High-Pressure Bulk Grease Pump

Description

The major components of pump model 7730 consist of an air-operated motor and a pump tube. The air motor connects directly to the double-acting reciprocating pump tube.

This high-pressure (75:1 ratio) grease pump is designed to deliver a range of greases [up to NLGI # 3] directly from bulk containers.

Mounting

In most cases these pumps connect horizontally to a bulk container. See Figure 6. The pump includes the male portion of a 3-inch camlock connection for ease in installation.

Distribution System

The use of the proper equipment that comprise the entire product distribution system is essential.

All components must have a pressure rating that allows safe operation at the maximum anticipated pump pressure.

Specifications

<table>
<thead>
<tr>
<th>Piston Diameter x Stroke</th>
<th>Air Inlet / Outlet</th>
<th>Max. Air Pressure</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inches</td>
<td>Centimeters</td>
<td>psi</td>
</tr>
<tr>
<td>4-1/4 x 4</td>
<td>10.8 x 10.2</td>
<td>100</td>
</tr>
</tbody>
</table>

For information on the air motor, refer to Service Guide SER 323440-4

<table>
<thead>
<tr>
<th>Material Outlet</th>
<th>Max. Material Pressure</th>
<th>Max. Delivery/Minute (Approximate)*</th>
<th>Displacement per Cycle</th>
</tr>
</thead>
<tbody>
<tr>
<td>psi</td>
<td>Bars</td>
<td>Pounds</td>
<td>Kilograms</td>
</tr>
<tr>
<td>1/2 &quot; NPTF (f)</td>
<td>7500</td>
<td>517</td>
<td>12.5</td>
</tr>
</tbody>
</table>

* For detailed information, refer to Figure 3

Table 1 7730 Model Series Specifications
Figure 2-A  High-Pressure Bulk Grease Pump Model 7730- Exploded View
### Repair Kits

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Kit Symbol</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>393669</td>
<td>●</td>
<td>Kit, Major Repair</td>
<td>Includes items on Figure 2-A and 2-B</td>
</tr>
<tr>
<td>393623</td>
<td>△</td>
<td>Kit, Minor Repair (for Pump Tube Assembly)</td>
<td>Includes items on Figure 2-A and 2-B</td>
</tr>
<tr>
<td>393040-1</td>
<td>□</td>
<td>Kit, Minor Repair (for Body and Seal Group)</td>
<td></td>
</tr>
<tr>
<td>393530-5</td>
<td></td>
<td>Kit, Seal [includes five (5) of item number 16]</td>
<td></td>
</tr>
<tr>
<td>393530-6</td>
<td></td>
<td>Kit, Seal [includes five (5) of item number 18]</td>
<td></td>
</tr>
</tbody>
</table>

**Legend:**

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

● △ □ designates a repair kit item
Figure 2-B  High-Pressure Bulk Grease Pump Model 7730 Series - Exploded View
## High-Pressure Bulk Grease Pump

### SER 7730

#### Alemite Corporation 5 Revision (8-01)

<table>
<thead>
<tr>
<th>Item No.</th>
<th>Part No.</th>
<th>Description</th>
<th>Qty</th>
<th>Notes</th>
<th>Numeric Order</th>
</tr>
</thead>
<tbody>
<tr>
<td>24</td>
<td>171000-107</td>
<td>O-Ring, 4 &quot; ID x 4-3/8 &quot; OD</td>
<td>1</td>
<td></td>
<td>18850 (50)</td>
</tr>
<tr>
<td>25</td>
<td>338838</td>
<td>Adapter, Camlock</td>
<td>1</td>
<td></td>
<td>46584 (40)</td>
</tr>
<tr>
<td>26</td>
<td>323439</td>
<td>Coupling</td>
<td>1</td>
<td></td>
<td>131398-1 (48)</td>
</tr>
<tr>
<td>27</td>
<td>324648</td>
<td>Clip, Spring</td>
<td>2</td>
<td></td>
<td>131402 (29)</td>
</tr>
<tr>
<td>28</td>
<td>333257-6</td>
<td>Tube, Upper Pump, 9 &quot; Long</td>
<td>1</td>
<td></td>
<td>171000-107 (24)</td>
</tr>
<tr>
<td>29</td>
<td>131402</td>
<td>Gasket, 1.68 &quot; OD (Aluminum)</td>
<td>4</td>
<td></td>
<td>171032-8 (42)</td>
</tr>
<tr>
<td>30</td>
<td>337461</td>
<td>Barrel Assembly</td>
<td>1</td>
<td>Includes Item 31</td>
<td>172190-13 (46)</td>
</tr>
<tr>
<td>31</td>
<td>337465</td>
<td>Ring, Wear (Glass-Reinforced Nylon)</td>
<td>1</td>
<td></td>
<td>172190-14 (32)</td>
</tr>
<tr>
<td>32</td>
<td>337464</td>
<td>Seal, 0.925 &quot; ID x 1.300 &quot; OD</td>
<td>1</td>
<td></td>
<td>172270-9 (39)</td>
</tr>
<tr>
<td>33</td>
<td>337464</td>
<td>Ring, Back-Up</td>
<td>1</td>
<td></td>
<td>319763 (37)</td>
</tr>
<tr>
<td>34</td>
<td>337463</td>
<td>Bearing (Brass)</td>
<td>1</td>
<td></td>
<td>323439 (26)</td>
</tr>
<tr>
<td>35</td>
<td>337462</td>
<td>Spacer</td>
<td>1</td>
<td></td>
<td>323734 (49)</td>
</tr>
<tr>
<td>36</td>
<td>337466</td>
<td>Piston</td>
<td>1</td>
<td></td>
<td>323747-1 (44)</td>
</tr>
<tr>
<td>37</td>
<td>319763</td>
<td>Retainer</td>
<td>1</td>
<td></td>
<td>324648 (27)</td>
</tr>
<tr>
<td>38</td>
<td>327704</td>
<td>Spring, 1-7/8 &quot; Long Straight</td>
<td>1</td>
<td></td>
<td>326852 (45)</td>
</tr>
<tr>
<td>39</td>
<td>46584</td>
<td>Ball, 3/8 &quot; Dia.</td>
<td>1</td>
<td></td>
<td>326855 (41)</td>
</tr>
<tr>
<td>40</td>
<td>326855</td>
<td>Adapter and Insert Assembly</td>
<td>1</td>
<td></td>
<td>333085 (51)</td>
</tr>
<tr>
<td>41</td>
<td>171032-8</td>
<td>Pin, Roll, 3/32 Dia. x 11/16 &quot; Long</td>
<td>1</td>
<td></td>
<td>333257-6 (28)</td>
</tr>
<tr>
<td>42</td>
<td>333343</td>
<td>Rod, Primer, 21/32 &quot; Dia. x 7-3/16 &quot;</td>
<td>1</td>
<td></td>
<td>333343 (43)</td>
</tr>
<tr>
<td>43</td>
<td>323747-1</td>
<td>Adapter</td>
<td>1</td>
<td></td>
<td>337461 (30)</td>
</tr>
<tr>
<td>44</td>
<td>326852</td>
<td>Washer, Guide</td>
<td>1</td>
<td></td>
<td>337462 (35)</td>
</tr>
<tr>
<td>45</td>
<td>131398-1</td>
<td>Seat, Valve</td>
<td>1</td>
<td></td>
<td>337465 (31)</td>
</tr>
<tr>
<td>46</td>
<td>323734</td>
<td>Plate</td>
<td>1</td>
<td></td>
<td>337466 (36)</td>
</tr>
<tr>
<td>47</td>
<td>18850</td>
<td>Nut, Elastic Stop, 1/4 &quot; - 28</td>
<td>1</td>
<td></td>
<td>338422 (47)</td>
</tr>
<tr>
<td>48</td>
<td>333085</td>
<td>Body, Primer</td>
<td>1</td>
<td></td>
<td>338838 (25)</td>
</tr>
</tbody>
</table>

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

### Repair Kits

<table>
<thead>
<tr>
<th>Part No.</th>
<th>Kit Symbol</th>
<th>Description</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>393669</td>
<td>●</td>
<td>Kit, Major Repair</td>
<td>Includes items on <strong>Figure 2-A</strong> and <strong>2-B</strong></td>
</tr>
<tr>
<td>393623</td>
<td>△</td>
<td>Kit, Minor Repair (for Pump Tube Assembly)</td>
<td>Includes items on <strong>Figure 2-A</strong> and <strong>2-B</strong></td>
</tr>
<tr>
<td>394078</td>
<td>◊</td>
<td>Kit, Minor Repair (for Lower Pump Tube Packing)</td>
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</tr>
<tr>
<td>393530-13</td>
<td></td>
<td>Kit, Seal [includes five (5) of item number 46]</td>
<td></td>
</tr>
<tr>
<td>393530-14</td>
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<td>Kit, Seal [includes five (5) of item number 32]</td>
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</tr>
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</table>
Accessory

<table>
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<tr>
<th>Part Number</th>
<th>Description</th>
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</thead>
<tbody>
<tr>
<td>324170</td>
<td>Muffler</td>
</tr>
</tbody>
</table>

Table 2  Model 7730 Accessory

Preventive Maintenance

Refer to section entitled Overhaul for the procedures necessary to perform maintenance.

<table>
<thead>
<tr>
<th>Daily</th>
<th>Weekly</th>
<th>Monthly</th>
<th>Yearly</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wipe Exterior with Clean Cloth</td>
<td>Inspect for Air and/or Material Leakage</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 3  7730 Model Series Preventive Maintenance Schedule

Performance Curves

A pump’s ability to deliver material is based on the pressure (psi/Bars) and quantity (cfm/lpm) of air supplied to the motor and the amount of material discharge [back] pressure to be overcome within the system.

This chart contains curves based on three different air pressures. The curves relate delivery in pounds (kilograms) per minute (X axis) to air consumption in cubic feet (liters) per minute (right Y axis) and to material discharge pressure in psi/Bars (left Y axis).

![Performance Curves Chart](image)

Figure 3  Delivery versus Discharge Pressure and Air Consumption
Service Hints
Refer to the Overhaul Procedures for Details

- Do not Place Washer Inside Spacer
  Component Damage will Occur

- Coat Inside Diameter of O-Ring
  with Grease Prior to Assembly
  Damage to O-Ring can Occur

- Install Camlock Adapter
  onto Body with Care
  Damage to O-Ring may Occur

- Keep End of Lower Tube
  Free from Foreign Material
  Leakage may Occur
Overhaul

**NOTE:** Refer to Figure 2-A and 2-B for component identification on all overhaul procedures.

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.

Release all pressure within the system prior to performing any overhaul procedure.
- Disconnect the air supply line from the pump motor.
- Into an appropriate container, operate the control valve to discharge remaining pressure within the system.

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**

**Separate Pump Tube from Air Motor**

1. Clamp the motor assembly in a vise.
2. Remove Nuts (8), Lockwashers (7), and Screws (6) that secure Camlock Adapter (25) to Air Motor Assembly (3).
   - Remove the Camlock Adapter from the Air Motor Assembly.
3. Remove O-Ring (24) from the Camlock Adapter.
4. Loosen Jam Nut (23) that secures the Pump Tube assembly to the Air Motor Assembly.

5. Unscrew Pump Tube (28) [with attached components] from the Air Motor.
6. Pull on the Pump Tube to expose Coupling (26).
7. Remove upper Spring Clip (27) that secures the Coupling to the air motor piston rod.
   - Rotate the entire Pump Tube assembly.
8. Unscrew the Coupling from the air motor piston rod.

**Pump Tube Upper Packing**

9. Unscrew Adapter (2) from the air motor housing.
10. Unscrew Cap Screws (13) that secure Body (12) to the Air Motor.
    - Do not remove the Cap Screws from the Body.
11. Remove the Body from the Air Motor.
    - Use the Cap Screws as levers.
12. Remove O-Rings (11), O-Ring (9), and O-Ring (10) from the Body.
13. Position the Body on the bench with the larger diameter facing upward.
14. Remove aluminum Gasket (21), Washer (22), and additional Gasket (21) from the Body.
15. Remove Spacer (20), Washer (19), and Seal (18).
16. Remove Lantern Ring (17) with Seal (16), and Spacer (15).
    - Remove the Seal from the Lantern Ring.
17. Remove O-Ring (14) from the Body.

**Pump Tube**

18. Clamp the pump tube assembly at Adapter (44) securely in a soft-jaw vise.
19. Remove lower Spring Clip (27) that secures Piston (36) to Coupling (26).
    - Unscrew the Coupling from the Piston.
20. Unscrew and remove Upper Pump Tube (28) from the Adapter.
21. Remove Barrel Assembly (30) from the Piston.
22. Remove both aluminum Gaskets (29).
23. Remove brass Bearing (34), Back-Up Ring (33), and Seal (32) from the Barrel Assembly.

NOTE: Inspect the inside diameter of nylon Wear Ring (31). Remove the Wear Ring if rough or worn.

24. Remove Spacer (35) from the top of the Adapter.

25. Unscrew Primer Body (51) from Adapter (44).

26. Remove Primer Rod (43) [with attached components] from the bottom of the Adapter.

27. Remove Stop Nut (50) from the Primer Rod.
   • Place a small punch into the hole of the Primer Rod to prevent its rotation.

28. Remove Plate (49), Gasket (29), Valve Seat (48), and additional Gasket (29) from the Primer Rod assembly.

CAUTION

Support the Piston and Primer Rod assembly during Roll Pin (42) removal. Damage to components can occur.

29. Remove Roll Pin (42) that secures Adapter and Insert assembly (41) to Primer Rod (43).
   • Use a punch and a small hammer.

30. Unscrew the Primer Rod from the Adapter and Insert assembly.

31. Remove Valve Body (47) and Guide Washer (45) from the upper end of the Primer Rod assembly.

32. Remove Seal (46) from the Valve Body.

33. Unscrew the Adapter and Insert Assembly from Piston (36).

34. Remove aluminum Gasket (40), Ball (39), Spring (38), and Retainer (37) from the Piston.

Clean and Inspect

NOTE: Use the appropriate 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 Piston (36) and Primer Rod (43) 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 4 for details.

Pump Tube Upper Packing

NOTE: Refer to Figure 4 for a section view of the upper packing components.

1. Position Body (12) with the large diameter upward.

2. Install Spacer (15) into the Body.
   • Make sure the Spacer centers and seats properly.

3. Install Seal (16) [lip end first] into Lantern Ring (17).

4. Install O-Ring (14) onto the top of the Lantern Ring.

5. Install the Lantern Ring assembly into the Body.
   • Make sure the assembly centers and seats properly.

6. Install and seat Seal (18) [heel end first] into the Body.

<table>
<thead>
<tr>
<th>Item No. on Figure 2-A</th>
<th>Description</th>
<th>Item No. on Figure 2-B</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>9</td>
<td>O-Ring, 1-13/16 &quot; ID x 2 &quot; OD</td>
<td>24</td>
<td>O-Ring, 4 &quot; ID x 4-3/8 &quot; OD</td>
</tr>
<tr>
<td>10</td>
<td>O-Ring, 1-15/16 &quot; ID x 2-1/8 &quot; OD</td>
<td>31</td>
<td>Ring, Wear (Glass-Reinforced Nylon)</td>
</tr>
<tr>
<td>11</td>
<td>O-Ring, 1/2&quot; ID x 5/8 &quot; OD</td>
<td>32</td>
<td>Seal, 0.925 &quot; ID x 1.300 &quot; OD</td>
</tr>
<tr>
<td>14</td>
<td>O-Ring, 1-3/16 &quot; ID x 1-5/16 &quot; OD</td>
<td>46</td>
<td>Seal, 0.650 &quot; ID x 0.990 &quot; OD</td>
</tr>
<tr>
<td>16</td>
<td>Seal, 13/16 &quot; ID x 1-1/16 &quot; OD</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Seal, 13/16 &quot; ID x 1-9/16 &quot; OD</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table 4 Components Lubricated in Clean Oil
**CAUTION**

Do not place Washer (19) inside Spacer (20). Damage to components will occur.

---

7. Install Washer (19) and Spacer (20) [small end first] into the Body.

8. Install O-Ring (9) and O-Ring (10) onto the top of the Body.

9. Install O-Rings (11) into the Body.
   - Apply a dab of grease to prevent movement.

10. Lubricate the air motor piston rod with grease.

11. Install the Body assembly (while holding the Spacer in place) onto the piston rod.
   - Use a small hammer or other suitable tool.

12. Rotate the Body to align the product outlet with the hole in the air motor housing.

13. Install Cap Screws (13) that secure the Body to the air motor.
   - Tighten each Cap Screw securely.

   **NOTE:** Refer to Figure 2-A for step 14.

14. Install Adapter (2) into the Body.
   - Tighten securely.

15. Install aluminum Gasket (21), Washer (22), and additional Gasket (21) into the Body.
   - Make sure the components maintain their position.

**Pump Tube**

   **NOTE:** Refer to Figure 5 for cross section view of pump tube components.

16. Clamp the flats of Piston (36) into a soft-jaw vise.
   - Make sure the Piston bore points upward.

17. Install Retainer (37) [flange end first] into the Piston.
   - Make sure the Retainer centers and seats properly.

18. Install Spring (38) into the Piston.

19. Install Ball (39) into the Spring.

20. Install Gasket (40) onto Adapter and Insert Assembly (41).

21. Screw the Adapter and Insert Assembly (with Loctite 222) into the Piston. See Figure 2-B.
   - Follow the thread sealant manufacturer’s recommendations.
   - Tighten securely.

22. Install and seat Seal (46) [heel end first] into Valve Body (47).

23. Lubricate Primer Rod (43) with grease.

24. Install the Valve Body assembly onto the Primer Rod.
   - Use a small hammer or other suitable tool.

25. Install Guide Washer (45) onto the Primer Rod.

26. Screw the Primer Rod assembly into the Adapter and Insert Assembly until the Roll Pin holes align.

**CAUTION**

Support the Primer Rod and the Adapter and Insert Assembly during Roll Pin (42) installation. Damage to components can occur.

---

27. Install Roll Pin (42) that secures the Primer Rod to the Adapter and Insert Assembly.
   - Use a small hammer.

---

---
28. Install Valve Seat (48), Plate (49), and Stop Nut (50) onto the Primer Rod.
   • Tighten the Stop Nut securely.
   • Place a small punch into the hole of the Primer Rod to prevent its rotation.

29. Position Adapter (44) horizontally into the vise.

   **Internally-Threaded End of Adapter**

30. Install Gasket (29) into the internally-threaded end of the Adapter.

31. Install the Primer Rod and Piston assembly (Piston end first) into the Adapter.
   • Center and seat all components properly. Pull on the Piston as necessary. Use care to ensure the Gasket does not move.

32. Install the additional Gasket (29) onto Valve Seat (48).

   **Externally-Threaded End of Adapter**

33. Install Spacer (35) into the externally-threaded end of the Adapter.
   • Make sure the Spacer centers and seats properly.

34. Install Gasket (29) into the Adapter.

35. Position Barrel Assembly (30) with the large diameter pointing upward.

36. Install Wear Ring (31) into the Barrel Assembly.

37. Install and seat Seal (32) [lip end first] into the Barrel Assembly.

38. Install Back-Up Ring (33) and brass Bearing (34) into the Barrel Assembly.

   **CAUTION**

   Use care installing the Barrel Assembly over the threads of Piston (36). Damage to the Seal can occur.

39. Install the Barrel Assembly (large diameter first) onto Piston (36).
   • Make sure the Barrel Assembly seats properly against the Spacer.

40. Install Gasket (29) onto the Barrel Assembly.

41. Screw Coupling (26) onto the end of the Piston until the Spring Clip holes align.

42. Install lower Spring Clip (27) that secures the Coupling to the Piston.
IMPORTANT: If a primer is used with Loc-tite 222, the curing time is greatly reduced.

43. Screw Pump Tube (28) onto Adapter (44) [with Loctite 222]. See Figure 2-B.
   • Follow the thread sealant manufacturer’s recommendations.
   • Do not tighten at this time.

44. Screw Primer Body (51) [with Loctite 222] into the opposite end of the Adapter. See Figure 2-B.
   • Follow the thread sealant manufacturer’s recommendations.
   • Do not tighten at this time.

45. Screw Jam Nut (23) onto the Pump Tube.

46. Push on Plate (49) to expose Coupling (26) from the Pump Tube as necessary.

Attach Pump Tube to Air Motor

47. Screw the Coupling onto the air motor piston rod until the Spring Clip holes align.
   • Rotate the entire pump tube assembly.

48. Install the Spring Clip.

49. Screw the pump tube assembly into Body (12).

50. Place a large wrench or other suitable tool into the slot of Primer Body (51).
   • Tighten all the components of the assembly securely.
   • Crush all gaskets.

51. Tighten the Jam Nut.

52. Install O-Ring (24) into Camlock Adapter (25).
   IMPORTANT: Lightly coat the inside diameter of the O-Ring with grease.

53. Install the Camlock Adapter onto Air Motor Assembly (3).
   • Use care when O-Ring passes Body (12).

54. Install Screws (6), Lockwashers (7), and Nuts (8) that secure the Camlock Adapter to the Air Motor Assembly.
   • Tighten the Screws securely in an crisscross pattern.

Bench Test

1. Make sure air pressure at the regulator reads zero.

2. Install air Connector (4) to the inlet of the air motor.

3. Connect Air Coupler (5) to the Connector.

4. Slowly supply air pressure [not to exceed 20 psi (1.4 Bars)] to the pump’s motor.
   • The pump assembly should cycle.

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

With air pressure at zero:

5. Connect a product hose to the pump’s material outlet.
   • Direct the hose into an appropriate collection container.

6. Place the pump in oil.

7. Slowly supply air pressure to the pump’s motor.

8. Allow the pump to cycle slowly until the system and oil is free of air.

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

WARNING

⚠️ Should leakage occur anywhere within the system, disconnect air to the motor. Personal injury can occur.

With air pressure at zero:

9. Attach a control valve to the outlet hose of the pump.

10. Set the air pressure to 100 psi (6.9 Bar).

11. Operate the control valve into a container.

12. Allow the pump to cycle until the system and oil is once again free of air.

13. Shut off the control valve.
   • Visually inspect the pump for external leaks.
   • The pump should not cycle. *

If the pump does not adequately stall, refer to the Troubleshooting Chart for details.

14. Check the motor for air leakage.

If the motor leaks, refer to the Air Motor Service Guide for details.

* A pump that does not completely stall with oil does not necessarily mean that it will not stall with grease.
Installation

These pumps connect to a female camlock which is part of a bulk container system. See Figure 6 for a typical installation.

Additional items that should be incorporated into the air piping systems are listed in Table 5.

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>5612-2</td>
<td>Moisture Separator</td>
</tr>
<tr>
<td>SM7612-B</td>
<td>Regulator and Gauge</td>
</tr>
<tr>
<td>5912-2</td>
<td>Lubricator *</td>
</tr>
</tbody>
</table>

Table 5  Air Line Components

* Although the air motor is lubricated at the factory, the life of the motor can be extended with the use of a lubricator.

Prove the Pump

Aerated product is due to external leakage; either at the pump or at the connection fittings on the bulk container. Isolation of the pump from the bulk container can help “prove the pump”.

1. Place the pump in oil.

2. Follow procedures 9 through 13 within the section entitled Bench Test.

If the pump does not leak externally * the fittings on the bulk container may not be sealing properly.

* The pump may still contain an air leak at O-Rings (11) and/or (24). Refer to the Troubleshooting Chart for details.

Figure 6  Medium-Pressure Grease Pump Model 7730 (Shown with Accessories) - Typical Installation
## Troubleshooting Chart

<table>
<thead>
<tr>
<th>Pump Indications</th>
<th>Possible Problems</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pump does not cycle</td>
<td>1. Insufficient air pressure</td>
<td>1. Increase air pressure</td>
</tr>
<tr>
<td></td>
<td>2. Air motor not operating properly</td>
<td>2. Inspect air motor and rebuild or replace as necessary</td>
</tr>
<tr>
<td></td>
<td>3. Pump tube jammed and/or contains loose components</td>
<td>3. Rebuild pump tube</td>
</tr>
<tr>
<td>Pump will not prime</td>
<td>1. Pump leaking internally</td>
<td>1. See <strong>Internal Leaks</strong></td>
</tr>
<tr>
<td></td>
<td>2. Improper seal between Camlock Adapter (25) and camlock</td>
<td>2. Replace seal in camlock</td>
</tr>
<tr>
<td></td>
<td>3. Bulk container connection fittings leaking</td>
<td>3. Seal fittings and tighten securely</td>
</tr>
<tr>
<td></td>
<td>4. Pump leaking externally</td>
<td>4. See <strong>External Leaks</strong></td>
</tr>
<tr>
<td>Product is aerated *</td>
<td>1. Improper seal between Camlock Adapter (25) and camlock</td>
<td>1. Replace seal in camlock</td>
</tr>
<tr>
<td></td>
<td>2. Bulk container connection fittings leaking</td>
<td>2. Seal fittings and tighten securely</td>
</tr>
<tr>
<td></td>
<td>3. Pump leaking externally</td>
<td>3. See <strong>External Leaks</strong></td>
</tr>
<tr>
<td>Pump cycles rapidly</td>
<td>Product source empty</td>
<td>Replenish product</td>
</tr>
<tr>
<td>Pump will not stall (cycles more</td>
<td>1. Pump leaking internally</td>
<td>1. See <strong>Internal Leaks</strong></td>
</tr>
<tr>
<td>than once or twice/hour)</td>
<td>2. Pump leaking externally</td>
<td>2. See <strong>External Leaks</strong></td>
</tr>
<tr>
<td></td>
<td>3. Distribution system leaking</td>
<td>3. Correct leak</td>
</tr>
<tr>
<td><strong>External Leaks</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product leakage from weep hole in</td>
<td>1. Damaged Seal (18)</td>
<td>1. Separate pump tube from air motor and replace Seal (18)</td>
</tr>
<tr>
<td>Body (12) Visible at air motor</td>
<td>2. Damaged air motor piston rod.</td>
<td>2. Inspect piston rod and replace as necessary</td>
</tr>
<tr>
<td>base</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product leakage at bottom of Body</td>
<td>1. Pump tube not sufficiently tight</td>
<td>1. Tighten pump tube assembly</td>
</tr>
<tr>
<td>(12) Visible on Pump Tube (28)</td>
<td>2. Damaged Gaskets (21)</td>
<td>2. Separate pump tube from air motor and replace Gaskets (21)</td>
</tr>
<tr>
<td>Air leakage from weep hole in</td>
<td>Damaged Seal (16)</td>
<td>Separate pump tube from air motor and replace Seal (16)</td>
</tr>
<tr>
<td>Body (12) Felt at air motor base</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Product leakage visible at weep</td>
<td>1. Pump tube not sufficiently tight</td>
<td>1. Tighten pump tube assembly</td>
</tr>
<tr>
<td>hole in Pump Tube (28) and/or</td>
<td>2. Damaged Gasket(s) (29)</td>
<td>2. Disassemble pump tube and replace Gaskets (29)</td>
</tr>
<tr>
<td>Adapter (44)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pump will not prime or product is</td>
<td>1. Damaged O-Ring (24)</td>
<td>1. Remove Camlock Adapter (25) and replace O-Ring (24)</td>
</tr>
<tr>
<td>aerated *</td>
<td>2. Damaged O-Rings (11)</td>
<td>2. Replace O-Rings (11)</td>
</tr>
<tr>
<td><strong>Internal Leaks</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Pump will not prime or pump will</td>
<td>1. Foreign material between Ball (39) and Adapter and Insert Assembly (41)</td>
<td>Locate and eliminate source of foreign material.</td>
</tr>
<tr>
<td>not stall (cycles more than once</td>
<td>2. Foreign material between Valve Body (47) and Valve Seal (48)</td>
<td>Disassemble pump tube, clean, inspect and replace worn or damaged components.</td>
</tr>
<tr>
<td>or twice/hour)</td>
<td>3. Worn or damaged Ball (39)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>4. Worn or damaged Adapter and Insert Assembly (41)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>5. Worn or damaged Valve Body (47)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>6. Worn or damaged Valve Seat (48)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>7. Worn or damaged Seal (32)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8. Worn or damaged Piston (36)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>9. Worn or damaged Seal (46)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>10. Worn or damaged Primer Rod (43)</td>
<td></td>
</tr>
</tbody>
</table>

* Should the pump aerate product, see Section entitled **Prove the Pump** for details.

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**Changes Since Last Printing**

Changed Configuration of Retainer 319763