

# 15H874 Slider Cylinder Rebuild Kit

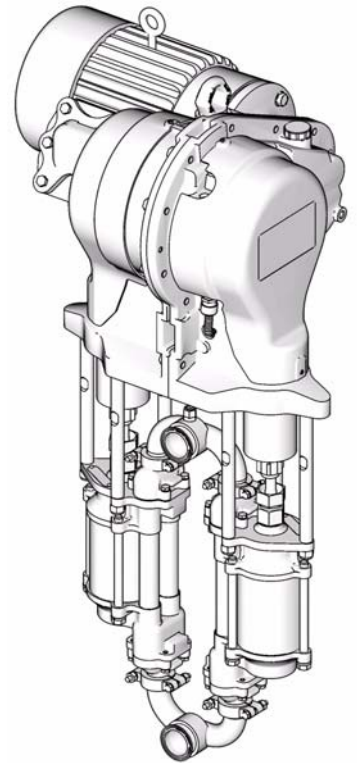
311599 rev.A

To rebuild one slider cylinder assembly on E-Flo™ Plus Electric Circulation Pumps.



## Important Safety Instructions

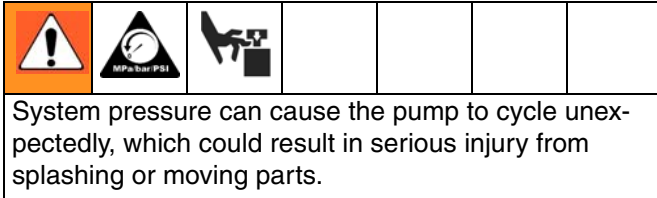
Read all warnings and instructions in this manual  
and in E-Flo Plus Repair-Parts manual 311594.  
Save these instructions.



ti8317a


PROVEN QUALITY. LEADING TECHNOLOGY.

# Pressure Relief Procedure



1. Set START/STOP switch to STOP.
2. Push in SECURE DISABLE switch.
3. Open the back pressure regulator and all fluid drain valves in the system, having a waste container ready to catch drainage. Leave open until you are ready to pressurize system again.
4. Check that pressure gauges on fluid supply and return lines read zero. If gauges do not read zero, determine cause and carefully relieve pressure by VERY SLOWLY loosening a fitting. Clear obstruction before pressurizing system again.

## Kit Parts

 Slider Cylinder Rebuild Kit 15H874 includes parts to rebuild one slider cylinder assembly. Order two kits to rebuild both slider cylinder assemblies. Parts included in the kit are marked with an asterisk, for example (2\*). Use all the new parts in the kit.

Ref. No.	Part No.	Description	Qty
2*	n/a	CYLINDER, slider	1
8*	n/a	BEARING, slider	2
15*	108683	NUT, lock, hex	3
16*	120351	GASKET, sanitary	4
31*	100664	SCREW, set, socket-head; 1/4-20 x 1/2 in. (13 mm)	1
41*	111316	O-RING; chemically resistant fluoroelastomer	1


Parts designated n/a are not available separately.

## Kit Installation

### Disassembly



1. Jog the motor to bring the lower on the side being repaired to the bottom of its stroke. This provides access to the coupling nut (14).
2. Relieve pressure, page 2.
3. See FIG. 1. Place a 3/4 in. wrench on the slider piston (9) flats (just above the coupling nut), to keep the slider piston/connecting rod from turning when you are loosening the coupling nut (14). Orient the wrench so it is braced against one of the tie rods (3). Applying excessive force to the slider piston/connecting rod can shorten the life of the lower pin bearing.
4. Using a 1-5/8 in. open-end wrench, unscrew the coupling nut (14) from the slider piston (9) and let it slide down onto the pump piston rod. Be careful not to lose the collars (13).
5. Shut off electrical power and allow the unit to cool.

 Hold slider piston (9) flats with 3/4 in. wrench, and brace against tie rod (3).

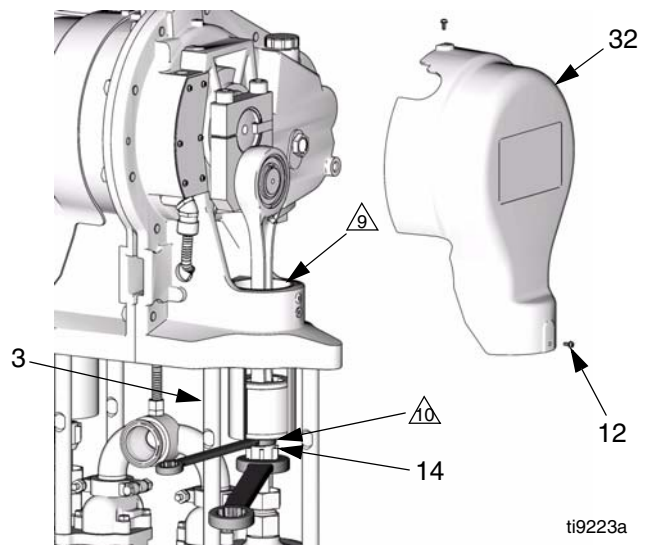
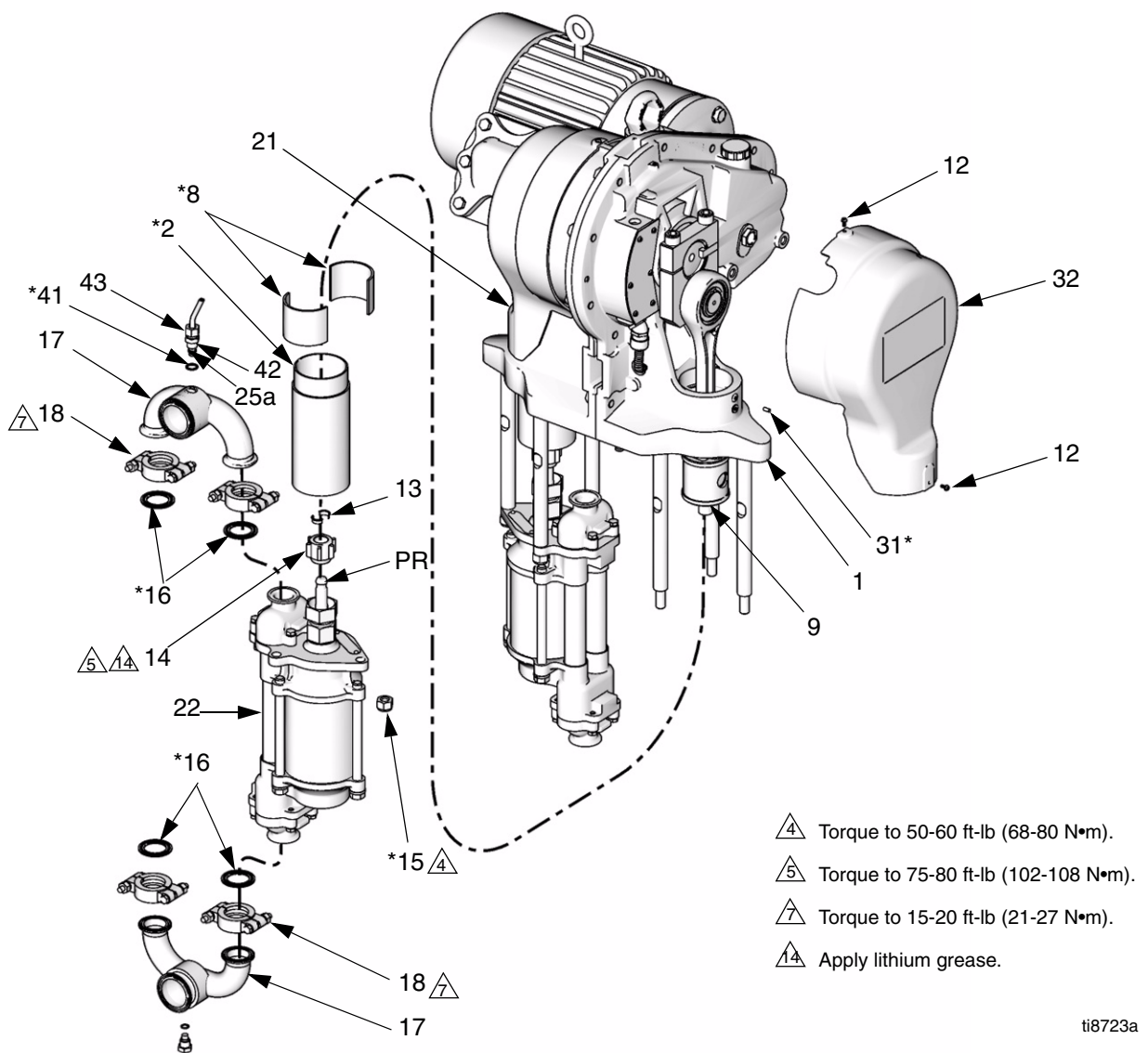


FIG. 1. Remove Coupling Nut

6. Disconnect the fluid inlet and outlet lines from the pump. Plug the ends to prevent fluid contamination.
7. See FIG. 2. At the pump outlet manifold (17), loosen the transducer nut (43) and unscrew the adapter (42) from the manifold. Remove the transducer (25a) from the manifold port. Remove the existing o-ring (41) and discard.
8. Loosen the clamps (18) at the inlet and outlet manifolds (17). Remove the manifolds and gaskets (16).
9. Remove the coupling nut (14) and collars (13) from the piston rods (PR).
10. Unscrew the locknuts (15). Remove the lower (22).
11. Remove two screws (12) and the cover. FIG. 1 shows the cover (32) on the stand side; the motor side cover is (21).
12. Remove the setscrew (31). Unscrew the slider cylinder (2) from the gear reducer (1).
13. Remove the bearings (8) from the slider piston (9).

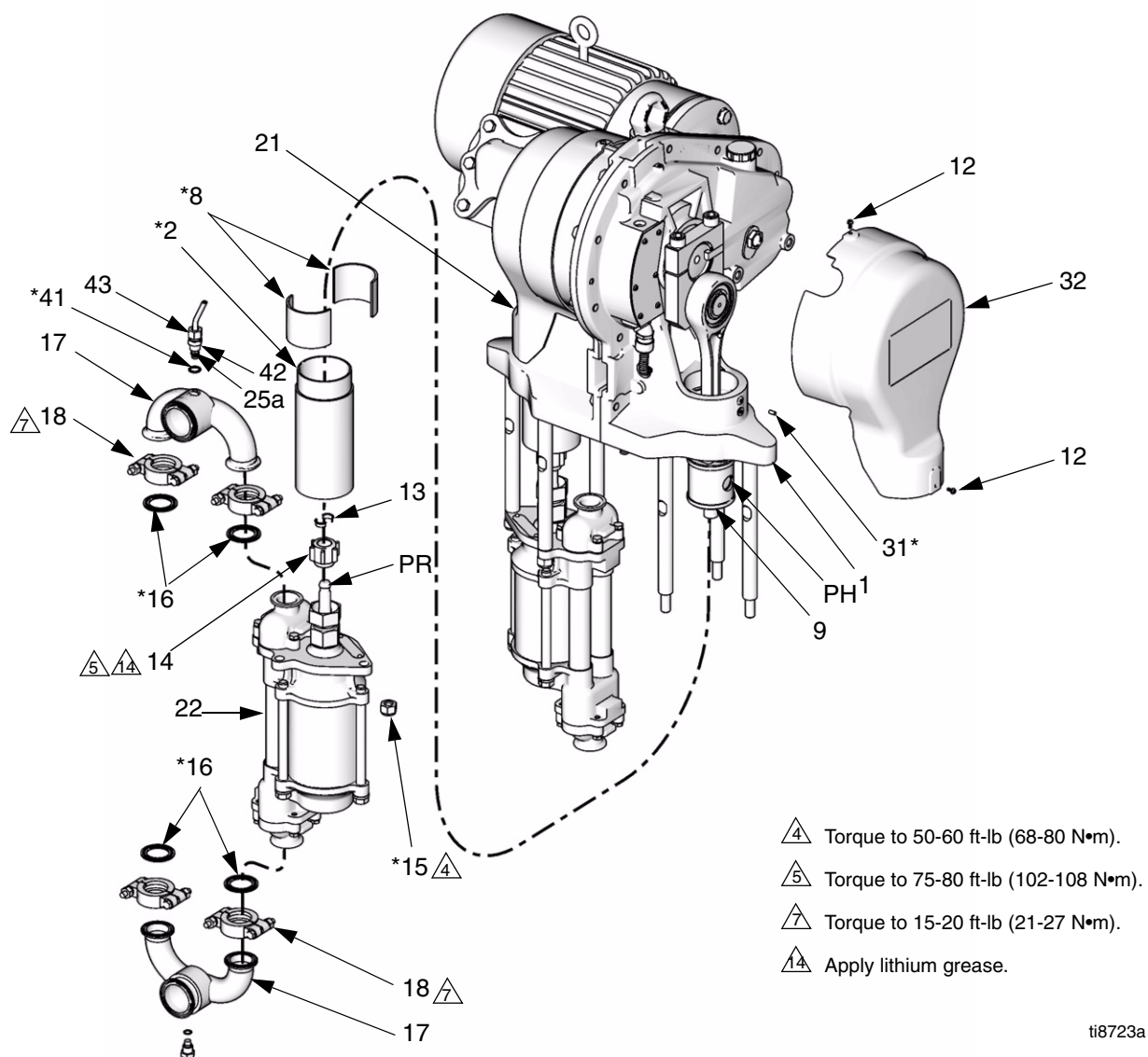


ti8723a

**FIG. 2: Slider Cylinder Rebuild Kit**

## Reassembly

1. See FIG. 3. Install the two new bearings (8\*) on the slider piston (9). The joints between the bearings must align with the pin hole (PH) in the slider piston.
2. Screw the slider cylinder (2\*) into the gear reducer (1). Torque to 15-20 ft-lb (21-27 N•m). Install the set-screw (31\*). Torque to 30-35 in-lb (3.4-3.9 N•m).
3. Install two screws (12) and the cover (32 is shown; use 21 on the motor side).
4. Install the coupling nut (14) on the lower's piston rod (PR).
5. Orient the lower (22) to the gear reducer (GR) as shown. Position the lower on the tie rods (3). Screw the tie rod locknuts (15\*) included in the kit onto the tie rods handtight.
6. Assemble the inlet and outlet manifolds (17) to the lower, using new gaskets (16\*). Torque the clamps (18) to 15-20 ft-lb (21-27 N•m).
7. Torque the locknuts (15\*) to 50-60 ft-lb (68-80 N•m).
8. Install a new black o-ring (41\*) on the transducer (25a).
9. Insert the transducer into the outlet manifold (17). Torque the adapter (42) first, then the nut (43) to 15-20 ft-lb (21-27 N•m).
10. Ensure that the collars (13) are in place in the coupling nut (14).
11. Place a 3/4 in. wrench on the flats of the slider piston (9), to keep it from turning when you are tightening the coupling nut (14). Orient the wrench so it is braced against one of the tie rods (3) or the pump stand. Tighten the coupling nut (14) onto the slider piston (9) and torque to 75-80 ft-lb (102-108 N•m).
12. Turn on power and jog the motor to repeat procedure for the other lower.
13. Flush and test the pump before reinstalling it in the system. Connect hoses and flush the pump. While it is pressurized, check for smooth operation and leaks. Adjust or repair as necessary before reinstalling in the system.



ti8723a

**FIG. 3: Slider Cylinder Rebuild Kit**

# Graco Standard Warranty

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

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

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

**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 two (2) 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 to identify the nearest distributor.

**Phone:** 612-623-6921 **or Toll Free:** 1-800-328-0211 **Fax:** 612-378-3505

*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 311599

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

**GRACO INC. P.O. BOX 1441 MINNEAPOLIS, MN 55440-1441**

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

1/2007