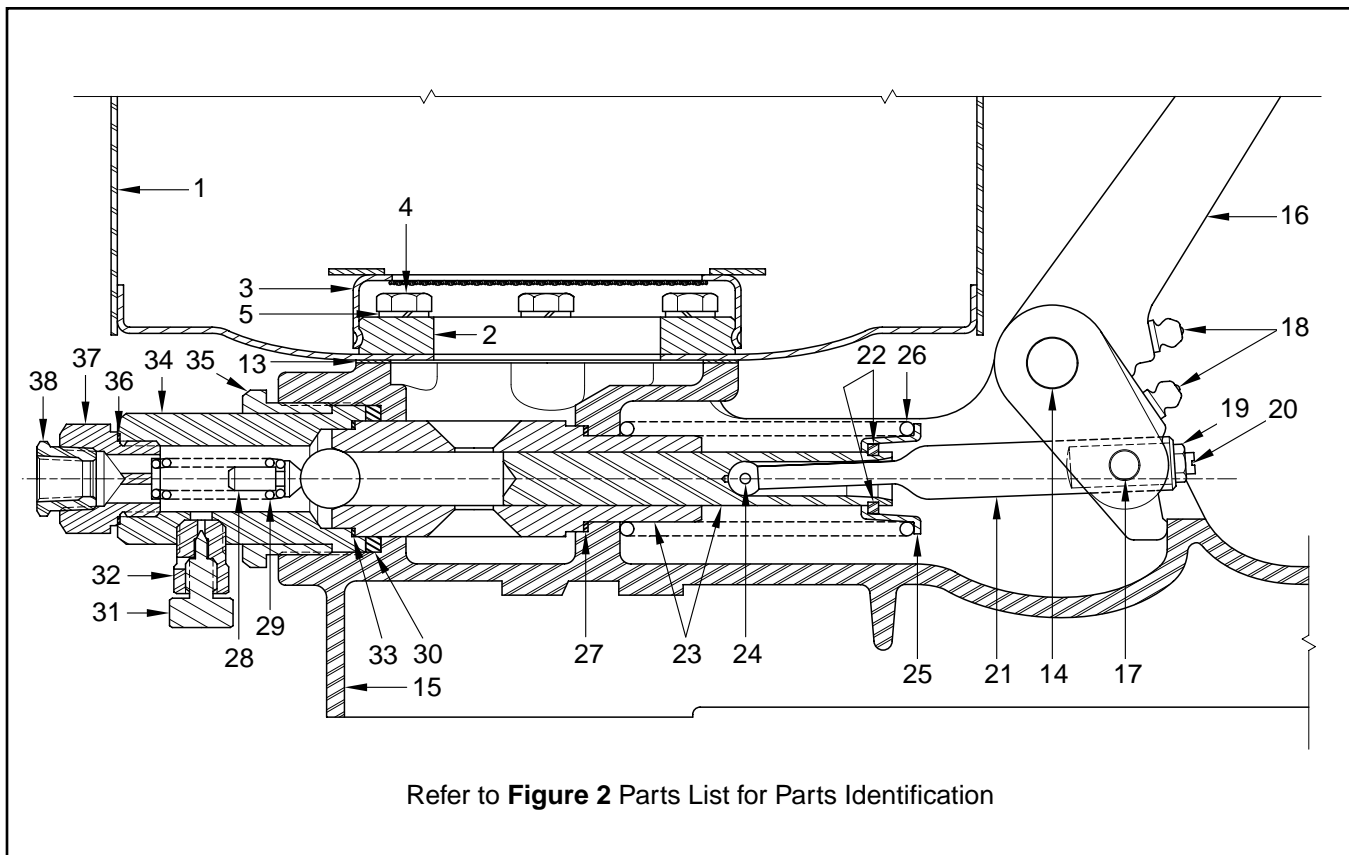
- Operate Lever (16) until product appears.
  - Continue operation until the product is free of air.

**NOTE:** If the pump will not prime and/or the product remains aerated, refer to the **Troubleshooting Chart** for details.

- Close the Bleed Valve Screw.

## Maintenance

- Lubricate Lever Shaft (14) and Link Pin (17) once yearly or more often as conditions warrant.
- Clean Rim Screen Assembly (3) as needed.



**Figure 3** Foot-Operated High-Pressure Grease Pump Model 6299-J4 - Section View

## Troubleshooting Chart

Pump Indications	Possible Problems	Solution
Pump will not prime	Pump leaking internally	See <b>Internal Leaks</b>
Pump lacks pressure	<ol style="list-style-type: none"> <li>1. Worn or damaged Plunger Assembly (28) and/or seat in Cylinder (23)</li> <li>2. Worn Piston and Cylinder Assembly (23)</li> <li>3. Body Nut (35) not sufficiently tight</li> <li>4. Worn or damaged Gasket (33) and Packing (30)</li> </ol>	<ol style="list-style-type: none"> <li>1. Use Major Repair Kit 398953-1</li> <li>2. Use Major Repair Kit 398953-1</li> <li>3. Tighten Body Nut (35)</li> <li>4. Use Major Repair Kit 398953-1</li> </ol>
Aerated product and/or loss of prime	<ol style="list-style-type: none"> <li>1. Body Nut (35) not sufficiently tight</li> <li>2. Worn Piston and/or bore in Cylinder Assembly (23)</li> <li>3. Worn or damaged Gasket (27) and/or (33)</li> <li>4. Worn or damaged Gasket (33) and Packing (30)</li> </ol>	<ol style="list-style-type: none"> <li>1. Tighten Body Nut (35)</li> <li>2. Use Major Repair Kit 398953-1</li> <li>3. Use Major Repair Kit 398953-1</li> <li>4. Use Major Repair Kit 398953-1</li> </ol>
<b>External Leaks</b>		
Product leakage visible between Body Nut (35) and Body (15)	<ol style="list-style-type: none"> <li>1. Body Nut (35) not sufficiently tight</li> <li>2. Worn or damaged Gasket (33) and Packing (30)</li> </ol>	<ol style="list-style-type: none"> <li>1. Tighten Body Nut (35)</li> <li>2. Use Major Repair Kit 398953-1</li> </ol>
Product leakage at Adapter (37)	<ol style="list-style-type: none"> <li>1. Adapter (37) not sufficiently tight</li> <li>2. Worn or damaged Gasket (36)</li> </ol>	<ol style="list-style-type: none"> <li>1. Tighten Adapter (37)</li> <li>2. Replace Gasket (36)</li> </ol>
Product leakage at Bleed Valve Seat (32)	Bleed Valve Seat (32) not sufficiently tight and/or incorrect or no sealant	Apply thread sealant * to Bleed Valve Seat (32) and tighten into Valve Body (34)
<b>Internal Leaks</b>		
Pump does not prime	<ol style="list-style-type: none"> <li>1. Foreign material between Plunger Assembly (28) and Cylinder (23)</li> <li>2. Worn or damaged Plunger Assembly (28)</li> <li>3. Worn or damaged Spring (29)</li> <li>3. Worn or damaged Piston and Cylinder Assembly (23)</li> </ol>	<p>Locate and eliminate source of foreign material.</p> <p>Disassemble pump, clean, inspect, and replace worn or damaged components</p>
* Do not apply thread sealant to the first two (2) threads. Contamination can occur.		

### Changes Since Last Printing

New Format  
Changed Part Number 398953 to 398953-1

