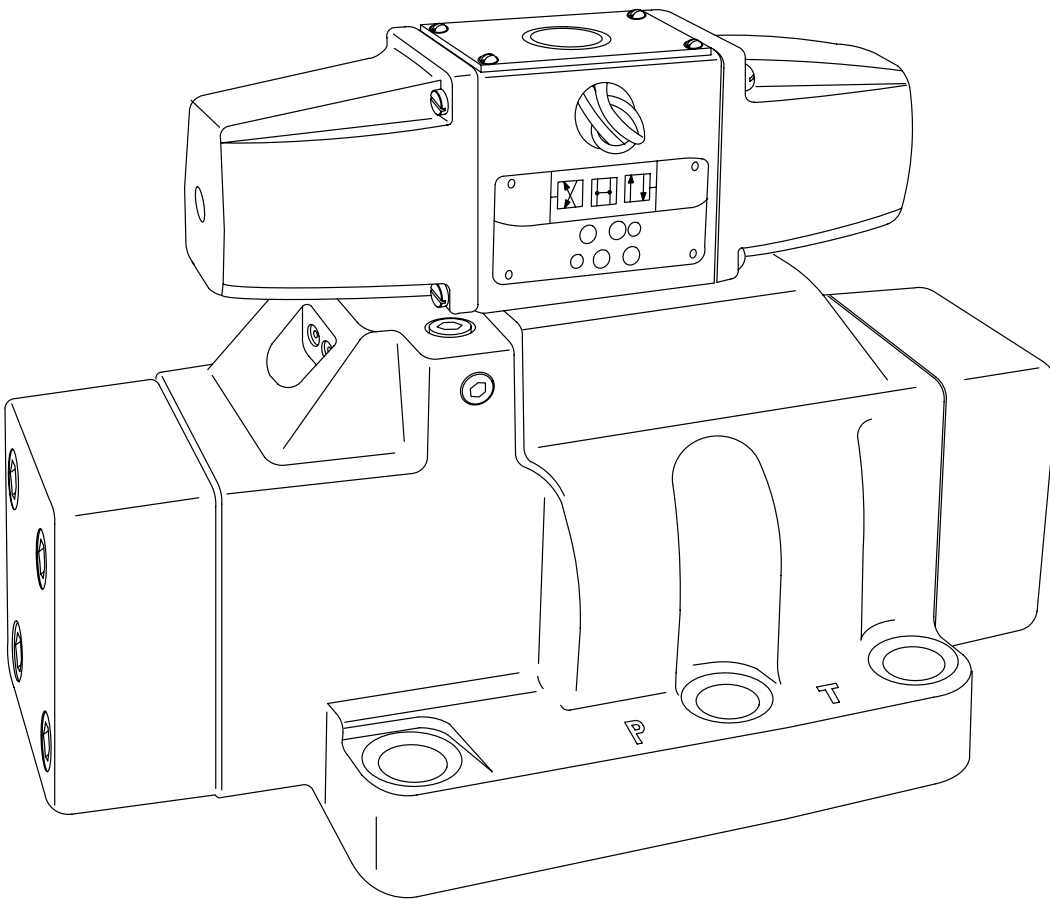


# Directional Controls



## Air Gap, Solenoid Controlled, Pilot Operated Directional Control Valves

DG5S4(L)-10\*D(X)-\*-\*-53



| Model          | Spool   | ID Plate W/<br>Circuit Diagram |
|----------------|---------|--------------------------------|
| DG5S4-100D-53  | 364037  | 400967                         |
| DG5S4-101D-53  | *331404 | 400968                         |
| DG5S4-102D-53  | 364038  | 400969                         |
| DG5S4-103D-53  | *277479 | 400970                         |
| DG5S4-104D-53  | 281193  | 400971                         |
| DG5S4-106D-53  | 364039  | 400972                         |
| DG5S4-108D-53  | 364041  | 400971                         |
| DG5S4-109D-53  | 277563  | 400967                         |
| DG5S4-1033D-53 | 364042  | 400972                         |

**\*Spool Assembly Note**

Assemble type "1" and "3" Spools with narrow center land toward "A" end of valve. "A" end is defined as being closest to cylinder port "A".

**Seal Kit Note**

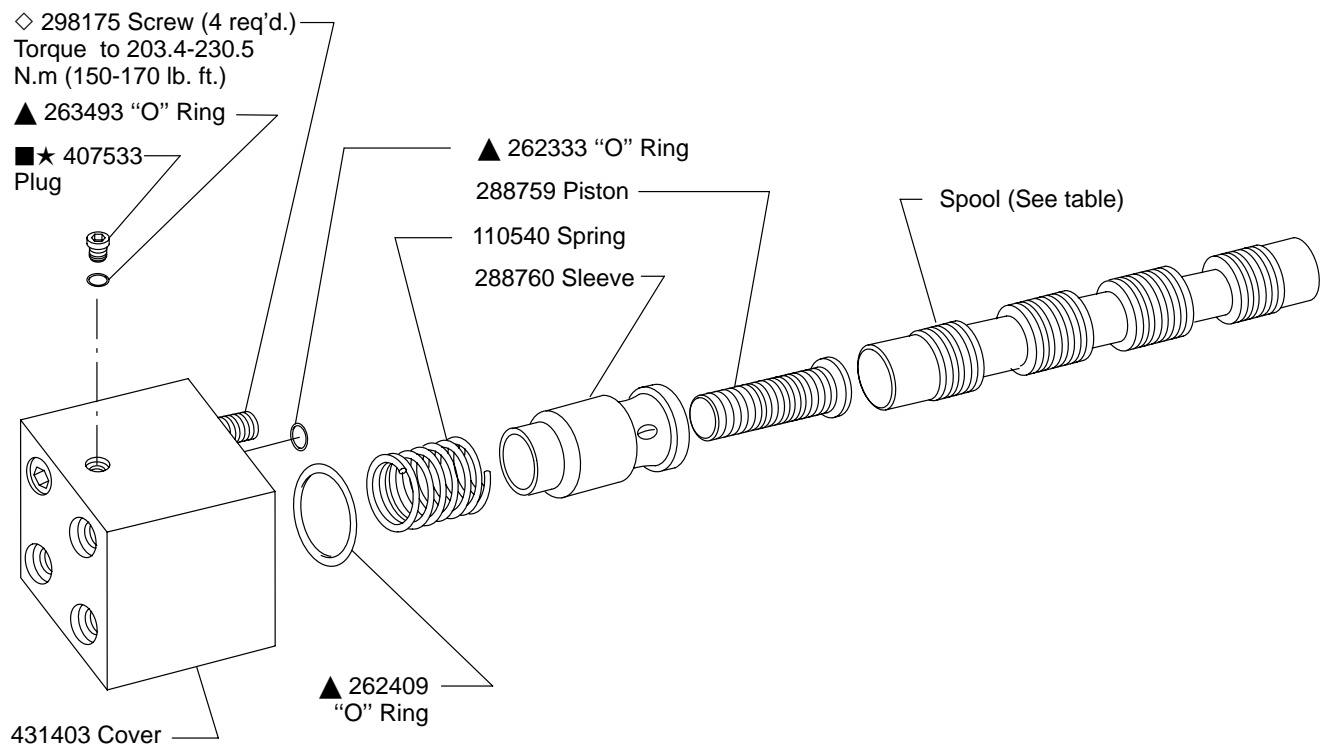
The -53 design valves are manufactured as shown with F3 seals used internally. Interface seals are standard Nitrile material and are converted to F3 in the seal kit. All seals in the seal kit are F3.

| ■ Plug Torques (Oiled) |           |         |
|------------------------|-----------|---------|
| Plug                   | N.m       | lb. in. |
| 7074                   | 8.5 - 9.6 | 75-85   |
| 7075                   | 20.0-23.0 | 180-205 |
| 30560                  | 8.5-9.6   | 75-85   |
| 224026                 | 8.5-9.6   | 75-85   |
| 226987                 | 8.5-9.6   | 75-85   |
| 343740                 | 10.0-11.8 | 90-105  |
| 363889                 | 16.9-18.0 | 150-160 |
| 407533                 | 3.4-4.0   | 30-35   |

**★ Plug Installation Table**

| Model        | Plug "A" | Plug "B" |
|--------------|----------|----------|
| -10*D-53     | 226987   | Out      |
| -10*D-E-53   | 7074     | 226987   |
| -10*DA-53    | 30560    | Out      |
| -10*DA-E-53  | 7074     | 30560    |
| -10*DAX-53   | Out      | Out      |
| -10*DAX-E-53 | 7074     |          |
| -10*DB-53    | 224026   | 224026   |
| -10*DB-E-53  | 7074     |          |

7074 is an NPTF Pipe Plug.  
Others are NPTF Orifice Plugs.



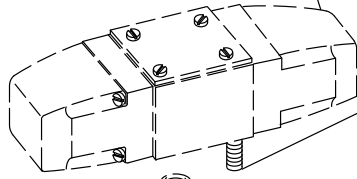
- ▲ Included in F3 Seal Kit 920213
- ◇ Included in Fastener Kit 941273
- Included in Bolt Kit 255654
- ☑ Included in Bolt Kit 255633
- ★ Included in Plug Kit 941263
- Plug Torques (See table)
- ◆ Not available for sale

**Note**  
SAE straight thread plugs used on exterior of valve.

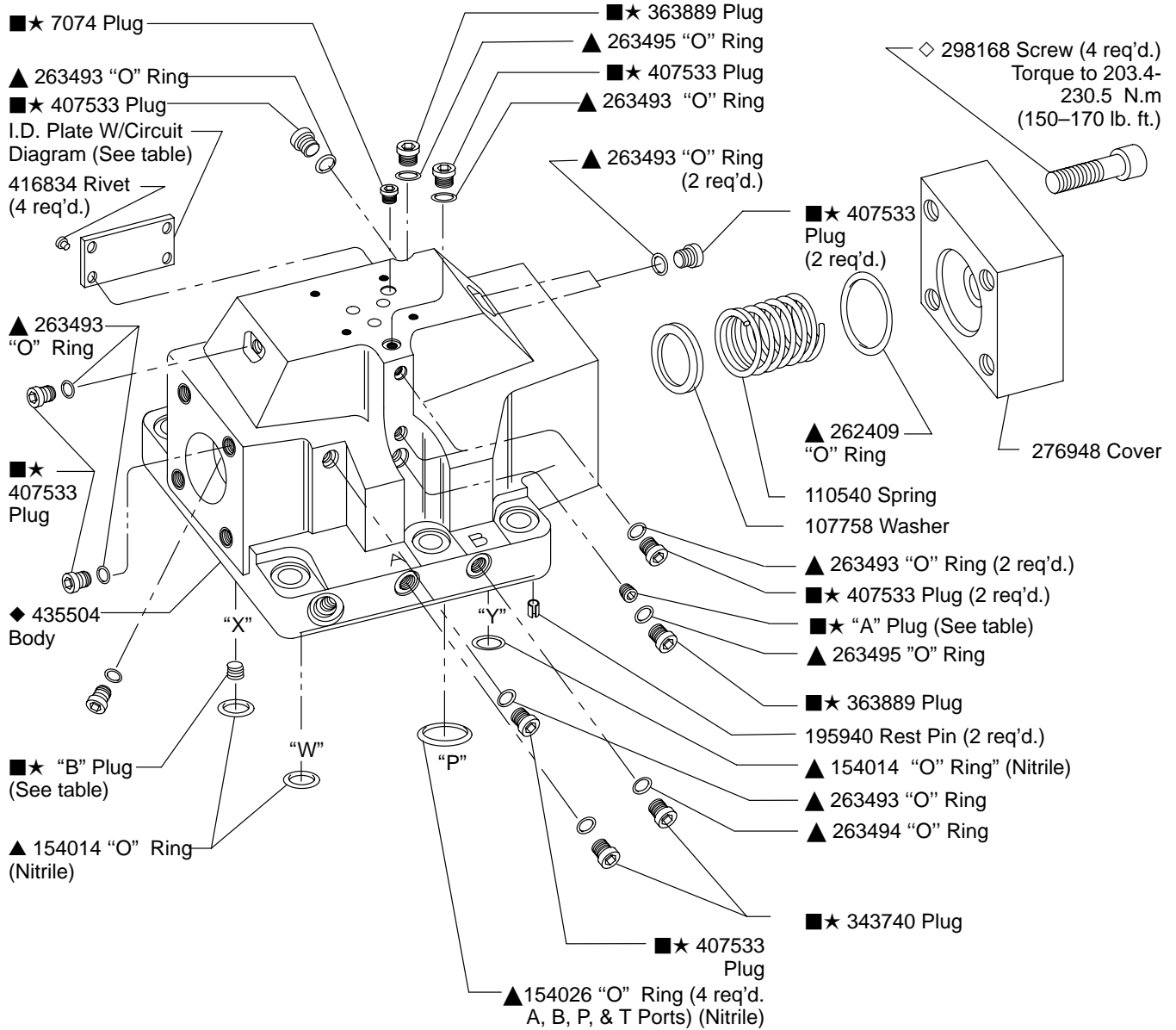
**Note**  
Parts included in service kits not sold separately.

| Pilot Model                                 | Main Stage Spool Type |
|---|-----------------------|
| DG4S4-017C-*-50                             | 0, 1, 2, 3, 6, 9 & 33 |
| DG4S4-0178C-*-50                            | 4 & 8                 |
| See back page for Pilot Valve exploded view |                       |

| Pilot Attaching Parts                         |                   |                        |
|---|-------------------|------------------------|
| Model   | Bolt<br>(4 req'd) | L'Washer<br>(4 req'd.) |
| W/Out Pilot Choke                             | ☑ 1034            | ☑☐ 68907               |
| With Pilot Choke                              | ☐ 10938           |                        |
| Torque to 11.3-12.7 N.m 100-112 lb. in.       |                   |                        |
| See back page for Pilot Choke Parts Breakdown |                   |                        |



199811 "O" Ring (5 req'd.) (Ref.)  
(Nitrile)

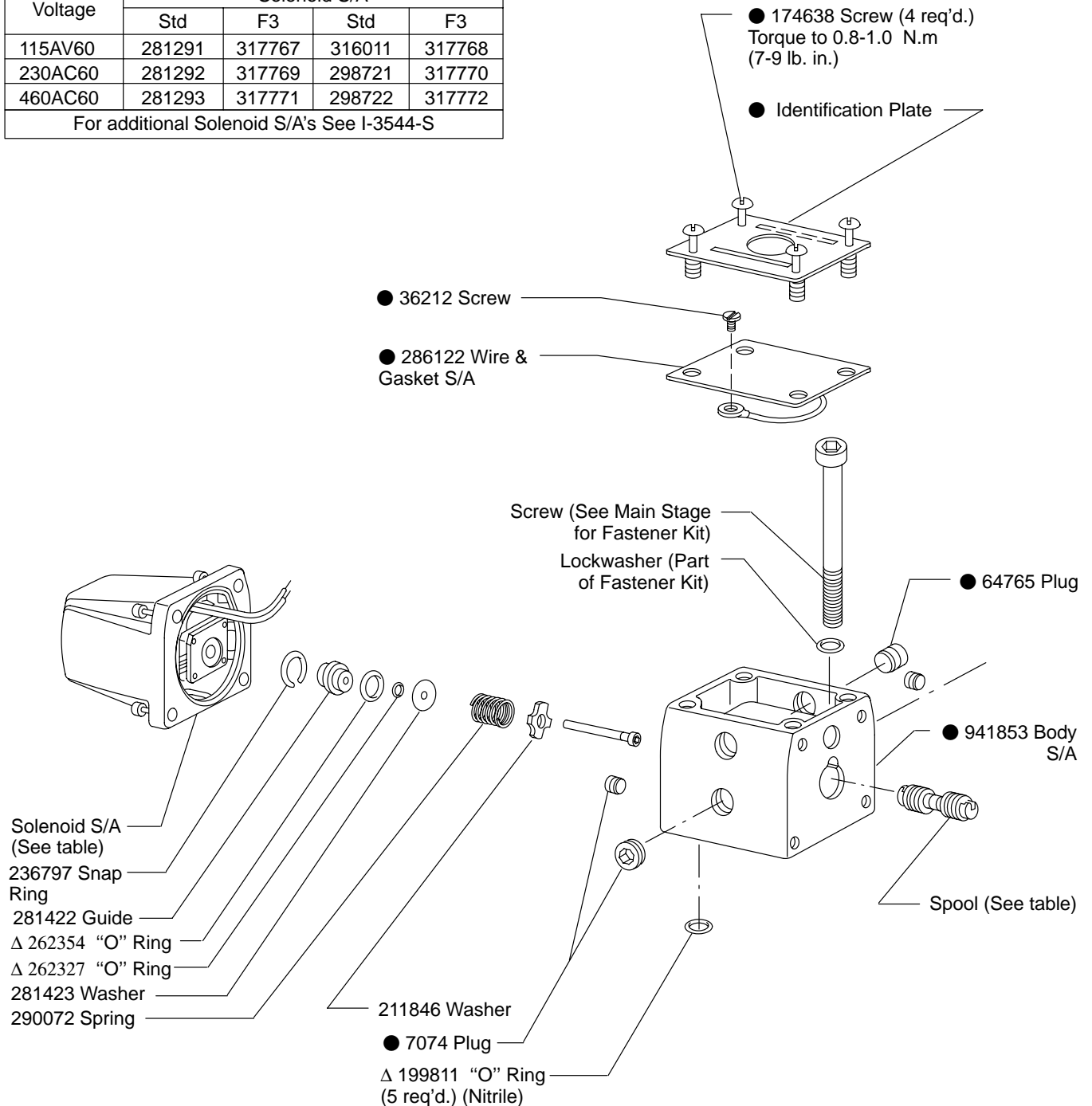


### Seal Kit Note

The -53 design valves are manufactured as shown with F3 seals used internally. Interface seals are standard Nitrile material and are converted to F3 in the seal kit. All seals in the seal kit are F3.

| Voltage | Solenoid S/A |        |        |        |
|---------|--------------|--------|--------|--------|
|         | Std          | F3     | Std    | F3     |
| 115AV60 | 281291       | 317767 | 316011 | 317768 |
| 230AC60 | 281292       | 317769 | 298721 | 317770 |
| 460AC60 | 281293       | 317771 | 298722 | 317772 |

For additional Solenoid S/A's See I-3544-S



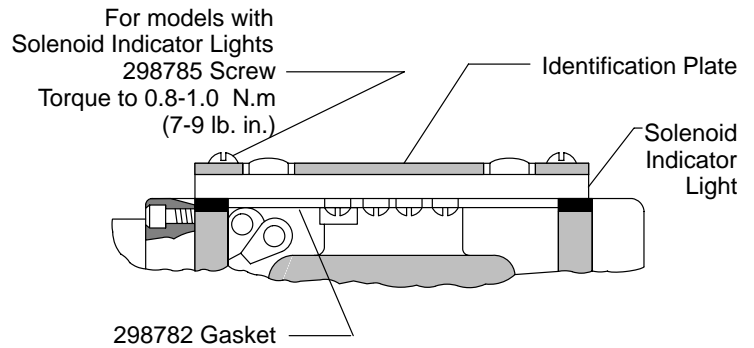
● Included in 941853 Body S/A

△ Included in F3 Pilot Valve Seal Kit 919214

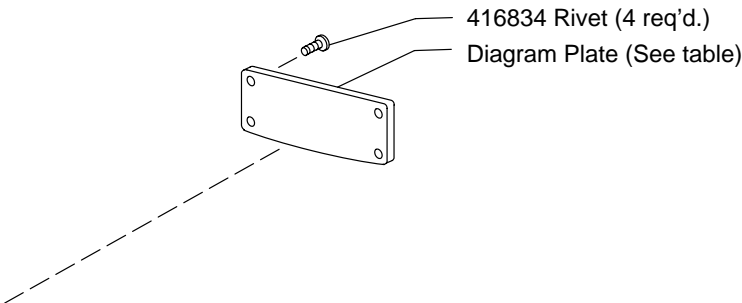
| DG4S4-01*C-50 Pilot Valve |        |               |
|---------------------------|--------|---------------|
| Spool                     |        | Diagram Plate |
| Type                      | Part   |               |
| 7                         | 236624 | 290346        |
| 78                        |        | 577482        |

**Note**  
A Spool designation of (78) indicates valve issued as a pilot for two Stage Valves with "4" or "8" type Main Stage Spools.

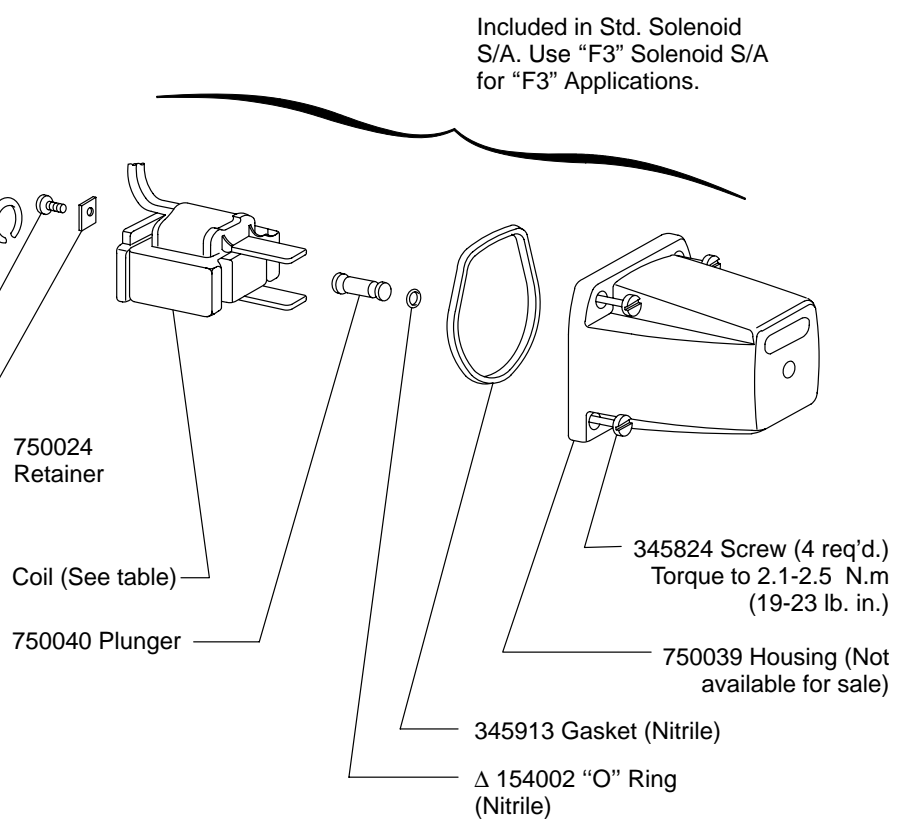
**Note**  
Refer to Parts Drawing I-3487-S for Models with Plug-In Feature.



| Solenoid Indicator Light Kit<br>(Includes all parts identified) |        |
|---|--------|
| Voltage Range   | Kit    |
| 100 thru 127  | 941615 |
| 192 thru 233  | 941617 |

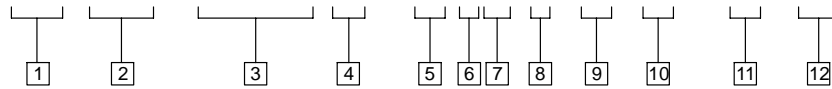


- 213168 Push Pin (2 req'd.)
- 211846 Washer
- 290072 Spring
- 281423 Washer
- Δ 262327 "O" Ring
- Δ 262354 "O" Ring
- 281422 Guide
- 236797 Snap Ring
- 345825 Screw Torque to 3.4-3.9 N.m (30-35 lb. in.)



# Model Code

**(F3) (P\*\*) - DG5S4 (L) - 10 \* D (\*) (X) (\*\*) - (E) - 53**



**1 Seal Material**

**F3** - Seals for mineral oil and fire resistant fluids(Viton seals)

**2 Electrical Plug Feature**  
(See note below)

**3 Model Series**

**DG5S4** - Directional valve, subplate or manifold mounted, solenoid controlled, pilot operated, sliding spool, flow directions 4 - 4 way

**4 Solenoid Indicator Lights**

**L** - Light  
**Omitted** - None

**5 Series**

**10** - 100 (1.250 inch)

**6 Spool Type**

Main Stage Spool

**7 Pressure Centered**

**Pilot Pressure Range**  
**A** - 20.7 - 70.0 bar (300 to 1000 psi)  
**B** - 70.0 - 138.0 bar (1000 to 2000 psi)  
**Omitted** - 138.0 - 270.0 bar (2000 to 3000 psi)

**8 Response**

**"X"** - Fast response model (available only for "A" pilot press range)  
**Omitted** - Low shock model

**9 Spool Control Modifications**  
(Omit if not required)

**2** - Pilot choke adjustments  
**8** - Stroke adj. cylinder "B" end only  
**2-8** - If both are required

**10 Pilot Pressure**

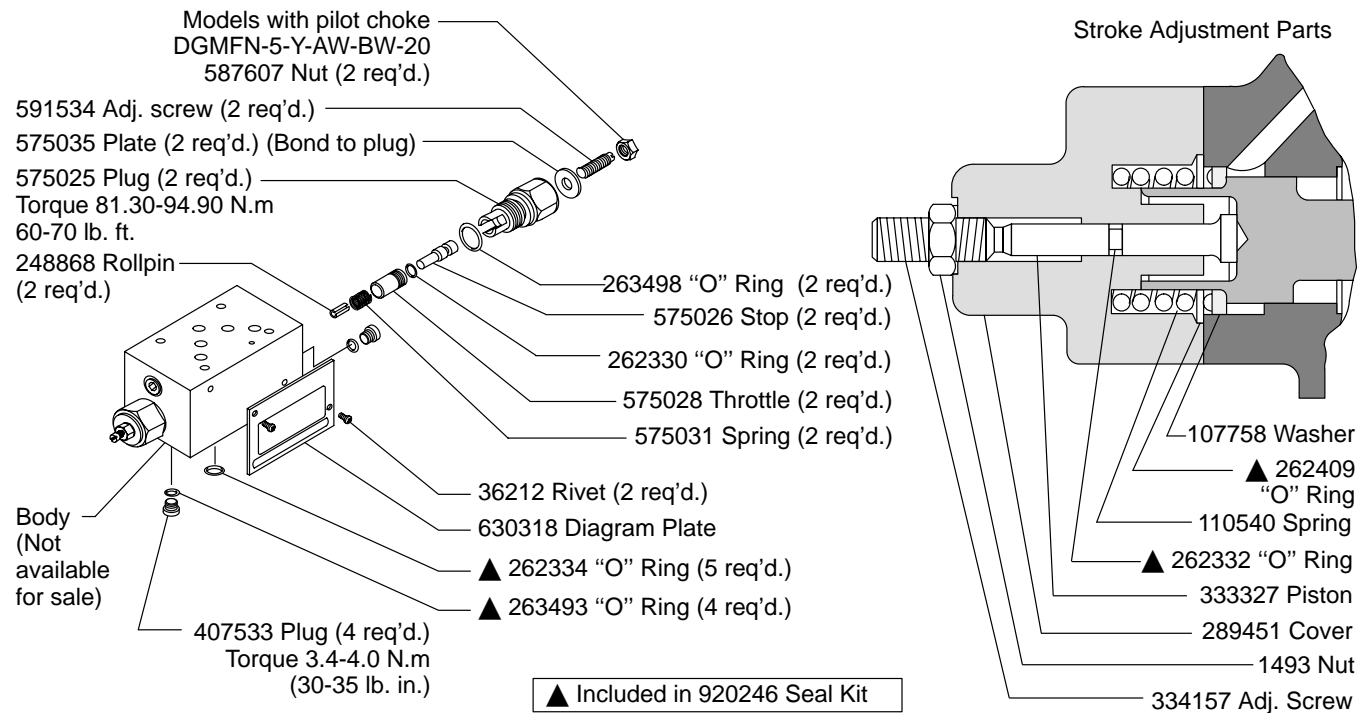
**E** - External  
**Omitted** - Internal

**11 Core Tube**

**W** - Non serviceable  
**W3** - Serviceable

**12 Coil Identification Letter**

**13 Design**



**Electrical Plug Feature** (Omit if not required)

**PA** - Insta-Plug, Male Receptacle only  
**PB** - Insta-Plug, Male & Female Receptacle

**PA3** (3Pin) & **PA5** (5PIN) Receptacles that meet NFPA Hydraulic Valve Electrical Standard T3.5.29M-1980.

For satisfactory service life of these components in industrial applications, use full flow filtration to provide fluid which meets ISO cleanliness code 20/18/15 or cleaner. Selections from Eaton OFF, OFR, and OFRS series are recommended.