# **INSTRUCTIONS-PARTS LIST**



308-467

Rev. A



This manual contains important warnings and information.
READ AND RETAIN FOR REFERENCE

# **Elevator Retrofit Kit**

**PART NO. 237-525, SERIES A** 

Retrofits an existing Graco Elevator for use with Drum Cover Part Nos. 237–306, 237–307, 237–308, 237–309, and 237–310

### Installation

### WARNING

To reduce the risk of serious injury, relieve all air and fluid pressure in the pump and elevator before installing this kit. Refer to your separate pump and elevator manuals.

### 1. Relieve the pressure.

**IMPORTANT:** Before installing the kit, you must remove some parts of the existing elevator assembly. Refer to manual 306–287 and perform steps 2 and 3. If the date code of your elevator is G94 or earlier, you must perform the procedure on page 3 before installing the retrofit kit.

- Remove the cover support ring (ref. no. 49) from the existing elevator. Discard the support ring and the attaching hardware which held it to the elevator, but **be sure** to keep the two screws (ref. no. 47) which held the support ring to the support brace (ref. no. 48). **Do not** remove the support brace from the elevator.
- Remove the push-pull valve (ref. no. 60) from its mounting. Unscrew the restrictor valve (ref. no. 55) from the push-pull valve and keep these parts for re-installation later.

**NOTE:** Install the retrofit kit as follows. Refer to the parts drawing on page 2.

- Align the right side brace stud (1) with the hole in the drum cover (A) and loosely tighten the screw (6). Repeat for the left side brace stud (2).
- 5. Install the valve bracket (5) on the cover (A) with screws (8), washers (14), and nuts (12).

- 6. Disassemble the push-pull valve (B) removed in step 3, and reassemble it onto the valve bracket (5) as shown.
- Unscrew the plug from the elevator top cap (C).
   Apply thread sealant to the plug and to the restrictor valve (E) removed in step 3. Install the plug in the bottom port (D). Install the valve in the top cap, and connect the elevator air tube (J).
- 8. Install the rear support bracket (3) on the cover (A) with screws (9), washers (13), and nuts (10).
- Mount the cover (A) on the support brace (F) so the studs (1 and 2) fit into the brace. Secure the studs to the brace with the screws (G) which were kept in step 2. Tighten the brace and stud screws (G and 6).
- 10. Place the riser tube bracket (4) on the elevator (H), and attach it to the rear support bracket (3) with screws (7), washers (13), and nuts (11).
- 11. Push the elevator air tube (J) into the elbow (15) until it seats, then tighten the elbow nut.
- 12. Screw the tube connector (16) and the air line fitting (21) into the push-pull valve (B), as shown.
- Connect the kit air tube (17) between the elbow (15) and the tube connector (16). Tighten the elbow and connector nuts.
- 14. Screw the air line coupler (20) onto the air hose (18). Connect the hose to your air supply. Do not connect the coupler (20) to the fitting (21) until you are ready to operate the elevator.
- 15. Mount the pump, agitator, and accessories to the cover. Adjust as described on page 2.

### **Adjustment**

You must adjust the elevator to ensure that the cover is supported by the drum.

## **A** CAUTION

Shortened or recycled drums may cause the pump or agitator to bottom out in the drum, causing damage. Contact your fluid supplier to order a standard size drum.

1. Connect the air supply. Raise the elevator and set an open drum against the elevator base.

- 2. Lower the elevator so the cover (A) rests on the top lip of the drum. The support clamp (K) recesses must be tight against the elevator riser tube.
- 3. Raise the elevator 1/4" (6.4 mm), then tighten the support clamp screws. This ensures that the cover rests on the drum lip when the elevator is in the lowered position.
- 4. Before operation, ensure that all fasteners and tube connections are tightened securely.

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### **Parts**

Ref	Dort No	Deceriation	Othe	Ref	Dord No	Description	O41.
1 1	Part No. 190–272	<b>Description</b> STUD, brace, right side	<b>Qty</b> 1		Part No.		Qty
2	190–272	STUD, brace, light side	1	17 18	190–239 237–583	TUBE, air; 1/4" OD HOSE, air; 1/4 npt(m) x 1/8 npt(m);	1
3	190–187	BRACKET, support, rear	1	10	201-000	30" (762 mm) long	1
4	190-181	BRACKET, riser tube	1	20	208-536	COUPLER, air, quick disconnect	1
5	190–231	BRACKET, valve	1	21	169-969	FITTING, air, quick disconnect	1
6	112–895	SCREW, cap, hex hd;	2				
7	100-057	1/4-20; 3/4" (19 mm) long SCREW, cap, hex hd;	2			_ ^	
,	100-001	5/16–18; 3/4" (19 mm) long	2			E <u>1</u>	
8	112-896	SCREW, cap, hex hd;				$\sim$ C 1	
		1/4-20; 1/2" (13 mm) long	2			<u></u>	
9	112–944	SCREW, cap, button hd;	0				
10	108–946	5/16–18; 3/4" (19 mm) long NUT, hex; 5/16–18	2 2				
10 11	100-946	NUT, flex, 5/16–18 NUT, square; 5/16–18	2			H <u>/1</u>	
12	104–121	NUT, hex; 1/4–20	2				
13	100-214	WASHER, lock, spring; 5/16" size	4				
14	104-123	WASHER, lock, spring; 1/4" size	2				
15	112-934	ELBOW, ferruled; 1/4" tube size	1				
16	100–113	CONNECTOR; 1/8 npt(m) x 1/4" to	ibe size 1			10   4	
	1	B 16	17 6	2	9	11 J 3	<b>,</b> 7
$\wedge$	Not includ	ded in Retrofit Kit.				$\begin{array}{cccccccccccccccccccccccccccccccccccc$	
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# IMPORTANT SAFETY INFORMATION For Elevators with Date Code of G94 or earlier

If your elevator has a date code of G94 or earlier, you must complete this procedure before installing the retrofit kit.

## **▲** WARNING

To reduce the risk of serious injury, relieve all air pressure in the elevator before performing this procedure. Refer to your separate elevator manual 306–287, pages 4, 6, and 7.

- 1. Relieve the pressure.
- 2. Remove the following parts from the elevator:

Ref		
No.	Part No.	Description
20	161-320	Tube Cap
21	162-408	Capscrew
4	100-422	Lockwasher
8	156–306	Washer
5	150-230	Spreader
10	158–260	Packing
12	158–262	Bearing
	OR	
24	167–870	Guide
9	157–633	Spring
	OR	-
18	158–388	Spring
15	158–265	Washer
30	722–834	O-ring

- Thoroughly clean the threads of the capscrew (21), using compatible fast-drying solvent.
   Be sure the solvent dries completely.
- Using a small brush and compatible fast-drying solvent, clean the internal threads of the piston body (11, Part No. 158–261).
   Be sure the solvent dries completely.
- 5. Apply Loctite® 56765 thread sealant to the internal threads of the piston body (11) and the threads of the capscrew (21).
- 6. Reassemble the elevator in the reverse order.
- Torque the capscrew (21) to 15–20 ft-lb (20–27 N.m). Torque the tube cap (20) to 20–40 ft-lb (37–54 N.m).

# **Important Phone Numbers**

**TO PLACE AN ORDER**, contact your Graco distributor, or call Graco: 1–800–367–4023 Toll Free

FOR TECHNICAL ASSISTANCE, service repair information or answers about the application of Graco equipment, call: 1–800–543–0339 Toll Free

# The Graco Warranty and Disclaimers

### WARRANTY

Graco warrants all equipment manufactured by it and bearing its name to be free from defects in material and workmanship on the date of sale by an authorized Graco distributor to the original purchaser for use. As purchaser's sole remedy for breach of this warranty, Graco will, for a period of twelve months from the date of sale, repair or replace any part of the equipment proven 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, 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 with Graco equipment of 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 claim. 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.

#### **DISCLAIMERS AND LIMITATIONS**

The terms of this warranty constitute purchaser's sole and exclusive remedy and are in lieu of any other warranties (express or implied), **including warranty of merchantability or warranty of fitness for a particular purpose**, and of any non–contractual liabilities, including product liabilities, based on negligence or strict liability. Every form of liability for direct, special or consequential damages or loss is expressly excluded and denied. In no case shall Graco's liability exceed the amount of the purchase price. Any action for breach of warranty must be brought within two (2) years of the date of sale.

### **EQUIPMENT NOT COVERED BY GRACO WARRANTY**

Graco makes no warranty, and disclaims all implied warranties of merchantability and fitness for a particular purpose, with respect to accessories, equipment, materials, or components sold but not manufactured by Graco. These items sold, but not manufactured by Graco (such as electric motor, 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.

Sales Offices: Atlanta, Chicago, Dallas, Detroit, Los Angeles, Mt. Arlington (N.J.) Foreign Offices: Canada; England; Korea; Switzerland; France; Germany; Hong Kong; Japan