

Dyna-Star[®] 70:1 Grease Pump

3A9496D

EN

Provides lubricant flow and pressure to operate both single-line and series progressive automatic lubrication systems. For automatic lubrication systems only. For professional use only.

Not approved for use in European explosive atmosphere locations.

Models

2002775: 400 lb Drum Length

2002774: 120 lb Drum Length

7000 psi (48.2 MPa, 482 bar) Maximum Working Pressure



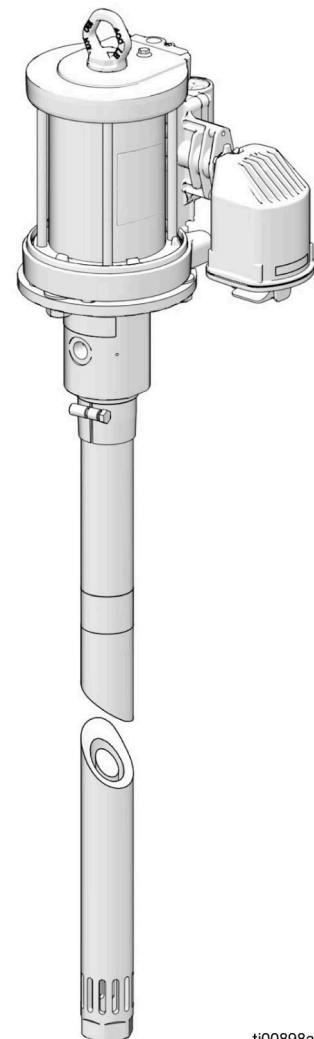
Important Safety Instructions

Read all warnings and instructions in this manual before using the equipment. Be familiar with the proper control and usage of the equipment. Save these instructions.

Related Manuals

Find English manuals and any available translations at www.graco.com.

English Manual Number	Description
3A7718	Dyna-Star [®] Air Motors



ti00898a










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Safety Symbols

The following safety symbols appear throughout this manual and on warning labels. Read the table below to understand what each symbol means.

Symbol	Meaning
	Burn Hazard
	Equipment Misuse Hazard
	Fire and Explosion Hazard
	Moving Parts Hazard
	Skin Injection Hazard
	Skin Injection Hazard
	Splash Hazard
	Toxic Fluid or Fumes Hazard

Symbol	Meaning
	Do Not Place Hands or Other Body Parts Near Fluid Outlet
	Do Not Stop Leaks with Hand, Body, Glove or Rag
	Follow Pressure Relief Procedure
	Ground Equipment
	Read Manual
	Wear Personal Protective Equipment
	Wear Protective Gloves











Safety Alert Symbol








This symbol indicates: Attention! Become Alert! Look for this symbol throughout the manual to indicate important safety messages.

General Warnings

The following warnings apply throughout this manual. Read, understand, and follow the warnings before using this equipment. Failure to follow these warnings can result in serious injury.

 WARNING	
    	<p>SKIN INJECTION HAZARD</p> <p>High-pressure fluid from dispensing device, hose leaks, or ruptured components will pierce skin. This may look like just a cut, but it is a serious injury that can result in amputation. Get immediate surgical treatment.</p> <ul style="list-style-type: none"> Do not point dispensing device at anyone or at any part of the body. Do not put your hand over the fluid outlet. Do not stop or deflect leaks with your hand, body, glove, or rag. Follow the Pressure Relief Procedure when you stop dispensing and before cleaning, checking, or servicing equipment. Tighten all fluid connections before operating the equipment. Check hoses and couplings daily. Replace worn or damaged parts immediately.
 	<p>FIRE AND EXPLOSION HAZARD</p> <p>When flammable fluids are present in the work area, such as gasoline and windshield wiper fluid, be aware that flammable fumes can ignite or explode. To help prevent fire and explosion:</p> <ul style="list-style-type: none"> Use equipment only in well-ventilated area. Eliminate all ignition sources, such as cigarettes and portable electric lamps. Ground all equipment in the work area. Keep work area free of debris, including rags and spilled or open containers of solvent and gasoline. Do not plug or unplug power cords or turn lights on or off when flammable fumes are present. Use only grounded hoses. Stop operation immediately if static sparking occurs or you feel a shock. Do not use equipment until you identify and correct the problem. Keep a working fire extinguisher in the work area.

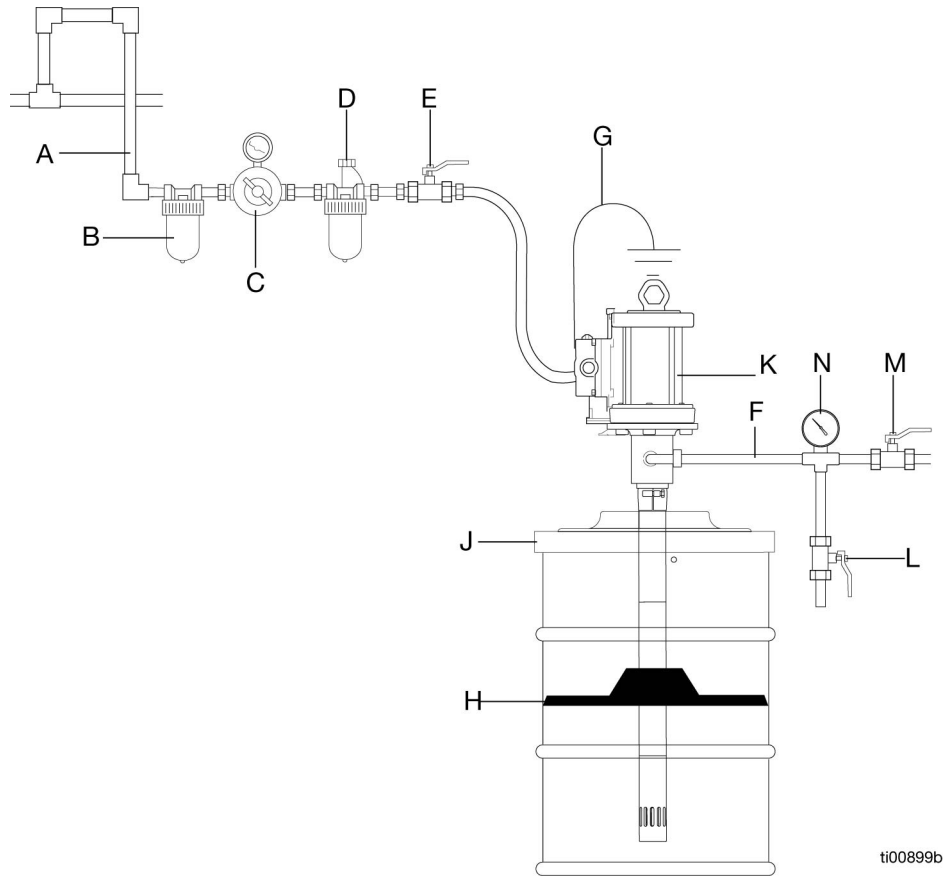
! WARNING

 	<p>EQUIPMENT MISUSE HAZARD Misuse can cause death or serious injury.</p> <ul style="list-style-type: none"> • Do not operate the unit when fatigued or under the influence of drugs or alcohol. • Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See Technical Specifications in all equipment manuals. • Use fluids and solvents that are compatible with equipment wetted parts. See Technical Specifications in all equipment manuals. Read fluid and solvent manufacturer’s warnings. For complete information about your material, request Safety Data Sheets (SDSs) from distributor or retailer. • Turn off all equipment and follow the Pressure Relief Procedure when equipment is not in use. • Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer’s replacement parts only. • Do not alter or modify equipment. Alterations or modifications may void agency approvals and create safety hazards. • Make sure all equipment is rated and approved for the environment in which you are using it. • Use equipment only for its intended purpose. Call your distributor for information. • Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces. • Do not kink or over bend hoses or use hoses to pull equipment. • Keep children and animals away from work area. • Comply with all applicable safety regulations.
 	<p>MOVING PARTS HAZARD Moving parts can pinch, cut or amputate fingers and other body parts.</p> <ul style="list-style-type: none"> • Keep clear of moving parts. • Do not operate equipment with protective guards or covers removed. • Equipment can start without warning. Before checking, moving, or servicing equipment, follow the Pressure Relief Procedure and disconnect all power sources.
	<p>TOXIC FLUID OR FUMES HAZARD Toxic fluids or fumes can cause serious injury or death if splashed in the eyes or on skin, inhaled, or swallowed.</p> <ul style="list-style-type: none"> • Read Safety Data Sheets (SDSs) to know the specific hazards of the fluids you are using. • Store hazardous fluid in approved containers, and dispose of it according to applicable guidelines.
	<p>BURN HAZARD Equipment surfaces and fluid that is heated can become very hot during operation. To avoid severe burns:</p> <ul style="list-style-type: none"> • Do not touch hot fluid or equipment.
	<p>PERSONAL PROTECTIVE EQUIPMENT Wear appropriate protective equipment when in the work area to help prevent serious injury, including eye injury, hearing loss, inhalation of toxic fumes, and burns. Protective equipment includes but is not limited to:</p> <ul style="list-style-type: none"> • Protective eyewear, and hearing protection. • Respirators, protective clothing, and gloves as recommended by the fluid and solvent manufacturer.

Typical Installation

Pump Installation on Drum

The installation shown in FIG. 1 is only a guide for selecting and installing system components and accessories. Contact your Graco distributor for assistance in designing a system to meet your needs.



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FIG. 1: Typical Installation

Key:

- | | | | |
|---|---|---|---------------------------|
| A | Grounded Air Line | H | Follower Plate |
| B | Air Filter (Graco P/N 106150) | J | Drum Cover |
| C | Air Regulator (required) (Graco P/N 244845) | K | Air Motor |
| D | Air Line Oiler (Graco P/N 214849) | L | Drain Valve (required) |
| E | Bleed-Type Master Air Valve (required) | M | Shut Off Valve (required) |
| F | Fluid Hose | N | Pressure Gauge (required) |
| G | Ground Wire (required) | | |

Installation

Installation Instructions

The reference letters in the following instructions refer to **Typical Installation**, page 6.

Mount the Pump



Mount the pump securely so that it cannot move around during operation. Failure to do so could result in personal injury or equipment damage.

- Select a convenient installation location for the equipment to ensure easy operator access to the pump air controls, sufficient room to change supply containers, and a secure mounting platform.
- To mount the pump directly onto the supply container, position the pump so the intake valve is no more than 1 in. (25 mm) from the bottom of the container. Mount the pump to the drum cover (J) or other suitable mounting device.

Pump Accessories



To reduce the risk of serious injury including fluid injection and splashing in the eyes or on the skin which may be caused in component ruptures, all accessories added to the pump fluid outlet side must have a maximum working pressure of at least 7000 psi (48.2 MPa, 482 bar).

Drain Valve (L): Relieves fluid pressure in the pump.

Shut Off Valve (M): Isolates the pump from the downstream fluid pressure.

Fluid Pressure Gauge (N): Monitors the fluid outlet pressure.

Air Line Accessories

Install the air line accessories (user supplied) as shown in **Typical Installation**, page 6.




- Install a bleed-type master air valve (E) (required) within easy reach of the pump, downstream from the air regulator (C) (required).



A bleed-type master air valve (E) is required to shut off and relieve air pressure that may be trapped in the air motor (K). Trapped air could cause the pump to cycle unexpectedly and cause serious bodily injury, including amputation.

- Install an air filter (B) (optional) to remove harmful dirt and moisture from the compressed air supply. For automatic air motor lubrication.
- Install an air line oiler (D) (optional) close to the pump air inlet.
- Install an air regulator (C) (required) to control the pump speed.
- Verify that the air hose is properly sized to deliver an adequate supply of air to the motor. Refer to **Technical Specifications**, page 24.

Grounding

				
<p>The equipment must be grounded to reduce the risk of static sparking. Static sparking can cause fumes to ignite or explode. Grounding provides an escape wire for the electric current.</p>				

Pump: Use ground wire and clamp (user supplied, Graco P/N 222011) (FIG. 2)

1. Connect the ground wire (Y) to the ground screw (Z), located at the bottom of the air motor.
2. Connect the other end of the ground wire (Y) to a true earth ground.

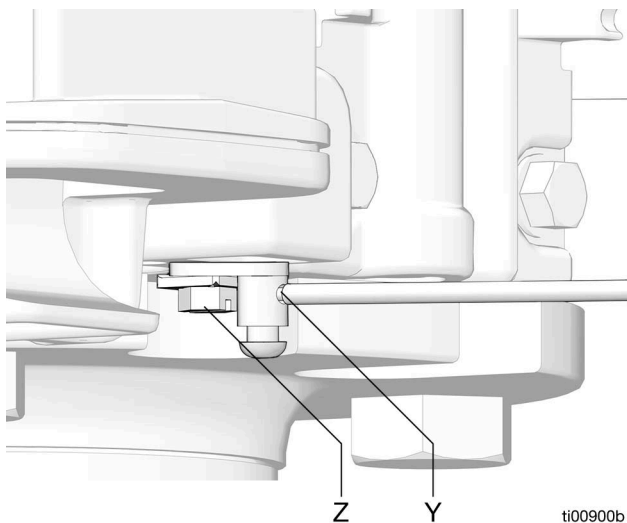


FIG. 2

Air and fluid hoses: Use only electrically conductive hoses.

Air compressor: Follow the recommendations of the manufacturer.

Solvent pails used when flushing: Follow all local codes. Use only conductive metal pails, placed on a grounded surface. Do not place the pail on a nonconductive surface, such as paper or cardboard, which interrupts ground continuity.

To maintain ground continuity when flushing or during pressure relief: Hold the metal part of the spray gun/dispense valve firmly to the side of a grounded metal pail, then trigger the gun/valve.

Operation

The reference letters in the following instructions refer to **Typical Installation**, page 6.



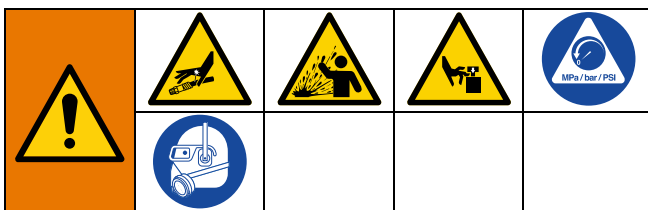
This pump is designed to only pump non-corrosive and non-abrasive lubricants. Any other use of the pump can cause unsafe operating conditions and component rupture, which can result in fluid injection or other serious injury or fire or explosion.

To avoid pinch during operation, keep hands away from the inlet pump cylinder.

Pressure Relief Procedure



Follow the Pressure Relief Procedure whenever you see this symbol.



This equipment stays pressurized until pressure is manually relieved. To help prevent serious injury from pressurized fluid, such as skin injection, splashing fluid and moving parts, follow the Pressure Relief Procedure when you stop dispensing and before cleaning, checking, or servicing the equipment.

1. Close the bleed-type master air valve (E) (required in the system).
2. Close the shut off valve (M).
3. Open the pump drain valve (L).
4. Check the pressure gauge on the air regulator (C) and the pressure gauge (N) to verify that the pressure has been relieved.

Before Pump Operation

The reference letters in the following instructions refer to **Typical Installation**, page 6.



The maximum working pressure of each component in the system may not be the same. To reduce the risk of over-pressurizing any component in the system, be sure you know the maximum working pressure of each component. Never exceed the maximum working pressure of the lowest rated component in the system. Over-pressurizing can result in rupture, fire, explosion, property damage, and serious injury.

Limit the air to the pump so that no air line or fluid line component or accessory is over-pressurized.

To determine the fluid output pressure using the air regulator reading, multiply the ratio of the pump by the air pressure shown on the regulator gauge. For example:

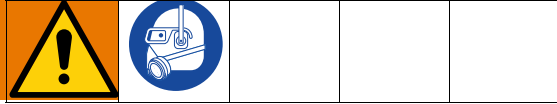
$$70 (:1) \text{ ratio} \times 100 \text{ psi air} = 7000 \text{ psi fluid output}$$

$$70 (:1) \text{ ratio} \times 6.89 \text{ bar air} = 482 \text{ bar fluid output}$$

$$70 (:1) \text{ ratio} \times 0.69 \text{ MPa air} = 48.2 \text{ MPa fluid output}$$

Prime and Pump Speed Adjustment

The reference letters in the following instructions refer to **Typical Installation**, page 6.



1. Open the bleed-type master air valve (E).
2. Open the drain valve (L) then slowly open the air regulator (C) until the pump runs smoothly.
3. After all of the air is purged from the fluid hose, close the drain valve (L).
4. Use the air regulator (C) to control the pump speed and fluid pressure. Use the lowest pressure necessary to obtain the desired results.
5. The pump will start and stop as the shut off valve (M) opens and closes.

NOTICE

Do not allow the pump to run dry of the fluid being pumped. A dry pump will quickly accelerate to a high speed, possibly damaging itself, and it may become very hot.

6. If the pump accelerates quickly or runs too fast, stop the pump by closing the bleed-type master air valve (E) and check the fluid supply. If the fluid supply container is empty and air has been pumped into the lines:
 - a. Refill the supply container.
 - b. Prime the pump and fill the lines with fluid to purge all of the air from the fluid lines.

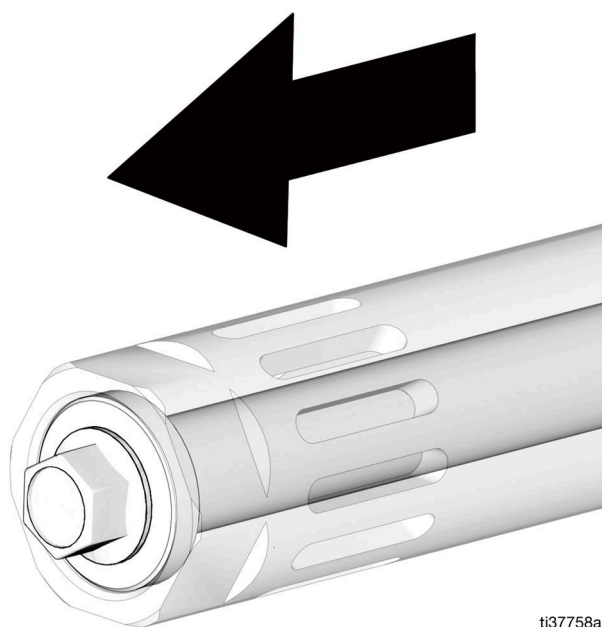
Maintenance

Suggested Tools

3/4 in. socket
 15/16 in. socket
 15/16 in. open-end wrench
 1 - 7/16 in. socket
 1 - 13/16 in. socket
 1 - 15/16 in. socket
 2 in. socket
 Socket extension
 O-ring pick
 Torque wrench 50 to 250 ft-lb (67.8 to 339 N•m)
 Large adjustable wrenches (1 - 1/4 in. jaw capacity)

Disassemble

1. Close the bleed type master air valve (E) (see FIG. 1, page 6) to stall the pump while it is in the down stroke position (FIG. 3).

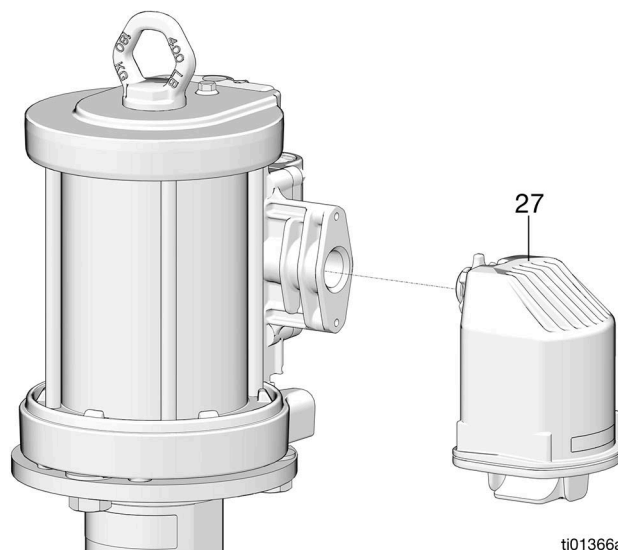


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FIG. 3

2. Relieve pressure following the **Pressure Relief Procedure**, page 9.
3. Disconnect the air supply hose from the pump air motor (1).
4. Disconnect the fluid hose.
5. Remove the pump from the container and place on a workbench.
6. Remove the muffler (27).

NOTE: Removal of the muffler allows easier movement of the internal pump components to expose the flats.



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FIG. 4

7. Position the pump horizontally into a vise and secure on the flats (FIG. 4).

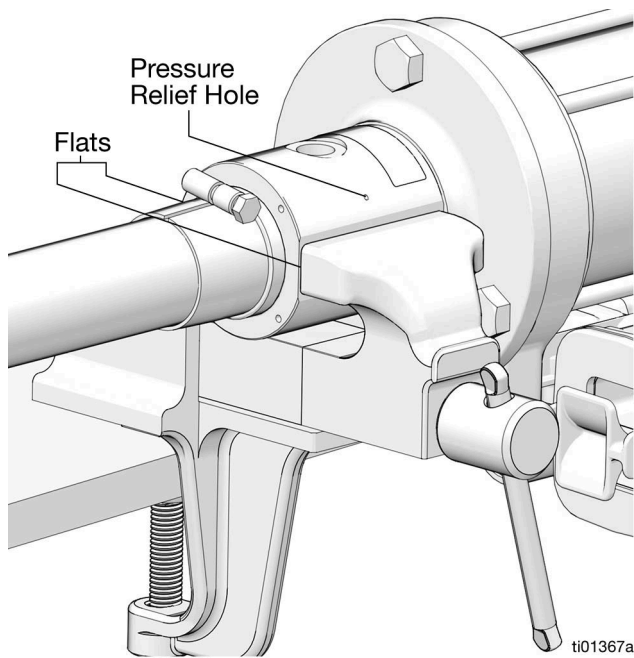


FIG. 5

NOTE: Alternative Vise Mounting Orientation: position the pump horizontally into a vise and secure the air motor (FIG. 6).

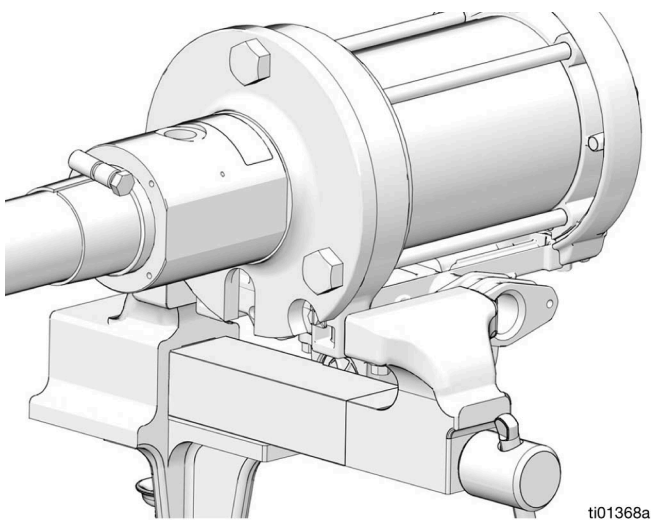


FIG. 6

- Use a 1 - 5/16 in. socket to loosen the inlet pump cylinder (8) and expose the hex on the connecting rod (13) (FIG. 7).

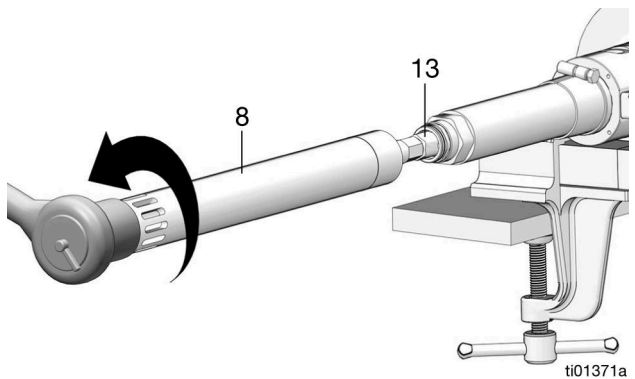


FIG. 7

- Use a 3/4 in. socket to loosen and unthread the shovel rod (20), leave the shovel rod (20) inside of the inlet pump cylinder (8) and set aside (FIG. 8).

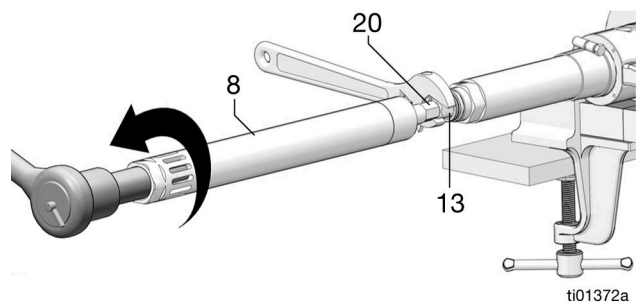


FIG. 8

- Use a 1 - 7/16 in. socket to loosen the seal retainer (6), but leave it hand-tight in the pump cylinder (2). (FIG. 9).

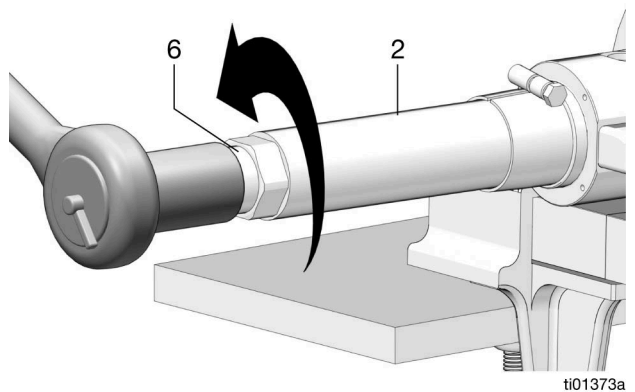


FIG. 9

11. Use a 1 - 13/16 in. socket to remove the pump cylinder (2) (FIG. 10).

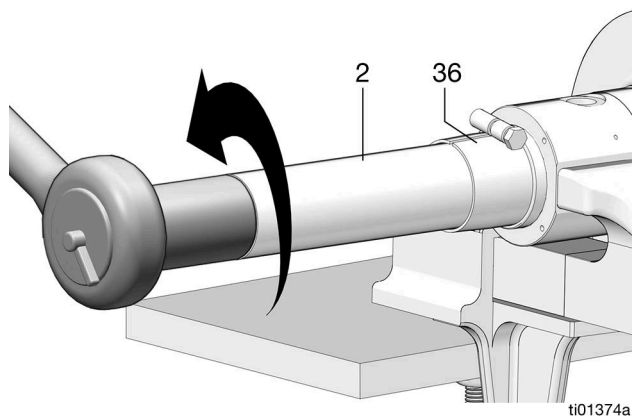


FIG. 10

12. Position a wrench on the displacement rod (14) flats and position another wrench on the fluid piston (9) flats. Loosen and remove the fluid piston (9) (FIG. 11).

NOTE: The fluid piston (9) can stay connected to the connecting rod (13).

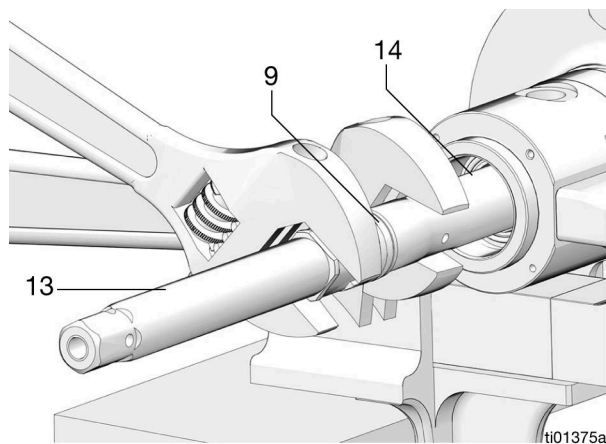


FIG. 11

13. Remove the check ball (15) from the inside of the displacement rod (14) and set aside (FIG. 12).

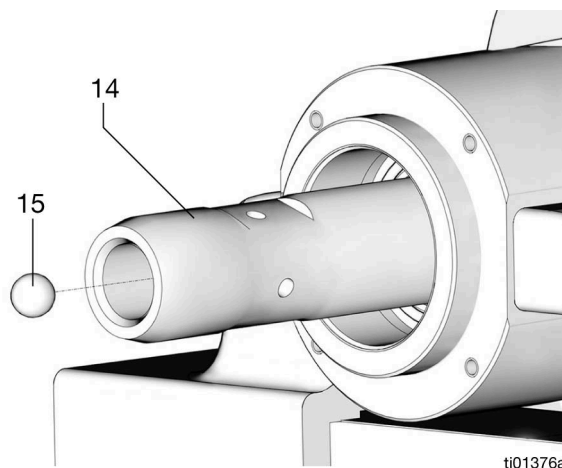


FIG. 12

14. Loosen and remove the three outlet housing adapter screws (17) with a 15/16 in. wrench (FIG. 13).

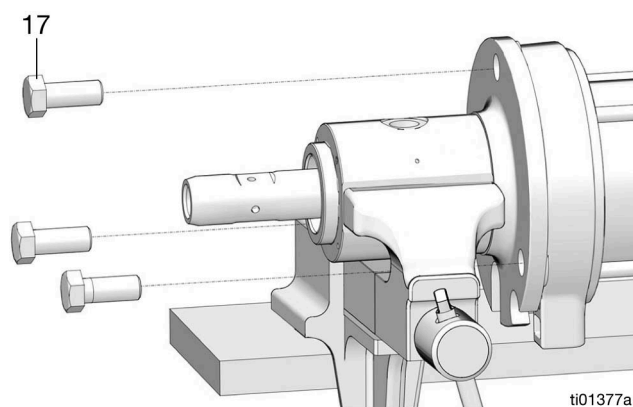


FIG. 13

15. Remove the air motor (1) (FIG. 14).

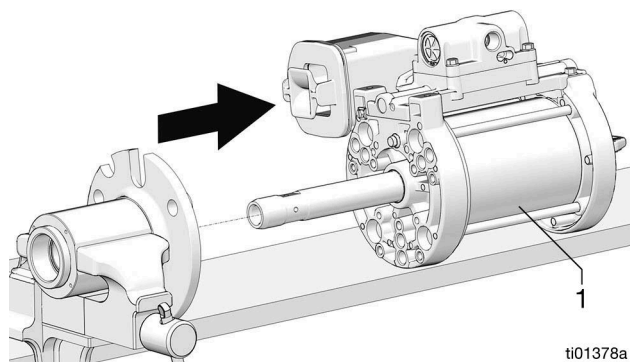


FIG. 14

16. Use a 2 in. socket to loosen and remove the throat seal retainer nut (19) (FIG. 15).

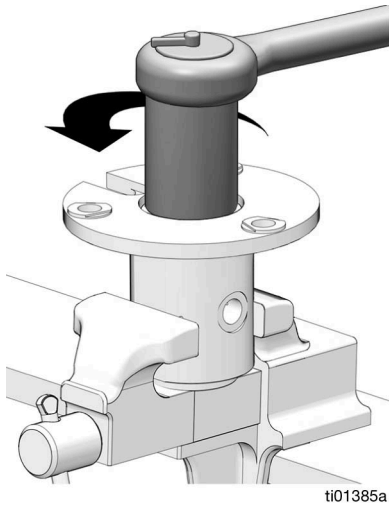


FIG. 15

17. Remove the outlet housing adapter (16) (FIG. 16).
18. Remove the spacer (35), throat seal (5), and the throat seal back-up rings (4) (FIG. 16).
19. Remove the o-ring face seal (18) (FIG. 16).

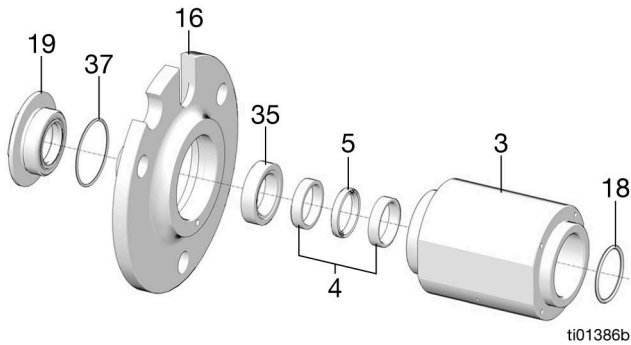


FIG. 16

Reassemble

1. Replace the o-ring face seal (18) with a new one from the seal kit (FIG. 17).
2. Replace the backup throat seal (34) with a new one from the seal kit (FIG. 17).

3. Replace the throat seal (5) and the throat seal back-up rings (4) with new parts from the seal kit (FIG. 17).

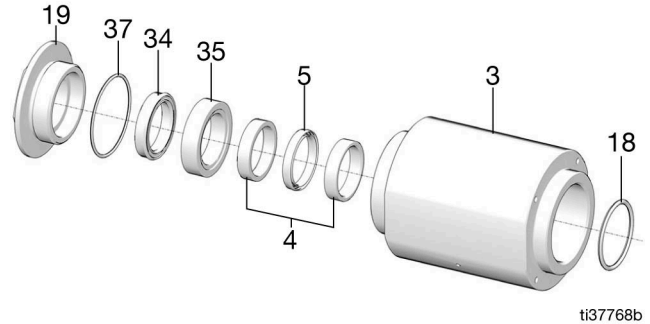


FIG. 17

NOTE: The chamfer on the seal back-up rings must point away from the seal, the step on the spacer must point towards the back-up rings (FIG. 18).

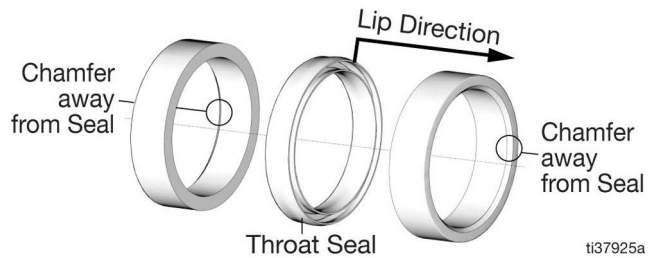


FIG. 18

4. Reinstall the outlet housing adapter by lining up the hole in the adapter with the pin on the outlet housing (FIG. 19).

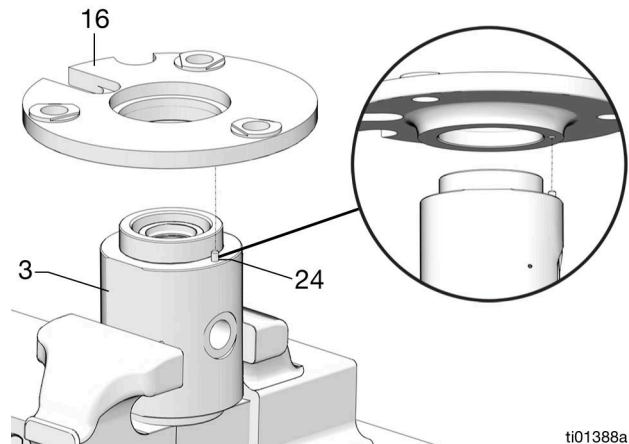


FIG. 19

- Use a 2 in. socket to reinstall the throat seal retainer nut (19) and tighten, torque to 150 - 165 ft-lb (203.4 to 223.7 N•m) (FIG. 20).

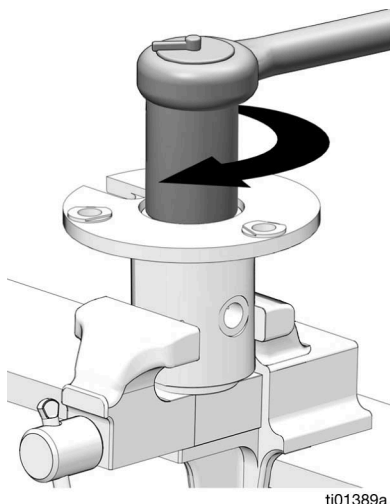


FIG. 20

- Reinstall the air motor (1), slide the displacement rod (14) through the outlet housing (3) (FIG. 21).

NOTE: Reinstall the air motor in the preferred orientation for air line connection.

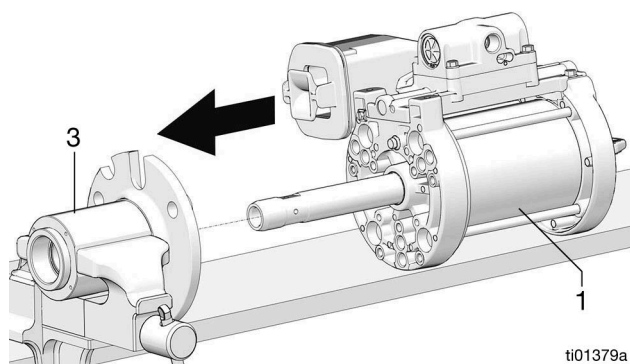


FIG. 21

- Replace and hand-tighten the outlet housing adapter screws (17) (FIG. 22).

NOTE: Do not fully tighten the housing adapter screws (17) in Step 7. The outlet housing needs to be able to self-align with the pump tube during reinstallation and torque in Step 14, or the pump tube threads may gall, which could damage both components.

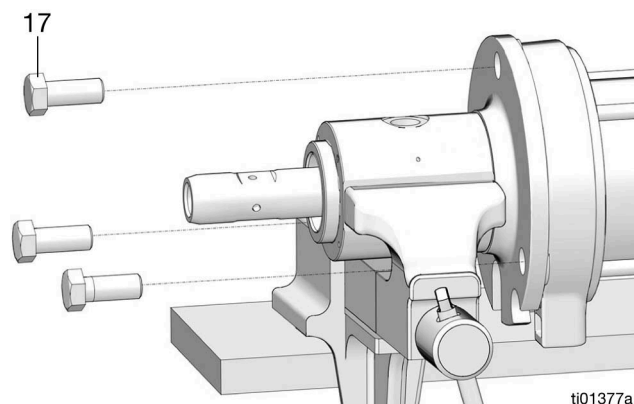


FIG. 22

- Replace the check ball (15) between the displacement rod (14) and the fluid piston (9) (FIG. 23).

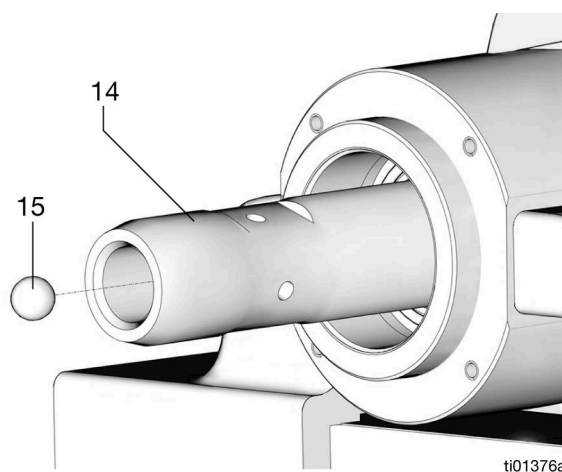


FIG. 23

- Remove the piston seal retainer washer (12), the piston seal (11), and the piston seal back-up rings (10), then replace with new parts from the seal repair kit (FIG. 24).

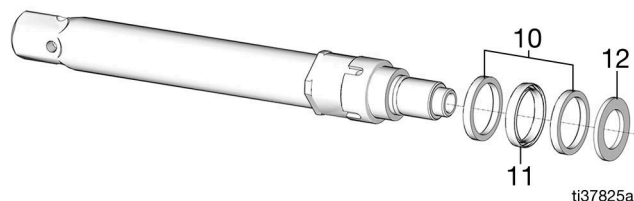


FIG. 24

NOTE:

- The chamfer on the seal back-up ring must point away from the seal (FIG. 25).
- The piston seal has a green o-ring.

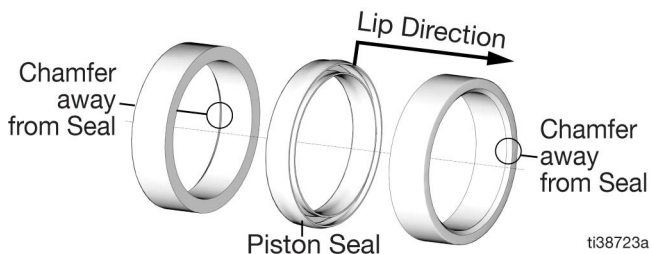


FIG. 25

10. Reinstall the fluid piston (9) and the connecting rod (13) using one wrench on the displacement rod (14) flat and a 15/16 in. socket on the connecting rod (13) and then tighten, torque to 140 - 160 ft-lb (189.8 to 216.9 N•m) (FIG. 26).

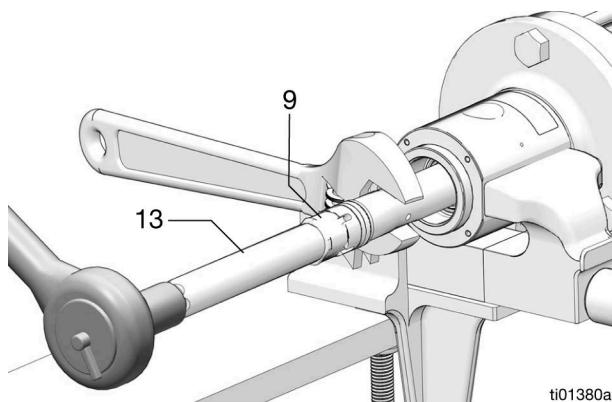


FIG. 26

11. Remove the seal retainer (6) from the pump cylinder (2) (FIG. 28).
12. Remove the priming seal (30) and the priming seal back-up rings (29) then replace with new parts from the seal repair kit (FIG. 27).

NOTE:

- The chamfer on the seal back-up ring must point away from the seal (FIG. 27).
- The priming seal has a yellow o-ring.
- Priming seal back-up rings have identification marks on the chamfered face to distinguish it from the piston seal back-up rings.

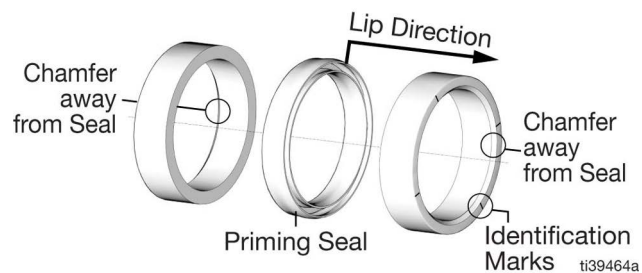


FIG. 27

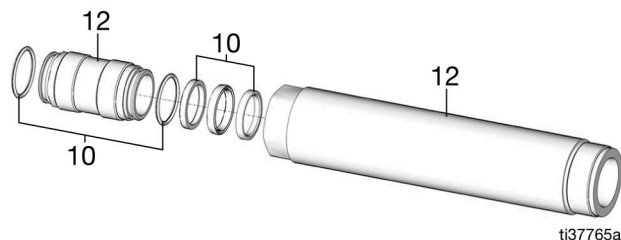


FIG. 28

13. Replace the seal retainer (6) and hand-tighten (FIG. 29).
14. Apply anti-seize lubricant to the male threads of the pump cylinder (2) then reinstall the assembly. Tighten with a 1 - 13/16 in. socket, torque to 235 - 265 ft-lb (318.6 to 359.3 N•m).

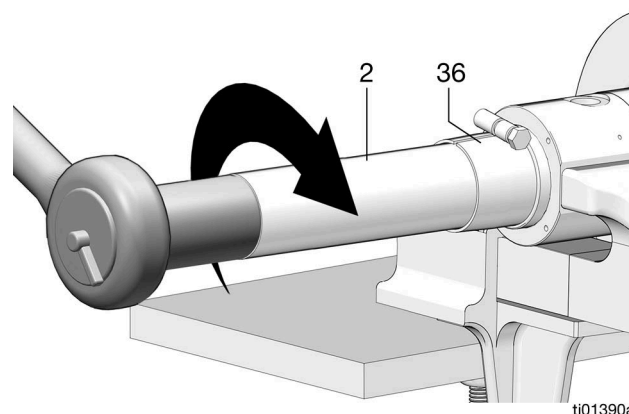
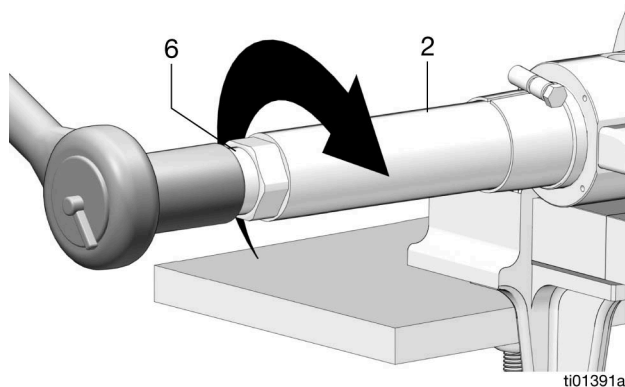


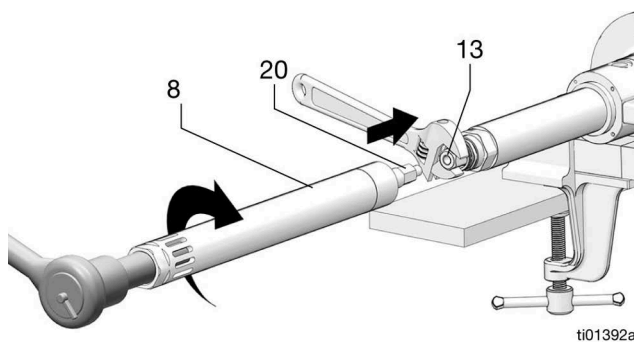
FIG. 29

15. Use a 1 - 7/16 in. socket to tighten the seal retainer (6) to the pump cylinder (2) assembly, torque to 100 - 110 ft-lb (135.6 to 149.1 N•m) (FIG. 30).

**FIG. 30**

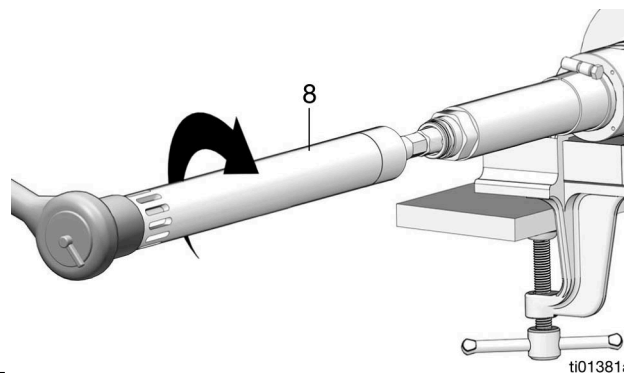
16. Reinstall the inlet pump tube assembly, connect the shovel rod (20), located inside of the inlet pump cylinder (8), and attach to the connecting rod (13) using a 3/4 in. socket and tighten, torque to 50 - 60 ft-lb (67.8 to 81.3 N•m) (FIG. 31).

NOTE: The shovel rod (20) should remain inside of the inlet pump cylinder (8).

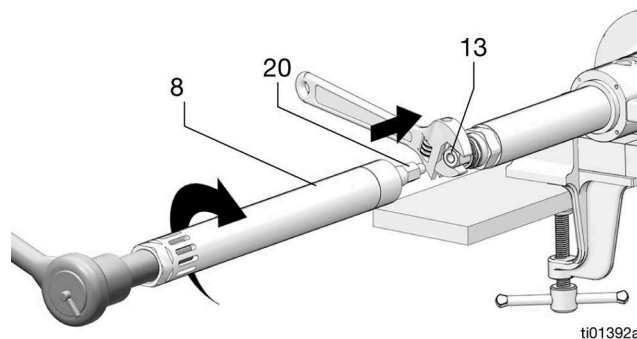
**FIG. 31**

17. Reinstall the inlet pump cylinder (8) and use a 1 - 15/16 in. socket to tighten, torque to 75 - 85 ft-lb (101.7 to 115.2 N•m) (FIG. 32).

NOTE: Remove any grease on the internal threads of the inlet cylinder before reinstallation to ensure correct threading.

**FIG. 32**

18. Reconnect the muffler (27).
19. Attach an air supply hose to the pump air motor.
20. Apply air and slowly cycle several times.
21. Remove the air supply hose.
22. Tighten the outlet housing adapter bolts with a 15/16 in. socket, torque to 55 - 65 ft-lb (74.68 to 88.1 N•m) (FIG. 33).

**FIG. 33**

23. Remove the pump from the vise.

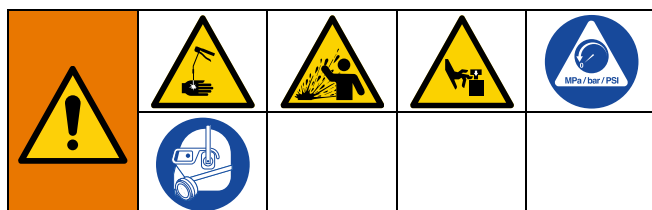
Recycling and Disposal

End of Product Life

At the end of the product's useful life, dismantle and recycle it in a responsible manner.

- Perform the **Pressure Relief Procedure**, page 9.
- Drain and dispose of fluids according to applicable regulations. Refer to the material manufacturer's Safety Data Sheet.
- Deliver remaining product to a recycling facility.

Troubleshooting

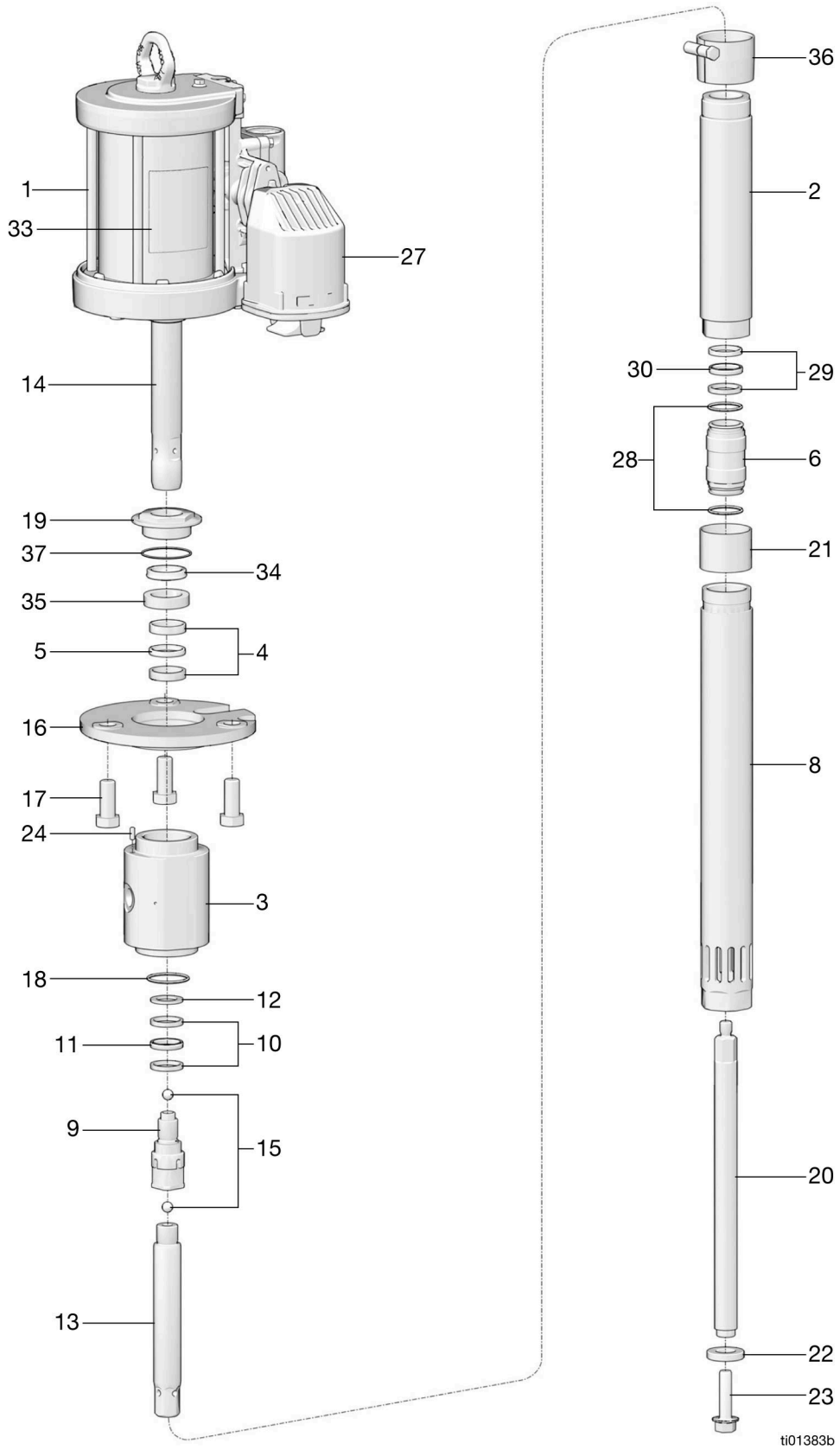


Follow **Pressure Relief Procedure**, page 9, before checking or repairing the equipment.

NOTE: Check all possible problems and causes before disassembling the equipment.

Problem	Cause	Solution
Pump fails to operate or there is no fluid flow.	Inadequate air supply pressure	Increase the air supply.
	Restricted air line	Clear the line.
	Closed dispense valves	Open the valve.
	Clogged fluid lines, hoses, or dispense valve	<ol style="list-style-type: none"> 1. Disconnect the fluid line. 2. Turn the air on. If the pump starts, the lines, hoses, or valve is clogged. Clear the obstruction.
	Damaged air motor	Service the air motor. Refer to the Dyna-Star Air Motors manual, see Related Manuals , page 1.
	Exhausted fluid supply	Refill the fluid supply and prime or flush.
Continuous air exhaust	Worn or damaged air motor gasket, packing, seal, etc.	Service the air motor. Refer to the Dyna-Star Air Motors manual, see Related Manuals , page 1.
Erratic pump operation	Exhausted fluid supply	Refill the fluid supply and prime or flush.
	Worn fluid seals	Replace worn seals. See Parts , beginning on page 20.
	Inadequate air supply pressure	Increase the air supply.
Pump operates but the output is low on the down or up stroke	Worn fluid seals	Replace worn seals. See Parts , beginning on page 20.
Fluid is coming our of the gap between either the air motor and the housing adapter or the housing adapter and the outlet housing.	Worn or damaged throat seal	Replace worn seals. Replace worn seals. See Parts , beginning on page 20.
Leaks at output pressure relief hole (see FIG. 5, page 12).	Wrong style of fitting	Install the correct fitting.
	Fitting is loose	Tighten the fitting.
	Fitting is damaged	Replace the fitting

Parts



ti01383b

Part Number/Assembly Name

Ref.	Part	Description	Qty
1	2006735	MOTOR, assy, air, 4.5 in.	1
2†	---	CYLINDER, pump	1
3*	---	HOUSING, outlet	1
4*	---	RING, back-up, throat seal	2
5*	---	SEAL, throat	1
6†	---	RETAINER, seal	1
7*	---	FLANGE, mounting	1
8†	---	CYLINDER, inlet, 400 lb, model 25P785, 26A968	1
❖	---	CYLINDER, inlet, 120 lb, model 25P784, 26A967	1
9♣	---	PISTON, fluid	1
10*	---	RING, back-up, piston seal	2
11*	---	SEAL, piston	1
12*	---	WASHER, retainer	1
13♣	---	ROD, connecting	1
14	---	ROD, displacement	1
15♣	100114	BALL, check	2
16*	---	ADAPTER, housing	1
17	123208	SCREW, cap, hex head	3
18*	---	SEAL, o-ring	1
19*	---	RETAINER, nut	1
20†	---	ROD, shovel, 400 lb, model 25P785, 26A968	1
❖	---	ROD, shovel, 120 lb, model 25P784, 26A967	1
21❖†	26A953	SLEEVE, cylinder	1
22❖†	25P115	SHOVEL, priming	1
23❖†	---	SCREW, head, washer, hex	1
24*	---	PIN, dowel	1
27	24D642	MUFFLER	1
28*	---	SEAL, o-ring	2
29*	---	RING, back-up, priming seal	2
30*	---	SEAL, priming	1
31*	---	SCREW, flat HD	4
32	---	LABEL, identification	1
33▲	132597	LABEL, safety warning	1
34*	---	SEAL, throat seal, back-up	1
35*	---	SPACER	1
36	222308	ADAPTER, 2 in. NPT bung	1
37*	---	SEAL, o-ring	1

▲ Replacement safety labels, tags, and cards are available at no cost.

* Parts included in Seal Repair Kit 2009432 (purchase separately).

❖ Parts included in 120 lb. drum length conversion kit 26B416, see page 22.

† Parts included in 400 lb. drum length conversion kit 26B399, see page 22.

‡ Parts included in Pump Tube Kit 25T854 (purchase separately).

♣ Parts included in Fluid Piston Kit 25T855 (purchase separately).

* Parts included in Outlet Housing Kit 2009507 (purchase separately).

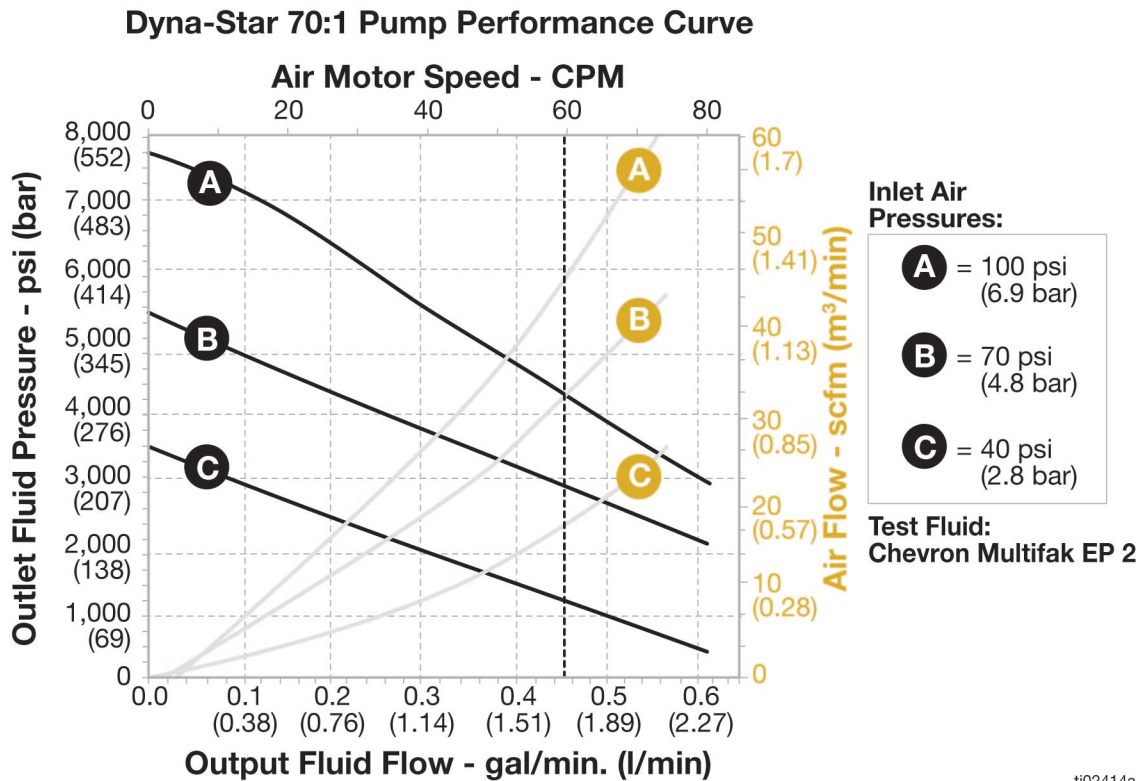
Accessories

Part Number	Description
25U200	PLATE, follower, 400 lb
25U201	PLATE, follower, 120 lb
25U202	COVER, drum, 400 lb
222060	COVER, drum 120 lb
24A592	KIT, DataTrak [®] cycle count
129870	Outlet Adapter (1/2 NPT female x 9/16 MP male)
224040	Valve, runaway
2007333	KIT, flange mount

Length Conversion Kits

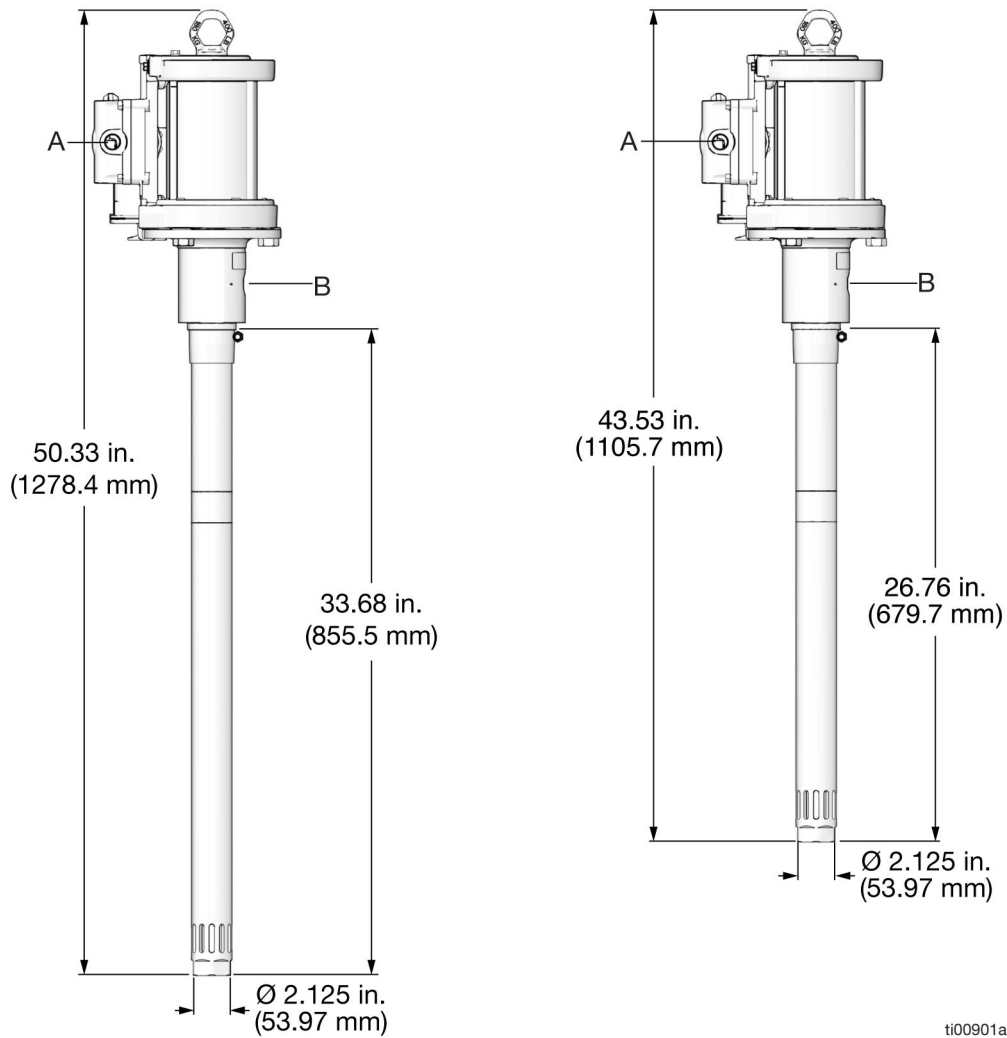
Part Number	Description
26B399	KIT, conversion, 400 lb drum length
26B416	KIT, conversion, 120 lb drum length

Performance Chart



ti02414a

Dimensions




Ref	Description
A	Air Inlet, 1/2 NPT
B	Fluid Outlet, 13/16 - 16 in. UNC

Technical Specifications

Dyna-Star 70:1 Pump		
	US	Metric
Fluid Pressure Ratio	70:1	
Maximum Air Pressure	100 PSI	0.69 MPa, 6.89 bar
Maximum Working Pressure	7000 PSI	48.2 MPa, 482 bar
Maximum Recommended Pump Speed:	60 cycles per minute	
Air Inlet	1/2 npt	
Maximum Fluid Temperature	180°F	82°C
Fluid Outlet	3/4 in. NPT	
Air Motor Effective Diameter	4.5 in.	114 mm
Stroke	4.75 in.	121 mm
Fluid Output at 60 cycles per minute	0.45 gal per min.	1.7 L per min.
Wetted Parts	Steel, stainless steel, bronze, UHMWPE, aluminum	
Noise (dBa)		
Sound Power*	77.2 dBa	
Sound Pressure**	70.5 dBa	
<i>*Sound power at 70 psi (0.48 MPa, 4.8 bar), 20 cpm. Sound power measured per ISO-9614-2.</i>		
<i>**Sound pressure measured 3.28 feet (1.0 meter) from equipment.</i>		
Pump Weight		
400 lb Length	70 lb	31.8 kg
120 lb Length	65 lb	29.5 kg

California Proposition 65

CALIFORNIA RESIDENTS

 **WARNING:** Cancer and reproductive harm – www.P65warnings.ca.gov.

Graco Standard Warranty

Graco warrants all equipment referenced in this document which is manufactured by Graco and bearing its name to be free from defects in material and workmanship on the date of sale to the original purchaser for use. With the exception of any special, extended, or limited warranty published by Graco, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment determined by Graco to be defective. This warranty applies only when the equipment is installed, operated and maintained in accordance with Graco's written recommendations.

This warranty does not cover, and Graco shall not be liable for general wear and tear, or any malfunction, damage or wear caused by faulty installation, misapplication, abrasion, corrosion, inadequate or improper maintenance, negligence, accident, tampering, or substitution of non-Graco component parts. Nor shall Graco be liable for malfunction, damage or wear caused by the incompatibility of Graco equipment with structures, accessories, equipment or materials not supplied by Graco, or the improper design, manufacture, installation, operation or maintenance of structures, accessories, equipment or materials not supplied by Graco.

This warranty is conditioned upon the prepaid return of the equipment claimed to be defective to an authorized Graco distributor for verification of the claimed defect. If the claimed defect is verified, Graco will repair or replace free of charge any defective parts. The equipment will be returned to the original purchaser transportation prepaid. If inspection of the equipment does not disclose any defect in material or workmanship, repairs will be made at a reasonable charge, which charges may include the costs of parts, labor, and transportation.

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Original instructions. This manual contains English. MM 3A9496

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