

# LD Oil or Grease System Packages

3A1335J

EN

**Used for dispensing lubricants only. For professional use only.  
Not for use in explosive atmospheres.**

*Maximum Air Pressure: Oil - 150 psi (10 bar, 1.0 MPa); Grease - 100 psi (7 bar, 0.7 MPa)  
Maximum Fluid Pressure: Oil - 750 psi (52 bar, 5.2 MPa); Grease - 5000 psi (345 bar, 35 MPa)*

LD Oil and Grease System Packages included in this manual:

- Oil Pump Wall Bracket Drum or Tote Mounting System - page 9
- Oil and Grease Pump Intermediate Bulk Container (IBC) Tote Package - page 11
- Oil and Grease Pump Drum Mounted Package - page 16
- Oil and Grease Pump Cart Package - page 19



### Important Safety Instructions

Read all warnings and instructions in this manual and all related component instruction manuals included with your system. Save these instructions.

### Related Component English Manuals






Manual Number	Language
309032	Grease Gun
309924	Air Regulator
312668	LD Meter
313938	LD Hose Reel
3A1334	LD Series Oil and Grease Pump







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# Warnings




The following warnings are for the setup, use, grounding, maintenance, and repair of this equipment. The exclamation point symbol alerts you to a general warning and the hazard symbols refer to procedure-specific risks. When these symbols appear in the body of this manual, refer back to these Warnings. Product-specific hazard symbols and warnings not covered in this section may appear throughout the body of this manual where applicable.

 <b>WARNING</b>	
 	<p><b>SKIN INJECTION HAZARD</b></p> <p>High-pressure fluid from dispense valve, 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. <b>Get immediate surgical treatment.</b></p> <ul style="list-style-type: none"> <li>• Do not point dispense valve at anyone or at any part of the body.</li> <li>• Do not put your hand over the end of the dispense nozzle.</li> <li>• Do not stop or deflect leaks with your hand, body, glove, or rag.</li> <li>• Follow <b>Pressure Relief Procedure</b> in this manual, when you stop spraying and before cleaning, checking, or servicing equipment.</li> <li>• Tighten all fluid connections before operating the equipment.</li> <li>• Check hoses and couplings daily. Replace worn or damaged parts immediately.</li> </ul>
 	<p><b>FIRE AND EXPLOSION HAZARD</b></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"> <li>• Use equipment only in well ventilated area.</li> <li>• Eliminate all ignition sources, such as cigarettes and portable electric lamps.</li> <li>• Keep work area free of debris, including rags and spilled or open containers of solvent and gasoline.</li> <li>• Do not plug or unplug power cords or turn lights on or off when flammable fumes are present.</li> <li>• Ground all equipment in the work area.</li> <li>• Use only grounded hoses.</li> <li>• If there is static sparking or you feel a shock, <b>stop operation immediately</b>. Do not use equipment until you identify and correct the problem.</li> <li>• Keep a working fire extinguisher in the work area.</li> </ul>

 <b>WARNING</b>	
	<p><b>EQUIPMENT MISUSE HAZARD</b> Misuse can cause death or serious injury.</p> <ul style="list-style-type: none"> <li>• Do not operate the unit when fatigued or under the influence of drugs or alcohol.</li> <li>• Do not exceed the maximum working pressure or temperature rating of the lowest rated system component. See <b>Technical Data</b> in all equipment manuals.</li> <li>• Use fluids and solvents that are compatible with equipment wetted parts. See <b>Technical Data</b> in all equipment manuals. Read fluid and solvent manufacturer's warnings. For complete information about your material, request MSDS forms from distributor or retailer.</li> <li>• Check equipment daily. Repair or replace worn or damaged parts immediately with genuine manufacturer's replacement parts only.</li> <li>• Do not alter or modify equipment.</li> <li>• Use equipment only for its intended purpose. Call your distributor for information.</li> <li>• Route hoses and cables away from traffic areas, sharp edges, moving parts, and hot surfaces.</li> <li>• Do not kink or over bend hoses or use hoses to pull equipment.</li> <li>• Keep children and animals away from work area.</li> <li>• Comply with all applicable safety regulations.</li> </ul>
	<p><b>PRESSURIZED ALUMINUM PARTS HAZARD</b> Use of fluids that are incompatible with aluminum in pressurized equipment can cause serious chemical reaction and equipment rupture. Failure to follow this warning can result in death, serious injury, or property damage.</p> <ul style="list-style-type: none"> <li>• Do not use 1,1,1-trichloroethane, methylene chloride, other halogenated hydrocarbon solvents or fluids containing such solvents.</li> <li>• Many other fluids may contain chemicals that can react with aluminum. Contact your material supplier for compatibility.</li> </ul>
  	<p><b>MOVING PARTS HAZARD</b> Moving parts can pinch, cut or amputate fingers and other body parts.</p> <ul style="list-style-type: none"> <li>• Keep clear of moving parts.</li> <li>• Do not operate equipment with protective guards or covers removed.</li> <li>• Pressurized equipment can start without warning. Before checking, moving, or servicing equipment, follow the <b>Pressure Relief Procedure</b> and disconnect all power sources.</li> </ul>
	<p><b>PERSONAL PROTECTIVE EQUIPMENT</b> You must wear appropriate protective equipment when operating, servicing, or when in the operating area of the equipment to help protect you from serious injury, including eye injury, hearing loss, inhalation of toxic fumes, and burns. This equipment includes but is not limited to:</p> <ul style="list-style-type: none"> <li>• Protective eyewear, and hearing protection.</li> <li>• Respirators, protective clothing, and gloves as recommended by the fluid and solvent manufacturer.</li> </ul>

# Installation

## Grounding

						
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To reduce the risk of static sparking, ground the pump and all other components used or located in the dispensing area. Check your local electrical code for detailed instructions for your area and type of equipment.

### Ground all equipment:

- *Pump:* Use a ground wire and clamp as shown in FIG. 1.
  - a. Remove the ground screw (1c) and insert through the eye of the ring terminal at end of ground wire (1d).
  - b. Fasten the ground screw back onto the pump and tighten securely.

**NOTE:** To order a ground wire and clamp, order Graco Part No. 222011.

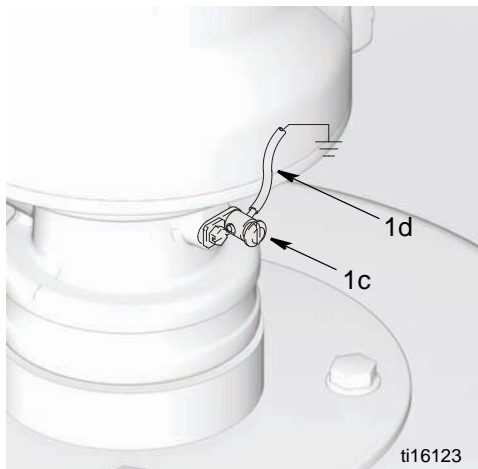


FIG. 1

- *Air and fluid hoses:* Use only electrically conductive hoses.
- *Air compressor:* Follow manufacturer's recommendations.

- *Dispensing valve:* Ground through connection to a properly grounded fluid hose and pump.
- *Object being dispensed to:* Follow your local code.
- *Solvent pails used when flushing:* Follow your local code. Use only metal pails, which are conductive, placed on a grounded surface. Do not place the pail on a nonconductive surface, such as paper or cardboard, which interrupts the grounding continuity.
- *To maintain grounding continuity when flushing or relieving pressure,* hold a metal part of the dispensing valve firmly to the side of a grounded metal pail, then trigger the dispense valve.

## Pump Installation

Reference letters found in the following instructions, refer to Parts illustrations provided on pages 22 - 46.

In addition to the following General Pump Installation Guidelines provided below, pump installation instructions for your specific system package are provided on the following pages of this manual:

Oil Pump Wall Bracket Drum or IBC Tote Mounting System, page 5

Oil and Grease Pump IBC Tote Package - page 11






Oil and Grease Pump Drum Mounted Package - page 16

Oil and Grease Pump Cart Package - page 19

For additional pump information, refer to the LD Series Oil and Grease Pump instruction manual included with your system.

- For all CE installations a ball valve (7) and regulator (8) are required. The ball valve is intended as an emergency stop device.
- A ball valve (7) must be installed upstream of the regulator (8).
- The fluid outlet line (2c), fluid inlet line (3) and air inlet line (2b) must be flexible (such as a hose).

**NOTE:** To prevent damage to pump, remove sediment from the bottom of the container before installing a pump on an existing container.

						
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The maximum working pressure of each component in your system may not be the same. To reduce the risk of over-pressurizing any part of your system, which may result in component rupture, fire or explosion and cause serious bodily injury, be sure you know the maximum working pressure rating of each pump and its connected components.

- **Never** exceed the maximum working pressure of the lowest rated component connected to a particular pump.
- Be sure you know the maximum working pressure of each component.
- Do not exceed the maximum pump cycle rate.
- Regulate air pressure to prevent over pressurization at fluid section of the pump.
- Regulate air pressure to the pump so that no fluid line component or accessory is over pressurized.

## Air Line and Accessories

### NOTICE

Do not hang the air accessories directly on the air inlet. Mount them on brackets. Always use a flexible hose between all connections. The air inlet is not strong enough to support accessories and may cause one or more to break.

- Use thread sealant on all male threads **except** swivel connections.
- Install a pump runaway valve to shut off the air to the pump if the pump accelerates beyond the pre-adjusted setting. A pump that runs too fast can be seriously damaged.

*For NPT models order Graco Part No. 24H420 or for BSP models order Graco Part No. 24H419.*

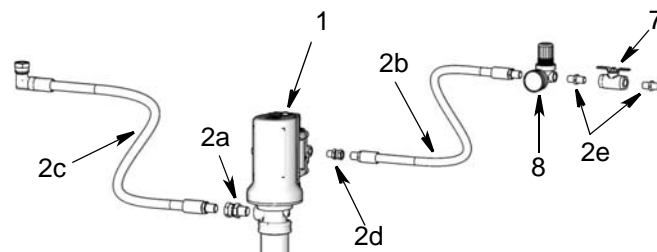
- Install a bleed-type master air valve (7) upstream from pump air regulator (8) but within easy reach.

*For NPT models order Graco Part No. 110223 or for BSP models order Graco Part No. 125041.*

- On the main air supply line from the compressor, install an air line filter to remove harmful dirt and contaminants from the compressor air supply.

## Fluid Hose Kit (2) Installation

**NOTE:** The fluid kit shown in FIG. 2 is provided for instruction reference only. A complete list of the available fluid kit parts and their corresponding illustrations are provided on pages 46 - 49.



**FIG. 2: CE Marked, with Hose Reel Fluid Kit Shown**

### NOTE:

- Wrench tighten all fittings securely.
- Steps 1 and 2 are for CE-Marked installations only. If your package is NOT CE Marked, begin installation instructions with Step 1.

### CE Marked Packages ONLY:

1. Connect fittings (2e) to both ends of the 2-way valve (7).
2. Connect the regulator (8) to one of the two fittings (2e).

### ALL Installations:





1. Connect fittings (2d) to pump (1) air inlet. Wrench tighten securely.
2. Install hose (2b) between air supply and pump inlet fitting (2d). Wrench tighten connections securely.
3. Connect fitting (2a) to pump (1) outlet. Tighten securely and torque as recommended below:
  - For NPT models: 1 to 1-1/2 turns past hand tight.
  - For BSPT models: 1-1/2 to 2 turns past hand tight.
4. Install hose (2c) between fluid supply and pump outlet fitting (2a). Wrench tighten connections securely.

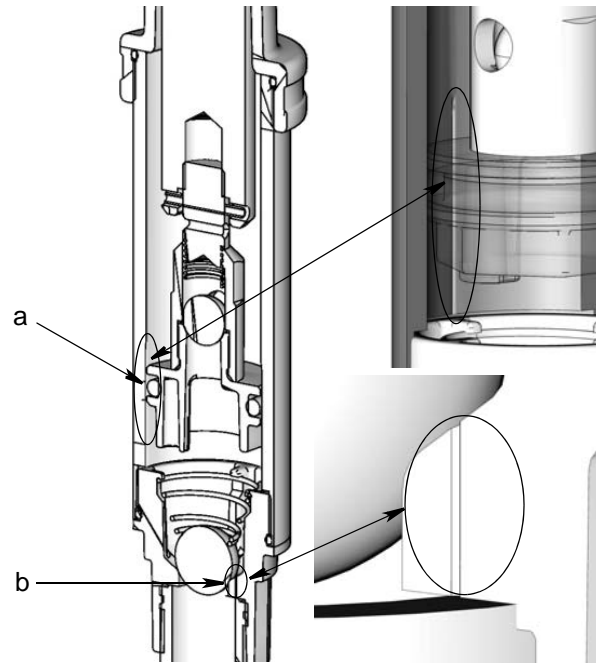
# Operation

Additional operating instructions, related warnings and technical data for are provided in the individual component instruction manuals included with your system.

## Thermal Induced Pressure Relief

(Oil pumps only)

						
<p><b>THERMAL EXPANSION HAZARD</b></p> <p>Fluids subjected to heat in confined spaces, including hoses, can create a rise in pressure due to the thermal expansion. Over-pressurization can result in equipment rupture and serious injury.</p> <p>Oil pumps have a built-in, thermal induced, pressure relief as shown in FIG. 3. To ensure system pressure will automatically bleed excess thermal induced system pressure through the pump and back to the oil reservoir:</p> <ul style="list-style-type: none"> <li>• Always use a relieving air pressure regulator to allow the pump/motor to run backwards. The regulator bleeds excess air pressure.</li> <li>• There should not be any obstructions between air inlet of pump and regulator.</li> <li>• There should not be any obstructions between the downstream plumbing and pump outlet such as closed ball valves or check valves.</li> <li>• There should not be any obstructions between the pump inlet and fluid container such as closed ball valves or check valves.</li> <li>• Only use Graco designed suction tubes with a built-in relief device for wall mount applications.</li> <li>• Always use an inlet screen to prevent debris from plugging relief passages from entering the pump.             <ul style="list-style-type: none"> <li>- Do not operate the pump with out an inlet screen.</li> </ul> </li> <li>• Periodically inspect the inlet screen for plugging. Graco recommends inspecting the inlet screen every time the container is changed out.</li> </ul>						



**FIG. 3** a = Pump cylinder relief passage  
b = Inlet check relief passage

### Thermal Relief Theory of Operation

The pump operation is similar to most double acting reciprocating pumps. The pump only comes to a complete stop on the up stroke. The pump will stroke through on the down stroke due to the inlet check relief passage.

Excess pressure due to downstream thermal expansion causes the air motor/pump to run backwards (downward). Fluid pressure is relieved through the inlet check relief passage as the pump piston moves downward. Air pressure is simultaneously relieved through the air inlet passage. The pump piston moves downward exposing the pump cylinder relief passage at the bottom of the stroke. Additional excess pressure is then relieved through both the inlet check relief passage and the pump cylinder relief passage.

Pressure is relieved at the pump through the pump inlet relief passage. The pump will not change over on the bottom of the stroke as a result of relieving excess pressure due to the positioning of the pump cylinder groove with respect to the air motor pilot valve.

#### NOTE:

- The air supply does not have to be turned off to enable thermal relief activation.
- The thermal induced pressure relief design feature of the pump will cause the pump to dive on the downstroke when a dispensing valve is closed.




Install only one pump per delivery system. Do not use the pumps in a parallel pump installation.

Loss of pump prime can occur if all the following events occur in sequence:

- a. A thermal relief event occurs.
- b. The air supply valve is closed.
- c. A dispense valve located at an elevation higher than the tank level, is open.

To prevent loss of prime, ensure the air supply valve is turned on before attempting to dispense fluid.

## Pressure Relief Procedure

						
<p>The equipment stays pressurized until pressure is manually relieved. To reduce the risk of serious injury from pressurized fluid, fluid from the valve, or splashing fluid, follow this procedure whenever you:</p> <ul style="list-style-type: none"> <li>• are instructed to relieve pressure</li> <li>• stop dispensing</li> <li>• check, clean, or service any system equipment</li> <li>• install or clean dispensing devices.</li> </ul>						

1. Close the pump's bleed-type master air valve.
2. Close the pump air regulator and disconnect the air supply hose.
3. Open the dispensing valve and dispense fluid into a waste bucket/container until pressure is fully relieved.

*If you suspect that the dispensing valve is clogged, or that pressure has not been fully relieved after following the steps above, **very slowly** loosen the dispensing valve coupler or hose end coupling to relieve pressure gradually, then loosen completely.*

## Determining Output Pressure Using the Air Regulator

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.

For example a 3:1 ratio oil pump:

$$3:1 \text{ ratio} \times 100 \text{ psi air} = 300 \text{ psi fluid outlet}$$

A 3:1 pump is capable of 5:1 on the downstroke and will develop 5:1 pressures under normal operation.

A grease pump has a ratio of 50:1. However it is capable of reaching a stall pressure equal to 60 times the air input pressure. To calculate the fluid output pressure using the air regulator reading, multiply the regulator gauge by 60.

For example:




$$140 \text{ psi air} \times 60 = 8400 \text{ psi fluid output}$$

$$0.97 \text{ MPa air} \times 60 = 58.2 \text{ MPa}$$

$$99.7 \text{ bar} \times 60 = 5982 \text{ bar}$$

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

## Priming the Pump

						
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1. Close the air regulators and bleed-type master air valves to all but one pump.
2. Open the master air valve from the compressor.
3. For the pump that is connected, trigger the dispensing valve into a grounded metal waste container making firm, metal-to-metal contact between the container and the valve.
4. Slowly open the bleed-type master air valve and open the pump air regulator just until the pump is running. When the pump is primed and all air has been pushed out of the lines, release the trigger.
5. If you have more than one pump, repeat this process for each pump in your system.

**NOTE:** When the pump is primed and has sufficient air supplied to it, it starts when the dispensing valve is open and shuts off when closed.

6. The thermal relief feature of this oil pump can increase the amount of time needed to fully prime the pump when compared to pumps without a thermal relief feature. To minimize this effect, prime the pump **before** connecting it to an already primed distribution system.

**NOTICE**

Never allow the pump to run dry of the fluid being pumped. A dry pump will quickly accelerate to a high speed, possibly damaging itself. If your pump accelerates quickly, or is running too fast, stop it immediately and check the fluid supply. If the supply container is empty and air has been pumped into the lines, prime the pump and lines with fluid, or flush it and leave it filled with a compatible solvent. Be sure to eliminate all air from the fluid system.

**NOTE:** A pump runaway valve can be installed on the air line to automatically shut off the pump if it starts to run too fast.

7. Read and follow the instructions supplied with each component in your system.

## Startup

1. Turn air supply on. Pump will pressurize the system.
2. Trigger dispense valve to control the pump's on/off operation.
3. When shutting off the system and before checking or servicing, **relieve pressure** following pressure relief procedure, page 7.

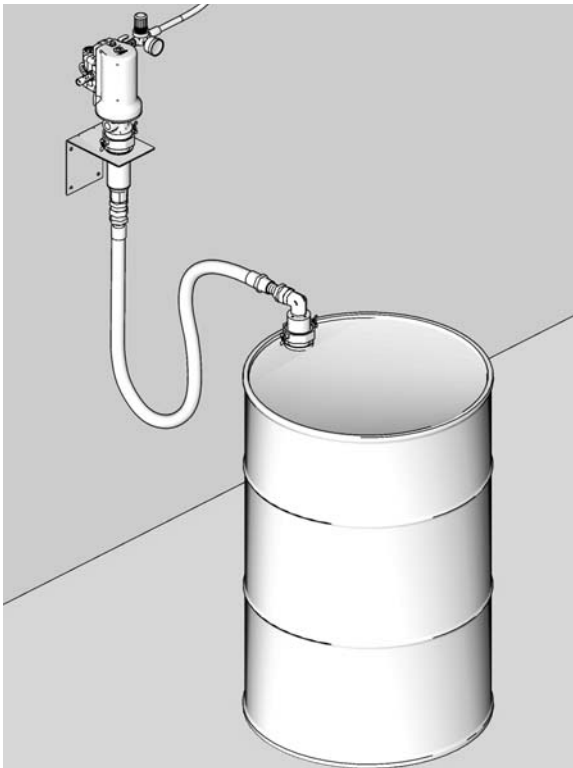


# LD Oil Pump Wall Bracket Drum or Tote Mounting System

Used to wall mount the LD Oil Pump. Used for dispensing lubricants only. For professional use only.

**Not for use in explosive atmospheres.**

IBC Tote Packages include a universal pump and wall bracket for use with either a drum or tote package. See page 22 for a complete list of bracket models, associated components and parts.

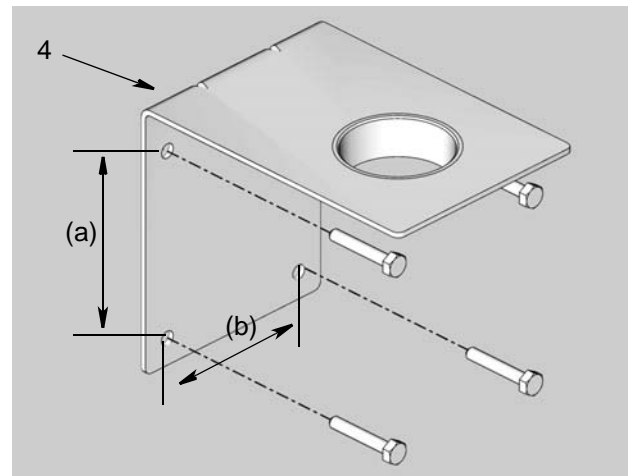


## Installation

Reference numbers used in the following instructions refer to Parts, page 24.

## Bracket Installation

1. Use the wall bracket (4) as a template and mark and drill holes in wall (FIG. 4).
2. Using 4 screws (user supplied) long enough to securely hold the wall bracket and pump to the wall, install the bracket (4) to wall (FIG. 4).



**FIG. 4**  
Dimension (a) = 4.1 inch (104 mm)  
Dimension (b) = 3.5 inch (90 mm)

## Pump Installation

1. Thread the bung adapter (1a) (included with pump (1)) into the hole in the center of the wall bracket (4). Hand tighten the bung adapter securely to the bracket.

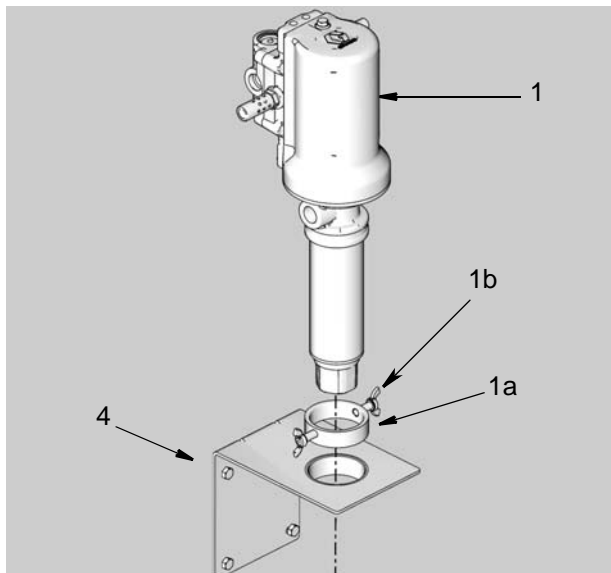


FIG. 5

2. Install the pump (1) through bung adapter (1a).
3. Secure the pump (1) in place by compressing the bung adapter gasket screws (1b).
4. Ground pump. See Grounding instructions, page 4.

**NOTE:** All parts: 3a-3d identified in steps 5 - 6 are included in Suction Hose Kit (3). See Kit Parts, page 46.

5. Thread the bung adapter (3a) into the hole in the drum cover or tote. Hand tighten securely (FIG. 6).
6. Connect swivel fitting (3b) to suction tube (3c) and then slide suction tube into bung adapter (3a) installed in drum or tote cover. Connect one end of suction hose (3d) to pump inlet and the other end to the swivel fitting (3b).

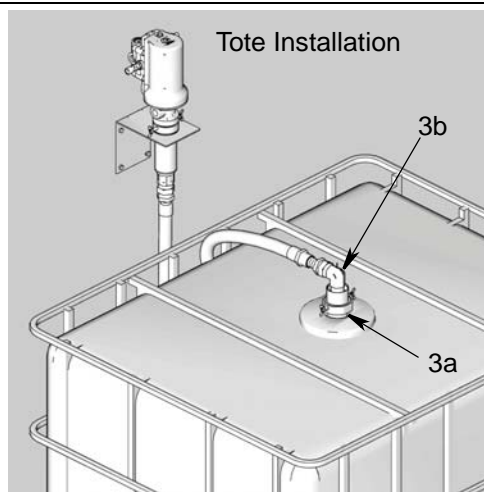
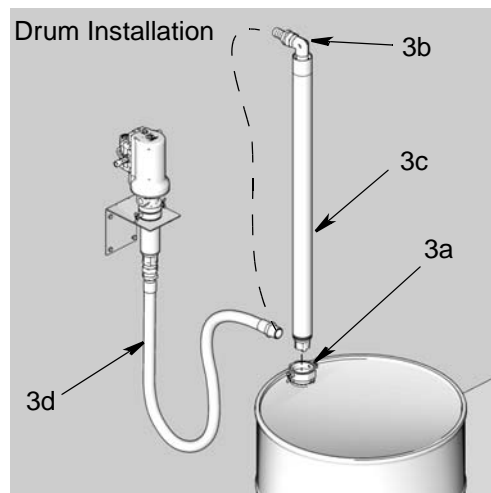


FIG. 6

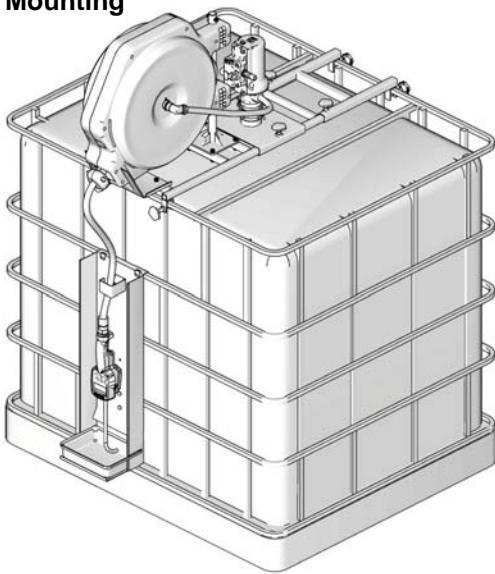
# LD System IBC Tote Package

Used to mount an LD pump and hose reel to an IBC Tote. For dispensing lubricants only. For professional use only.

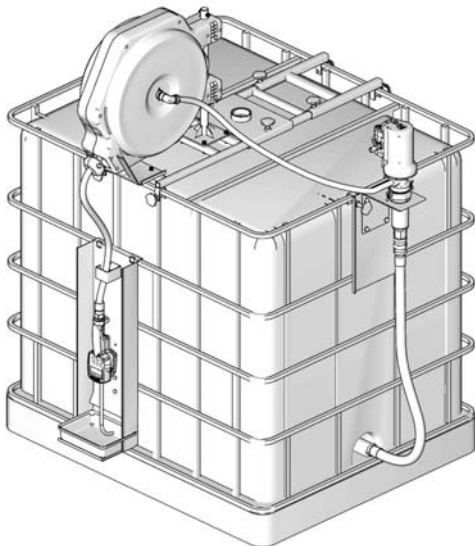
Not for use in explosive atmospheres.

IBC Tote Packages include a universal pump, brackets, hose reel and dispense valve. See page 24 for a complete list of mode, associated components and parts.

## Top Mounting



## Drain Mounting



## Installation

Reference numbers used in the following instructions refer to Parts, page 24.

## Bracket Installation

1. Install the IBC top bracket (9) on the IBC tank (FIG. 6).

**NOTE:** The bracket is designed to fit on the tote mounted in either direction.

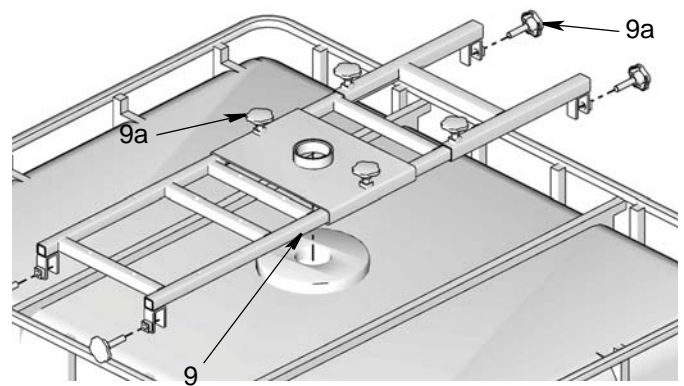


FIG. 7

2. Slide the top bracket (9) to the center of the IBC tank aligning the hole in the center of the bracket with the hole in the top of the tank. Secure the bracket (9) in place by tightening the 6 knobs (9a) securely (FIG. 7 and 8).

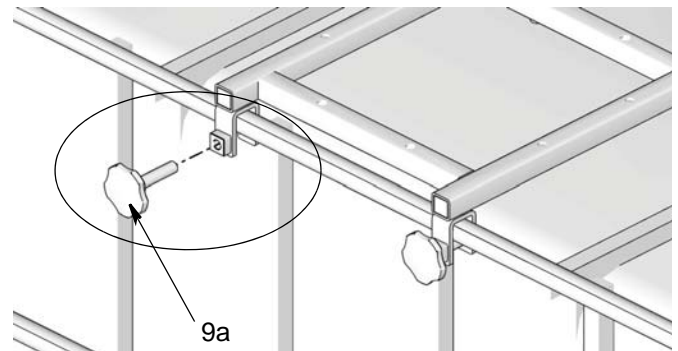


FIG. 8

## Pump Installation

The pump can be either Top Mounted or Drain Mounted on the Tote. Instructions for both installation methods are provided on the following pages. Drain Mounting instructions begin on page 12.

### Top Mounting

1. Thread the pump bung adapter (1a) into hole in top bracket (9). Hand tighten securely.

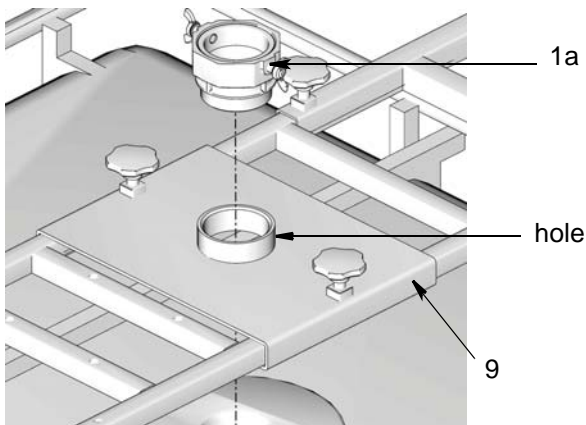


FIG. 9

2. For **NPT** and **BSPT models only**, apply thread sealant to threads of suction tube/hose (3) then install the end of the suction tube/hose into the pump (1) inlet housing (FIG. 9).

**BSPP** models are designed to seal with the pump inlet filter and do not require thread sealant. For these models just install the suction tube/hose (3) into the pump (1) inlet housing.

3. Insert the pump suction tube (3) through the bung adapter (1a) and into tank (FIG. 10). Secure the pump in place by tightening the gasket screws (1b)

(FIG. 10).

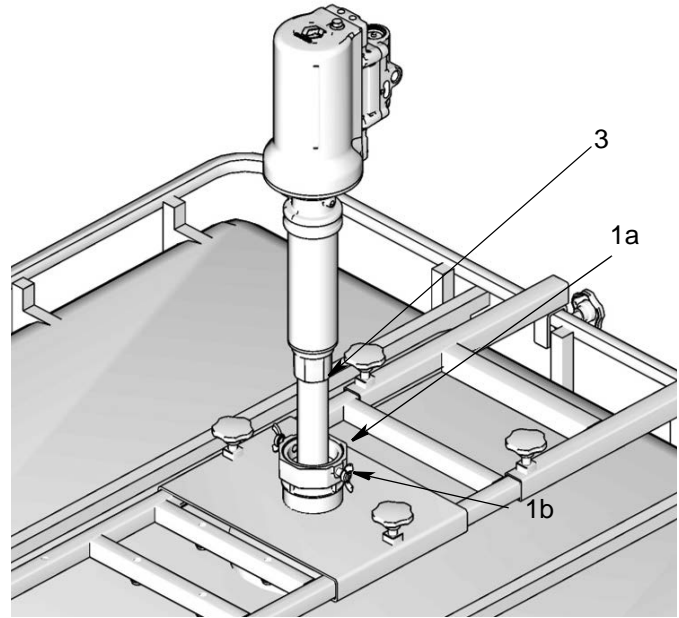


FIG. 10

4. Ground pump. See Grounding Instructions, page 4.

### Drain Mounting

For this installation, install the hose reel on IBC Tote before installing pump. Hose reel installation instructions begin on page 13.

1. Assemble the two pump bracket pieces 4 and 5, as shown in FIG. 11 using the 4 nuts (4a) (provided).

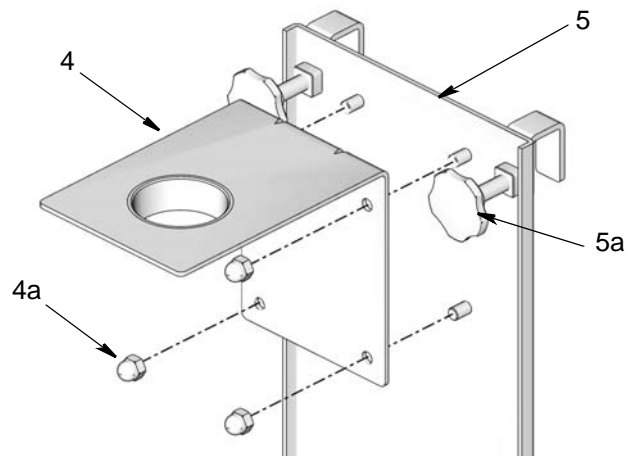


FIG. 11

2. Install the pump bracket assembly to the side of the IBC Tote. Secure the pump bracket in place by tightening the knobs (5a) securely.

- Thread the pump bung adapter (1a) into hole in the pump bracket assembly. Hand tighten securely. (FIG. 12).

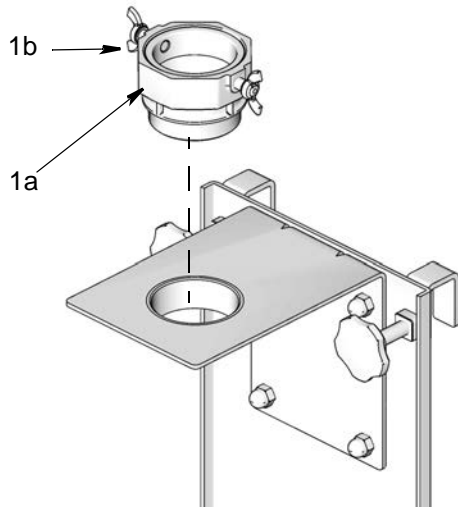


FIG. 12

- Insert the pump (1) through bung adapter (1a) (FIG. 13). Secure the pump in place by tightening the gasket screws (1b) (FIG. 12 and FIG. 13).

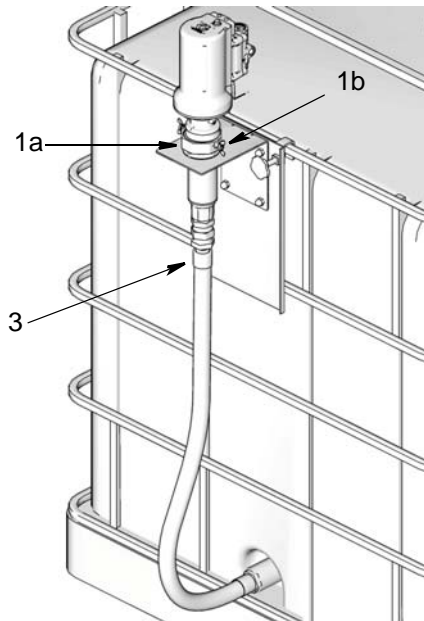


FIG. 13

- Ground pump. See Grounding, page 4.
- Install one end of a flexible hose into pump inlet and connect the other end of the hose to the IBC tank using a ball valve and fitting (not shown/supplied with tote).

## Hose Reel Installation

- Install the hose reel guide (10a) to the top bracket (9) and secure it in place with the screws (10b) and nuts (10c).

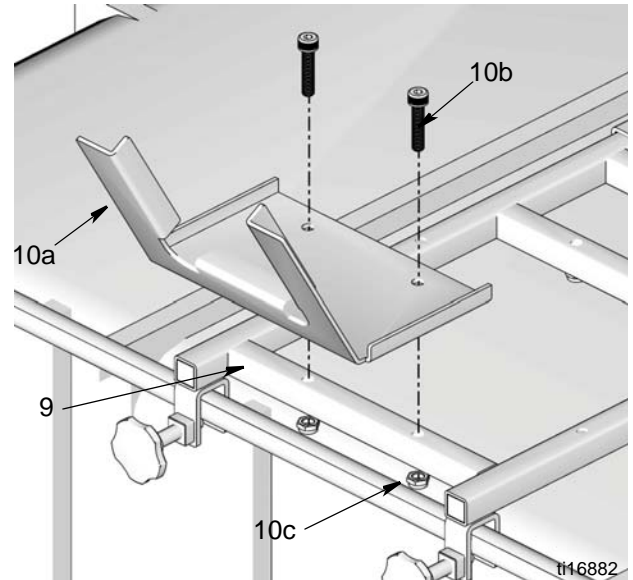


FIG. 14

- Install the reel bracket (10) to the top bracket (9). Secure in place using the 4 screws (10b) and nuts (10c) (FIG. 15).

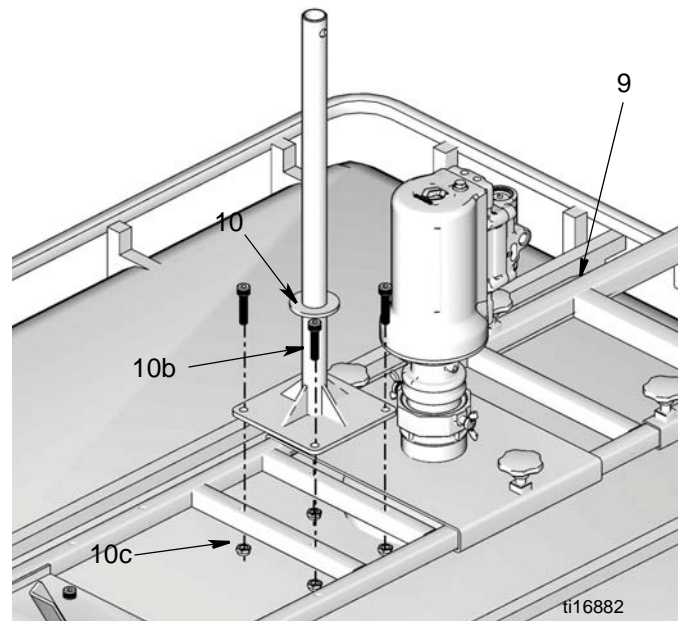


FIG. 15

3. Install the hose reel (14) on the reel bracket (10) as shown in FIG. 16.

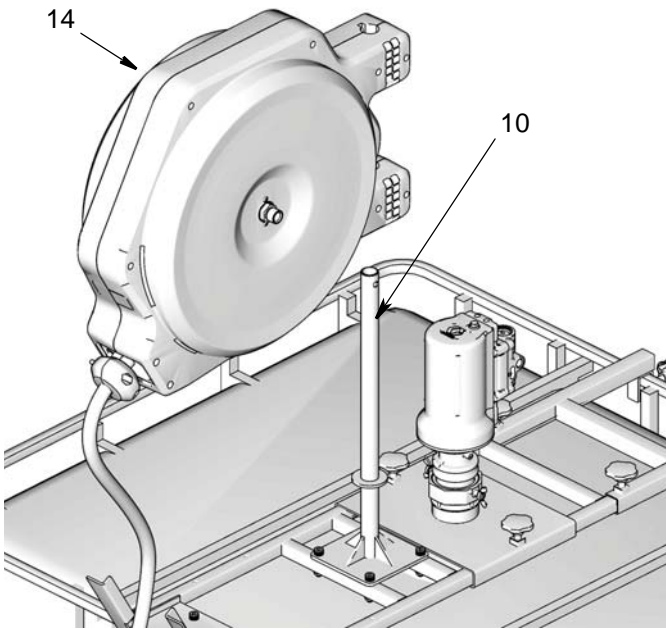


FIG. 16

4. Install screw (10b) through hole in the reel bracket (10) and secure it in place with nut (10c) to hold hose reel securely in place as shown in.

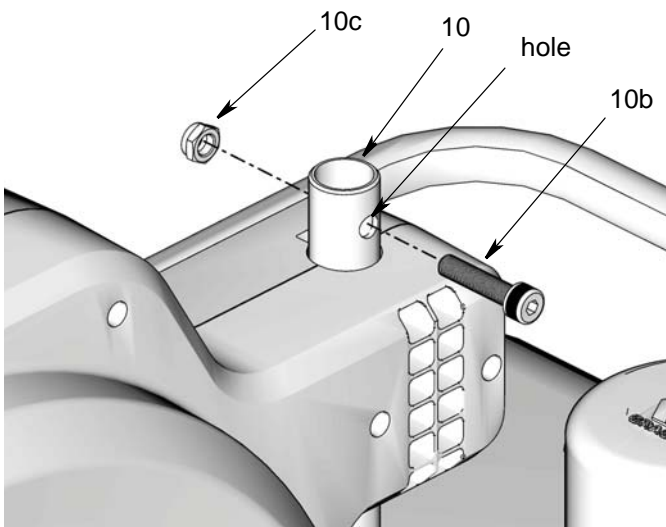


FIG. 17

5. Connect the flexible fluid hose (2c) between the pump outlet and reel inlet (FIG. 18).

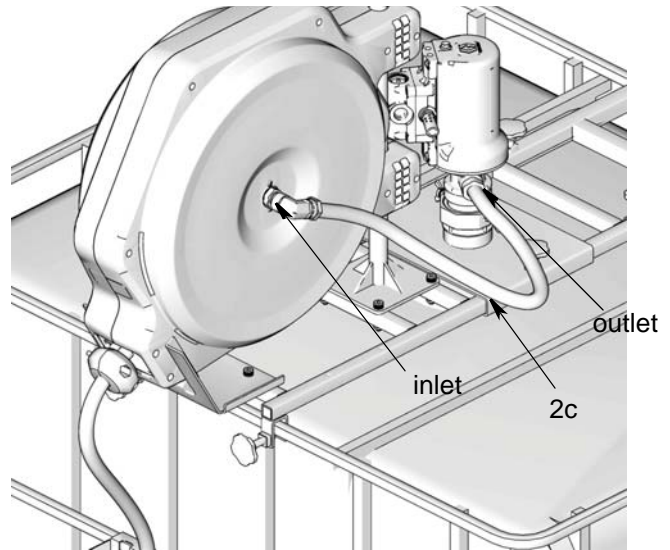


FIG. 18

## Meter Tray Installation

1. Position the meter tray (11) on the side of the IBC tank as shown in FIG. 19. Secure tray in place using 4 screws (11a).

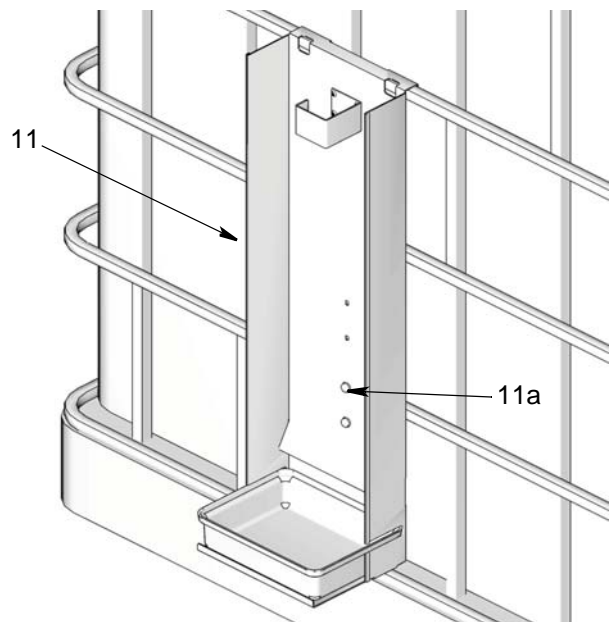
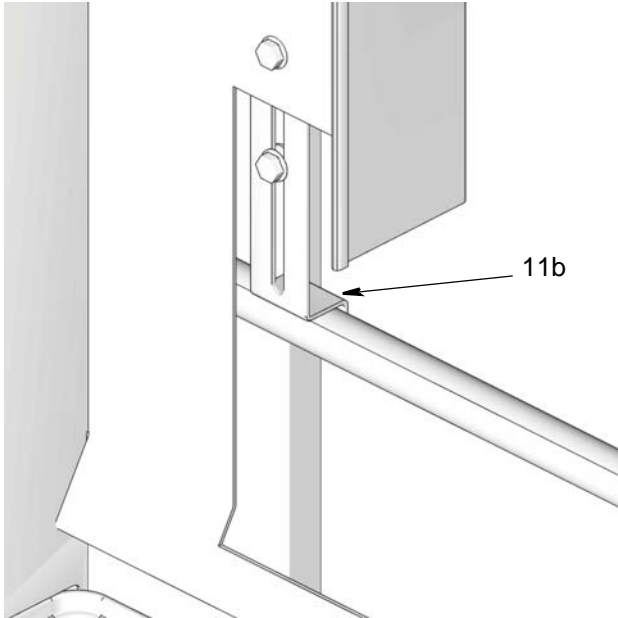


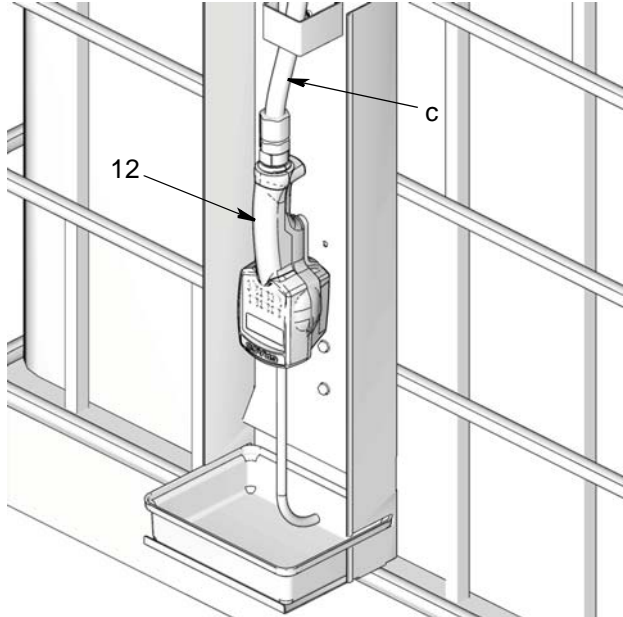
FIG. 19

- 2. Adjust the “Z” bracket (11b) to secure the meter tray location as required.



**FIG. 20**

- 3. Install meter (12) to end of hose. Tighten fitting securely.



**FIG. 21**

# LD Pump Oil and Grease Drum Mounted System

**For oil or grease drum LD pump installation. For dispensing lubricants only. For professional use only.**

**Not for use in explosive atmospheres.**

The Drum Mount Packages include a universal pump and dispense valve. See page 16 for a complete list of packages and associated components.

Grease models require a follow plate for pumping fluid from the drum. See page 17 for follow plate installation instructions.

## Pump Installation

Reference numbers used in the following instructions refer to Parts, page 30.

*This installation procedure can be used for both Oil and Grease applications. When pumping grease, a follow plate is also required. See Installing Follow Plate instructions, page 17.*

1. Thread pump bung adapter (1a) into hole in drum cover (16) and hand tighten securely (FIG. 22).
2. Insert pump (1) into bung adapter (1a) and drum.
3. Secure the pump in place by tightening the gasket screws (1b) (FIG. 22).
4. Ground pump. See Grounding Instructions, page 4.

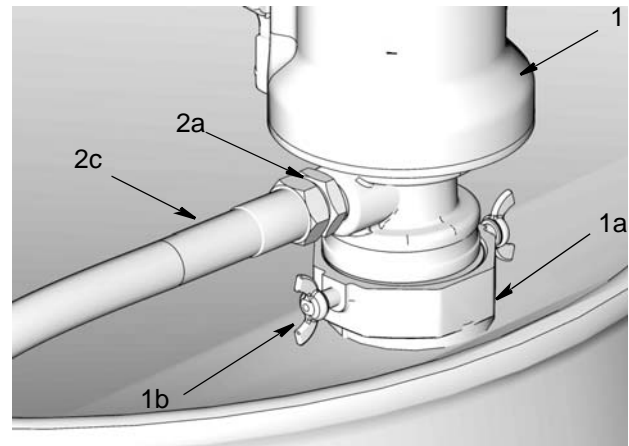
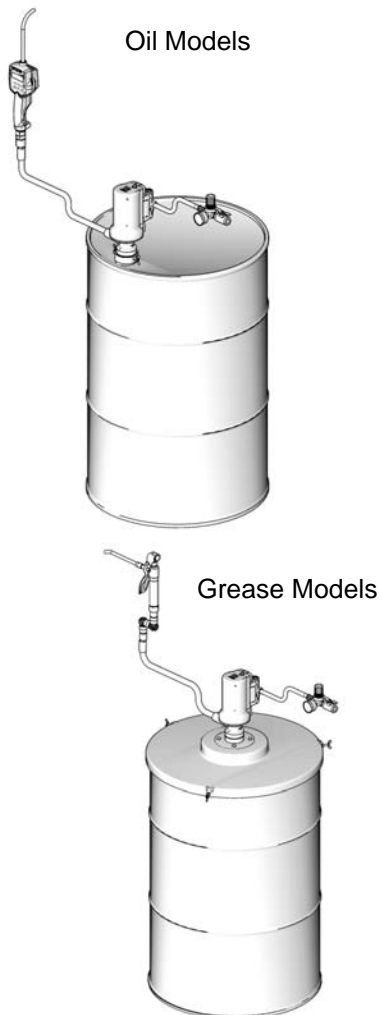


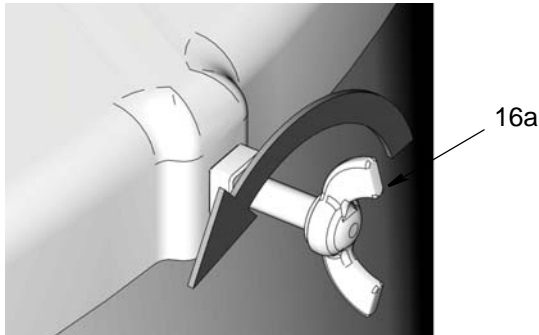
FIG. 22



## Installing Follow Plate (grease models only)



1. **Relieve pressure**, page 6.
2. Remove drum cover (16) by loosening thumb screws (16a) (FIG. 23).



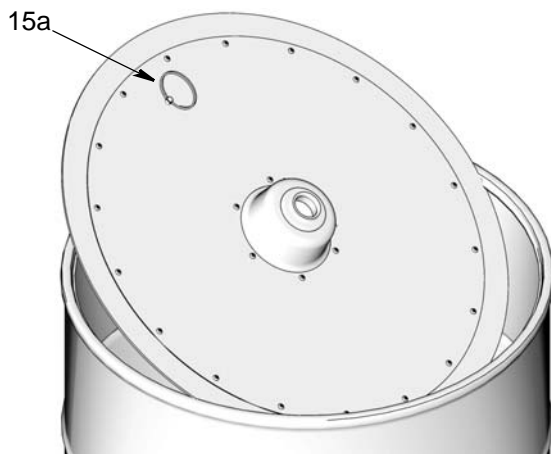
**FIG. 23**

3. Remove pump and cover from drum together and place on a clean paper, cardboard, or clean shop rags. **DO NOT PLACE ON SHOP FLOOR.**

**NOTE:** It is not necessary to remove the pump from the drum cover to remove the cover.

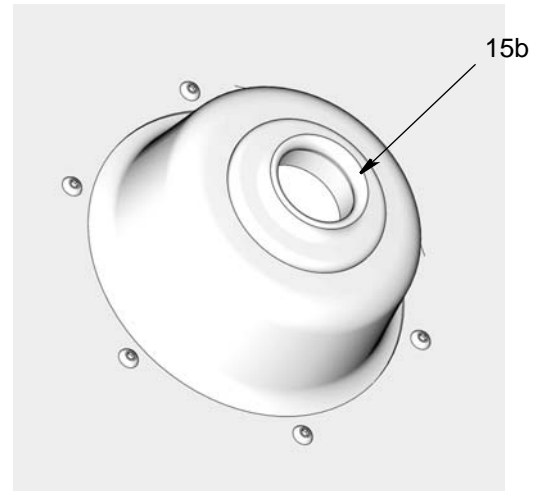
4. If this is an existing installation, reach into drum and pull up on the follow plate ring (15a) to remove the follow plate (15) (FIG. 24). Place follow plate on a clean paper, cardboard or clean shop rags. **DO NOT PLACE ON SHOP FLOOR.**

Remove drum and install new one.



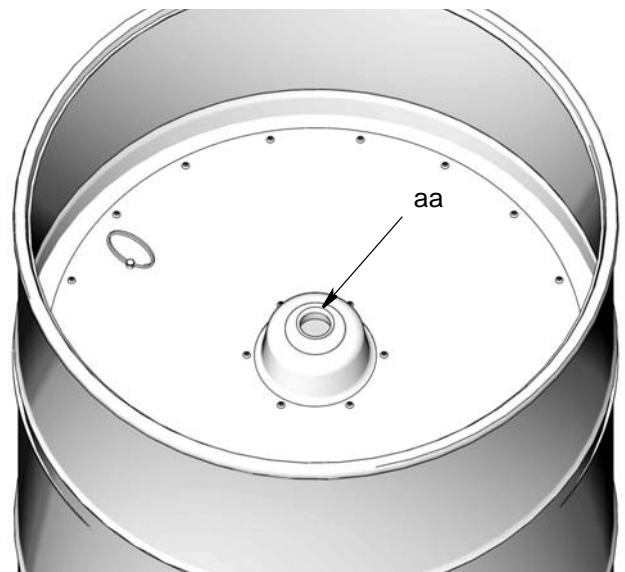
**FIG. 24**

5. Examine follow plate to make sure rubber grommet (15b) is in place in center of the plate (FIG. 25).



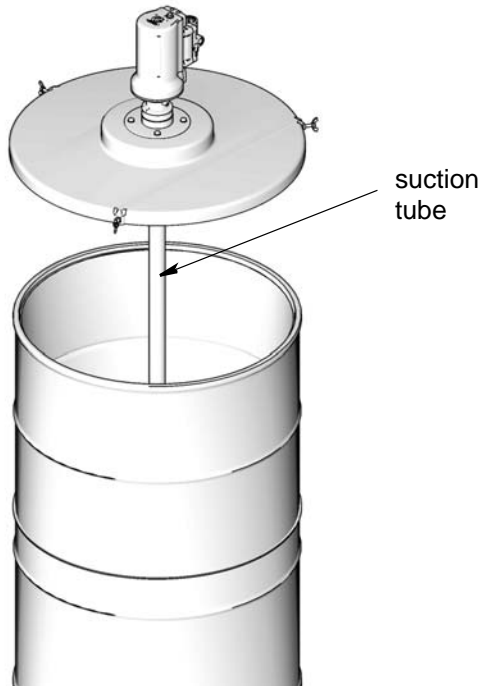
**FIG. 25**

6. Set follow plate (15) on top of the fresh grease (FIG. 26). Remove air by pushing down on the follow plate until the grease level is flush with the opening in the middle of the follow plate (aa).



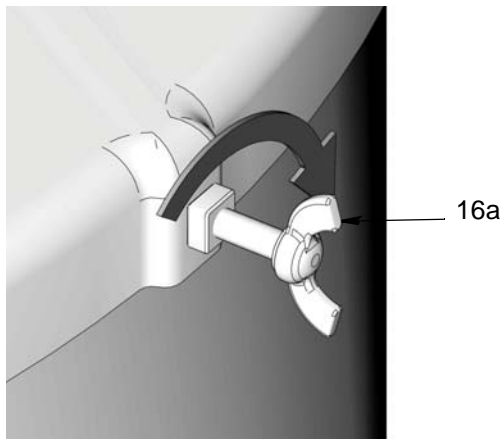
**FIG. 26**

7. Insert pump suction tube through center of rubber grommet (15b) in follow plate (15) (FIG. 27).



**FIG. 27**

8. Tighten thumb screws (16a) to secure cover (16) to drum.



**FIG. 28**

9. Trigger the dispensing valve (12) into a grounded metal waste container making firm, metal-to-metal contact between the container and the valve.
10. Slowly open the bleed-type master air valve and open the pump air regulator just until the pump is running. When the pump is primed and all air has been pushed out of the lines, release the trigger.

# LD Pump System Cart Package

Used to cart mount a drum, LD Pump, meter or grease valve and hose reel. For dispensing lubricants only. For professional use only.

**Not for use in explosive atmospheres.**

All cart packages include a cart, universal pump, extension and dispense valve. Some also include a hose reel. See page 30 for a complete list of packages and associated components.

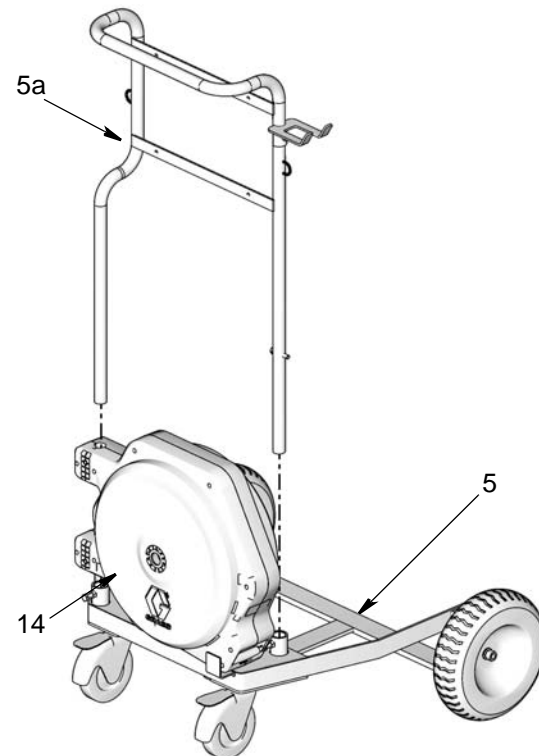
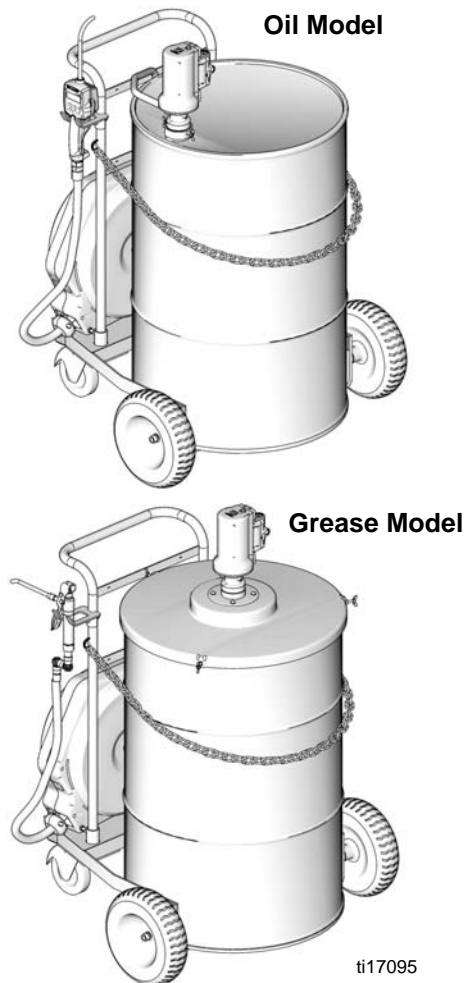
For grease models only a follow plate is required for pumping fluid from the drum. See page 17 for follow plate installation instructions.

## Installation

Reference numbers used in the following instructions refer to *Parts*, page 37.

## Assembling the Cart

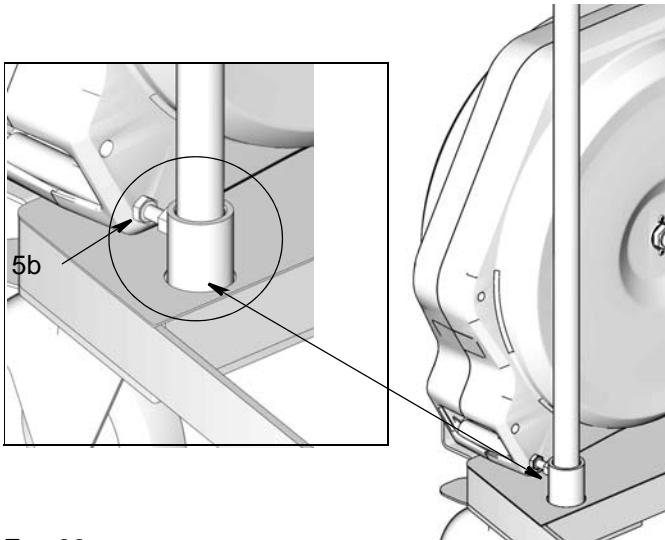
1. Position the hose reel (14) on the cart frame (5) as shown in FIG. 29.
2. Install the handle sub-assembly (5a) on cart frame (a) as shown in FIG. 29.



**FIG. 29**

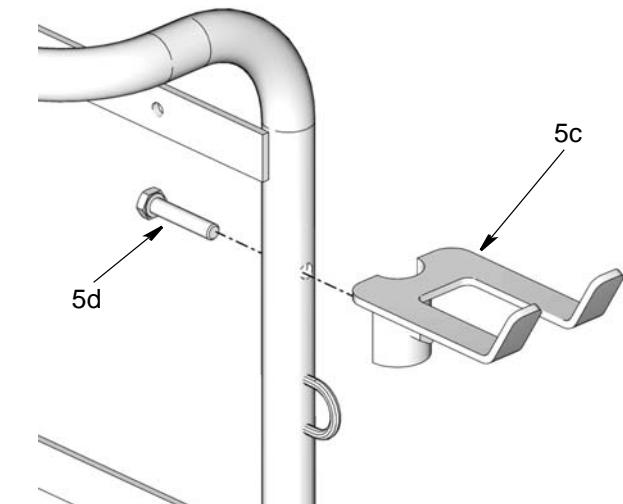
- Secure handle sub-assembly (5a) to cart (5) using supplied bolts (5b) as shown in FIG. 30. Use a screwdriver to tighten bolts securely.

**NOTE:** The hose reel is not designed to swivel on the cart. It must be secured in the locked position at all times.



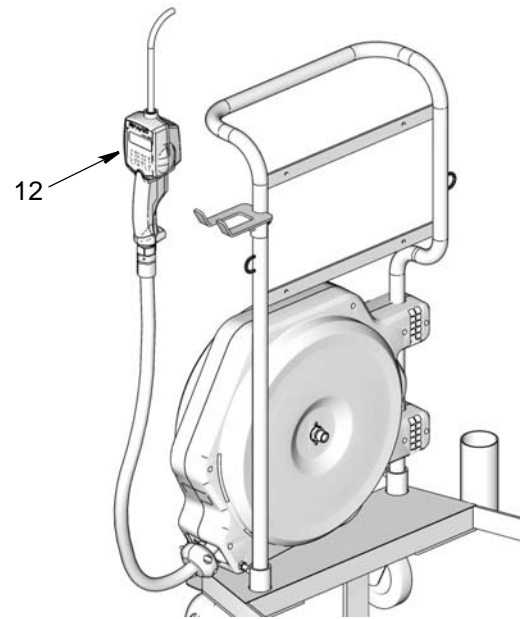
**FIG. 30**

- Install meter bracket (5c) to handle frame using screw (5d) as shown in FIG. 31.



**FIG. 31**

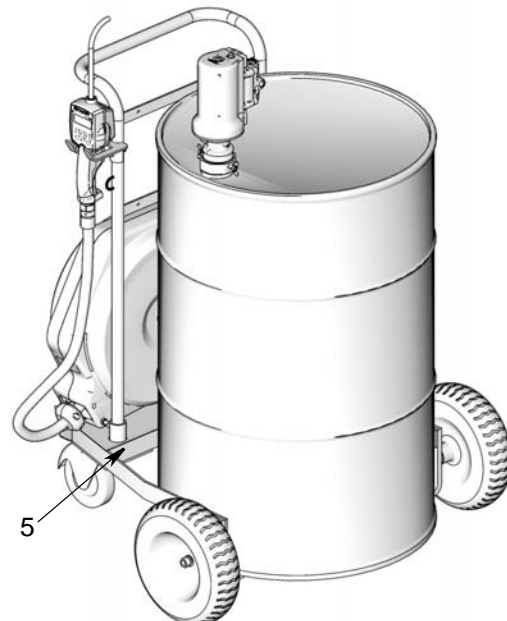
- Install dispense device (12) to end of hose (FIG. 15). Tighten fitting securely.



**FIG. 32**

**NOTE:** The oil drum shown in the following illustrations is shown for reference only. The procedure for securing the drum to the cart is the same for both oil and grease drum applications.

- Install drum on cart base (5) (FIG. 33).



**FIG. 33**

7. Secure a chain (5e) around the drum as shown in FIG. 34. Adjust chain to a suitable length for the drum size. Connect ends of chain to the two ear brackets (5f).

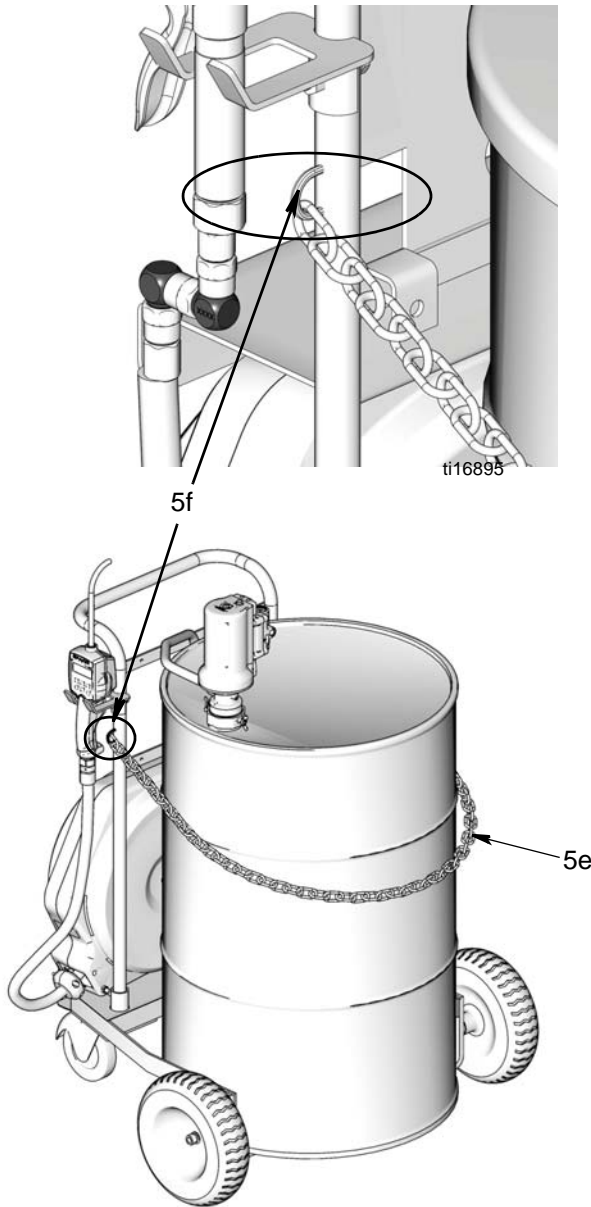


FIG. 34

8. Lock wheel casters to hold cart in place during operation (FIG. 35).

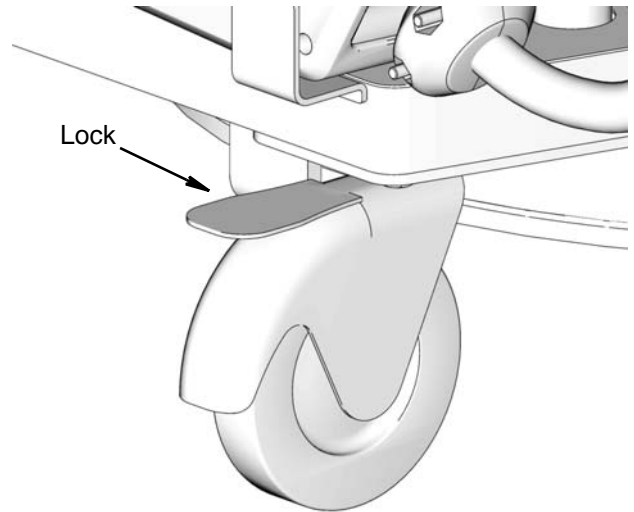


FIG. 35

## Pump and Follow Plate Installation

For pump and follow plate installation, see instructions in the Drum Mounting section of this manual, page 16.

# Wall Bracket Models and Parts

## Models

### 3:1 Oil Models

Model	NPT	BSPP	BSPT	55 Gallon Drum or 1040R Tote	CE
24H689	X			Drum	
24H690		X		Drum	
24H691			X	Drum	
24H692	X			Drum	X
24H693		X		Drum	X
24H694			X	Drum	X
24H695	X			Tote	
24H696		X		Tote	
24H697			X	Tote	
24H698	X			Tote	X
24H699		X		Tote	X
24H700			X	Tote	X

### 5:1 Oil Models

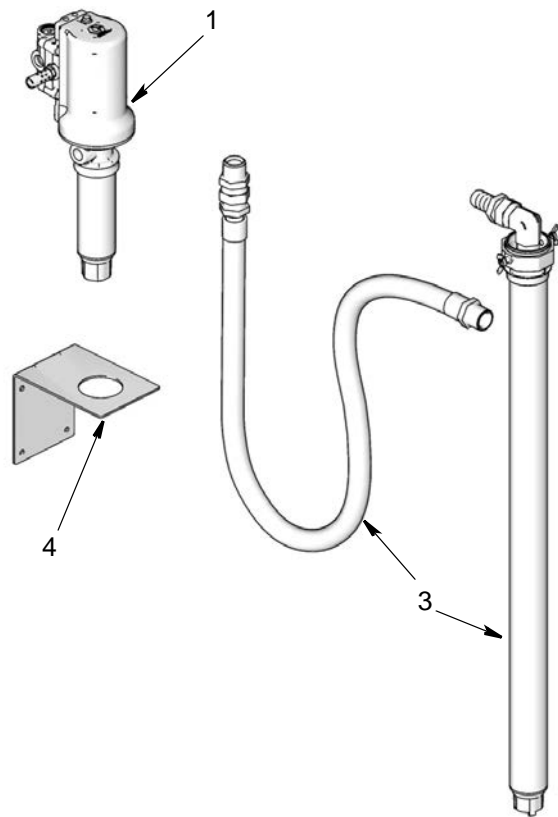
Model	NPT	BSPP	BSPT	55 Gallon Drum or 1040R Tote	CE
24H836	X			Drum	
24H837		X		Drum	
24H838			X	Drum	
24H839	X			Drum	X
24H840		X		Drum	X
24H841			X	Drum	X
24H842	X			Tote	
24H843		X		Tote	
24H844			X	Tote	
24H845	X			Tote	X
24H846		X		Tote	X
24H847			X	Tote	X

## Parts

Fluid Hose Kit (2), vent valve (7) and air regulator (8) parts are shown on pages 46 and 47.

Ref	Part No.	Description	Qty
1	24G576	PUMP, 3:1, Universal, NPT, models 24H689, 24H692, 24H695, 24H698	1
	24G577	PUMP, 3:1, Universal, BSPP, models 24H690, 24H693, 24H696, 24H699	1
	24G578	PUMP, 3:1, Universal BSPT, models 24H691, 24H694, 24H697, 24H700	1
	24G588	PUMP, 5:1, Universal, NPT, models 24H836, 24H839, 24H842, 24H845	1
	24G589	PUMP, 5:1, Universal, BSPP, models 24H837, 24H840, 24H843, 24H846	1
	24G590	PUMP, 5:1, Universal BSPT, models 24H838, 24H841, 24H844, 24H847	1
2	24H859	KIT, fluid oil hose, 6 ft (1.8 m), NPT, model 24H695, 24H842, page 46	1
	24H860	KIT, fluid oil hose, 6 ft (1.8 m), BSPT, models 24H697, 24H843, page 46	1
	24H861	KIT, fluid oil hose, 6 ft (1.8 m), BSPP, models 24H696, 24H842, page 46	1
	24H608	KIT, fluid oil hose, 6 ft (1.8 m), NPT, CE marked, models 24H698, 24H845, page 47	1
	24H609	KIT, fluid oil hose, 6 ft (1.8 m), BSPT, CE marked, models 24H700, 24H847, page 47	1
	24H610	KIT, fluid oil hose, 6 ft (1.8 m), BSPP, CE marked, models 24H699, 24H846, page 47	1
3	24F935	KIT, suction hose, NPT, models 24H689, 24H692, 24H836, 24H839	1
	24F936	KIT, suction hose, BSPP, models 24H690, 24H693, 24H837, 24H840	1
	24F937	KIT, suction hose, BSPT, models 24H691, 24H694, 24H838, 24H841	1
	24H666	KIT, suction hose, NPT, models 24H695, 24H698, 24H842, 24H845	1
	24H667	KIT, suction hose, BSPP, 24H696, 24H699, 24H843, 24H846	1
	24H668	KIT, suction hose, BSPT, 24H697, 24H700, 24H844, 24H847	1
4	24F910	BRACKET, wall mount	1
7	110223	VALVE, vented, 2-way, NPT, CE marked models only: 24H692, 24H698, 24H839, 24H845	1
	125041	VALVE, vented, 2-way, BSPP, CE marked models only: 24H693, 24H694, 24H699, 24H700, 24H840, 24H841, 24H846, 24H847	1

Ref	Part No.	Description	Qty
8	24H420	REGULATOR, air pressure, mini, NPT, CE marked models only: 24H692, 24H698, 24H839, 24H845	1
	24H419	REGULATOR, air pressure, mini, BSPP, CE marked models only: 24H693, 24H694, 24H699, 24H700, 24H840, 24H841, 24H846, 24H847	1
13	24J378	KIT, accessory, CE, 3:1, models 24H692 - 24H694; 24H698 - 24H700 (not shown)	1
	24J379	KIT, accessory, CE, 5:1, models 24H24H839 - 24H 841; 24H845 - 24H847 (not shown)	1



# Tote Mounted Models and Parts

## Models

### 3:1 Models

Model	Reel	NPT	BSPP	BSPT	Pump Location	Valve	Valve Extension	CE
24H701	X	X			TOP	LDM5	Flex	
24H702	X	X			TOP	LDM5	Rigid	
24H703	X	X			TOP	LDP5	Flex	
24H704	X	X			TOP	LDP5	Rigid	
24H705	X		X		TOP	LDM5	Flex	
24H706	X		X		TOP	LDM5	Rigid	
24H707	X		X		TOP	LDP5	Flex	
24H708	X		X		TOP	LDP5	Rigid	
24H709	X			X	TOP	LDM5	Flex	
24H710	X			X	TOP	LDM5	Rigid	
24H711	X			X	TOP	LDP5	Flex	
24H712	X			X	TOP	LDP5	Rigid	
24H713	X	X			TOP	LDM5	Flex	X
24H714	X	X			TOP	LDM5	Rigid	X
24H715	X	X			TOP	LDP5	Flex	X
24H716	X	X			TOP	LDP5	Rigid	X
24H717	X		X		TOP	LDM5	Flex	X
24H718	X		X		TOP	LDM5	Rigid	X
24H719	X		X		TOP	LDP5	Flex	X
24H720	X		X		TOP	LDP5	Rigid	X
24H721	X			X	TOP	LDM5	Flex	X
24H722	X			X	TOP	LDM5	Rigid	X
24H723	X			X	TOP	LDP5	Flex	X
24H724	X			X	TOP	LDP5	Rigid	X
24H725		X			SIDE	LDM5	Flex	
24H726		X			SIDE	LDM5	Rigid	
24H727		X			SIDE	LDP5	Flex	
24H728		X			SIDE	LDP5	Rigid	
24H729			X		SIDE	LDM5	Flex	
24H730			X		SIDE	LDM5	Rigid	



Model	Reel	NPT	BSPP	BSPT	Pump Location	Valve	Valve Extension	CE
24H731			X		SIDE	LDP5	Flex	
24H732			X		SIDE	LDP5	Rigid	
24H733				X	SIDE	LDM5	Flex	
24H734				X	SIDE	LDM5	Rigid	
24H735				X	SIDE	LDP5	Flex	
24H736				X	SIDE	LDP5	Rigid	
24H737		X			SIDE	LDM5	Flex	X
24H738		X			SIDE	LDM5	Rigid	X
24H739		X			SIDE	LDP5	Flex	X
24H740		X			SIDE	LDP5	Rigid	X
24H741			X		SIDE	LDM5	Flex	X
24H742			X		SIDE	LDM5	Rigid	X
24H743			X		SIDE	LDP5	Flex	X
24H744			X		SIDE	LDP5	Rigid	X
24H745				X	SIDE	LDM5	Flex	X
24H746				X	SIDE	LDM5	Rigid	X
24H747				X	SIDE	LDP5	Flex	X
24H748				X	SIDE	LDP5	Rigid	X

### 5:1 Models

Model	Reel	NPT	BSPP	BSPT	Pump Location	Valve	Valve Extension	CE
24H867	X	X			TOP	LDM5	Flex	
24H868	X	X			TOP	LDM5	Rigid	
24H869	X	X			TOP	LDP5	Flex	
24H870	X	X			TOP	LDP5	Rigid	
24H871	X		X		TOP	LDM5	Flex	
24H872	X		X		TOP	LDM5	Rigid	
24H873	X		X		TOP	LDP5	Flex	
24H874	X		X		TOP	LDP5	Rigid	
24H875	X			X	TOP	LDM5	Flex	
24H876	X			X	TOP	LDM5	Rigid	
24H877	X			X	TOP	LDP5	Flex	
24H878	X			X	TOP	LDP5	Rigid	
24H879	X	X			TOP	LDM5	Flex	X

Tote Mounted Models and Parts

Model	Reel	NPT	BSPP	BSPT	Pump Location	Valve	Valve Extension	CE
24H880	X	X			TOP	LDM5	Rigid	X
24H881	X	X			TOP	LDP5	Flex	X
24H882	X	X			TOP	LDP5	Rigid	X
24H883	X		X		TOP	LDM5	Flex	X
24H884	X		X		TOP	LDM5	Rigid	X
24H885	X		X		TOP	LDP5	Flex	X
24H886	X		X		TOP	LDP5	Rigid	X
24H887	X			X	TOP	LDM5	Flex	X
24H888	X			X	TOP	LDM5	Rigid	X
24H889	X			X	TOP	LDP5	Flex	X
24H890	X			X	TOP	LDP5	Rigid	X
24H891		X			SIDE	LDM5	Flex	
24H892		X			SIDE	LDM5	Rigid	
24H893		X			SIDE	LDP5	Flex	
24H894		X			SIDE	LDP5	Rigid	
24H895			X		SIDE	LDM5	Flex	
24H896			X		SIDE	LDM5	Rigid	
24H897			X		SIDE	LDP5	Flex	
24H898			X		SIDE	LDP5	Rigid	
24H899				X	SIDE	LDM5	Flex	
24H900				X	SIDE	LDM5	Rigid	
24H901				X	SIDE	LDP5	Flex	
24H902				X	SIDE	LDP5	Rigid	
24H903		X			SIDE	LDM5	Flex	X
24H904		X			SIDE	LDM5	Rigid	X
24H905		X			SIDE	LDP5	Flex	X
24H906		X			SIDE	LDP5	Rigid	X
24H907			X		SIDE	LDM5	Flex	X
24H908			X		SIDE	LDM5	Rigid	X
24H909			X		SIDE	LDP5	Flex	X
24H910			X		SIDE	LDP5	Rigid	X
24H911				X	SIDE	LDM5	Flex	X
24H912				X	SIDE	LDM5	Rigid	X
24H913				X	SIDE	LDP5	Flex	X
24H914				X	SIDE	LDP5	Rigid	X

## Parts

Fluid Hose Kit (2), vent valve (7) and air regulator (8) parts are shown on pages 48 and 49.

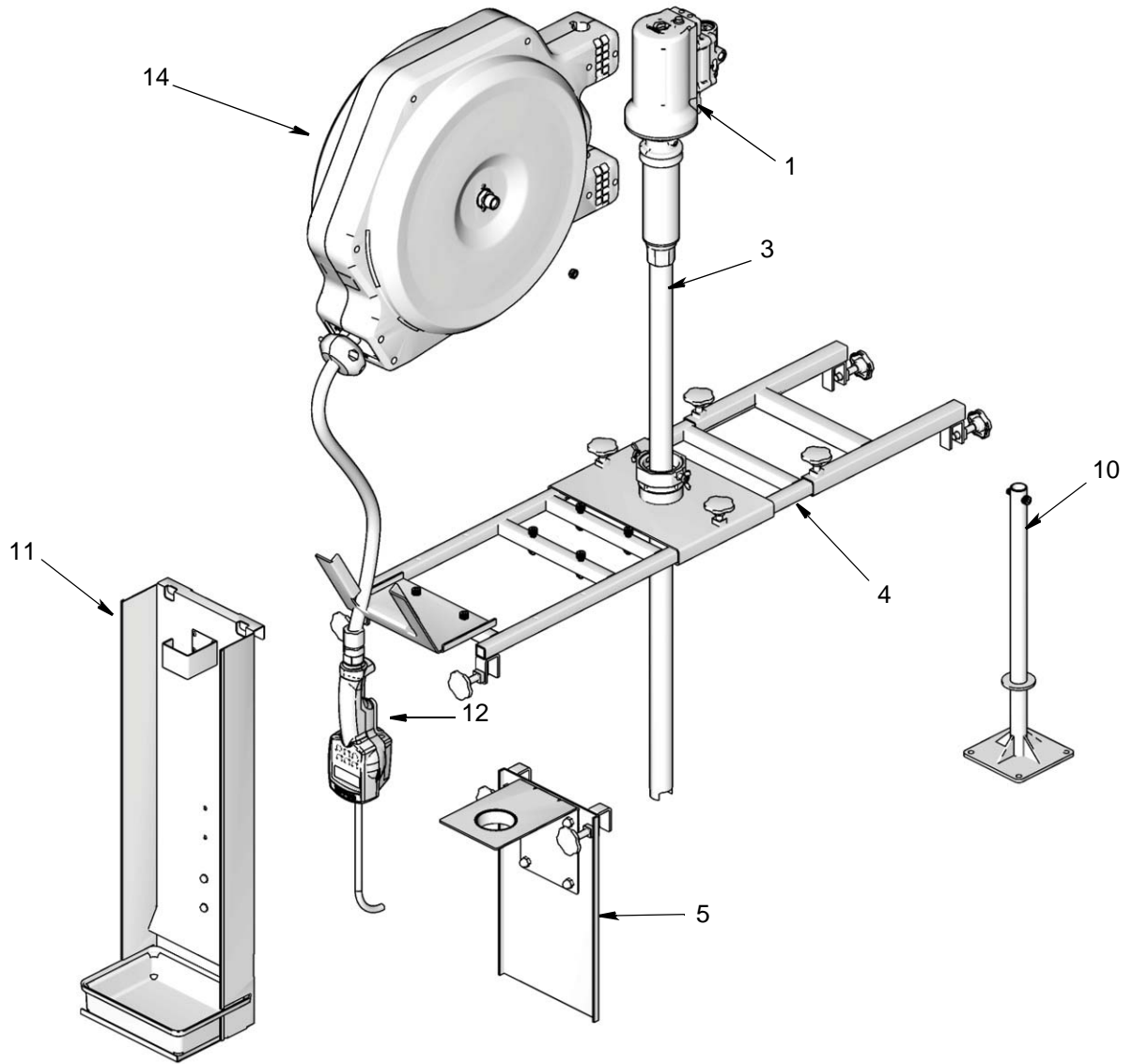
Ref.	Part No.	Description	Qty
1	24G576	PUMP, 3:1, Universal, NPT, models 24H701 - 24H704; 24H713 - 24H716; 24H725 - 24H728; 24H737 - 24H740	1
	24G577	PUMP, 3:1, Universal, BSPP, models 24H705 - 24H708; 24H717 - 24H720; 24H729 - 24H732; 24H741 - 24H744	1
	24G578	PUMP, 3:1, Universal BSPT, models 24H709 - 24H712; 24H721 - 24H724; 24H733 - 24H736; 24H745 - 24H748	1
	24G588	PUMP, 5:1, Universal, NPT, models 24H867 - 24H870; 24H879 - 24H882; 24H891 - 24H894; 24H903 - 24H906	1
	24G589	PUMP, 5:1, Universal, BSPP, models 24H871 - 24H874; 24H883 - 24H886; 24H895 - 24H898; 24H907 - 24H910	1
	24G590	PUMP, 5:1, Universal BSPT, models 24H875 - 24H878; 24H887 - 24H890; 24H899 - 24H902; 24H911 - 24H914	1
2	24J495	KIT, fluid, oil, hose, NPT, 6 ft (1.8 m), not CE, models 24H701 - 24H704; 24H725 - 24H728; 24H867 - 24H870; 24H891 - 24H894, page 48	1
	24J496	KIT, fluid, oil, hose, BSPP, 6 ft (1.8 m), not CE, models 24H705 - 24H708; 24H729 - 24H732; 24H871 - 24H874; 24H895 - 24H898, page 48	1
	24J497	KIT, fluid, oil, hose, BSPT, 6 ft (1.8 m), not CE, models 24H709 - 24H712; 24H733 - 24H736; 24H875 - 24H878; 24H899 - 24H902, page 48	1
	24J492	KIT, fluid, oil, hose, NPT, 6 ft (1.8 m), CE, models 24H713 - 24H716; 24H737 - 24H740; 24H879 - 24H882; 24H903 - 24H906, page 49	1
	24J493	KIT, fluid, oil, hose, BSPP, 6 ft (1.8 m), CE, models 24H717 - 24H720; 24H741 - 24H744; 24H883 - 24H886; 24H907 - 24H910, page 49	1
	24J494	KIT, fluid, oil, hose, BSPT, 6 ft (1.8 m), CE, models 24H721 - 24H724; 24H745 - 24H748; 24H887 - 24H890; 24H911 - 24H914, page 49	1

Ref.	Part No.	Description	Qty
3	16F885	TUBE, metal, LD pump, NPT, models 24H701 - 24H704; 24H713 - 24H716; 24H867 - 24H870; 24H879 - 24H882	1
	16F962	TUBE, metal, LD pump, BSPP, models 24H705 - 24H708; 24H717 - 24H720; 24H871 - 24H874; 24H883 - 24H886	1
	16F963	TUBE, metal, LD pump, BSPT, models 24H709 - 24H712; 24H721 - 24H724; 24H875 - 24H878; 24H887 - 24H890	1
	24H669	KIT, suction hose, LD pump, NPT, models 24H725 - 24H728; 24H737 - 24H740; 24H891 - 24H894; 24H903 - 24H906	1
	24H670	KIT, suction hose, LD pump, BSPP, models 24H729 - 24H732; 24H741 - 24H744; 24H895 - 24H898; 24H907 - 24H910	1
	24H671	KIT, suction hose, LD pump, BSPT, models 24H733 - 24H736; 24H745 - 24H748; 24H899 - 24H902; 24H911 - 24H914	1
4	24F930	BRACKET, top, models 24H701 - 24H724, 24H867 - 24H890	1
	24F931	BRACKET, top, models 24H725 - 24H748; 24H891 - 24H914	1
5	24F920	BRACKET, pump	1
7	110223	VALVE, vented, 2-way, NPT, models 24H713 - 24H716; 24H737 - 24H740; 24H879 - 24H882; 24H903 - 24H906	1
	125041	VALVE, vented, 2-way, BSP, models 24H717 - 24H724; 24H741 - 24H748; 24H883 - 24H890; 24H907 - 24H914	1
8	24H420	REGULATOR, air pressure, NPT, mini, models 24H713 - 24H716; 24H737 - 24H740; 24H879 - 24H882; 24H903 - 24H906	1
	24H419	REGULATOR, air pressure, BSP, mini, models 24H717 - 24H724; 24H741 - 24H748; 24H883 - 24H890; 24H907 - 24H914	1
10	24F932	KIT, bracket, LD reel	1
11	24F914	TRAY, meter	1

Tote Mounted Models and Parts

Ref.	Part No.	Description	Qty
12	255277	VALVE, metered, LDP5, NPT, flex ext, model 24H703; 24H715; 24H727; 24H739; 24H869; 24H881; 24H893; 24H905	1
	255751	VALVE, metered, LDM5, NPT, flex ext, model 24H701; 24H713; 24H725; 24H737; 24H867; 24H879; 24H891; 24H903	1
	256215	VALVE, metered, LDM5, NPT, rigid ext, model 24H702; 24H714; 24J726; 24H738; 24H868; 24H880; 24H892; 24H904	1
	256216	VALVE, metered, LDP5, NPT, rigid ext, model 24H704; 24H716; 24H728; 24H740; 24H870; 24H882; 24H894; 24H906	1
	24F881	VALVE, metered, LDM5, BSPT, flex ext, model 24H709; 24H721; 24H733; 24H745; 24H875; 24H887; 24H899; 24H911	1
	24F882	VALVE, metered, LDM5, BSPT, rigid ext, model 24H710; 24H722; 24H734; 24G46; 24H746; 24H888; 24H900; 24H912	1
	24F883	VALVE, metered, LDP5, BSPT, flex ext, model 24H711; 24H723; 24H735; 24H747; 24H877; 24H889; 24H901; 24H913	1
	24F884	VALVE, metered, LDP5, BSPT, rigid ext, model 24H712; 24H724; 24H736; 24H748; 24H878; 24H890; 24H902; 24H914	1
	24F887	VALVE, metered, LDM5, BSPP, flex ext, model 24H705; 24H717; 24H729; 24H741; 24H871; 24H883; 24H895; 24H907	1
	24F888	VALVE, metered, LDM5, BSPP, rigid ext, model 24H706; 24H718; 24H730; 24H742; 24H872; 24H884; 24H896; 24H908	1
	24F889	VALVE, metered, LDP5, BSPP, flex ext, model 24H707; 24H719; 24H731; 24H743; 24H873; 24H885; 24H897; 24H909	1
	24F890	VALVE, metered, LDP5, BSPP, rigid ext, model 24H708; 24H720; 24H732; 24H744; 24H874; 24H886; 24H898; 24H910	1

Ref.	Part No.	Description	Qty
13	24J378	KIT, accessory, CE, 3:1, models 24H713 - 24H724; 24H737 - 24H748	1
	24J379	KIT, accessory, CE, 5:1, models 24H879 - 24H890; 24H903 - 24H914	1
14	24H662	REEL, hose, 1/2 in. x 35 ft (10.6 m), oil, models 24H701- 24H704; 24H713 - 24H716; 24H725 - 24H728; 24H737 - 24H740; 24H867 - 24H870; 24H879 - 24H882; 24H891 - 24H894; 24H903 - 24H906	1
	24J133	REEL, hose, 1/2 in. x 35 ft (10.6 m), oil, models 24H705 - 24H708; 24H717 - 24H720; 24H729 - 24H732; 24H741 - 24H744; 24H871 - 24H874; 24H883 - 24H886; 24H895 - 24H898; 24H907 - 24H910	1
	24F796	REEL, hose, 1/2 in. x 35 ft (10.6 m) oil, models 24H709 - 24H712; 24H721 - 24H724; 24H733 - 24H736; 24H745 - 24H748; 24H875 - 24H878; 24H887 - 24H890; 24H899 - 24H902; 24H911 - 24H914	1



# Drum Mounted Models and Parts

## Oil Models

### 3:1 Oil Models

Model	NPT	BSPP	BSPT	Valve	Valve Extension	CE
24H799	X			LDM5	Flex	
24H800	X			LDM5	Rigid	
24H801	X			LDP5	Flex	
24H802	X			LDP5	Rigid	
24H803		X		LDM5	Flex	
24H804		X		LDM5	Rigid	
24H805		X		LDP5	Flex	
24H806		X		LDP5	Rigid	
24H807			X	LDM5	Flex	
24H808			X	LDM5	Rigid	
24H809			X	LDP5	Flex	
24H810			X	LDP5	Rigid	
24H811	X			LDM5	Flex	X
24H812	X			LDM5	Rigid	X
24H813	X			LDP5	Flex	X
24H814	X			LDP5	Rigid	X
24H815		X		LDM5	Flex	X
24H816		X		LDM5	Rigid	X
24H817		X		LDP5	Flex	X
24H818		X		LDP5	Rigid	X
24H819			X	LDM5	Flex	X
24H820			X	LDM5	Rigid	X
24H821			X	LDP5	Flex	X
24H822			X	LDP5	Rigid	X

## 5:1 Oil Models

Model	NPT	BSPP	BSPT	Valve	Valve Extension	CE
24H964	X			LDM5	Flex	
24H965	X			LDM5	Rigid	
24H966	X			LDP5	Flex	
24H967	X			LDP5	Rigid	
24H968		X		LDM5	Flex	
24H969		X		LDM5	Rigid	
24H970		X		LDP5	Flex	
24H971		X		LDP5	Rigid	
24H972			X	LDM5	Flex	
24H973			X	LDM5	Rigid	
24H974			X	LDP5	Flex	
24H975			X	LDP5	Rigid	
24H976	X			LDM5	Flex	X
24H977	X			LDM5	Rigid	X
24H978	X			LDP5	Flex	X
24H979	X			LDP5	Rigid	X
24H980		X		LDM5	Flex	X
24H981		X		LDM5	Rigid	X
24H982		X		LDP5	Flex	X
24H983		X		LDP5	Rigid	X
24H984			X	LDM5	Flex	X
24H985			X	LDM5	Rigid	X
24H986			X	LDP5	Flex	X
24H987			X	LDP5	Rigid	X

## Parts

Fluid Hose Kit (2), vent valve (7) and air regulator (8) parts are shown on pages 46 and 47.

**3:1 Oil Not CE Marked: 24H799 - 24H810**

**3:1 Oil CE Marked: 24H811 - 24H822**

**5:1 Oil Not CE Marked: 24H964 - 24H975**

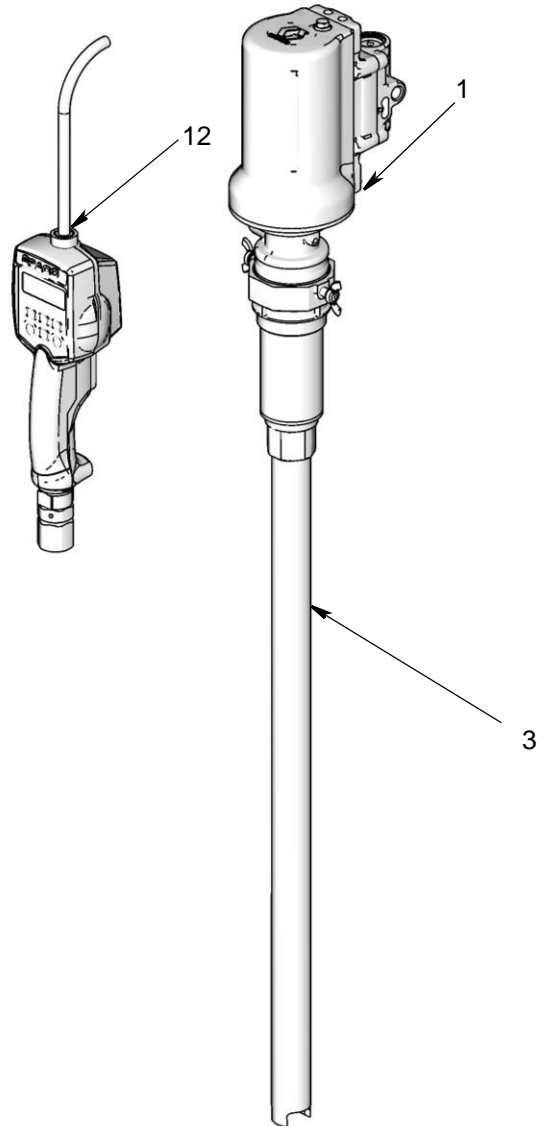
**5:1 Oil CE Marked: 24H976 - 24H987**

Ref	Part No.	Description	Qty
1	24G576	PUMP, 3:1, Universal, NPT, models 24H799 - 24H7802; 24H811 - 24H814	1
	24G577	PUMP, 3:1, Universal, BSPP, models 24H803 - 24H806; 24H815 - 24H818	1
	24G578	PUMP, 3:1, Universal BSPT, models 24H807 - 24H810; 24H819 - 24H822	1
	24G588	PUMP, 5:1, Universal, NPT, model 24H964 - 24H967; 24H976 - 24H979	1
	24G589	PUMP, 5:1, Universal, BSPP, models 24H9; 24H968 - 24H971; 24H980 - 24H983	1
	24G590	PUMP, 5:1, Universal BSPT, models 24H972 - 24H975; 24H984 - 24H987	1
2	24H859	KIT, fluid, oil, NPT, 6 ft (1.8 m), non-CE, models 24H799 - 24H802; 24H964 - 24H967, page 46	1
	24H860	KIT, fluid, oil BSPT, 6 ft (1.8 m), non-CE, models 24H807 - 24H810; 24H972 - 24H975, page 46	1
	24H861	KIT, fluid, oil, BSPP, 6 ft (1.8 m), non-CE, models 24H803 - 24H806; 24H968 - 24H971, page 46	1
	24H608	KIT, fluid oil, NPT, 6 ft (1.8 m), CE marked, models 24H811 - 24H814; 24H976 - 24H979, page 47	1
	24H609	KIT, fluid, oil, BSPT, 6 ft (1.8 m), CE marked, models 24H819 - 24H822; 24H984 - 24H987, page 47	1
	24H610	KIT, fluid, oil, BSPP, 6 ft (1.8 m), CE marked, models, 24H815 - 24H818; 24H980 - 24H983, page 47	1

Ref	Part No.	Description	Qty
3	16F878	TUBE, PVC, LD PUMP, models 24H799 - 24H802, 24H811 - 24H814; 24H964 - 24H967; 24H976 - 24H979	1
	24F948	TUBE, PVC, LD PUMP, models 24H803 - 24H806; 24H815 - 24H818; 24H968 - 24H971; 24H980 - 24H983	1
	24F949	TUBE, PVC, LD PUMP, models 24H807 - 24H810; 24H819 - 24H822; 24H972 - 24H975; 24H984 - 24H987	1
7	110223	VALVE, vented, 2-way, NPT, models 24H811 - 24H814; 24H976 - 24H979	1
	125041	VALVE, vented, 2-way, BSPP, models 24H815 - 24H822; 24H980 - 24H987	1
8	24H420	REGULATOR, air pressure, mini, NPT, models 24H811 - 24H814; 24H976 - 24H979	1
	24H419	REGULATOR, air pressure, mini, BSPP, models 24H815 - 24H822; 24H980 - 24H987	1



Ref	Part No.	Description	Qty
12	255277	VALVE, metered, LDP5, NPT, flex ext, models 24H801; 24H813; 24H966; 24H978	1
	255751	VALVE, metered, LDM5, NPT, flex ext, models 24H799; 24H811; 24H964; 24H976	1
	256215	VALVE, metered, LDM5, NPT, rigid ext, models 24H800; 24H812; 24H965; 24H977	1
	256216	VALVE, metered, LDP5, NPT, rigid ext, models 24H802; 24H814; 24H967; 24H979	1
	24F881	VALVE, metered, LDM5, BSPT, flex ext, models 24H807; 24H819; 24H972; 24H984	1
	24F882	VALVE, metered, LDM5, BSPT, rigid ext, models 24H808; 24H820; 24H973; 24H985	1
	24F883	VALVE, metered, LDP5, BSPT, flex ext, models 24H809; 24H821; 24H974; 24H986	1
	24F884	VALVE, metered, LDP5, BSPT, rigid ext, models 24H810; 24H822; 24H975; 24H987	1
	24F887	VALVE, metered, LDM5, BSPP, flex ext, models 24H803; 24H815; 24H968; 24H980	1
	24F888	VALVE, metered, LDM5, BSPP, rigid ext, models 24H804; 24H816; 24H969; 24H981	1
	24F889	VALVE, metered, LDP5, BSPP, flex ext, models 24H805; 24H817; 24H970; 24H982	1
24F890	VALVE, metered, LDP5, BSPP, rigid ext, models 24H806; 24H818; 24H971; 24H983	1	
13	24J378	KIT, accessory, CE, 3:1, models 24H811 - 24H822 (not shown)	1
	24J379	KIT, accessory, CE, 5:1, models 24H8; 24H976 - 24H987 (not shown)	1



## Grease Models

### 50:1 35 pound (15.8 kg) Grease Models

Model	NPT	BSPP	BSPT	CE
24J030	X			
24J031		X		
24J032			X	
24J033	X			X
24J034		X		X
24J035			X	X

### 50:1 120 pound (55 kg) Grease Models

Model	NPT	BSPP	BSPT	CE
24J036	X			
24J037		X		
24J038			X	
24J039	X			X
24J040		X		X
24J041			X	X

### 50:1 400 pound (181 kg) Grease Models

Model	NPT	BSPP	BSPT	CE
24J042	X			
24J043		X		
24J044			X	
24J045	X			X
24J046		X		X
24J047			X	X

### 50:1 10-30 kg Grease Models

Model	NPT	BSPP	BSPT	CE
24R344	X			X
24R345		X		X
24R346			X	X

### 50:1 10-40 kg Grease Models

Model	NPT	BSPP	BSPT	CE
24R347	X			X
24R348		X		X
24R349			X	X

### 50:1 30-70 kg Grease Models

Model	NPT	BSPP	BSPT	CE
24R353	X			X
24R354		X		X
24R355			X	X

## Parts

Fluid Hose Kit (2), vent valve (7) and air regulator (8) parts are shown on pages 46 and 47.

**35 pound (15.8 kg) Not CE Marked: 24J030 - 24J032**

**35 pound (15.8 kg) CE Marked: 24J033 - 24J035**

**120 pound (55 kg) Not CE Marked: 24J036 - 24J038**

**120 pound (55 kg) CE Marked: 24J039 - 24J041**

**400 pound (181 kg) Not CE Marked: 24J042 - 24J044**

**400 pound (181 kg) CE Marked: 24J045 - 24J047**

**10-30 kg CE Marked: 24R344 - 24R346**

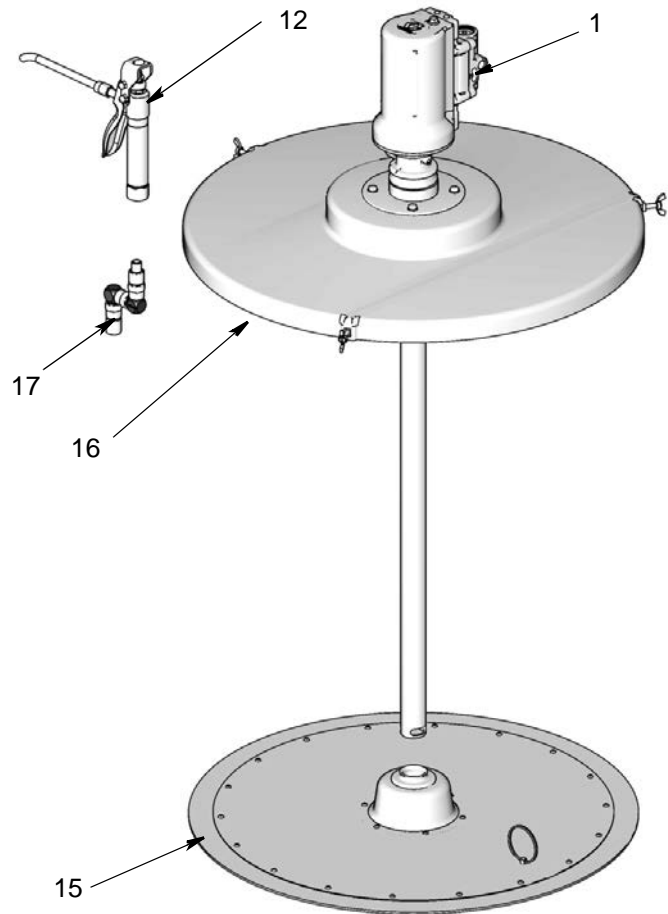
**10-40 kg CE Marked: 24R347 - 24R349**

**30-70 kg CE Marked: 24R353 - 24R355**

Ref	Part No.	Description	Qty
1	24G600	PUMP, 50:1, NPT, 35 pound (15.8 kg), models 24J030; 24J033, 24R344, 24R347	1
	24G601	PUMP, 50:1, BSPP, 35 pound (15.8 kg), models 24J031; 24J034, 24R345, 24R348	1
	24G602	PUMP, 50:1, BSPT, 35 pound (15.8 kg), models 24J032; 24J035, 24R346, 24R349	1
	24G603	PUMP, 50:1, NPT, 120 pound (55 kg), models 24J036, 24J039, 24R353	1
	24G604	PUMP, 50:1, BSPP, 120 pound (55 kg), models 24J037, 24J040, 24R354	1
	24G605	PUMP, 50:1, BSPT, 120 pound (55 kg), models 24J038; 24J041, 24R355	1
	24G606	PUMP, 50:1 NPS, 400 pound (181 kg), models 24J042; 24J045	1
	24G607	PUMP, 50:1 BSPP, 400 pound (181 kg), models 24J043; 24J046	1
	24G608	PUMP, 50:1 BSPT, 400 pound (181 kg), models 24J044; 24J047	1

Ref	Part No.	Description	Qty
2	24H862	KIT, fluid, grease, NPT, 6 ft (1.8 m) models 24J030; 24J036; 24J042, page 46	1
	24H863	KIT, fluid, grease, BSPT, 6 ft (1.8 m), models 24J032; 24J038; 24J044, page 46	
	24H864	KIT, fluid, grease BSPP, 6 ft (1.8 m), models 24J031; 24J037; 24J043, page 46	1
	24H672	HOSE, fluid, grease, 6 ft (1.8 m), NPT, models 24J033; 24J039; 24J045, 24R344, 24R347, 24R353. page 47	1
	24H673	HOSE, fluid, grease, 6 ft (1.8 m), BSPT, models 24J035; 24J041; 24J047, 24R346, 24R349, 24R355, page 47	1
	24H674	HOSE, fluid, grease, 6 ft (1.8 m) BSPP, models 24J034; 24J040; 24J046, 24R345, 24R348, 24R354, page 47	1
7	110223	VALVE, vented, 2-way, NPT, model 24J033; 24J039; 24J045, 24R344, 24R347, 24R353	1
	125041	VALVE, vented, 2-way, BSPP, models 24J034; 24J035; 24J040; 24J041; 24J046; 24J047, 24R345. 24R346,24R348, 24R349, 24R354, 24R355	1
8	24H420	REGULATOR, air pressure, mini, NPT, models 24J033; 24J039; 24J045, 24R344, 24R347, 24R353	1
	24H419	REGULATOR, air pressure, mini, BSPP, models 24J034; 24J035; 24J040; 24J041; 24J046; 24J047, 24R345. 24R346,24R348, 24R349, 24R354, 24R355	1
12	242056	VALVE, grease, 1/4-18 NPT, with adapter, models 24J030; 24J033; 24J036; 24J039; 24J042; 24J045, 24R344, 24R347, 24R353	1
	24H404	VALVE, grease, 1/4-19, BSPP, with adapter models 24J031; 24J034; 24J037; 24J040; 24J043; 24J046, 24R345, 24R348, 24R354	1
	24H400	VALVE, grease, 1/4-19 BSPT, with adapter, models 24J032; 24J035; 24J038; 24J041; 24J044; 24J047, 24R346, 24R349, 24R355	1

Ref	Part No.	Description	Qty
13	24J377	KIT, accessory, CE, 50:1 (not shown) 24J033; 24J034; 24J035; 24J039; 24J040; 24J041; 24J045; 24J046; 24J047, 24R344 - 24R349, 24R353, 24R354, 24R355	1
15	24F901	PLATE, follow, 35 pound (15.8 kg), models 24J030 - 24J032	1
	24F902	PLATE, follow, 120 pound (55 kg), models 24J036 - 24J038	1
	24F903	PLATE, follow, 400 pound (181 kg), models 24J0042 - 24J044	1
16	24F904	COVER, drum, 35 pound (15.8 kg), models 24J030 - 24J035	1
	24F905	COVER, drum, 120 pound (55 kg), models 24J036 - 24J038, 24R353, 24R354, 24R355	1
	24F906	COVER, drum, 400 pound (181 kg), models 24J042 - 24J047	1
	24N921	COVER, drum, models 24R344, 24R345, 24R346	1
	24N922	COVER, drum, models 24R347, 24R348, 24R349	1
	24N924	COVER, drum, models 24J039-24J041	1
17	202577	SWIVEL, Z, 1/4-18 NPT, models 24J030; 24J033; 24J036; 24J039; 24J042; 24J045, 24R344, 24R347, 24R353	1
	24H614	SWIVEL, Z, 1/4-19 BSPT, models 24J032; 24J035; 24J038; 24J041; 24J044; 24J047, 24R346, 24R349, 24R355	1
	24H615	SWIVEL, Z, 1/4-19 BSPP, models 24J031; 24J034; 24J037; 24J040; 24J043; 24J046, 24R345, 24R348, 24R354	1



# Cart Mounted Oil Models and Parts

## Oil Models

### 3:1 Oil Models

Model	Reel	NPT	BSPP	BSPT	Valve	Valve Extension	CE
24H750	X	X			LDM5	Flex	
24H751	X	X			LDM5	Rigid	
24H752	X	X			LDP5	Flex	
24H753	X	X			LDP5	Rigid	
24H754	X		X		LDM5	Flex	
24H755	X		X		LDM5	Rigid	
24H756	X		X		LDP5	Flex	
24H757	X		X		LDP5	Rigid	
24H758	X			X	LDM5	Flex	
24H759	X			X	LDM5	Rigid	
24H760	X			X	LDP5	Flex	
24H761	X			X	LDP5	Rigid	
24H762	X	X			LDM5	Flex	X
24H763	X	X			LDM5	Rigid	X
24H764	X	X			LDP5	Flex	X
24H765	X	X			LDP5	Rigid	X
24H766	X		X		LDM5	Flex	X
24H767	X		X		LDM5	Rigid	X
24H768	X		X		LDP5	Flex	X
24H769	X		X		LDP5	Rigid	X
24H770	X			X	LDM5	Flex	X
24H771	X			X	LDM5	Rigid	X
24H772	X			X	LDP5	Flex	X
24H773	X			X	LDP5	Rigid	X
24H774		X			LDM5	Flex	
24H775		X			LDM5	Rigid	
24H776		X			LDP5	Flex	
24H777		X			LDP5	Rigid	
24H778			X		LDM5	Flex	
24H779			X		LDM5	Rigid	
24H780			X		LDP5	Flex	

Model	Reel	NPT	BSPB	BSPT	Valve	Valve Extension	CE
24H781			X		LDP5	Rigid	
24H782				X	LDM5	Flex	
24H783				X	LDM5	Rigid	
24H784				X	LDP5	Flex	
24H785				X	LDP5	Rigid	
24H786		X			LDM5	Flex	X
24H787		X			LDM5	Rigid	X
24H788		X			LDP5	Flex	X
24H789		X			LDP5	Rigid	X
24H790			X		LDM5	Flex	X
24H791			X		LDM5	Rigid	X
24H792			X		LDP5	Flex	X
24H793			X		LDP5	Rigid	X
24H794				X	LDM5	Flex	X
24H795				X	LDM5	Rigid	X
24H796				X	LDP5	Flex	X
24H797				X	LDP5	Rigid	X

### 5:1 Oil Models

Model	Reel	NPT	BSPB	BSPT	Valve	Valve Extension	CE
24H915	X	X			LDM5	Flex	
24H916	X	X			LDM5	Rigid	
24H917	X	X			LDP5	Flex	
24H918	X	X			LDP5	Rigid	
24H919	X		X		LDM5	Flex	
24H920	X		X		LDM5	Rigid	
24H921	X		X		LDP5	Flex	
24H922	X		X		LDP5	Rigid	
24H923	X			X	LDM5	Flex	
24H924	X			X	LDM5	Rigid	
24H925	X			X	LDP5	Flex	
24H926	X			X	LDP5	Rigid	
24H927	X	X			LDM5	Flex	X
24H928	X	X			LDM5	Rigid	X

Model	Reel	NPT	BSPP	BSPT	Valve	Valve Extension	CE
24H929	X	X			LDP5	Flex	X
24H930	X	X			LDP5	Rigid	X
24H931	X		X		LDM5	Flex	X
24H932	X		X		LDM5	Rigid	X
24H933	X		X		LDP5	Flex	X
24H934	X		X		LDP5	Rigid	X
24H935	X			X	LDM5	Flex	X
24H936	X			X	LDM5	Rigid	X
24H937	X			X	LDP5	Flex	X
24H938	X			X	LDP5	Rigid	X
24H940		X			LDM5	Flex	
24H941		X			LDM5	Rigid	
24H942		X			LDP5	Flex	
24H943		X			LDP5	Rigid	
24H944			X		LDM5	Flex	
24H945			X		LDM5	Rigid	
24H946			X		LDP5	Flex	
24H947			X		LDP5	Rigid	
24H948				X	LDM5	Flex	
24H949				X	LDM5	Rigid	
24H950				X	LDP5	Flex	
24H951				X	LDP5	Rigid	
24H952		X			LDM5	Flex	X
24H953		X			LDM5	Rigid	X
24H954		X			LDP5	Flex	X
24H955		X			LDP5	Rigid	X
24H956			X		LDM5	Flex	X
24H957			X		LDM5	Rigid	X
24H958			X		LDP5	Flex	X
24H959			X		LDP5	Rigid	X
24H960				X	LDM5	Flex	X
24H961				X	LDM5	Rigid	X
24H962				X	LDP5	Flex	X
24H963				X	LDP5	Rigid	X

## Parts

Fluid Hose Kit (2), vent valve (7) and air regulator (8) parts are shown on pages 47 and 47.

### Cart, Meter and Reel

3:1 Oil Models, no CE 24H750 - 24H761

5:1 Oil Models, no CE 24H915 - 24H926

3:1 Oil Models, CE Marked 24H762 - 24H773

5:1 Oil Models, CE Marked 24H927 - 24H938

### Cart and Meter Only

3:1 Oil Models, no CE 24H774 - 24H785

5:1 Oil Models, no CE 24H940 - 24H951

3:1 Oil Models, CE Marked 24H786 - 24H797

5:1 Oil Models, CE Marked 24H952 - 24H963

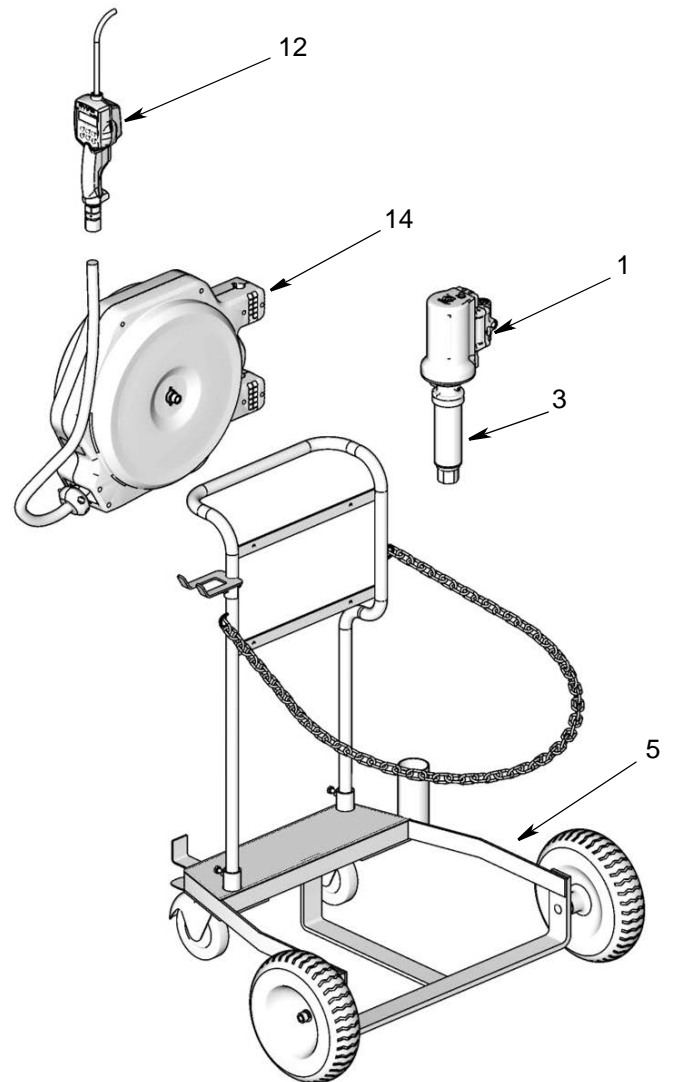
Ref	Part No.	Description	Qty
1	24G576	PUMP, 3:1, Universal, NPT, models 24H750 - 24H753; 24H762 - 24H765; 24H774 - 24H777; 24H786 - 24H789	1
	24G577	PUMP, 3:1, Universal, BSPP, models 24H754 - 24H757; 24H766 - 24H769; 24H778 - 24H81; 24H790 - 24H793	1
	24G578	PUMP, 3:1, Universal BSPT, models 24F758 - 24H761; 24H770 - 24H773; 24F782 - 24H7785; 24F794 - 24F797	1
	24G588	PUMP, 5:1, Universal, NPT, model 24H915 - 24H918; 24H927 - 24H930; 24H940 - 24H943; 24H952 - 24H955	1
	24G589	PUMP, 5:1, Universal, BSPP, models 24H919 - 24H922; 24H931 - 24H934; 24H944 - 24H947; 24H956 - 24H959	1
	24G590	PUMP, 5:1, Universal BSPT, models 24F923 - 24H926; 24H935 - 24H938; 24H948 - 24H951; 24H960 - 24H963	1
2	24H608	HOSE, fluid, oil, 6 ft (1.8 m), NPT, CE, models 24H762 - 24H765; 24H927 - 24H930, page 47	1
	24H609	HOSE, fluid, oil, 6 ft (1.8 m), BSPT, CE, models 24H770 - 24H773; 24H935 - 24H938, page 47	1
	24H610	HOSE, fluid, oil, 6 ft (1.8 m), BSPP, CE, models 24H766 - 24H769; 24H931 - 24H934, page 47	1
	24H833	KIT, hose, 15 ft (5 m), fluid, NPT, models 24H786 - 24H789, 24H952 - 24H955, CE, page 47	1
	24H834	KIT, hose, 15 ft (5 m), fluid, BSPT, models 24H794 - 24H797; 24H960 - 24H963, CE, page 47	1
	24H835	KIT, hose, 15 ft (5 m), fluid, BSPP, models 24H790 - 24H793; 24H956 - 24H959, CE, page 47	1
7	24H859	KIT, fluid, oil, NPT, 6 ft (1.8 m), non-CE, models 24H750 - 24H753; 24H915 - 24H918, page 46	1
	24H860	KIT, fluid, oil BSPT, 6 ft (1.8 m), non-CE, models 24H758 - 24H761; 24H923 - 24H926, page 46	1

Ref	Part No.	Description	Qty
2 (cont)	24H861	KIT, fluid, oil, BSPP, 6 ft (1.8 m), non-CE, models 24H754 - 24H757; 24H919 - 24H922, page 46	1
	24H865	KIT, fluid, oil, NPT, 15 ft (5 m), non-CE, models 24H774 - 24H777; 24H940 - 24H943, page 46	1
	24H866	KIT, fluid, oil, BSPT, 15 ft (5 m), non-CE, models 24H782 - 24H785; 24H948 - 24H951, page 46	1
	24J095	KIT, fluid, oil BSPP, 15 ft (5 m), non-CE, models 24H778 - 24H781; 24H944 - 24H947, page 46	1
3	16F886	TUBE, metal, LD pump, models 24H750 - 24H753; 24H915 - 24H918; 24H762 - 24H765; 24H774 - 24H777; 24H786 - 24H789; 24H927 - 24H930; 24H940 - 24H943; 24H952 - 24H955	1
	16F950	TUBE, metal, LD pump, models 24H754 - 24H757; 24H919 - 24H922; 24H766 - 24H769; 24H778 - 24H781; 24H790 - 24H793; 24H931 - 24H934; 24H944 - 24H947; 24H956 - 24H959	1
	16F951	TUBE, metal, LD pump, models 24H758 - 24H761; 24H923 - 24H926; 24H770 - 24H773; 24H782 - 24H785; 24H794 - 24H797; 24H935 - 24H938; 24H948 - 24H951; 24H960 - 24H963	1
5	24F915	CART	1
7	110223	VALVE, vented, 2-way, NPT, models 24H762 - 24H765; 24H786 - 24H789; 24H927 - 24H930; 24H952 - 24H955	1
	125041	VALVE, vented, 2-way, BSPP, models 24H766 - 24H773; 24H790 - 24H797; 24H931 - 24H938; 24H956 - 24H963	1
8	24H420	REGULATOR, air pressure, mini, NPT, models 24H762 - 24H765; 24H786 - 24H789; 24H927 - 24H930; 24H952 - 24H955	1
	24H419	REGULATOR, air pressure, mini, BSPP, models 24H766 - 24H773; 24H790 - 24H797; 24H931 - 24H938; 24H956 - 24H963	1



Ref	Part No.	Description	Qty
12	255277	VALVE, metered, LDP5, NPT, flex ext, models 24H752, 24H788, 24H917, 24H764, 24H929, 24H776, 24H942, 24H954	1
	255751	VALVE, metered, LDM5, NPT, flex ext, models 24H750, 24H915, 24H762, 24H786, 24H927, 24H774, 24H940, 24H952	1
	256215	VALVE, metered, LDM5, NPT, rigid ext, models 24H751, 24H916, 24H763, 24H787, 24H928, 24H775, 24H941, 24H953	1
	256216	VALVE, metered, LDP5, NPT, rigid ext, models 24H753, 24H789, 24H917, 24H765, 24H930, 24H777, 24H943, 24H955	1
	24F881	VALVE, metered, LDM5, BSPT, flex ext, models 24H758, 24F794, 24H923, 24F770, 24H935, 24H782, 24H948, 24H960	1
	24F882	VALVE, metered, LDM5, BSPT, rigid ext, models 24H759, 24H795, 24H924, 24H771, 24H936, 24H783, 24H949, 24H961	1
	24F883	VALVE, metered, LDP5, BSPT, flex ext, models 24H760, 24H925, 24H772, 24H796, 24H937, 24H784, 24H950, 224H962	1
	24F884	VALVE, metered, LDP5, BSPT, rigid ext, models 24H761, 24H797, 24H926, 24H773, 24H938, 24H785, 24H951, 24H963	1
	24F887	VALVE, metered, LDM5, BSPP, flex ext, models 24H754, 24H790, 24H919, 24H766, 24H931, 24H778, 24H944, 24H956	1
	24F888	VALVE, metered, LDM5, BSPP, rigid ext, models 24H755, 24H791, 24H920, 24H767, 24H932, 24H779, 24H945, 24H957	1
	24F889	VALVE, metered, LDP5, BSPP, flex ext, models 24H756, 24H792, 24H921, 24H768, 24H933, 24H780, 24H946, 24H958	1
	24F890	VALVE, metered, LDP5, BSPP, rigid ext, models 24H757, 24H793, 24H922, 24H769, 24H934, 24H781, 24H947, 24H959	1

Ref	Part No.	Description	Qty
13	24J378	KIT, accessory, CE, 3:1, models 24H762 - 24H773; 24H927 - 24H938	1
	24J379	KIT, accessory, CE, 5:1, models 24H879 - 24H890; 24H952 - 24H963	1
14	24F796	REEL, hose, 1/2 x 35 ft (10.6 m) oil, models 24H758 - 24H761; 24H923 - 24H926; 24H770 - 24H773; 24H935 - 24H938	1
	24H662	REEL, hose, 1/2 x 35 ft (10.6 m), oil, models 24H750 - 24H753; 24H915 - 24H918; 24H762- 24H765; 24H927- 24H930	1
	24J133	REEL, hose, 1/2 x 35, oil ft (10.6 m), models 24H754 - 24H757; 24H919 - 24H922; 24H766 - 24H769; 24H931 - 24H934	1



# Cart Mounted Grease Models and Parts

## Grease Models

### 50:1 120 pound (55 kg) Grease Models

Model	Reel	NPT	BSPP	BSPT	CE
24J048		X			
24J049			X		
24J050				X	
24J051		X			X
24J052			X		X
24J053				X	X
24J060	X	X			
24J061	X		X		
24J062	X			X	
24J063	X	X			X
24J064	X		X		X
24J065	X			X	X

### 50:1 400 pound (181 kg) Grease Models

Model	Reel	NPT	BSPP	BSPT	CE
24J054		X			
24J055			X		
24J056				X	
24J057		X			X
24J058			X		X
24J059				X	X
24J066	X	X			
24J067			X		
24J068	X			X	
24J069	X	X			X
24J070	X		X		X
24J071	X			X	X

### 50:1 30-70 kg Grease Models

Model	Reel	NPT	BSPP	BSPT	CE
24R356		X			X
24R357			X		X
24R358				X	X
24R359	X	X			X
24R360	X		X		X
24R361	X			X	X

## Parts

Fluid Hose Kit (2), vent valve (7) and air regulator (8) parts are shown on pages 46 and 48.

### Cart, Metered Valve Only

120 pound (55 kg) Grease no CE 24J048 - 24J050  
 400 pound (180 kg) Grease no CE 24J054 - 24J056  
 120 pound (55 kg) Grease CE Marked 24J051 - 24J053  
 400 pound (180 kg) Grease CE Marked 24J057 - 24J059  
 30-70 kg Grease CE Marked

### Cart, Reel, Metered Valve Only

120 pound (55 kg) Grease no CE 24J060 - 24J062  
 400 pound (180 kg) Grease no CE 24J066 - 24J068  
 120 pound (55 kg) Grease CE Marked 24J063 - 24J065  
 400 pound (180 kg) Grease CE Marked 24J069 - 24J071  
 30-70 kg Grease CE Marked 24R359-24R361

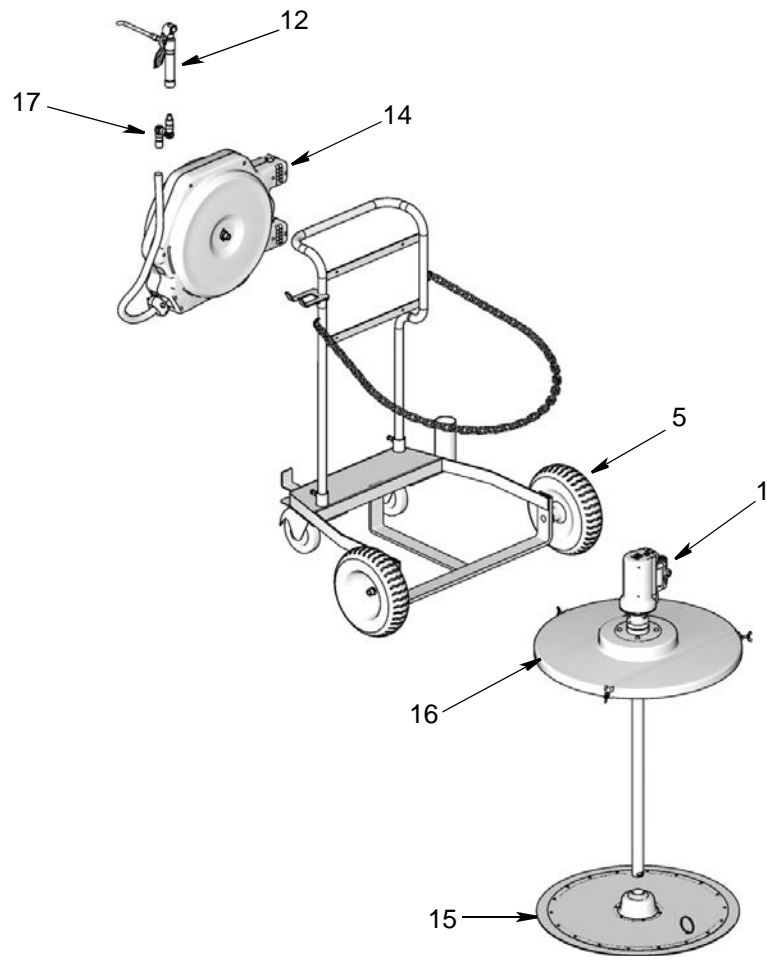
Ref	Part No.	Description	Qty
1	24G603	PUMP, 50:1, NPT, 120 pound (55 kg), models 24J048, 24J051, 24J060, 24J063, 24R356, 24R359	1
	24G604	PUMP, 50:1, BSPP, 120 pound (55 kg), models 24J049, 24J052, 24J061, 24J064, 24R357, 24R360	1
	24G605	PUMP, 50:1, BSPT, 120 pound (55 kg), models 24J050, 24J053, 24J062, 24J065, 24R358, 24R361	1
	24G606	PUMP, 50:1 NPT, 400 pound (180 kg), model 24J054, 24J057, 24J066, 24J069	1
	24G607	PUMP, 50:1 BSPP, 400 pound (180 kg), model 24J055, 24J058, 24J067, 24J070	1
	24G608	PUMP, 50:1 BSPT, 400 pound (180 kg), model 24J056, 24J059, 24H068, 24J071	1

Ref	Part No.	Description	Qty
2	24H862	KIT, fluid, grease, NPT, 6 ft (1.8 m), models 24J048, 24J054, 24J060, page 46	1
	24H863	KIT, fluid, grease, BSPT, 6 ft (1.8 m), models 24J050, 24J056, 24J062, page 46	1
	24H864	KIT, fluid, grease BSPP, 6 ft (1.8 m), models 24J049, 24J055, 24J061, page 46	1
	24H672	HOSE, fluid, grease, 6 ft (1.8 m), NPT, model 24J051, 24J057, 24J063, 24J069, 24R356, page 47	1
	24H673	HOSE, fluid, grease, 6 ft (1.8 m), BSPT, model 24J053, 24J059, 24J065, 24J071, 24R358, page 47	1
	24H674	HOSE, fluid, grease, 6 ft (1.8 m), BSPP, model 24J052, 24J058, 24J064, 24J070, 24R357, page 47	1
	24J501	KIT, fluid, grease, hose, 6 ft (1.8 m) NPT, model 24J066, page 48	1
	24J502	KIT, fluid, grease, hose, 6 ft (1.8 m), BSPP, model 24J067, page 48	1
	24J503	KIT, fluid, grease, hose, 6 ft (1.8 m), BSPT, model 24J068, page 48	1
5	24H422	CART, 120 pound (55 kg)	1
	24F915	CART, 400 pound (180 kg)	1

Cart Mounted Grease Models and Parts

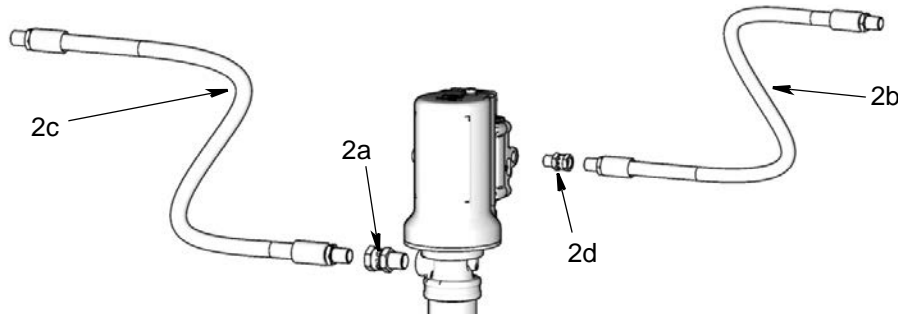
Ref	Part No.	Description	Qty
7	110223	VALVE, vented, 2-way, NPT, model 24J051, 24J057, 24J063, 24J069, 24R356, 24R359	1
	125041	VALVE, vented, 2-way, BSPP, models 24J052, 24J053, 24J058, 24J059, 24J064, 24J065, 24J070, 24J071, 24R357, 24R358, 24R360, 24R361	1
8	24H420	REGULATOR, air pressure, mini, NPT, model 24J051, 24J057, 24J063, 24J069, 24R356, 24R359	1
	24H419	REGULATOR, air pressure, mini, BSPP, model 24J052, 24J053, 24J058, 24J059, 24J064, 24J065, 24J070, 24J071, 24R357, 24R358, 24R360, 24R361	1
12	242056	VALVE, grease, 1/4-18 NPT, with adapter, models 24J408, 24J051, 24J054, 24J057, 24J060, 24J063, 24J066, 24J069, 24R356, 24R359	1
	24H404	VALVE, grease, 1/4-19, BSPP, with adapter models 24J049, 24J052, 24J055, 24J058, 24J061, 24J064, 24J067, 24J070, 24R357, 24R360	1
	24H400	VALVE, grease, 1/4-19 BSPT, with adapter, models 24J050, 24J053, 24J056, 24J059, 24J062, 24J065, 24J068, 24J071, 24R3258, 24R361	1
13	24J377	KIT, accessory, CE, 50:1 (not shown) models 24J051 - 24J053, 24J057 - 24J059; 24J063 - 24J071, 24R356 - 24R361	1
14	24H663	REEL, hose, 1/4 in. x 35 feet (10.6 m), models 24J060, 24J063, 24J066, 24J069, 24R359	1
	24J134	REEL, hose, 1/4 in. x 35 feet (10.6 m), models 24J061, 24J064, 24J067, 24J070, 24R360	1
	24F797	REEL, hose, 1/4 in. x 35 feet (10.6 m), models 24J062, 24J065, 24J068, 24J071, 24R361	1
15	24F902	PLATE, follow, 120 pound (55 kg), models 24J048 - 24J050; 24J060 - 24J062	1
	24F903	PLATE, follow, 400 pound (180 kg), models 24J054 - 24J056; 24J066 - 24J068	1

Ref	Part No.	Description	Qty
16	24F905	COVER, drum, 120 pound (55 kg), models 24J048 - 24J050; 24J060 - 24J062; 24R356 - 24R361	1
	24F906	COVER, drum, 400 pound (180 kg), 24J054 - 24J059; 24J066 - 24J068; 24J069 - 24J071	1
	24N924	COVER, drum, models 24J051-24J053; 24J063-24J065	
17	202577	SWIVEL, Z, 1/4-18 NPT, model 24J048, 24J051, 24J054, 24J057, 24J060, 24J063, 24J066, 24J069, 24R356, 24R359	1
	24H614	SWIVEL, Z, 1/4-19 BSPT, model 24J050, 24J053, 24J056, 24J059, 24J062, 24J065, 24J068, 24J071, 24R357, 24R360	1
	24H615	SWIVEL, Z, 1/4-19 BSPP, 24J049, 24J052, 24J055, 24J058, 24J061, 24J064, 24J067, 24J070, 24R358, 24R361	1



# Fluid Hose Kit (2) Parts

NPT, BSPT, BSPP, Oil or Grease, 6 ft (1.8 m), or 15 ft (5 m) Hose, Without Hose Reel, No CE Mark



## Oil Models

### 24H859 - NPT, 6 ft

Models: 24H695, 24H750 - 24H753, 24H799 - 24H802, 24H842, 24H915 - 24H918, 24H964- 24H967

Ref	Description	Qty
2a	FITTING, union, adapter	1
2b	HOSE, 3/8 in. ID X 6 ft (1.8 m), air/water	1
2c	HOSE, 1/2 in. ID X 6 ft (1.8 m), oil	1
2d	UNION, swivel	1

### 24H860 - BSPT, 6 ft (1.8 m),

Models: 24H697, 24H758 - 24H761, 24H807 - 24H810, 24H843, 24H923 - 24H926, 24H972 - 24H975

Ref	Description	Qty
2a	FITTING, 1/2 in. BSPT to 1/2 in. BSPP	1
2b	HOSE, 3/8 in. ID X 6 ft (1.8 m), air/water	1
2c	HOSE, 1/2 in. ID X 6 ft (1.8 m), oil	1
2d	FITTING, 1/4 in. BSPT to 3/8 in. BSPP	1

### 24H861 - BSPP, 6 ft

Models: 24H696, 24H754 - 24H757, 24H803 - 24H806, 24H842, 24H919 - 24H922, 24H968 - 24H971

Ref	Description	Qty
2a	FITTING, 1/2 in. BSPT to 1/2 in. BSPP	1
2b	HOSE, 3/8 in. ID X 6 ft (1.8 m), air/water	1
2c	HOSE, 1/2 in. ID X 6 ft (1.8 m), oil	1
2d	FITTING, 1/4 in. BSPT to 3/8 in. BSPP	1

### 24H865 - NPT, 15 ft (5 m)

Models: 24H774 - 24H777, 24H940 - 24H943

Ref	Description	Qty
2a	FITTING, union, adapter	1
2b	HOSE, 3/8 in. ID X 6 ft (1.8 m), air/water	1
2c	HOSE, 1/2 in. ID X 15 ft (5 m), oil	1
2d	UNION, swivel	1

### 24H866 - BSPT, 15 ft(5 m)

Models: 24H782 - 24H785, 24H948 - 24H951

Ref	Description	Qty
2a	FITTING, 1/2 in. BSPT to 1/2 in. BSPP	1
2b	HOSE, 3/8 in. ID X 6 ft (1.8 m), air/water	1
2c	HOSE, 1/2 in. ID X 15 ft (5 m), oil	1
2d	FITTING, 1/4 in. BSPT to 3/8 in. BSPP	1

### 24J095 - BSPP, 15 ft(5 M)

Models: 24H778 - 24H781, 24H944 - 24H947

Ref	Description	Qty
2a	FITTING, 1/2 in. BSPT to 1/2 in. BSPP	1
2b	HOSE, 3/8 in. ID X 6 ft (1.8 m), air/water	1
2c	HOSE, 1/2 in. ID X 15 ft (5 m), oil	1
2d	FITTING, 1/4 in. BSPT to 3/8 in. BSPP	1

## Grease Models

### 24H862 - NPT

Models: 24J030, 24J036, 24J042, 24J048, 24J054

Ref	Description	Qty
2a	UNION, swivel	1
2b	HOSE, 3/8 in. ID X 6 ft (1.8 m), air/water	1
2c	HOSE, 1/4 in. ID X 6 ft (1.8 m), grease	1
2d	UNION, swivel	1

### 24H863 - BSPT

Models: 24J031, 24J038, 24J044, 24J050, 24J056

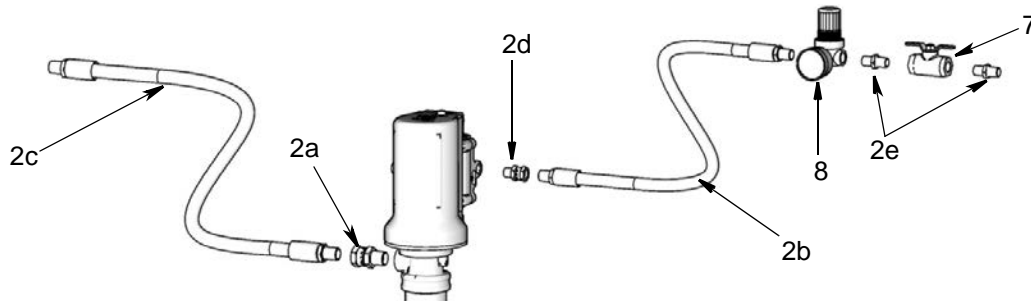
Ref	Description	Qty
2a	FITTING, 1/4 in. BSPP to 1/4 in. BSPT	1
2b	HOSE, 3/8 in. ID X 6 ft (1.8 m), air/water	1
2c	HOSE, 1/4 in. ID X 6 ft (1.8 m), grease	1
2d	FITTING, 1/4 in. BSPT to 3/8 in. BSPP	1

### 24H864 - BSPP

Models: 24J031, 24J037, 24J043, 24J049, 24J055

Ref	Description	Qty
2a	FITTING, 1/4 in. BSPP to 1/4 in. BSPP	1
2b	HOSE, 3/8 in. ID X 6 ft (1.8 m), air/water	1
2c	HOSE, 1/4 in. ID X 6 ft (1.8 m), grease	1
2d	FITTING, 1/4 in. BSPT to 3/8 in. BSPP	1

**NPT, BSPT, BSPP, Oil or Grease, 6 ft (1.8 m), or 15 ft (5 m) Hose, Without Hose Reel, CE Mark (part 7 & 8 shown for assembly reference only)**



**Oil Models**

**24H608 - NPT, 6ft**

Models: 24H698, 24H762 - 24H765, 24H811 -24H814, 24H845, 24H927 - 24H930, 24H976 - 24H979

Ref	Description	Qty
2a	FITTING, union, adapter	1
2b	HOSE, 3/8 in. ID X 6 ft (1.8 m), air/water	1
2c	HOSE, 1/2 in. ID X 6 ft (1.8 m), oil	1
2d	UNION, swivel	1
2e	FITTING, nipple, short	2

**24H609 - BSPT, 6 ft**

Models: 24H700, 24H770 - 24H773, 24H819 - 24H822, 24H847, 24H935 - 24H938, 24H984- 24H987

Ref	Description	Qty
2a	FITTING, 1/2 in. BSPT to 1/2 in. BSPP	1
2b	HOSE, 3/8 in. ID X 6 ft (1.8 m), air/water	1
2c	HOSE, 1/2 in. ID X 6 ft (1.8 m), oil	1
2d	FITTING, 1/4 in. BSPT to 3/8 in. BSPP	1
2e	FITTING, 1/4 in. BSPT to 1/4 in. BSPT	2

**24H610 - BSPP, 6 ft**

Models: 24H699, 24H766 - 27H769, 24H815 - 24H818, 24H846, 24H931 - 24H934, 24H980 - 24H983

Ref	Description	Qty
2a	FITTING, 1/2 in. BSPT to 1/2 in. BSPP	1
2b	HOSE, 3/8 in. ID X 6 ft (1.8 m), air/water	1
2c	HOSE, 1/2 in. ID X 6 ft (1.8 m), oil	1
2d	FITTING, 1/4 in. BSPT to 3/8 in. BSPP	1
2e	FITTING, 1/4 in. BSPT to 1/4 in. BSPT	2

**24H833 - NPT, 15 ft (5 m)**

Models: 24H786 - 24H789, 24H952 - 24H955

Ref	Description	Qty
2a	FITTING, union, adapter	1
2b	HOSE, 3/8 in. ID X 6 ft (1.8 m), air/water	1
2c	HOSE, 1/2 in. ID X 15 ft (5 m), oil	1
2d	UNION, swivel	1
2e	FITTING, nipple, short	2

**24H834 - BSPT, 15 ft(5 M)**

Models: 24H794 - 24H797, 24H960 - 24H963

Ref	Description	Qty
2a	FITTING, 1/2 in. BSPT to 1/2 in. BSPP	1
2b	HOSE, 3/8 in. ID X 6 ft (1.8 m), air/water	1
2c	HOSE, 1/2 in. ID X 15 ft (5 m), oil	1
2d	FITTING, 1/4 in. BSPT to 3/8 in. BSPT	1
2e	FITTING, 1/4 in. BSPT to 1/4 in. BSPT	2

**24H835 - BSPP, 15 ft(5 M)**

Models: 24H790 -24H793, 24H956 - 24H959

Ref	Description	Qty
2a	FITTING, 1/2 in. BSPT to 1/2 in. BSPP	1
2b	HOSE, 3/8 in. ID X 6 ft (1.8 m), air/water	1
2c	HOSE, 1/2 in. ID X 15 ft (5 m), oil	1
2d	FITTING, 1/4 in. BSPT to 3/8 in. BSPP	1
2e	FITTING, 1/4 in. BSPT to 1/4 in. BSPT	2

**Grease Models**

**24H672 - NPT**

Models: 24J033, 24J039, 24J045, 24J051, 24J057, 24J063

Ref	Description	Qty
2a	UNION, swivel	1
2b	HOSE, 3/8 in. ID X 6 ft (1.8 m), air/water	1
2c	HOSE, 1/4 in. ID X 6 ft (1.8 m), grease	1
2d	UNION, swivel	1
2e	FITTING, nipple, short	2

**24H673 - BSPT**

Models: 24J035, 24J041, 24J047, 24J053, 24J059, 24J065

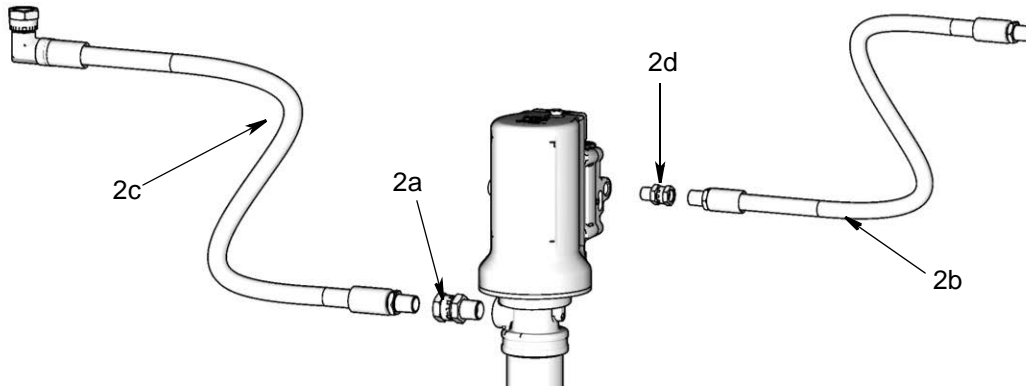
Ref	Description	Qty
2a	FITTING, 1/4 in. BSPP to 1/4 in. BSPT	1
2b	HOSE, 3/8 in. ID X 6 ft (1.8 m), air/water	1
2c	HOSE, 1/4 in. ID X 6 ft (1.8 m), grease	1
2d	FITTING, 1/4 in. BSPT to 3/8 in. BSPP	1
2e	FITTING, 1/4 in. BSPT to 1/4 in. BSPT	2

**24H674 - BSPP**

Models: 24J034, 24J040, 24J046, 24J05, 24J058, 24J064

Ref	Description	Qty
2a	FITTING, 1/4 in. BSPP to 1/4 in. BSPP	1
2b	HOSE, 3/8 in. ID X 6 ft (1.8 m), air/water	1
2c	HOSE, 1/4 in. ID X 6 ft (1.8 m), grease	1
2d	FITTING, 1/4 in. BSPT to 3/8 in. BSPP	1
2e	FITTING, 1/4 in. BSPT to 1/4 in. BSPT	2

**NPT, BSPT, BSPP, Oil, 6 ft (1.8 m), Hose, With Hose Reel, No CE Mark**



**Oil Models**

**24J495 - NPT**

Models: 24H701 - 24H704, 24H725 - 24H728, 24H867 - 24H870, 24H891 - 24H894

Ref	Description	Qty
2a	UNION, swivel	1
2b	HOSE, 3/8 in. ID X 6 ft (1.8 m), air/water	1
2c	HOSE, 1/2 in. X 6 ft (1.8 m), oil hose, NPT	1
2d	FITTING, union, adapter	1

**24J496 - BSPP**

Models: 24H705 - 24H708, 24H729 - 24H732, 24H871 - 24H874, 24H895 - 24H898

Ref	Description	Qty
2a	FITTING, 1/4 in. BSPT to 3/8 in. BSPP	1
2b	HOSE, 3/8 in. ID X 6 ft (1.8 m), air/water	1
2c	HOSE, 1/2 in. X 6 ft (1.8 m), oil hose, BSPP	1
2d	FITTING, 1/2 in. BSPT to 1/2 in. BSPP	1

**24J497 - BSPT**

Models: 24H709 - 24H712, 24H733 - 24H736, 24H875 - 24H878, 24H899 - 24H902

Ref	Description	Qty
2a	FITTING, 1/4 in. BSPT to 3/8 in. BSPP	1
2b	HOSE, 3/8 in. ID X 6 ft (1.8 m), air/water	1
2c	HOSE, 1/2 in. X 6 ft (1.8 m), oil hose, BSPT	1
2d	FITTING, 1/2 in. BSPT to 1/2 in. BSPP	1

**Grease Models**

**24J501 - NPT**

Model: 24J066

Ref	Description	Qty
2a	UNION, swivel	1
2b	HOSE, 3/8 in. ID X 6 ft (1.8 m), air/water	1
2c	HOSE, 1/4 in. X 6 ft (1.8 m), grease hose, NPT	1
2d	UNION, swivel	1

**24J502 - BSPP**

Model: 24J067

Ref	Description	Qty
2a	FITTING, 1/4 in. BSPP to 1/4 in. BSPP	1
2b	HOSE, 3/8 in. ID X 6 ft (1.8 m), air/water	1
2c	HOSE, 1/4 in. X 6 ft (1.8 m), grease hose, BSPP	1
2d	FITTING, 1/4 in. BSPT to 3/8 in. BSPP	1

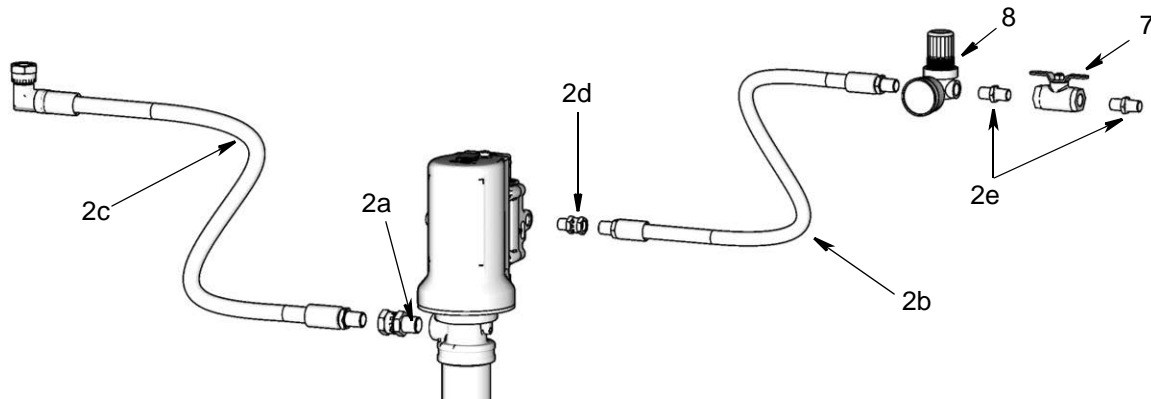
**24J503 - BSPT**

Model: 24J068

Ref	Description	Qty
2a	FITTING, 1/4 in. BSPP to 1/4 in. BSPT	1
2b	HOSE, 3/8 in. ID X 6 ft (1.8 m), air/water	1
2c	HOSE, 1/4 in. X 6 ft (1.8 m), grease hose, BSPT	1
2d	FITTING, 1/4 in. BSPT to 3/8 in. BSPP	1



**NPT, BSPT, BSPP, Oil, 6 ft (1.8 m), Hose, With Hose Reel, CE Mark (part 7 & 8 shown for assembly reference only)**



**Oil Models**

**24J492 - NPT**

Models: 24H713 - 24H716, 24H737 - 24H740, 24H879 - 24H882, 24H903 - 24H906

Ref	Description	Qty
2a	FITTING, union, adapter	1
2b	HOSE, 3/8 in. ID X 6 ft (1.8 m), air/water	1
2c	HOSE, 1/2 in. X 6 ft (1.8 m), oil hose, npt	1
2d	UNION, swivel	1
2e	FITTING, nipple, short	2

**24J493 - BSPP**

Models: 24H717 - 24H720, 24H741 - 24H744, 24H883 - 24H886, 24H907 - 24H910

Ref	Description	Qty
2a	FITTING, 1/2 in. BSPT to 1/2 in. BSPP	1
2b	HOSE, 3/8 in. ID X 6 ft (1.8 m), air/water	1
2c	HOSE, 1/2 in. X 6 ft (1.8 m), oil hose, BSPP	1
2d	FITTING, 1/4 in. BSPT to 3/8 in. BSPP	1
2e	FITTING, 1/4 in. BSPT to 1/4 in. BSPT	2

**24J494 - BSPT**

Models: 24H721 - 24H724, 24H745 - 24H748, 24H887 - 24H890, 24H911 - 24H914

Ref	Description	Qty
2a	FITTING, 1/2 in. BSPT to 1/2 in. BSPP	1
2b	HOSE, 3/8 in. ID X 6 ft (1.8 m), air/water	1
2c	HOSE, 1/2 in. X 6 ft (1.8 m), oil hose, BSPT	1
2d	FITTING, 1/4 in. BSPT to 3/8 in. BSPP	1
2e	FITTING, 1/4 in. BSPT to 1/4 in. BSPT	2

**Grease Models**

**24J498 - NPT**

Model: 24J069

Ref	Description	Qty
2a	UNION, swivel	1
2b	HOSE, 3/8 in. ID X 6 ft (1.8 m), air/water	1
2c	HOSE, 1/4 in. X 6 ft (1.8 m), grease hose, NPT	1
2d	UNION, swivel	1
2e	FITTING, nipple, short	2

**24J499 - BSPP**

Model: 24J070

Ref	Description	Qty
2a	FITTING, 1/4 in. BSPP TO 1/4 in. BSPP	1
2b	HOSE, 3/8 in. ID X 6 ft (1.8 m), AIR/WATER	1
2c	HOSE, 1/4 in. X 6 ft (1.8 m), grease hose, BSPP	1
2d	FITTING, 1/4 in. BSPT TO 3/8 in. BSPP	1
2e	FITTING, 1/4 in. BSPT TO 1/4 in. BSPT	2

**24J500 - BSPT**

Model: 24J071

Ref	Description	Qty
2a	FITTING, 1/4 in. BSPP to 1/4 in. BSPT	1
2b	HOSE, 3/8 in. ID X 6 ft (1.8 m), air/water	1
2c	HOSE, 1/4 in. X 6 ft (1.8 m), grease hose, BSPT	1
2d	FITTING, 1/4 in. BSPT to 3/8 in. BSPP	1
2e	FITTING, 1/4 in. BSPT to 1/4 in. BSPT	2

# Technical Data

**Pump** - Pump Technical Data is provided in the LD Series Oil and Grease Pump instruction manual included with pump.

**Hose Reel** - Hose reel Technical Data is provided in the LD Series Enclosed Hose Reels instruction manual included with hose reel.

**Meter** - Meter Technical Data is provided in the LDM5 Standard and LDP5 (Preset) Electronic Metered Dispense Valves instruction manual included with meter.

**Grease Gun** - Grease gun Technical Data is provided in the Pro-Shot Grease Dispense Valve instruction manual included with grease gun.

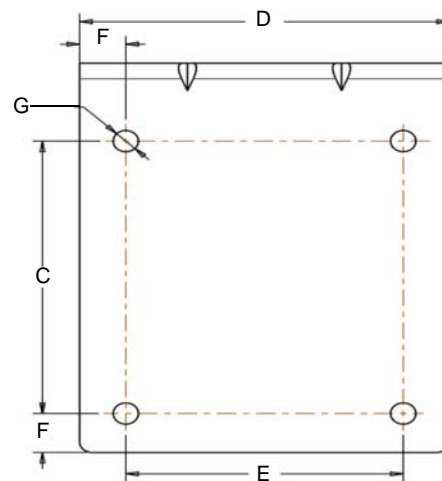
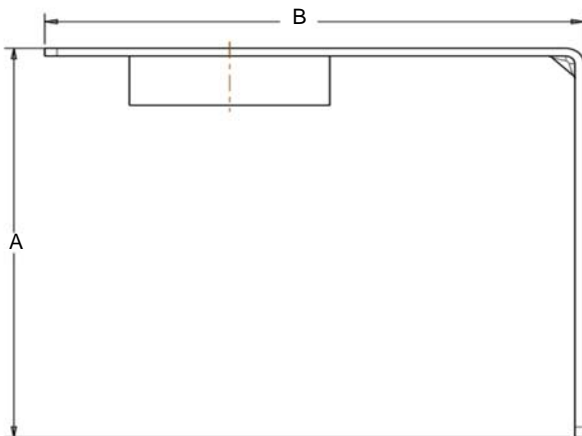
**Air Regulator** - Air Regulator Technical Data is provided in the Air Regulators instruction manual included with air regulator.

## Wall Bracket: 24F910

Pump mounting thread	2 in.-11 1/2 NPT
Maximum allowed weight	8 pounds (3.6 kg)

### Dimensions

- A 6 in. (150 mm)
- B 6.8 in. (175 mm)
- C 4.1 in. (105 mm)
- D 4.7 (120 mm)
- E 3.5 in. (90 mm)
- F 0.6 in. (15 mm)
- G 4 x 0.3 in. (4 x 8.2 mm)



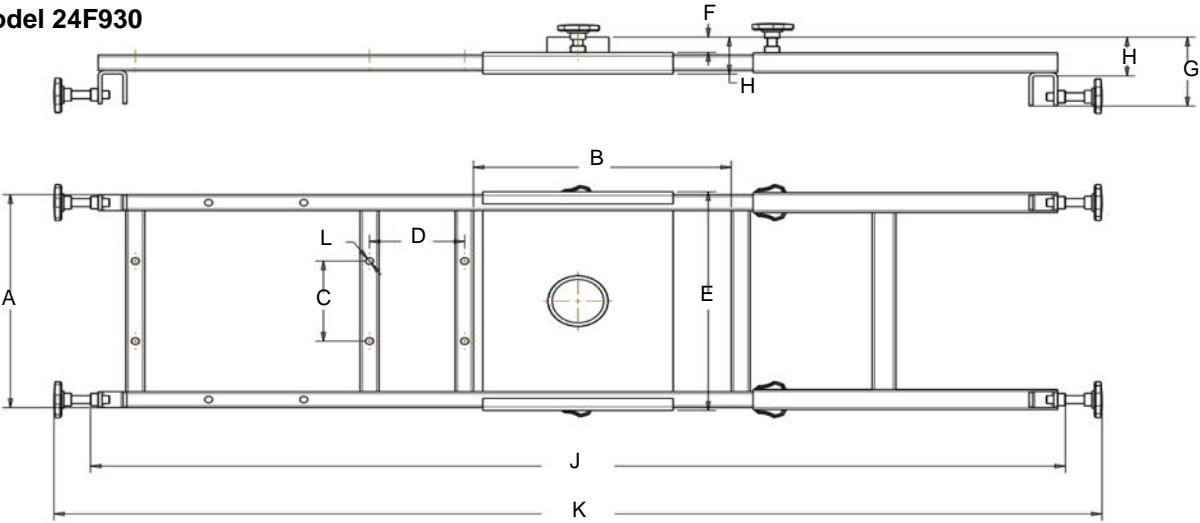
# IBC Tote Bracket: 24F930, 24F931

Pump mounting thread	2 in.- 11 1/2 NPT
Reel base mounting pattern	4 in. x 4 in. x 0.3 in. (100 mm x 100 mm x 8.5 mm)

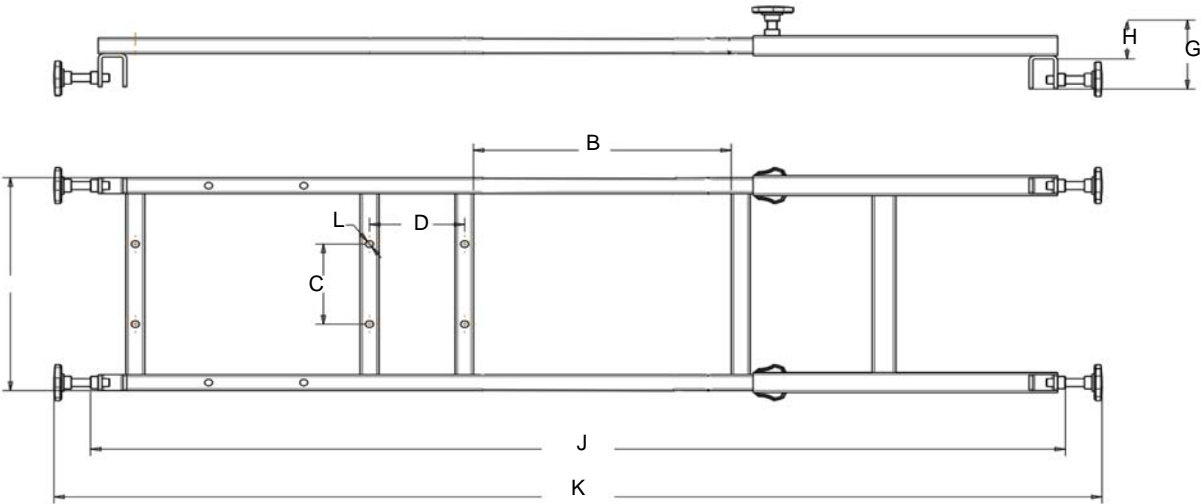
### Dimensions

- A 10.5 in. (266 mm)
- B 10.7 in. (271 mm)
- C 4 in. (100 mm)
- D 4 in. (100 mm)
- E 10.75 in. (273 mm)
- F 0.7 in. (19 mm)
- G 1.8 in. (46 mm)
- H 1.9 in. (48.5 mm)
- J Minimum to Maximum: 40 in. - 49.2 in. (1020 - 1250 mm)
- K Minimum to Maximum: 42 in. - 51.2 in. (1070 - 1300 mm)
- L 4 x 0.3 in. (4 x 8.2 mm)

**Model 24F930**



**Mo**

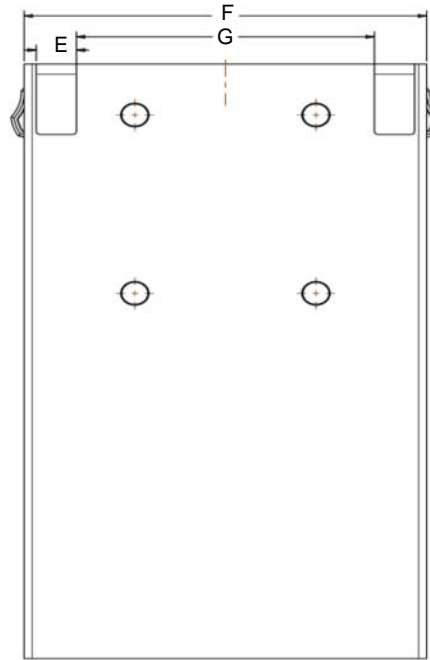
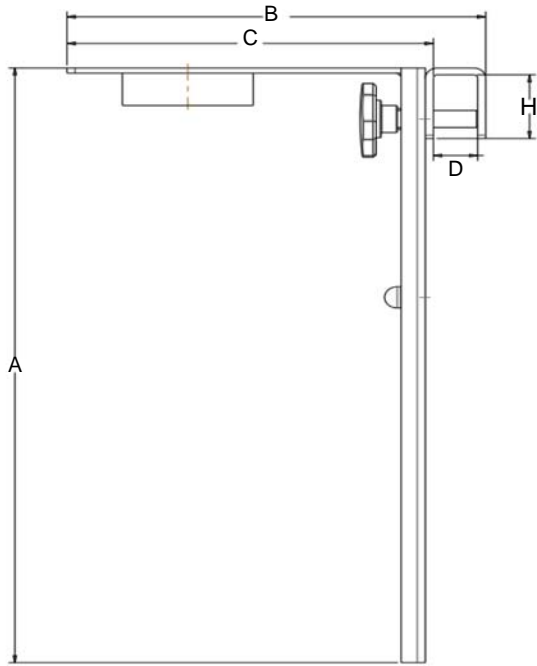


**IBC Tote Pump Bracket: 24F920 (includes 24F910)**

Pump mounting thread	2 in.-11 1/2 NPT
Maximum allowed weight	8 pounds (3.6 kg)

**Dimensions**

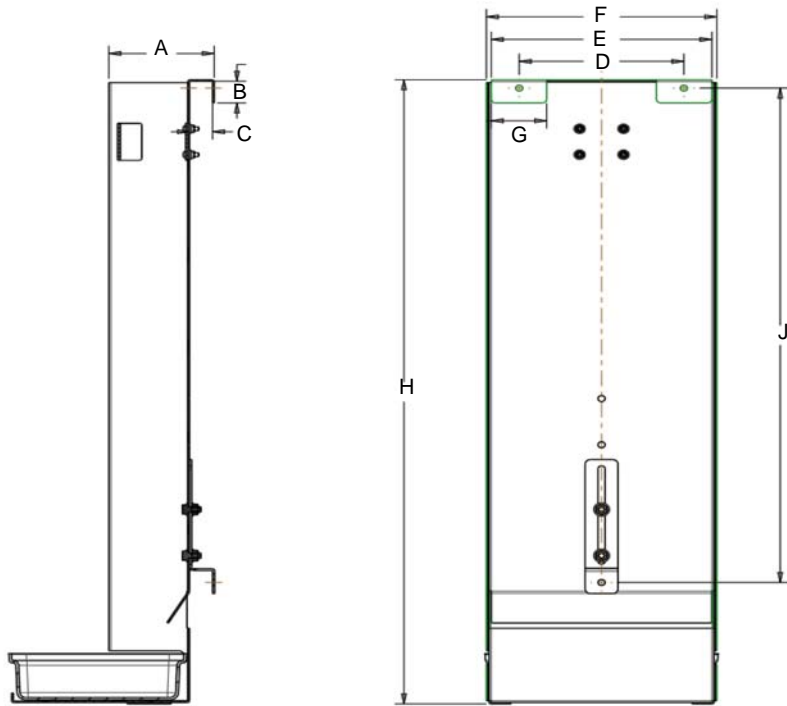
- A 13.7 in. (350 mm)
- B 8 in. (208 mm)
- C 7 in. (182 mm)
- D 2 x 0.8 in. (2 x 22 mm)
- E 2 x 0.75 in. (2 x 20 mm)
- F 7.8 in. (200 mm)
- G 5.8 in. (148 mm)
- H 2 x 1.4 in. (2 x 37.5mm)



**Meter Tray: 24F914**

**Dimensions**

- A 3.7 in. (96 mm)
- B 2 x 1 in. (2 x 23.5mm)
- C 2 x 0.8 in. (2 x 21 mm)
- D 6 in. (150 mm)
- E 8 in. (201 mm)
- F 8.25 in. (210 mm)
- G 2 x 2 in. (2 x 50.5 mm)
- H 26.5 in. (675.5mm)
- J 21 in. (535 mm)



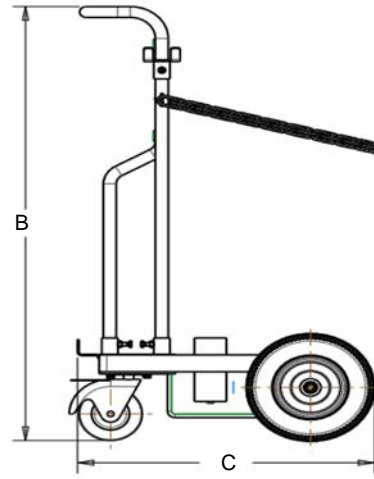
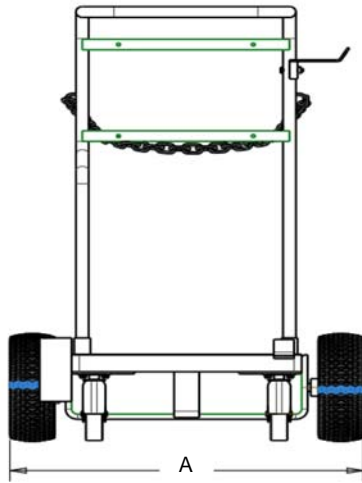
## Cart 120 pound (55 kg)

Weight capacity	200 pounds (90.7 kg)
Cart weight	38.5 pounds (17.5 kg)

### Dimensions

- A 27.5 in. (700 mm)
- B 40.2 in. (1022 mm)
- C 23 in. (588 mm)

### 120 pound (55 kg)



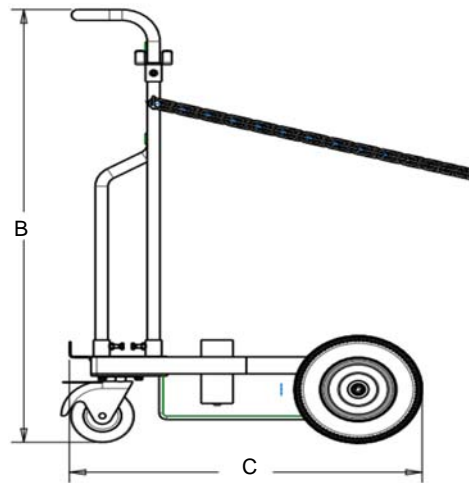
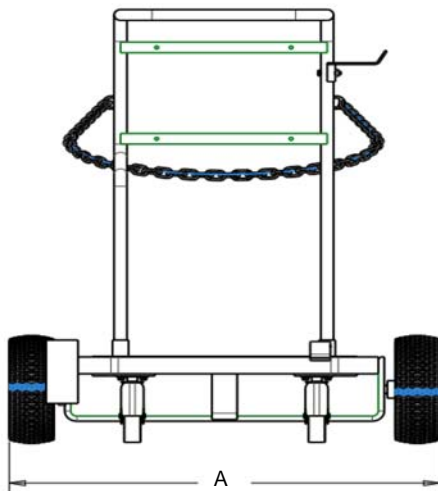
## Cart 400 pound (180 kg)

Weight capacity	500 pounds (226.8 kg)
Cart weight	48.5 pounds (22 kg)

### Dimensions

- A 33.6 in. (854 mm)
- B 40.2 in. (1022 mm)
- C 27.5 in. (700 mm)

### 400 pound (180 kg)



## Fluid Hose Kits (2)

Air line component wetted materials	Zinc plated carbon steel, nickel plated brass, buna-n rubber
Air line max working pressure with ball valve and regulator	150 psi (1.03 MPa, 10.3 bar)
Air line max working pressure without ball valve and regulator	300 psi (20.6 MPa, 206.8 bar)
Oil line max working pressure	2000 psi (137 MPa, 13.7 bar)
Grease line max working pressure	5000 psi (344.7 MPa, 34.4 bar)
Oil or grease line component wetted materials	Zinc plated carbon steel, buna-n rubber

## Suction Kits (3)

Hose connection	1 in. (NPT, BSPT, BSPP)
Hose length	6.5 ft. (2000 mm)
Suction tube OD	2 in. (54 mm)
Suction tube length	3 ft. / 35 ft. (885 mm / 1070 mm)
Inlet housing	Compatible with thermal relief
Working pressure	Suction only
Wetted materials	Aluminum, zinc plated carbon steel, zinc plated spring steel, chrome alloy steel, aluminum alloy, poly vinyl chloride

# 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.

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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 3A1335

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**International Offices:** Belgium, China, Japan, Korea

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**4/2011 Revised October 2015**