

# Instructions – Parts List



## Series 250 Hose Reels 308899 Rev.M

Used to dispense lubrication products, air, water, transmission fluid, antifreeze and windshield washer solvent.

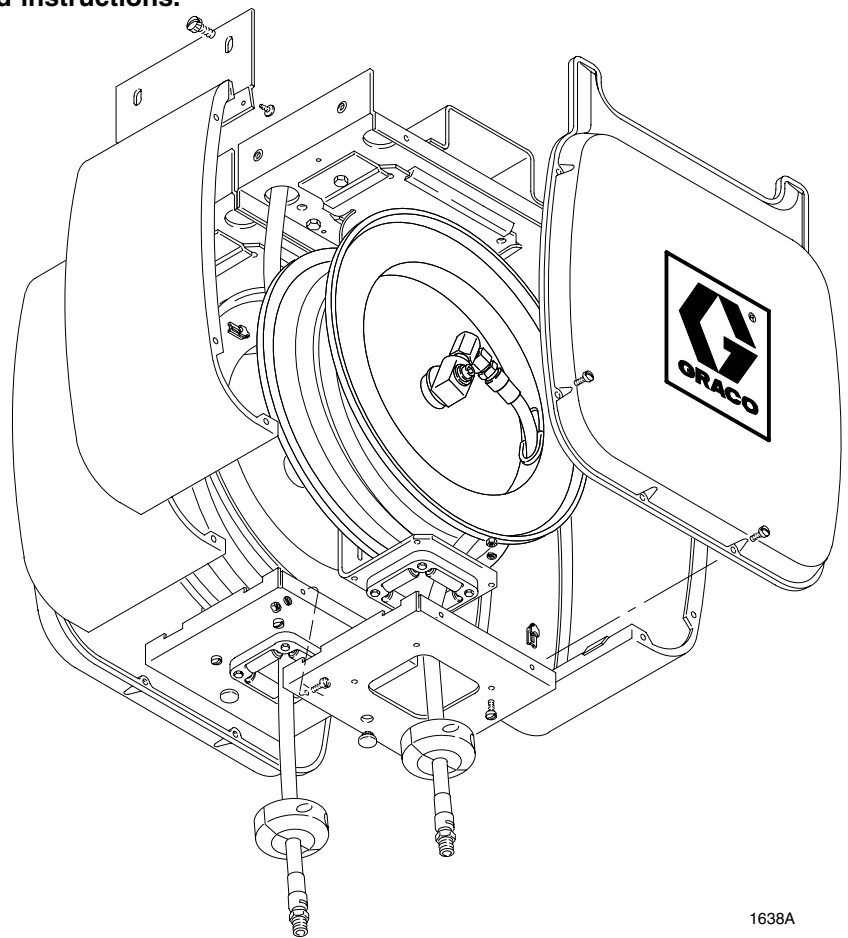
See pages 5–7 for Hose Reel Part Nos., descriptions, and maximum working pressure information.

These hose reels are for stationary mountings only.

250 Series Hose Reels are direct replacements for 200 Series Hose Reels.



**Read warnings and instructions.**  
Keep for reference.



1638A

PROVEN QUALITY. LEADING TECHNOLOGY.

GRACO INC. P.O. BOX 1441 MINNEAPOLIS, MN 55440-1441  
Copyright 1998, Graco Inc. is registered to I.S. EN ISO 9001



# Table of Contents

Warnings .....	3
Hose Reels and Reel Assemblies .....	5
Table of Series 250 Open Hose Reels .....	6
Table of Series 250 Enclosed Hose Reels .....	7
Installation .....	8
Maintenance .....	15
Service .....	17
Parts Drawings and Lists	
Low-Pressure Hose Reels, Model Nos. 240956, 240958, 240959 .....	18
Medium-Pressure Hose Reels, Model No. 240963 .....	20
High-Pressure Hose Reels, Model No. 240967 .....	22
Side Enclosure Kit 218546 .....	24
End Enclosure Kit 218548 .....	24
Hose Inlet Kit 224417 .....	25
Hose Inlet Kit 218549 .....	25
Mounting Accessories .....	26
Dimensions .....	28
Technical Data .....	29
Graco Standard Warranty .....	30
Graco Information .....	30



## WARNING

These hose reels are designed to dispense lube products, air, water, transmission fluid, antifreeze, and wind-shield washer solvent only. Any other use of these hose reels can cause unsafe operating conditions and result in component rupture, fire, or explosion, which could cause bodily injury, including fluid injection.

# Symbols

## Warning Symbol



This symbol alerts you to the possibility of serious injury or death if you do not follow the instructions.

## Caution Symbol



This symbol alerts you to the possibility of damage to or destruction of equipment if you do not follow the instructions.

## ! WARNING



### INJECTION HAZARD

Fluid from the dispensing valve, leaks, or ruptured components can inject fluid into your body and cause extremely serious injury, including the need for amputation. Fluid splashed in the eyes or on the skin can also cause serious injury.

- Fluid injected into the skin might look like a minor cut, but it is a serious injury. **Seek immediate surgical treatment.**
- Do not point the dispensing valve at anyone or at any part of the body.
- Do not put your hand or fingers over the dispensing valve nozzle.
- Do not stop or deflect leaks with your hand, body, glove, or rag.
- Follow the **Pressure Relief Procedure** on page 15 if the dispensing valve clogs and before cleaning, checking, or servicing the equipment.
- Tighten all fluid connections before operating the equipment.
- Check the hoses, tubes, and couplings daily. Replace worn or damaged parts immediately. Do not repair medium- or high-pressure couplings; you must replace the entire hose.
- Do not attempt to force lubricant into a fitting. If the lubricant is not flowing, stop dispensing immediately; the fitting may be clogged.



### FIRE AND EXPLOSION HAZARD

Improper grounding, poor ventilation, open flames, or sparks can cause a hazardous condition and result in a fire or explosion and serious injury.

- Be sure the entire fluid system is properly grounded. The hoses supplied with these hose reels are electrically conductive. The hose reel is grounded by connecting electrically conductive supply hoses to a properly grounded system. Refer to your pump instruction manual for complete details.
- If there is any static sparking or you feel an electric shock while using this equipment, **stop dispensing immediately.** Do not use the equipment until you identify and correct the problem.
- Provide fresh air ventilation to avoid the buildup of flammable fumes from solvents or the fluid being dispensed.
- Keep the dispensing area free of debris, including solvent, rags, and spilled gasoline.
- Do not smoke while dispensing flammable fluids.

# WARNING



## TOXIC FLUID HAZARD

Hazardous fluid or toxic fumes can cause serious injury or death if inhaled, swallowed, splashed in the eyes, or splashed on the skin.

- Know the specific hazards of the fluid you are using.
- Store hazardous fluid in an approved container. Dispose of hazardous fluid according to all local, state, and national guidelines.
- Always wear protective eyewear, gloves, clothing, and a respirator as recommended by the fluid and solvent manufacturer.



## HOSE REEL SPRING HAZARD

The spring, which is located behind the flange, is always under great tension and could be propelled from the lower flange with enough force to cause serious injury.

To reduce the risk of serious injury:

- Do not attempt to remove spring from flange.
- Do not attempt to replace or service the hose reel spring.



INSTRUCTIONS

## EQUIPMENT MISUSE HAZARD

Equipment misuse can cause the equipment to rupture or malfunction and result in serious injury.

- This equipment is for professional use only.
- Read all instruction manuals, tags, and labels before operating the equipment.
- Use the equipment only for its intended purpose. If you are not sure, call your Graco distributor.
- Do not alter or modify this equipment. Use only genuine Graco parts and accessories. Use only extensions that are designed for use with your dispensing valve. Modifying parts can cause a malfunction and result in serious bodily injury.
- Check equipment daily. Repair or replace worn or damaged parts immediately.
- Do not exceed the maximum working pressure of the lowest rated system component. The tables on pages 6 and 7 give the maximum working pressures of the assemblies. The maximum working pressure of your hose reel assembly is indicated on the hose reel identification plate on the reel base. See also the **Technical Data** section on page 29.
- Use fluids and solvents that are compatible with the equipment wetted parts. Refer to the **Technical Data** section of all equipment manuals. Read the fluid and solvent manufacturer's warnings.
- Do not use hoses to pull equipment.
- Route hoses away from traffic areas, sharp edges, moving parts, and hot surfaces. Do not expose hoses to temperatures above 82°C (180°F) or below -40°C (-40°F).
- Do not lift pressurized equipment.
- Comply with all applicable local, state, and national fire, electrical, and safety regulations.
- If you are adding a service hose and dispensing valve to a bare hose reel, be sure you know the maximum working pressure of all the components.
- Never use a low-pressure flexible extension designed for low-pressure dispensing valves or hand-powered lubricating equipment on a medium- or high-pressure dispensing valve.

# Hose Reels and Reel Assemblies

## Basic Hose Reel Assemblies

These assemblies include a bare reel, supply hose, hose inlet kit (page 25), and hose stop kit. There are three types of basic hose reel assemblies:

- Low-pressure, for air and water. See page 18.  
180 psi (1.2 MPa, 12 bar) maximum working pressure.

**NOTE:** Low-pressure hose reel assemblies are designed to be corrosion-resistant, for longer product life, when used with water, anti-freeze solutions (ethylene glycol or propylene glycol), and windshield wash solutions (typically methyl alcohol diluted with water).

- Medium-pressure, for oil and light lubricants. See page 20.  
1800 psi (12 MPa, 124 bar) maximum working pressure.
- High-pressure, for grease. See page 22.  
5000 psi (34 MPa, 345 bar) maximum working pressure.

## Open Hose Reel Dispensing Assemblies

These assemblies include a basic hose reel assembly and a dispensing valve option. Some models include an electronically metered dispensing valve. See the table on page 6.

## Enclosed Hose Reel Dispensing Assemblies

These assemblies include an open hose reel assembly, Side Enclosure Kit 218546 (page 24), and a dispensing valve option. Some models include an electronically metered dispensing valve. End Enclosure Kit 218548 (page 24) must be purchased separately—one kit per bank of reels. See the table on page 7.

## Metric conversions for hoses are as follows:

1/4 in. ID x 35 ft (6 mm x 11.5 m)  
1/4 in. ID x 40 ft (6 mm x 12.2 m)  
3/8 in. ID x 40 ft (10 mm x 12.2 m)  
1/2 in. ID x 25 ft (12 mm x 7.6 m)

# Table of Series 250 Open Hose Reels

Hose reel assemblies with parts lists in this manual have their page numbers listed in the **Model No.** column.

Type of Service	Model No.	Hose	Dispensing or Control Valve	Meter	Maximum Working Pressure
CHASSIS GREASE	<b>218443</b>	1/4 in. ID x 35 ft	242056	None	5000 psi
	<b>240967</b> page 23	1/4 in. ID x 35 ft	None	None	5000 psi
OIL & LIGHT LUBRICANTS	<b>240963</b> page 21	1/2 in. ID x 25 ft	None	None	1800 psi
MOTOR OIL	<b>223147</b>	1/2 in. ID x 25 ft	238461	g/q/p electronic	1000 psi
ATF	<b>223149</b>	1/2 in. ID x 25 ft	238462	g/q/p electronic	1000 psi
GEAR LUBE	<b>218453</b>	1/2 in. ID x 25 ft	222412	None	1500 psi
	<b>223151</b>	1/2 in. ID x 25 ft	238463	g/q/p electronic	1000 psi
AIR or WATER	<b>240956</b> page 19	1/2 in. ID x 25 ft	None	None	180 psi
	<b>240958</b> page 19	1/4 in. ID x 40 ft	None	None	180 psi
	<b>240959</b> page 19	3/8 in. ID x 40 ft	None	None	180 psi
AIR	<b>224846</b>	1/4 in. ID x 40 ft	218544	None	180 psi
	<b>224847</b>	3/8 in. ID x 40 ft	218545	None	180 psi
	<b>224848</b>	1/2 in. ID x 25 ft	218544, with 159842 bushing (1/4 npt(m) x 1/2 npt(f) )	None	180 psi
WATER	<b>224930</b>	1/4 in. ID x 40 ft	180685	None	180 psi
	<b>224931</b>	3/8 in. ID x 40 ft	180685, with 150287 bushing (1/4 npt(m) x 3/8 npt(f) )	None	180 psi
	<b>224932</b>	1/2 in. ID x 25 ft	180685, with 159842 bushing (1/4 npt(m) x 1/2 npt(f) )	None	180 psi

# Table of Series 250 Enclosed Hose Reels

These enclosed hose reel assemblies include Side Enclosure Kit 218546 (shown on page 24).  
For each bank of reels, order one End Enclosure Kit 218548 (also shown on page 24).

Type of Service	Model No.	Hose	Dispensing or Control Valve	Meter	Maximum Working Pressure
CHASSIS GREASE	<b>218429</b>	1/4 in. ID x 35 ft	242056	None	5000 psi
MOTOR OIL	<b>220483</b>	1/2 in. ID x 25 ft	None	None	1800 psi
	<b>223131</b>	1/2 in. ID x 25 ft	238461	g/q/p electronic	1000 psi
ATF	<b>223133</b>	1/2 in. ID x 25 ft	238462	g/q/p electronic	1000 psi
GEAR LUBE	<b>218437</b>	1/2 in. ID x 25 ft	222412	None	1500 psi
	<b>223135</b>	1/2 in. ID x 25 ft	238463	g/q/p electronic	1000 psi
AIR or WATER	<b>224837</b>	1/4 in. ID x 40 ft	None	None	180 psi
	<b>224838</b>	3/8 in. ID x 40 ft	None	None	180 psi
	<b>224839</b>	1/2 in. ID x 25 ft	None	None	180 psi
AIR	<b>224840</b>	1/4 in. ID x 40 ft	218544, with 159842 bushing (1/4 npt(m) x 1/2 npt(f) )	None	180 psi
	<b>224841</b>	3/8 in. ID x 40 ft	218545	None	180 psi
	<b>224842</b>	1/2 in. ID x 25 ft	218545	None	180 psi
WATER	<b>224843</b>	1/4 in. ID x 40 ft	180685	None	180 psi
	<b>224844</b>	3/8 in. ID x 40 ft	180685, with 150287 bushing (1/4 npt(m) x 3/8 npt(f) )	None	180 psi
	<b>224845</b>	1/2 in. ID x 25 ft	180685, with 159842 bushing (1/4 npt(m) x 1/2 npt(f) )	None	180 psi

# Installation

## ⚠ CAUTION

Be sure the mounting surface is strong enough to support the reels, the weight of the lubricants, and the stress caused by hard pulls on the service hoses. See page 29 for the dry weights of the hose reel assemblies.

### Mounting the Hose Reel(s)

1. **Select the reel bank mounting location.** If the ceilings are very high, suspend a suitable support structure for the reels, so the hoses will be long enough to reach your service area.

In a one-lift service bay, mount the reel bank at least 6 ft (1.9 m) from the center line of the lift. In a two-lift service bay, mount the reel bank so it is centered between the lifts. See Fig. 1.

A bank of all motor oil reels should be mounted about 5 ft (1.5 m) forward from the center line of the lift. See Fig. 1.

A mounting bracket to secure the mounting base to an I-beam is available. See **Mounting Accessories** on page 26.

2. **If you are NOT installing a hose reel enclosure,** order the Reel Mounting Base parts listed on page 26, and install the mounting channel (303) and base plate (304) as shown in Fig. 2.

**If you are installing the hose reel enclosure** (see **Side and End Enclosure Kits** on page 24 ), bolt the reel base (103) to the mounting channel (303) using the lockwashers (305) and screws (301) that are supplied with the mounting channel. See Fig. 6.

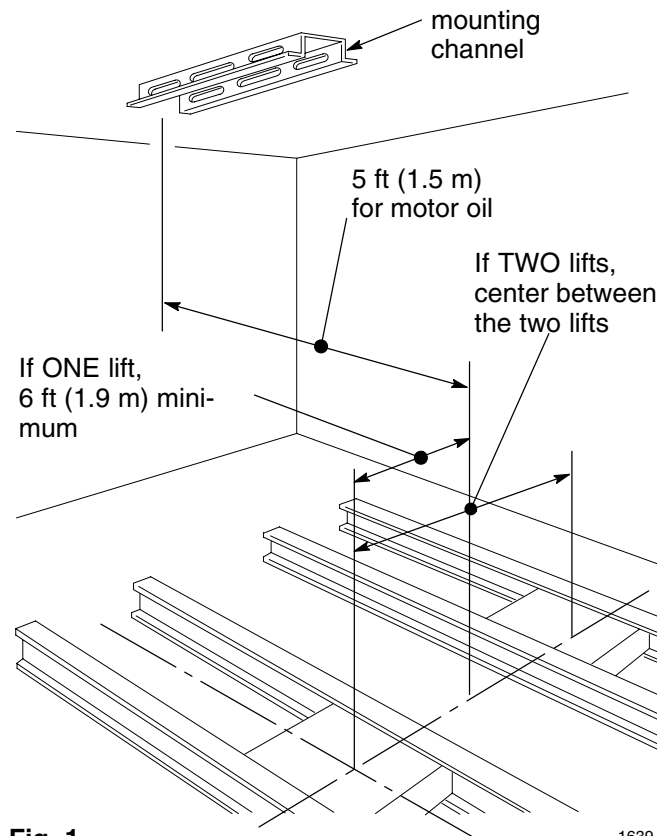


Fig. 1

1639

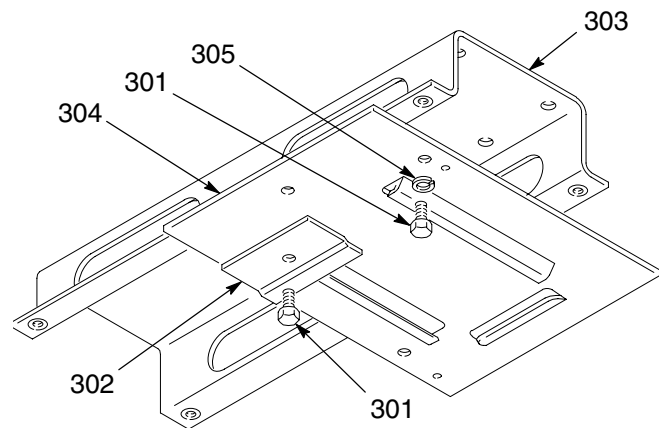


Fig. 2

1640A



# Installation

3. **Determine the desired position of the roller support arm (37).**

- The hose reel is factory-assembled and shipped with the roller support arm (37) in position AA. If position AA or BB is desired, continue with step 4. See Fig. 3.
- If the desired roller support arm (37) position is CC, DD, EE, or FF, rotate the ratchet (31) counter-clockwise one screw hole (60°). This will assure retraction when the hose is at maximum extension. See Fig. 4.

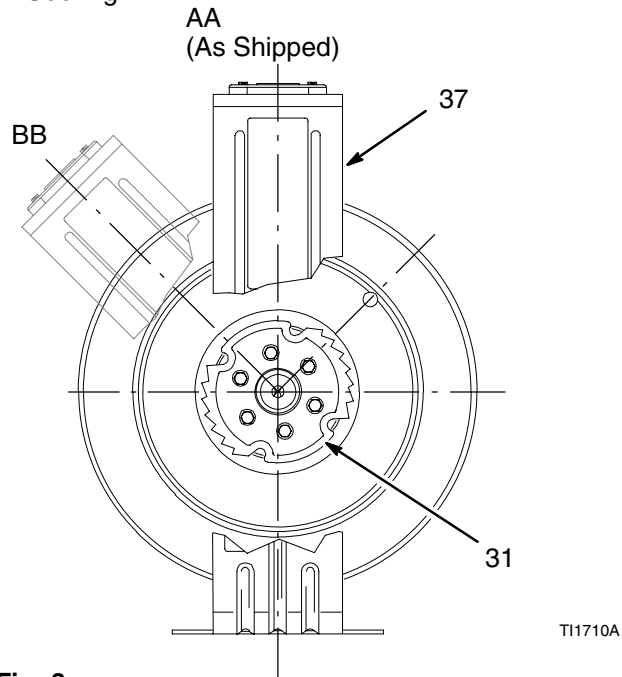


Fig. 3

4. **Slide the hose reel onto the mounting base, and install the hold-down plate (104 or 302) and capscrew (105 or 301). Tighten the screw firmly. See Fig. 6.**

5. **If you are installing permanent supply lines, drill 1.5 in. (38 mm) diameter holes through the ceiling toward the inlet side of the reels.**

6. **Connect the supply line to the inlet hose of the reel.**

**NOTE:** All hose reels listed in this manual *that come with hoses* also come with a Hose Inlet Kit. See **Hose Inlet Kits** on page 25.

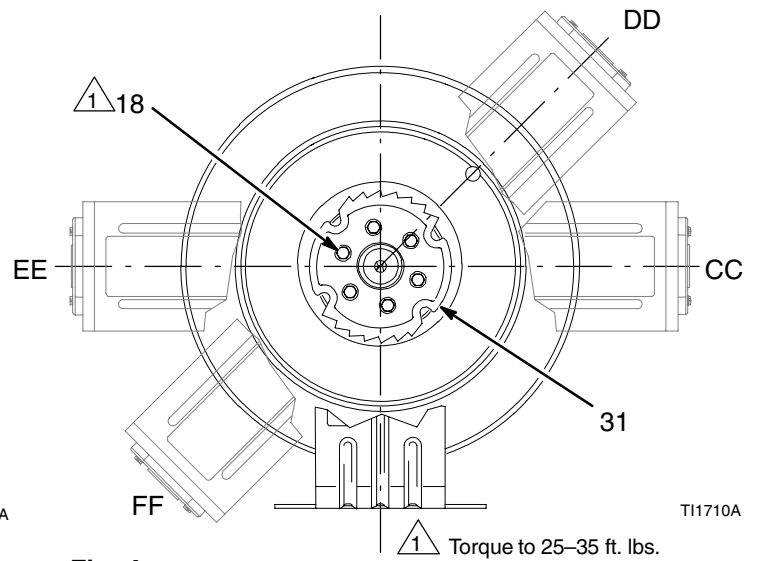


Fig. 4

# Installation

## 7. Adjust the spring tension of the reel.

Hose Reels shipped with hoses come from the factory with the tension pre-set for a typical installation. To adjust for more or less tension, see page 12.

Wearing heavy gloves, firmly grasp the outside edge of the reel flange (26) with both hands. See Fig. 5. Wind the reel the proper number of turns, rotating it in the direction shown in Fig. 5, and stop only at latching locations. Stop the reel where there is access to the hose swivel (34) (see Fig. 6) and where the reel is securely latched.

### WARNING

Always wear heavy gloves when you adjust the spring tension to protect your hands from being cut on the hose reel.

Check the spring tension; the hose must pull out fully and retract fully. Wrap ONE more loop, extend the hose, and latch it. Do this as many times as necessary until the spring has the desired tension.

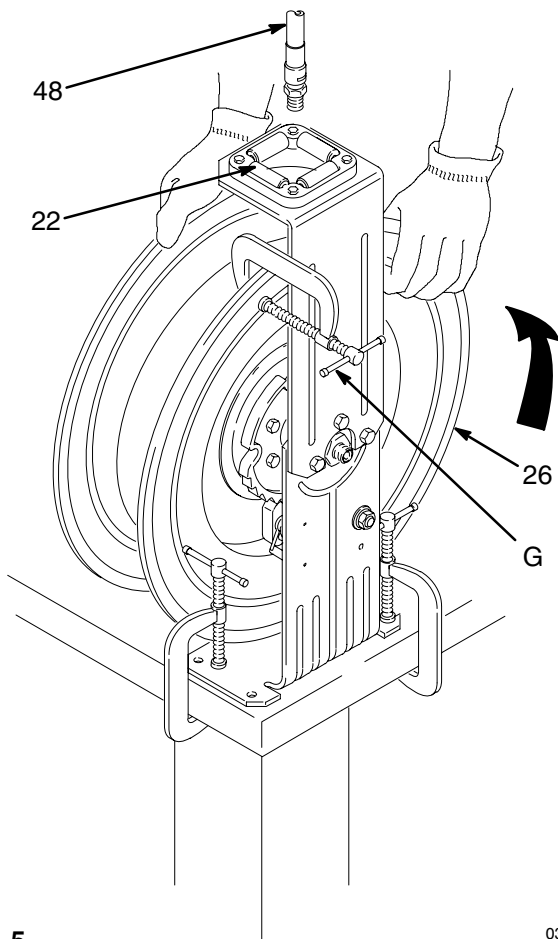


Fig. 5

03723B

## 8. Install the hose stop (45) and dispensing valve. Position the hose stop so the hose extends far enough for all operators to reach it.

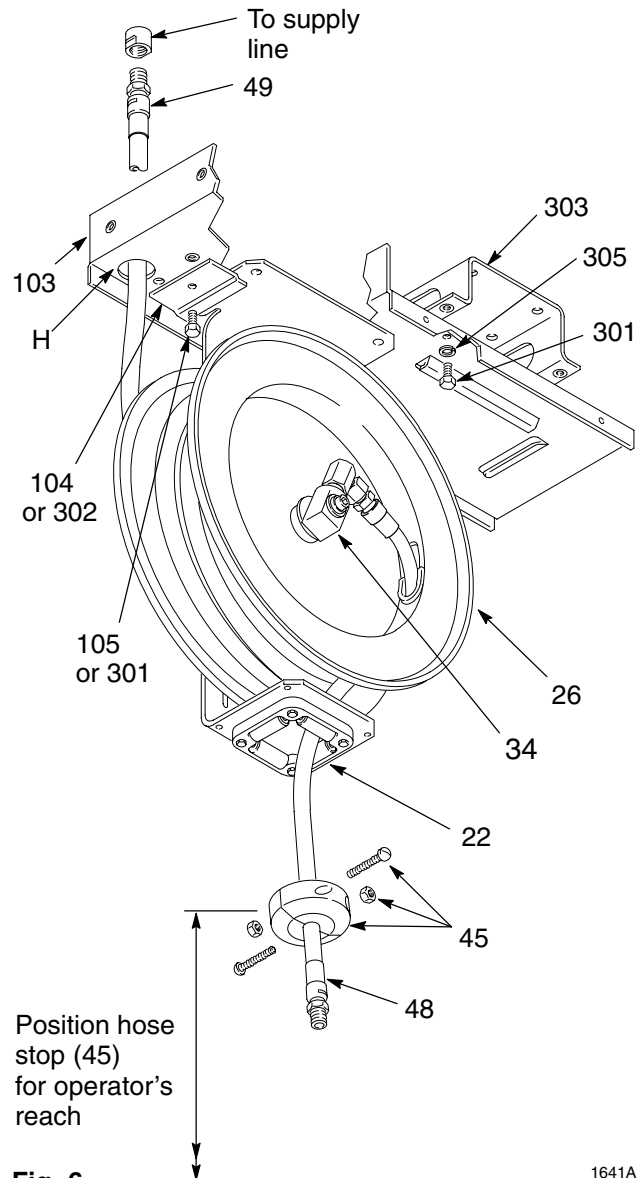


Fig. 6

1641A

# Installation

## Ceiling Mounting Directly to an I-Beam

The reel base has slots (A) to allow two screws to be started before mounting the reel to the support. Using the template (B) provided, drill holes in the I-Beam (C). See Fig. 7.

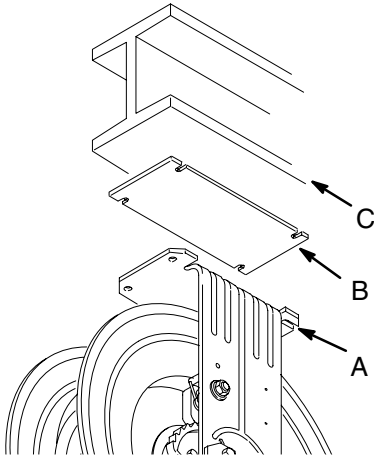


Fig. 7

03719A

## Ceiling Mounting to an I-Beam Without Drilling Holes (See mounting bracket (D) in **Mounting Accessories** on page 26.)

1. Secure two accessory mounting brackets (D) as shown in Fig. 8. Use two mounting brackets for each 1- to 3-capacity mounting channel (303).
2. Position the adjustable clamps (E) of the mounting brackets (D) over the I-Beam (C), and tighten them securely. See Fig. 8.

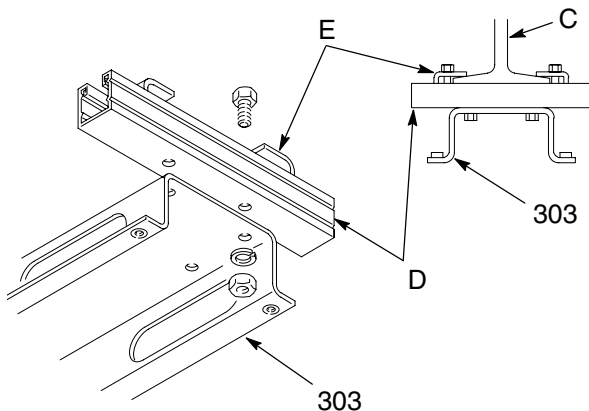


Fig. 8

1655

3. Slide the hose reel onto the base plate (304). Install the hold-down plate (302) and capscrew (301). Tighten the screw firmly. See Fig. 9.

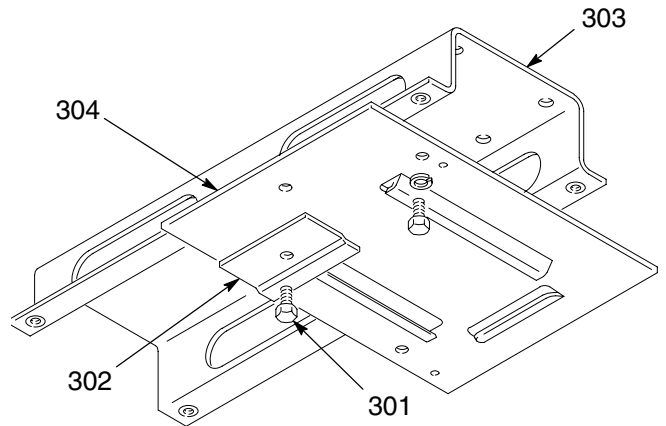


Fig. 9

1640A

## Wall Mounting

1. Select the reel bank mounting location. Mount the reel to a wall, using the provided template (B) for laying out the holes you drill.

You *can* mount an accessory base plate (304) to the wall for easier removal of the hose reel for servicing. See Fig. 10.

2. Slide the hose reel onto the base plate (304) and install the hold-down plate (302) and capscrew (301). Tighten the screw firmly. See Fig. 10.

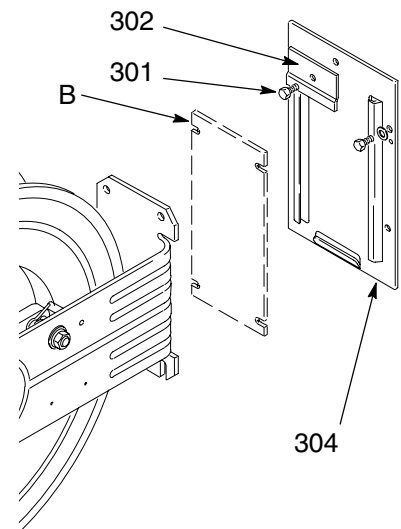


Fig. 10

03720A

# Installation

## Adjusting Spring Tension

### **WARNING**

Always wear heavy gloves when you adjust the spring tension to protect your hands from being cut on the hose reel.

Adjust the spring tension in a hose reel assembly that is already mounted as follows:

1. Pull the hose out several feet, and engage the latch.
2. Increase or decrease spring tension as follows:
  - **To increase spring tension**, pull some of the slack hose in through the rollers, and wrap a loop of hose around the reel flange.

- **To decrease spring tension**, unwrap a loop of hose from the reel flange, and pull the slack out through the rollers.

3. Check the spring tension; the hose must pull out fully and retract fully. Wrap or unwrap more loops, one at a time, until the spring has the desired tension.

**NOTE:** Do not put so many loops onto the reel that the spring winds up tightly before the hose is fully extended. Remove loops to decrease tension.

### **CAUTION**

A spring that is wound too tightly prevents the hose from getting pulled out all the way, which puts excessive strain on the hose and reel spring and could damage the reel.

# Installation

## Installing the Hose Reel Enclosures

(See Fig. 11.)

**NOTE:** Enclosed hose reels are supplied only with side enclosures. Order one end enclosure kit for each reel bank.

1. Secure the hose reel cap (102) to the hose reel support (10) using the screws (106), lockwashers (112), and nuts (111) as shown. See Fig. 11 for correct positioning. Push the button plug (109) into the hole in the cap (102).
2. For more than one reel, bolt the caps together as shown.
3. Noting the correct position, secure the black trim plate (108) to the side panel (101) using the machine screws (110) as shown.
4. Hook the lips of the side enclosures onto the cap (102), and secure the enclosures with the thumb-screws (107).
5. Attach the end enclosures (201) using screws (203) and spring nuts (204) as shown.

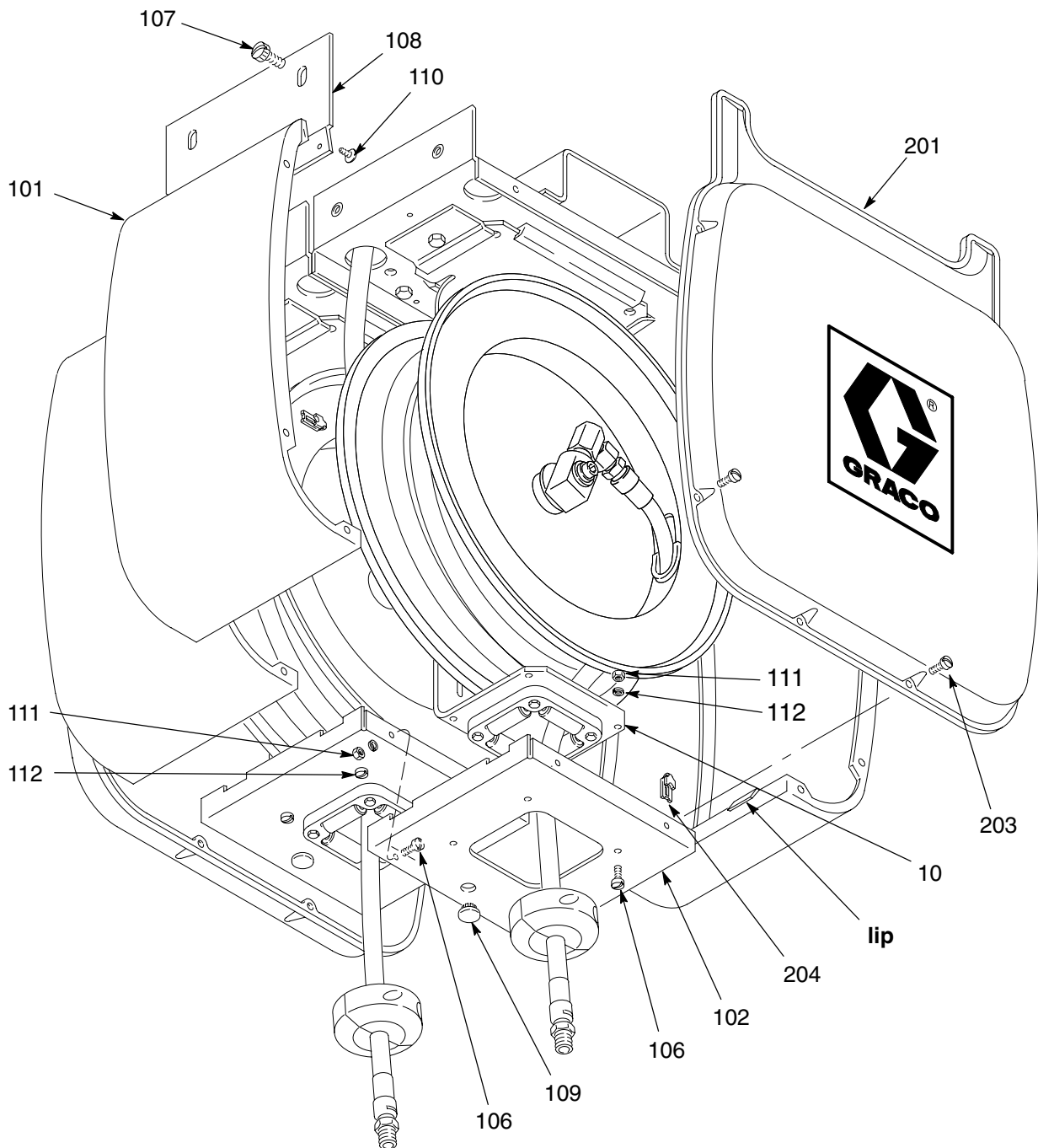


Fig. 11

1638A

# Installation

## Installing a Hose on a Bare Reel

1. Locate the length and size of your hose in the chart below. Note how many times you must turn the reel to properly adjust the spring tension.

Hose Length	No. of Reel Turns
40 ft (12.2 m) air/water	13
35 ft (10.7 m) grease	12
25 ft (7.6 m) oil	10
25 ft (7.6 m) air/water	10

2. Place a piece of tape on the side of the reel flange to use as a visual reference to help you count the number of reel turns.

### WARNING

Always wear heavy gloves when you adjust the spring tension to protect your hands from being cut on the hose reel.

3. Wearing heavy gloves, firmly grab the outside edge of the reel flange with both hands. See Fig. 12. Wind the reel the proper number of turns, rotating it in the direction shown in Fig. 12, and stop only at latching locations. Stop the reel where there is access to the hose swivel (34) (see Fig. 13) and where the reel is securely latched.
4. Before you install the hose, attach a C-clamp (G) to the reel flange to help prevent the reel from unintentionally becoming unlatched and spinning freely. See Fig. 12.

### WARNING

Never allow the reel to spin freely. Doing so causes the hose to spin out of control, which could cause serious injury if you are hit by the hose.

5. Uncoil and extend the hose, attach the hose (48) to the hose reel swivel (34), and carefully remove the C-clamp. See Fig. 13.

**NOTE:** The reel base (103) has two holes (H). Run the inlet hose through either hole, depending on the orientation of the hose reel. See Fig. 6 on page 10.

6. Pull the hose hard enough to release the latch, slowly allow the hose to retract until a few feet of hose sticks out through the rollers, and latch the reel.
7. Assemble the hose stop (45), and position it so the hose extends far enough for all operators to reach the dispensing valve. See Fig. 6 on page 10.

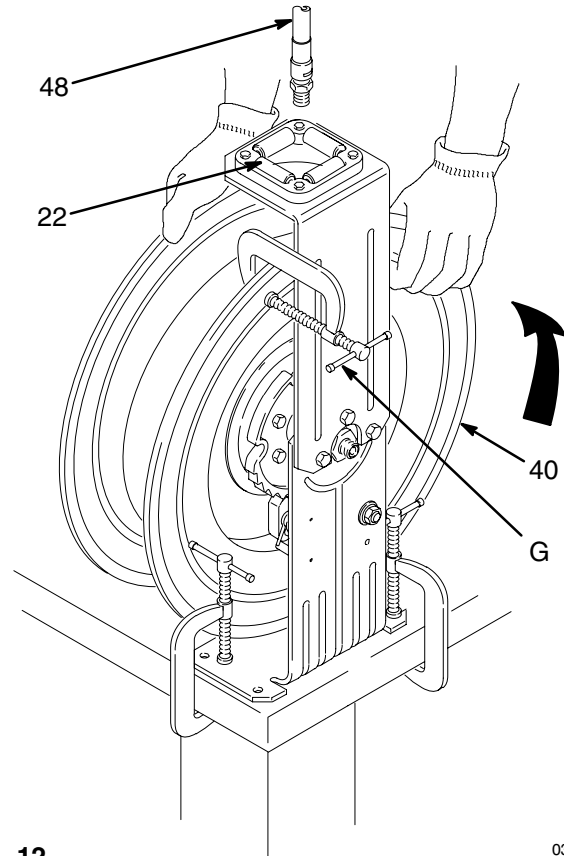


Fig. 12

03723B

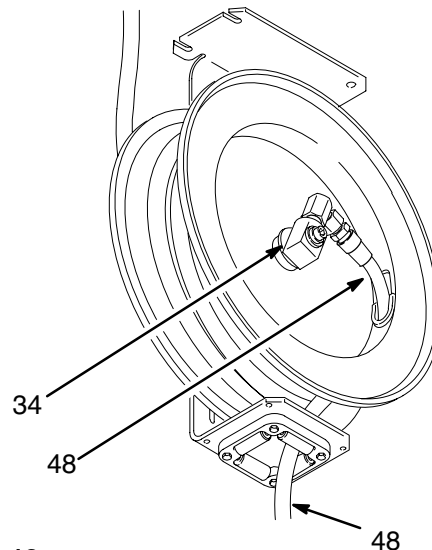


Fig. 13

03722

# Maintenance

## Pressure Relief Procedure

### WARNING



#### INJECTION HAZARD

To reduce the risk of serious injury, including fluid injection, splashing in the eyes or on the skin, or injury from moving parts, always follow this procedure whenever you shut off the pump, and before inspecting, removing, cleaning or repairing any part of the pump or system.

1. Close the supply pump's bleed-type master air valve (required in pneumatic systems).
2. Open the dispensing valve until pressure is fully relieved.
3. Open the fluid drain valve at the pump fluid outlet. Leave the drain valve open until you are ready to use the system again.

*If you suspect that the dispensing valve, extension, or grease fitting coupler is clogged, or that pressure has not been fully relieved after you have followed the steps above, **very slowly** loosen the coupler or hose end coupling to relieve the pressure gradually, then loosen it completely. Then clear the clog.*

## Replacing the Service Hose

1. Relieve the pressure.

### WARNING



#### INJECTION HAZARD

To reduce the risk of serious injury whenever you are instructed to relieve pressure, always follow the **Pressure Relief Procedure** above.

2. Fully extend the hose, and latch the reel.
3. Attach a C-clamp (G) to the reel flange to help prevent the reel from unintentionally becoming unlatched and spinning freely. See Fig. 14.

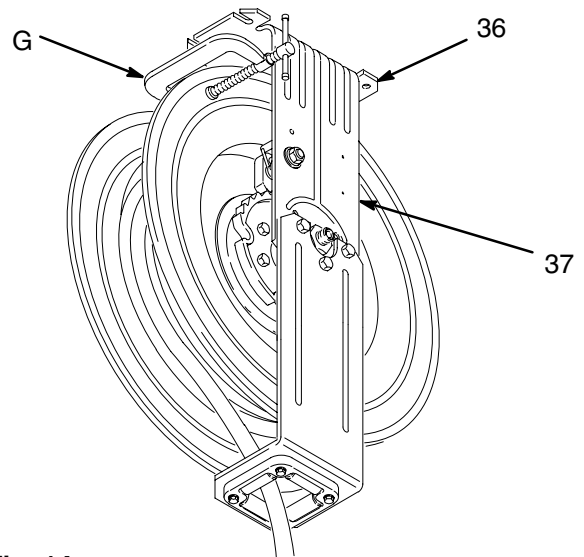


Fig. 14

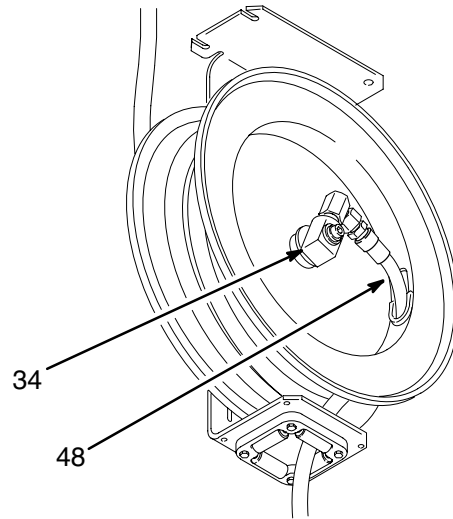
03724B

### WARNING

Never allow the reel to spin freely. Doing so causes the hose to spin out of control, which could cause serious injury if you are hit by the hose.

# Maintenance

4. Disconnect and remove the hose.
5. Attach the new hose (48) to the hose reel swivel (34), and carefully remove the C-clamp. See Fig. 15.
6. Pull the hose hard enough to release the latch, and slowly allow the hose to retract.
7. Position the hose stop so the hose extends far enough for all operators to reach the dispensing valve. See Fig. 6 on page 10.



**Fig. 15**

03722




# Service

## Swivel

### 1. Relieve the pressure.

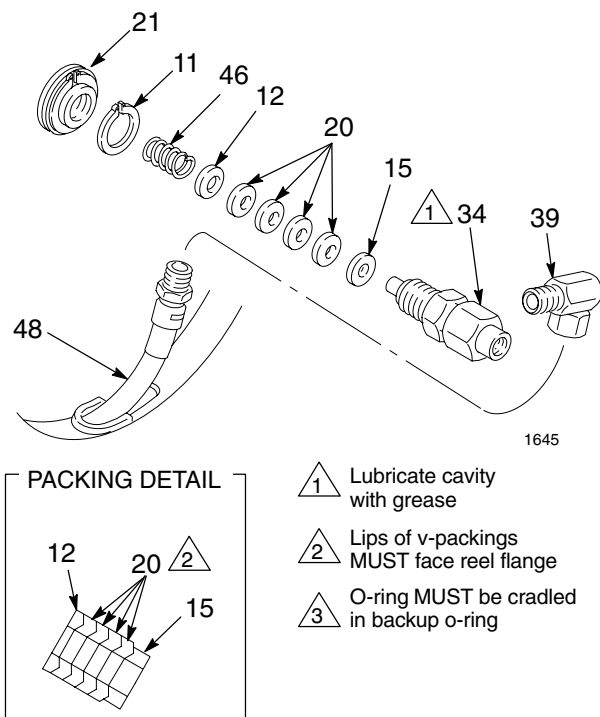
**⚠ WARNING**



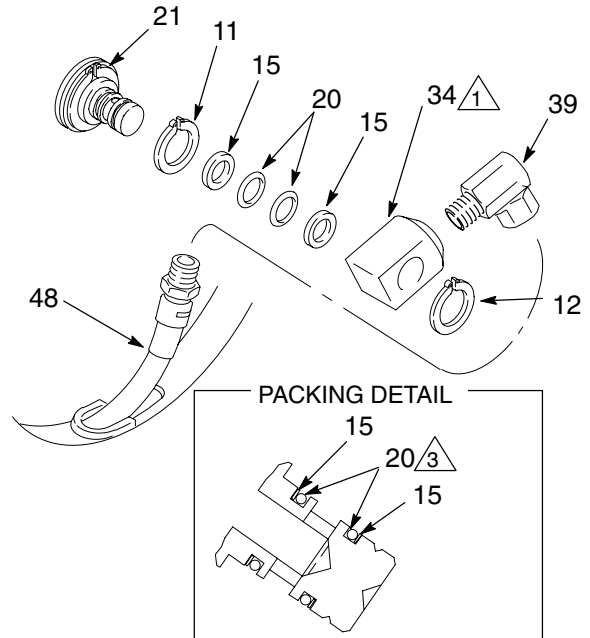
**INJECTION HAZARD**

To reduce the risk of serious injury whenever you are instructed to relieve pressure, always follow the **Pressure Relief Procedure** on page 15.

2. Disassemble the parts as shown in Fig. 16 or Fig. 17, depending on your hose reel model. Clean the parts, and inspect them for wear or damage.
3. Grease the new parts, and lubricate the cavity of the swivel assembly (34) with high-quality grease. Install the parts as shown in Fig. 16 or Fig. 17.



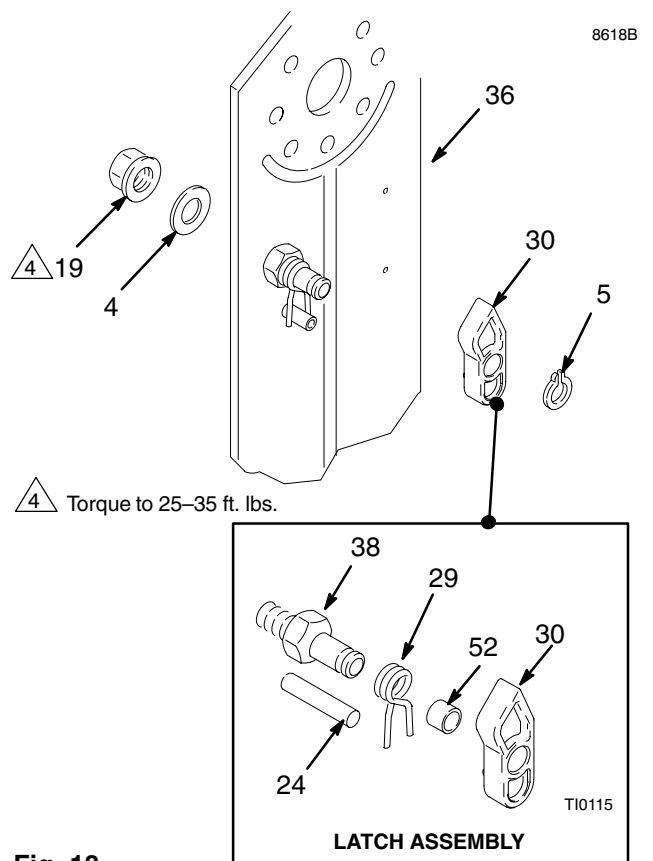
**Fig. 16 High-Pressure Hose Reel**



**Fig. 17 Low- and Medium-Pressure Hose Reels**

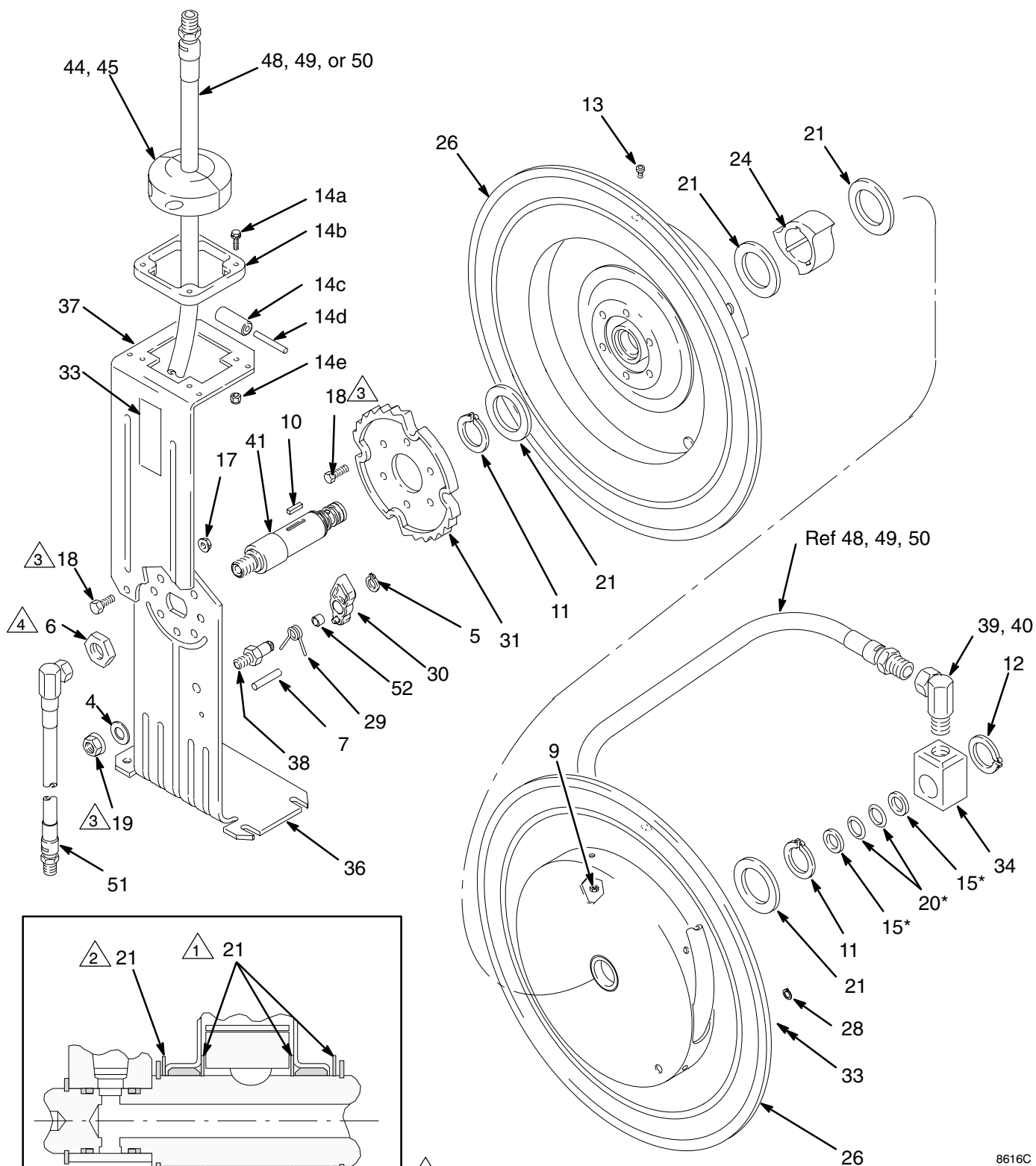
## Latch

If the reel latch malfunctions or becomes sluggish, disassemble the latching mechanism. See Fig. 18. Clean and lubricate or replace the broken or worn components as necessary.



**Fig. 18**

# Parts Drawing — Low Pressure



- Use one washer (21) here.
- Add washers here (at least one) to achieve 0.030 in. maximum clearance.
- Torque to 25–35 ft. lbs.
- Torque to 85–105 ft. lbs.

8616C

# Parts List — Low Pressure

## Model 240956, Series C

Hose reel with 25 ft (7.6 m), 180 psi (1.2 MPa, 12 bar) hose

*Includes items 4–39, 41–42, 45, 48, 51–52*

## Model 240958, Series B

Hose reel with 40 ft (12.2 m), 180 psi (1.2 MPa, 12 bar) hose

*Includes items 4–38, 40–44, 49, 51–52*

## Model 240959, Series C

Hose reel with 40 ft (12.2 m), 180 psi (1.2 MPa, 12 bar) hose

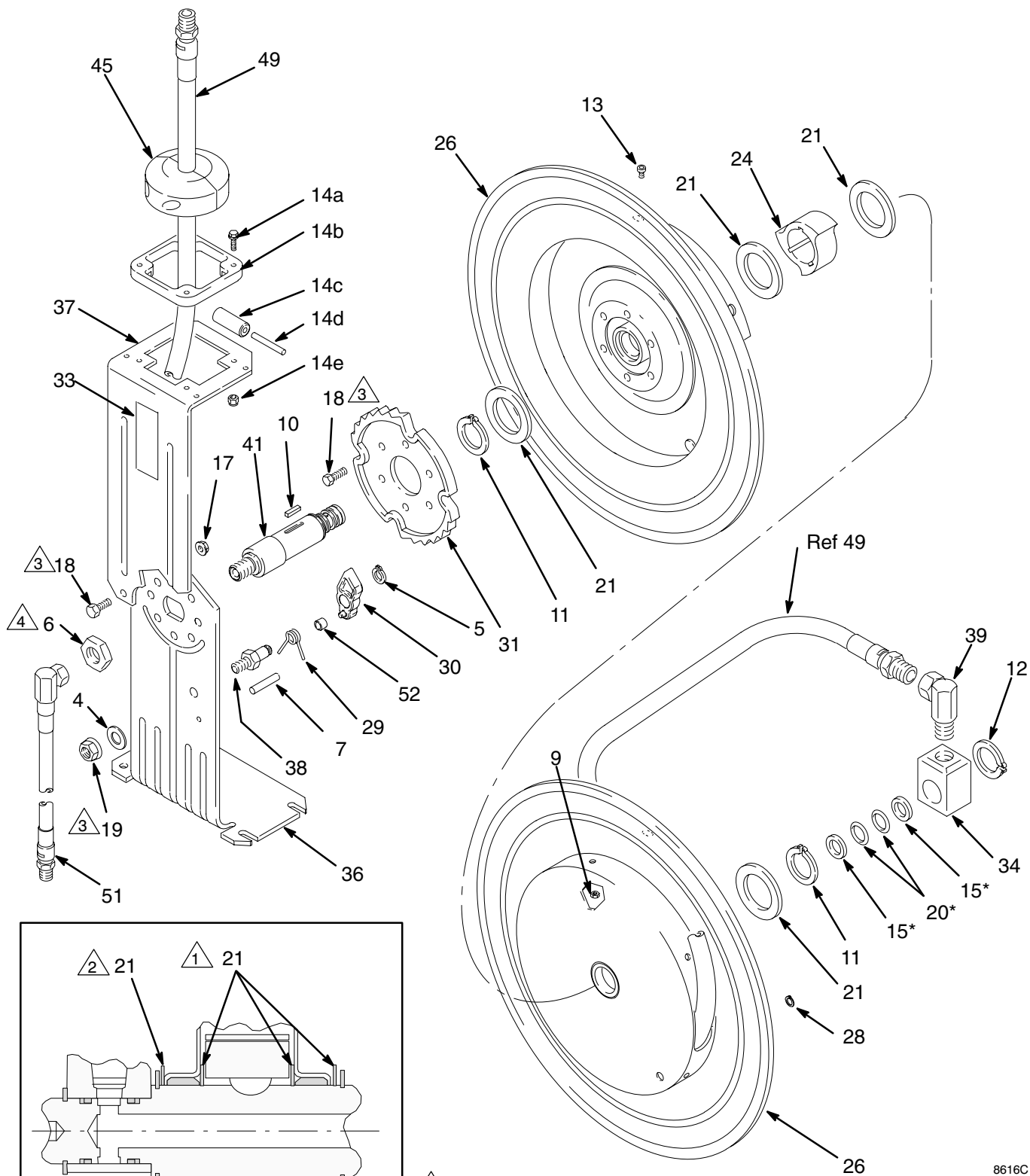
*Includes items 4–38, 40–44, 50–52*

Ref No.	Part No.	Description	Qty	Ref No.	Part No.	Description	Qty
4	101044	WASHER	1	33▲	187034	LABEL, warning	1
5	101079	RING, retaining	1	34	187559	SWIVEL, ASSEMBLY	1
6	186580	NUT, hex	1	35	189056	TAG, caution ( <i>not shown</i> )	1
7	102039	PIN, straight	1	36	194034	REEL PEDESTAL	1
9	105332	NUT, lock, hex; M5 x 0.08 in.	6	37	178694	ROLLER SUPPORT	
10	113267	KEY, square, parallel; 3/16 in. x 1 in.	1			(includes item 33)	1
11	106082	RING, retaining, external	2	38	189984	STUD	1
12	106083	RING, retaining external	1	39	217430	UNION, swivel; 3/8 npt(m) x 1/2 npsm(f)	1
13	106084	SCREW, machine; M5 x 10	6	40	155494	UNION, swivel; 3/8 npt(m) x 3/8 npsm(f)	1
14	218591	HOSE ROLLER KIT; Includes items 14a–14e		41	194036	REEL SHAFT	1
14a	107439	• SCREW, mach; #10 x 3/4 in.	4	42▲	306297	TAG, information ( <i>not shown</i> )	1
14b	178675	• BRACKET, roller	1	44	218340	HOSE STOP KIT	1
14c	178670	• ROLLER, hose	4	45	218341	HOSE STOP KIT	1
14d	178705	• PIN, roller	4	48	248312	HOSE; 1/2 in. ID; cpld 1/2 npt (mbe); 25 ft (7.6 m); 180 psi (1.2 MPa, 12 bar) Maximum Working Pressure	1
14e	102920	• NUT, lock; #10	4				
15*	108235	WASHER, backup	2				
17	110996	NUT, flanged; 5/16–18 UNC 2A	3				
18	111800	SCREW, cap, flange head; 5/16–18 x 5/8 in.	9	49	218491	HOSE; 1/4 in. ID; cpld 3/8 x 1/4 npt; 40 ft (12.2 m); 180 psi (1.2 MPa, 12 bar) Maximum Working Pressure	1
19	112731	NUT, flanged; 1/2–13 UNC–2B	1				
20*	166702	O-RING	2				
21	177679	WASHER, retaining	8	50	249181	HOSE; 3/8 in. ID; cpld 3/8 npt (mbe); 40 ft (12.2 m); 180 psi (1.2 MPa, 2 bar) Maximum Working Pressure	1
24	178681	HUB, reel	1				
26		FLANGE SET, reel (may not be purchased separately)	1				
28	111220	RING, retaining	1	51	218549	HOSE INLET KIT; 1/2 in. ID; cpld 1/2 npt; 2000 psi (13.8 MPa, 138 bar) Maximum Working Pressure	1
29	186583	SPRING, torsion	1				
30	276382	DOG, ratchet	1				
31	276386	RATCHET	1	52	110974	BEARING	1

\* These parts are also included in Repair Kit 224450, which may be purchased separately. Keep a repair kit on hand to reduce down time.


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

# Parts Drawing — Medium Pressure



8616C

- 20
- 1 Use one washer (21) here.
  - 2 Add washers here (at least one) to achieve 0.030 in. maximum clearance.
  - 3 Torque to 25–35 ft. lbs.
  - 4 Torque to 85–105 ft. lbs.

0.030 in.   
maximum  
clearance

03715A

### Detail for Placement of Washers (21)

# Parts List — Medium Pressure

## Model 240963, Series B

Hose reel with 25 ft (7.6 m), 1800 psi (12 MPa, 124 bar) hose

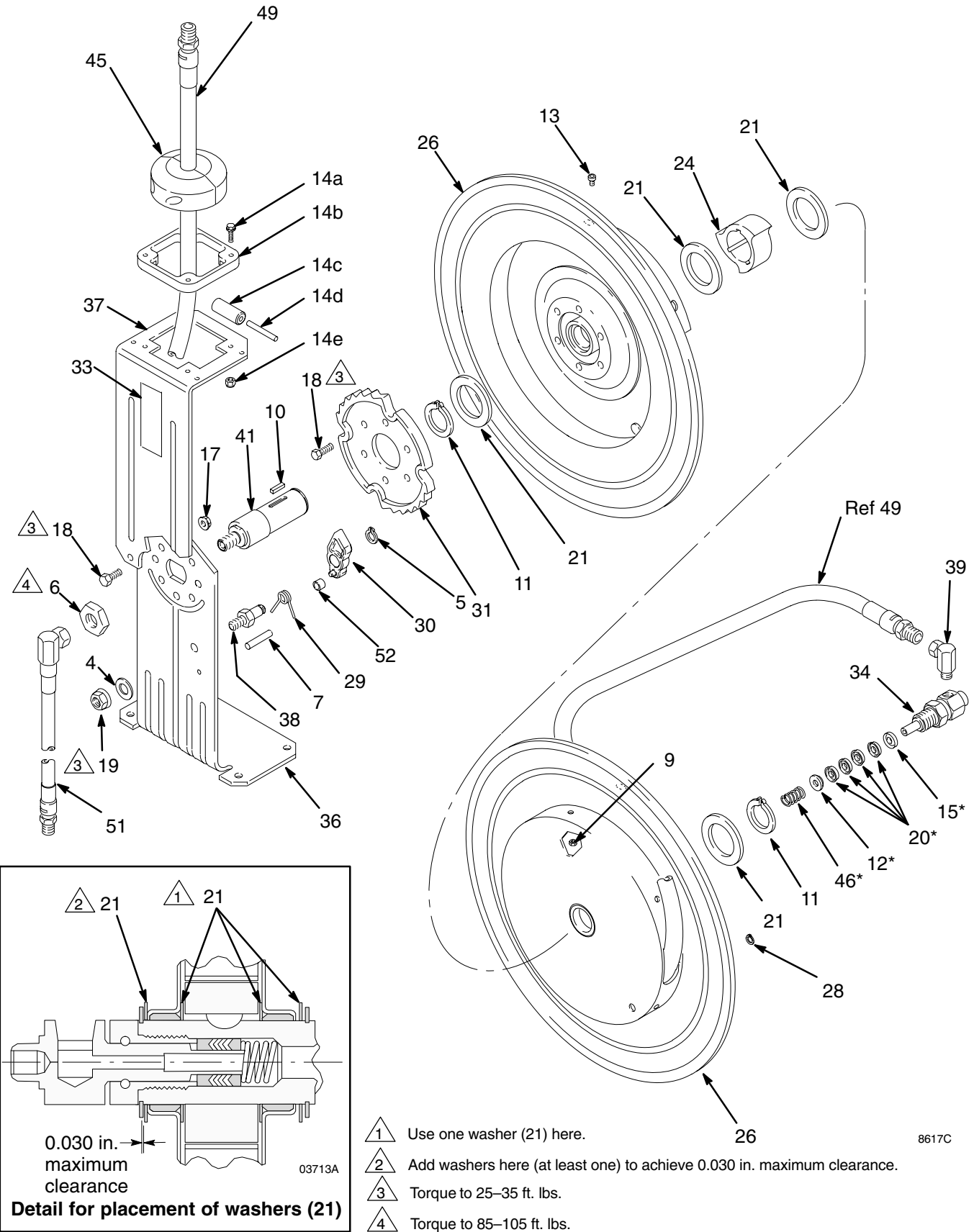
Includes items 4–45, 49, 51–52

Ref No.	Part No.	Description	Qty	Ref No.	Part No.	Description	Qty
4	101044	WASHER	1	33▲	187034	LABEL, warning	1
5	101079	RING, retaining	1	34	187559	SWIVEL, ASSEMBLY	1
6	186580	NUT, hex	1	35	189056	TAG, caution ( <i>not shown</i> )	1
7	102039	PIN, straight	1	36	194034	REEL PEDESTAL	1
9	105332	NUT, lock, hex; M5 x 0.08 in.	6	37	178694	ROLLER SUPPORT	
10	113267	KEY, square, parallel; 3/16 in. x 1 in.	1			(includes item 33)	1
11	106082	RING, retaining, external	2	38	189984	STUD	1
12	106083	RING, retaining external	1	39	217430	UNION, swivel; 3/8 npt(m) x 1/2 npsm(f)	1
13	106084	SCREW, machine; M5 x 10	6	41	194030	REEL SHAFT	1
14	218591	HOSE ROLLER KIT; Includes items 14a–14e		42▲	306297	TAG, information ( <i>not shown</i> )	1
14a	107439	• SCREW, mach; #10 x 3/4 in.	4	45	218341	HOSE STOP KIT	1
14b	178675	• BRACKET, roller	1	49	220608	HOSE; 1/2 in. ID; cpld 1/2 npt (mbe); 25 ft (7.6 m); 1800 psi (12 MPa, 124 bar) Maximum Working Pressure	1
14c	178670	• ROLLER, hose	4				
14d	178705	• PIN, roller	4				
14e	102920	• NUT, lock; #10	4	51	218549	HOSE INLET KIT; 1/2 in. ID; cpld 1/2 npt; 2000 psi (13.8 MPa, 138 bar) Maximum Working Pressure	1
15*	108235	WASHER, backup	2				
17	110996	NUT, flanged; 5/16–18 UNC 2A	3	52	110974	BEARING	1
18	111800	SCREW, cap, flange head; 5/16–18 x 5/8 in.	9				
19	112731	NUT, flanged; 1/2–13 UNC–2B	1				
20*	166702	O-RING	2				
21	177679	WASHER, retaining	8				
24	178681	HUB, reel	1				
26		FLANGE SET, reel (may not be purchased separately)	1				
28	111220	RING, retaining	1				
29	186583	SPRING, torsion	1				
30	276382	DOG, ratchet	1				
31	276386	RATCHET	1				

\* These parts are also included in Repair Kit 224450, which may be purchased separately. Keep a repair kit on hand to reduce down time.

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

# Parts Drawing — High Pressure



# Parts List — High Pressure

## Model 240967, Series B

Hose reel with 35 ft (10.7 m), 5000 psi (34 MPa, 345 bar) hose

Includes items 4–46, 49, 51–52

Ref No.	Part No.	Description	Qty	Ref No.	Part No.	Description	Qty
4	101044	WASHER	1	31	276386	RATCHET	1
5	101079	RING, retaining	1	33▲	187034	LABEL, warning	1
6	186579	NUT, hex	1	34	201882	SWIVEL ASSEMBLY	1
7	102039	PIN, straight	1	35▲	189056	TAG, warning ( <i>not shown</i> )	1
9	105332	NUT, lock, hex; M5 x 0.08 in.	6	36	194034	REEL PEDESTAL	1
10	113267	KEY, square, parallel; 3/16 in. x 1 in.	1	37	178694	ROLLER SUPPORT (includes item 33)	1
11	106082	RING, retaining, external	2	38	189984	STUD	1
12*	150419	GLAND, male	1	39	155494	UNION, swivel; 3/8 npt(m) x 3/8 npsm(f)	1
13	106084	SCREW, machine; M5 x 10	6	41	194035	REEL SHAFT	1
14	218591	HOSE ROLLER KIT; Includes items 14a–14e		42▲	306297	TAG, information ( <i>not shown</i> )	1
14a	107439	• SCREW, mach; #10 x 3/4 in.	4	45	222225	HOSE STOP KIT	1
14b	178675	• BRACKET, roller	1	46*	167528	SPRING	1
14c	178670	• ROLLER, hose	4	49	109156	HOSE; 1/4 in. ID; cpld 1/4 x 3/8 npt (mbe); 35 ft (10.7 m); 5000 psi (34 MPa, 345 bar) Maximum Working Pressure	1
14d	178705	• PIN, roller	4				
14e	102920	• NUT, lock; #10	4	51	224417	HOSE INLET KIT; 1/4 in. ID; cpld 3/8 npt; 5000 psi (34 MPa, 345 bar) Maximum Working Pressure	1
15*	155938	GLAND, female	1	52	110974	BEARING	1
17	110996	NUT, flanged; 5/16–18 UNC–2A	3				
18	111800	SCREW, cap, flange head; 5/16–18 x 5/8 in.	9				
19	112731	NUT, flanged; 1/2–13 UNC–2B	1				
20*	150418	V-PACKING, leather	4				
21	177679	WASHER, retaining	8				
24	178681	HUB, reel	1				
26		FLANGE SET, reel (may not be purchased separately)	1				
28	111220	RING, retaining	1				
29	186583	SPRING, torsion	1				
30	276382	DOG, ratchet	1				

\* These parts are also included in Repair Kit 237094, which may be purchased separately. Keep a repair kit on hand to reduce down time.

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

# Side and End Enclosure Kits

## Side Enclosure Kit 218546

Order 1 for each basic hose reel.

Enclosed hose reels include one Side Kit per reel.

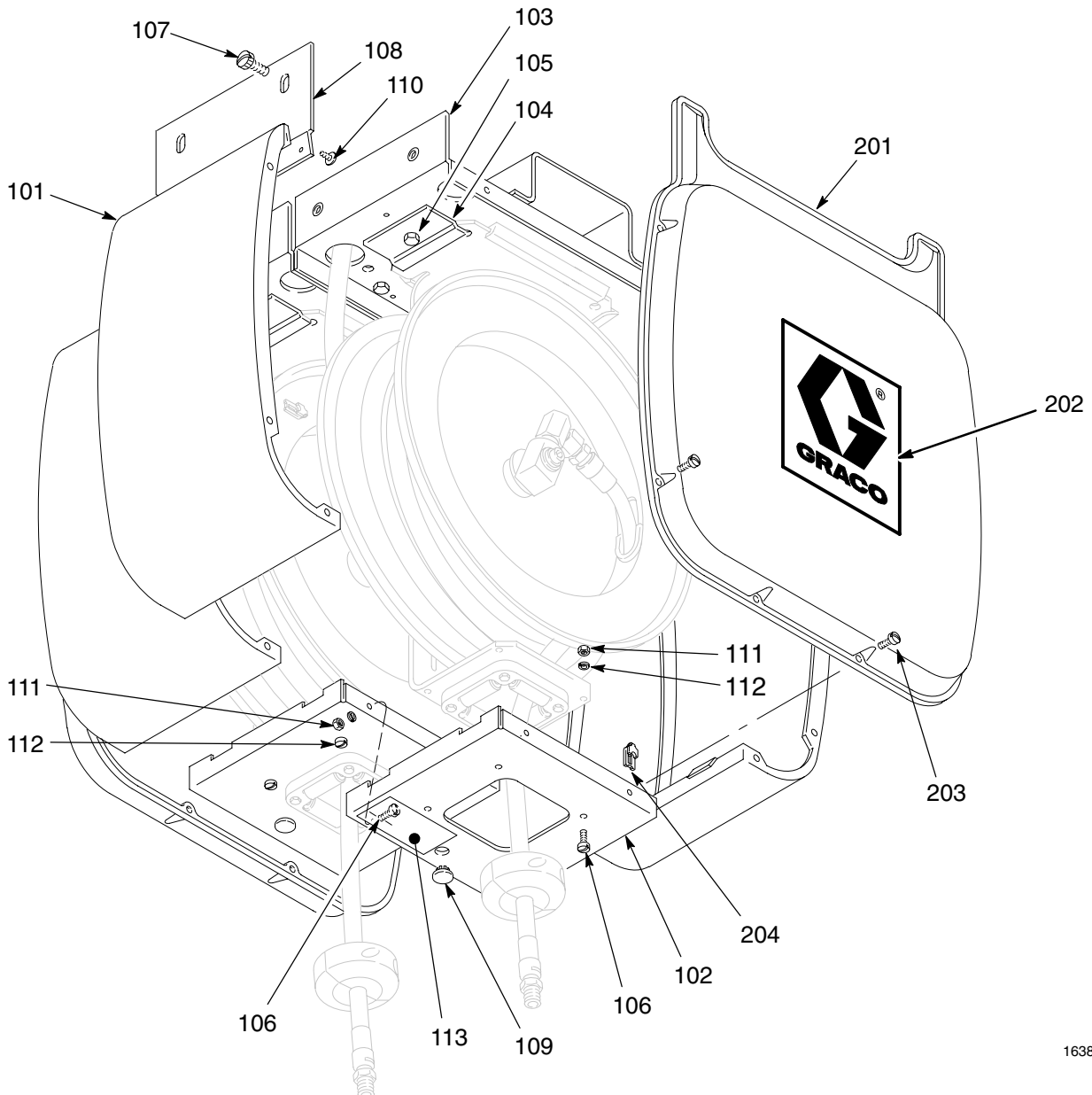
### Ref.

No	Part No.	Description	Qty.
101	218367	PANEL, side	2
102	220908	CAP, hose reel	1
103	203556	BASE, reel	1
104	159790	PLATE, hold down	1
105	100575	SCREW, cap, hex hd; 3/8 in. x 5/8 in.	1
106	107452	SCREW, mach, bdghd; No. 10 x 5/8 in.	6
107	159760	SCREW, thumb	4
108	180672	PLATE, trim	2
109	102521	PLUG, button	1
110	100271	SCREW, type Z, drive; No. 10 x 3/8 in.	4
111	100179	NUT, hex; No. 10	6
112	100020	LOCKWASHER, spring; No. 10	6
113	183442	LABEL, installation	1

## End Enclosure Kit 218548

Order 1 for each bank of reels.

Ref. No.	Part No.	Description	Qty.
201	178669	PANEL, end	2
202	183682	LABEL, Graco	2
203	107452	SCREW, mach, bdghd; No. 10 x 5/8 in.	12
204	107451	NUT, spring	12



1638A



# Hose Inlet Kits

*Hose Inlet Kit is included with all hose reel assemblies that include a hose.*

## Hose Inlet Kit 224417

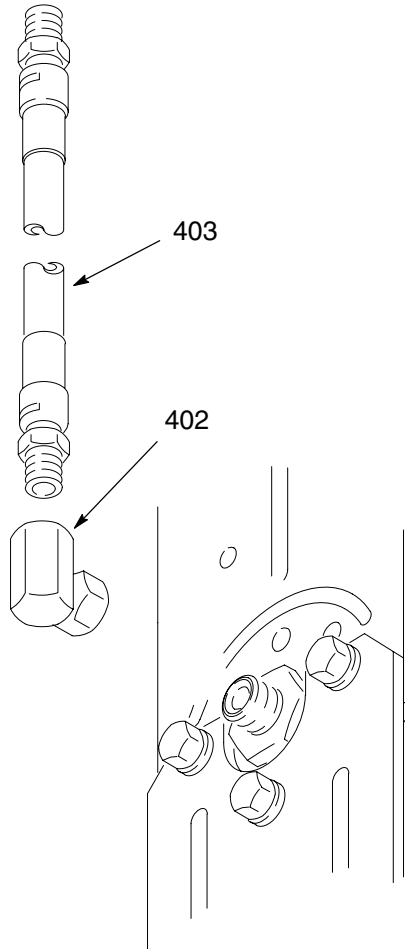
*5000 psi (34 MPa, 345 bar) maximum working pressure*

Ref. No.	Part No.	Description	Qty.
402	155677	UNION, 90°; 3/8 npt(f) x 3/8 npsm(f) swivel	1
403	109147	HOSE; 1/4 in. ID x 24 in. (610 mm) long; cpld 3/8 npt(mbe)	1

## Hose Inlet Kit 218549

*2000 psi (13.8 MPa, 138 bar) maximum working pressure*

Ref. No.	Part No.	Description	Qty.
402	157416	UNION, 90°; 1/2 npt(f) x 1/2 npsm (f) swivel	1
403	214601	HOSE, fluid; buna-N; 1/2 in. ID; cpld 1/2 npt(mbe); 24 in. (610 mm) long	1



8619B

# Mounting Accessories

*Must be purchased separately. Use only genuine Graco parts and accessories.*

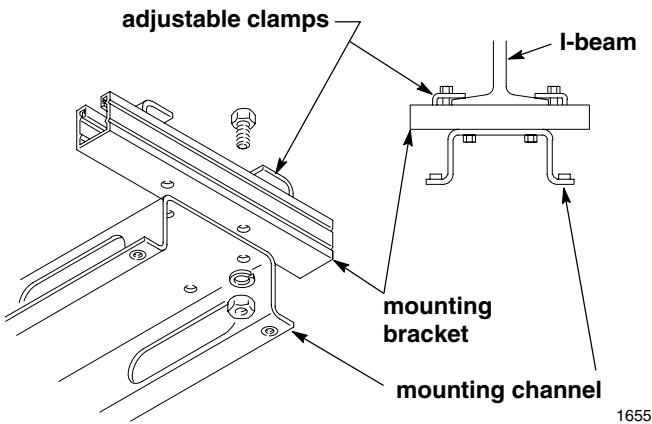
Order mounting hardware using sections 1 through 2b below. For enclosed reels, order mounting hardware as needed per items 1 and 2a. For open reels, order mounting hardware as needed per items 1 and 2b.

## 1: Mounting Bracket 204741 for Either Open or Enclosed Reels

Secures mounting channel to I-beam without holes drilled in I-beam. Bracket fits all standard I-beams with flanges up to 7 in. (178 mm). Mount the bracket to the mounting channel before securing it to the I-beam. This mounting bracket will work on 1- to 6-reel mounting channels. Screws, lockwashers, and nuts are included.

### NOTE:

For one to three reels, **two** of 204741 are required.  
For four to six reels, **three** of 204741 are required.

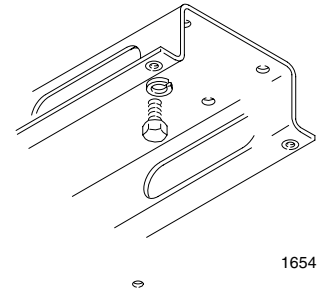


## 2a: Mounting Channels for Enclosed Reels

For mounting enclosed hose reels to ceiling. Includes capscrews (3/8-16 UNC-2a x 0.625 in.), lockwashers, and weldnuts on channel.

203521	for 1 reel
203522	for 2 reels
203523	for 3 reels

203524	for 4 reels
203525	for 5 reels
203526	for 6 reels

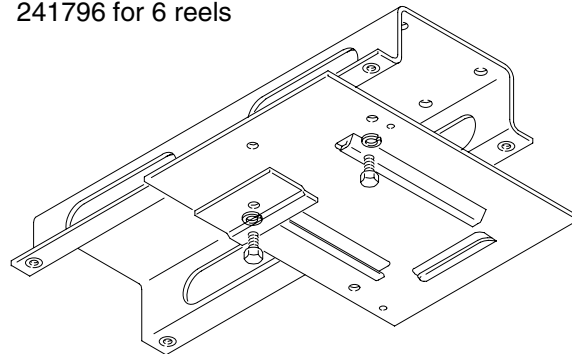


## 2b: Mounting Channels for Open Reels

For mounting open hose reels to ceiling. Includes mounting channel, base plate, hold down plate, cap screws (3/8-16 UNC-2a X 0.625 in), lockwashers, and weldnuts on channel.

241791	for 1 reel
241792	for 2 reels
241793	for 3 reels

241794	for 4 reels
241795	for 5 reels
241796	for 6 reels

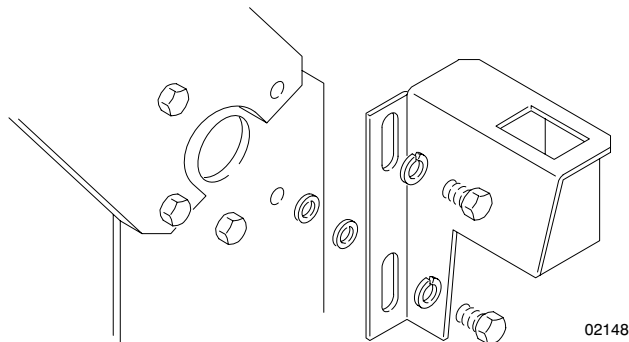


# Mounting Accessories

*Must be purchased separately. Use only genuine Graco parts and accessories.*

## Valve Hanger Kit 224444

Mounts to side of hose reel for hanging unmetered and high-flow dispensing valves on hose reels.

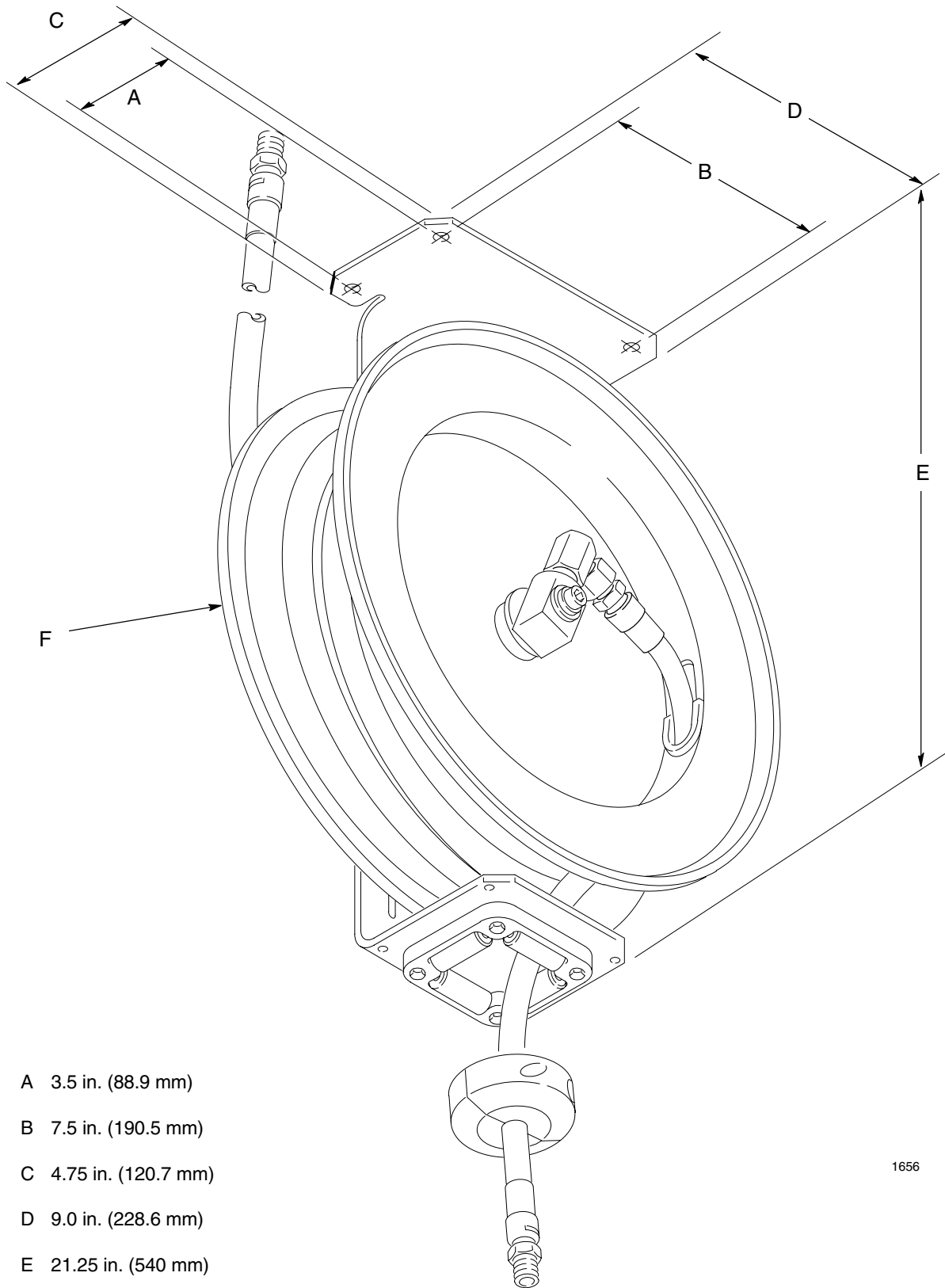


## Identification Labels 180698

Sheet of 14 sticky-back labels for labeling hose reels. Includes labels for the following:

SAE 10-40	SAE 20W	HYDRAULIC	AIR
SAE 10-30	SAE 30W	ANTIFREEZE	ATF
SAE 5-40	DEXRON	CHASSIS	
SAE 10W	WATER	GEAR	

# Dimensions



- A 3.5 in. (88.9 mm)
- B 7.5 in. (190.5 mm)
- C 4.75 in. (120.7 mm)
- D 9.0 in. (228.6 mm)
- E 21.25 in. (540 mm)
- F 17.0 in. (431.8 mm) Diameter

1656

# Technical Data

## Low-Pressure Hose Reel, bare reel

Bare reel maximum working pressure . . . . . 1800 psi  
(12 MPa, 124 bar)  
Maximum working pressure with hose . . . . . 180 psi  
(1.2 MPa, 12 bar)  
Inlet size . . . . . 1/2 npsm(m)  
Outlet size . . . . . 1/2 npsm(f)  
\*Maximum sound pressure . . . . . 85 dB(A)  
Bearings . . . . . brass  
Wetted parts . . . . . stainless steel, nitrile rubber, brass

## Medium-Pressure Hose Reel, bare reel

Bare reel maximum working pressure . . . . . 1800 psi  
(12 MPa, 124 bar)  
Maximum working pressure with hose . . . . . 1800 psi  
(12 MPa, 124 bar)  
Inlet size . . . . . 1/2 npsm(m)  
Outlet size . . . . . 1/2 npsm(f)  
\*Maximum sound pressure . . . . . 85 dB(A)  
Bearings . . . . . brass  
Wetted parts . . . . . carbon steel, nitrile rubber, brass

## High-Pressure Hose Reel, bare reel

Bare reel maximum working pressure . . . . . 8000 psi  
(55 MPa, 552 bar)  
Maximum working pressure with hose . . . . . 5000 psi  
(34 MPa, 345 bar)  
Inlet size . . . . . 3/8 npsm(m)  
Outlet size . . . . . 3/8 npsm(f)  
\*Maximum sound pressure . . . . . 85 dB(A)  
Bearings . . . . . brass  
Wetted parts . . . . . carbon steel, leather, brass

\* *Sound pressure readings taken at assumed maximum retraction rate from assumed operator position.*

## Dry Weights (approximate)

MODEL	Weight		MODEL	Weight		MODEL	Weight	
	lb.	kg.		lb.	kg.		lb.	kg.
218429	75.8	34.1	224837	51.0	23.0	224847	39.5	17.8
218437	59.0	26.5	224838	50.0	22.5	224848	51.5	23.2
218443	64.8	29.16	224839	50.0	22.5	224930	40.9	18.4
218453	48.0	21.6	224840	51.5	23.2	224931	49.9	18.0
220483	50.5	22.5	224841	50.5	22.5	224932	51.9	23.4
223131	56.9	25.6	224842	50.5	22.5	240956	40.5	18.2
223133	56.9	25.6	224843	51.9	23.4	240958	40.0	18.0
223135	56.9	25.6	224844	50.9	22.9	240959	39.0	17.5
223147	54.9	20.6	224845	50.9	22.9	240963	40.5	18.2
223149	45.9	20.6	224846	40.5	18.2	240967	61.8	27.8
223151	45.9	20.6						

# Graco Standard Warranty

Graco warrants all equipment 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 thirty-six 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.

**THIS WARRANTY IS EXCLUSIVE, AND IS IN LIEU OF ANY OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO WARRANTY OF MERCHANTABILITY OR WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE.**

Graco's sole obligation and buyer's sole remedy for any breach of warranty shall be as set forth above. The buyer agrees that no other remedy (including, but not limited to, incidental or consequential damages for lost profits, lost sales, injury to person or property, or any other incidental or consequential loss) shall be available. Any action for breach of warranty must be brought within four (4) years of the date of sale.

Graco makes no warranty, and disclaims all implied warranties of merchantability and fitness for a particular purpose in connection with accessories, equipment, materials or components sold but not manufactured by Graco. These items sold, but not manufactured by Graco (such as electric motors, switches, hose, etc.), are subject to the warranty, if any, of their manufacturer. Graco will provide purchaser with reasonable assistance in making any claim for breach of these warranties.

In no event will Graco be liable for indirect, incidental, special or consequential damages resulting from Graco supplying equipment hereunder, or the furnishing, performance, or use of any products or other goods sold hereto, whether due to a breach of contract, breach of warranty, the negligence of Graco, or otherwise.

## **FOR GRACO CANADA CUSTOMERS**

The parties acknowledge that they have required that the present document, as well as all documents, notices and legal proceedings entered into, given or instituted pursuant hereto or relating directly or indirectly hereto, be drawn up in English. Les parties reconnaissent avoir convenu que la rédaction du présente document sera en Anglais, ainsi que tous documents, avis et procédures judiciaires exécutés, donnés ou intentés à la suite de ou en rapport, directement ou indirectement, avec les procédures concernées.

# Graco Information

**TO PLACE AN ORDER**, contact your Graco distributor, or call one of the following numbers to identify the distributor closest to you:

**1-800-533-9655 Toll Free**

**612-623-6928**

**612-378-3590 Fax**

*All written and visual data contained in this document reflects the latest product information available at the time of publication.  
Graco reserves the right to make changes at any time without notice.*

MM 308899

**Graco Headquarters:** Minneapolis  
**International Offices:** Belgium, Korea, China, Japan

**[www.graco.com](http://www.graco.com)**

PRINTED IN USA 308899 09/1998, Revised 02/2005