



For Medium-Volume HIGH-FLO® Pumps

## Pump Repair and Conversion Kits

**NOTE:** Refer to the HIGH-FLO® Pumps instruction manual 307-809 for important safety warnings and service instructions.

### Pump Seal Kits

*See page 3 for parts lists.*

#### **Pump Seal Repair Kit 220-589**

#### **Pump PTFE Seal Conversion Kit 224-934**

For 5:1 Ratio Senator Pumps 220-566, 220-569;  
3:1 Ratio President Pumps 220-561, 220-564;  
and Viscount I 300 Pumps 220-573, 220-576.

#### **Pump Seal Kit 220-588**

#### **Pump PTFE Seal Conversion Kit 224-935**

For 3.5:1 Ratio Senator Pumps 220-565, 220-568  
and 2:1 Ratio President Pumps 220-560, 220-563.

#### **Pump Seal Kit 220-587**

#### **Pump PTFE Seal Conversion Kit 224-936**

For 4:1 Ratio Bulldog Pumps 220-577, 220-578;  
2.5:1 Ratio Senator Pumps 220-567, 220-570;  
and 1.5:1 Ratio President Pumps 220-559, 220-562.

### Throat Packing Kits

*See page 3 for parts lists.*

#### **Throat Packing Kit 220-586**

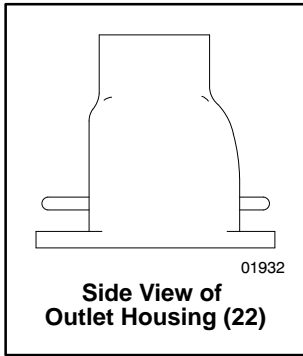
With leather and UHMWPE throat packings.  
For all pumps listed on this page.

#### **Conversion Throat Packing Kit 220-585**

With PTFE throat packings.  
For all pumps listed on this page.

#### **Conversion Throat Packing Kit 238-162**

With leather throat packings.  
For all pumps listed on this page.  
*May be used as a repair kit for 4:1 Ratio  
Bulldog Pump 223-129.*



**NOTES:**

Reference numbers here correspond to the reference numbers in pump instruction manual 307–809.

\* These parts are included in the pump seal kits.

\*\* These parts are included in the throat packing kits.

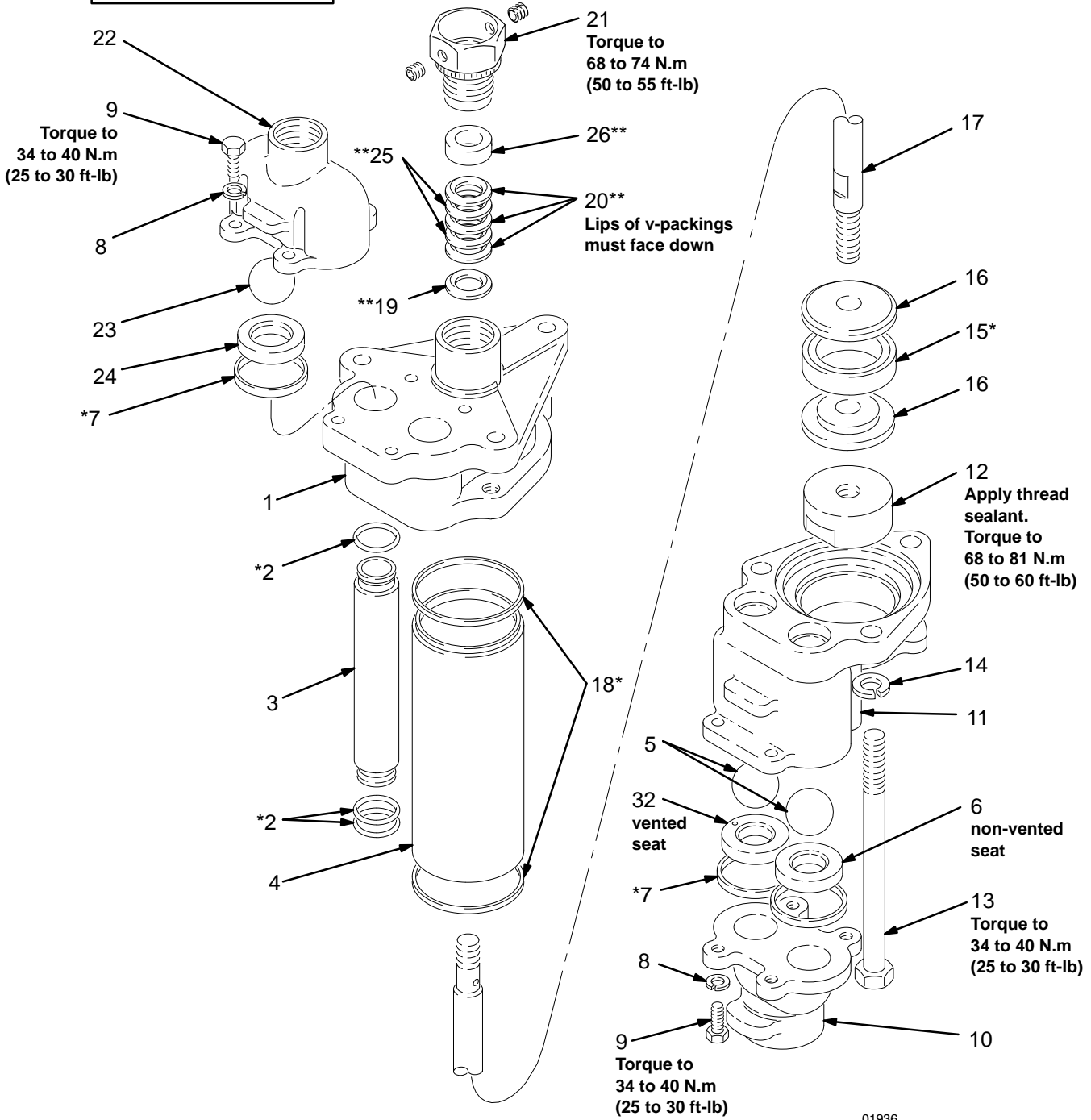


Fig. 1

## Pump Seal Kits

### Pump Seal Repair Kit 220–589

#### Pump PTFE Seal Conversion Kit 224–934

For 5:1 Ratio Senator Pumps 220–566, 220–569;  
3:1 Ratio President Pumps 220–561, 220–564;  
and Viscount I 300 Pumps 220–573, 220–576.

Ref No.	Part No.	Description	Qty
2	108–526	Packing	6
7	181–877	Gasket	4
15	181–680	Packing; UHMWPE (kit 220–589)	1
	187–761	Packing; PTFE (kit 224–934)	1
18	181–875	Gasket	2

### Pump Seal Kit 220–588

#### Pump PTFE Seal Conversion Kit 224–935

For 3.5:1 Ratio Senator Pumps 220–565, 220–568  
and 2:1 Ratio President Pumps 220–560, 220–563.

Ref No.	Part No.	Description	Qty
2	108–526	Packing	6
7	181–877	Gasket	4
15	183–039	Packing; UHMWPE (kit 220–588)	1
	187–762	Packing; PTFE (kit 224–935)	1
18	183–094	Gasket	2

### Pump Seal Kit 220–587

#### Pump PTFE Seal Conversion Kit 224–936

For 4:1 Ratio Bulldog Pumps 220–577, 220–578;  
2.5:1 Ratio Senator Pumps 220–567, 220–570;  
and 1.5:1 Ratio President Pumps 220–559, 220–562.

Ref No.	Part No.	Description	Qty
2	108–526	Packing	6
7	181–877	Gasket	4
15	181–793	Packing; UHMWPE (kit 220–587)	1
	187–763	Packing; PTFE (kit 224–936)	1
18	181–876	Gasket	2

## Throat Packing Kits

### Throat Packing Kit 220–586

With leather and UHMWPE throat packings.  
For all pumps listed on this page.

Ref No.	Part No.	Description	Qty
19	183–293	Gland	1
20	183–295	Packing; UHMWPE	3
25	183–294	Packing; leather	2
26	187–117	Gland	1

### Conversion Throat Packing Kit 220–585

With PTFE throat packings.  
For all pumps listed on this page.

Ref No.	Part No.	Description	Qty
19	183–293	Gland	1
†20/25	183–352	Packing	5
26	187–117	Gland	1

† Takes the place of items 20 and 25 of standard pump packings

### Conversion Throat Packing Kit 238–162

With leather throat packings.  
For all pumps listed on this page.\*

Ref No.	Part No.	Description	Qty
19	183–293	Gland	1
†20/25	183–294	Packing	5
26	187–117	Gland	1

† Takes the place of items 20 and 25 of standard pump packings.

\* May also be used as a repair kit for 4:1 Ratio Bulldog Pump 223–129.

# 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.

# Graco Phone Numbers

**TO PLACE AN ORDER**, contact your Graco distributor, or call this number to identify the distributor closest to you: **1-800-367-4023 Toll Free**

**FOR TECHNICAL ASSISTANCE**, service repair information, or assistance regarding the application of Graco equipment: **1-800-543-0339 Toll Free**

**Sales Offices:** Atlanta, Chicago, Detroit, Los Angeles

**Foreign Offices:** Belgium, Canada, England, Korea, Switzerland, France, Germany, Hong Kong, Japan

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

PRINTED IN U.S.A. 307-838 July 1987, Revised October 1995