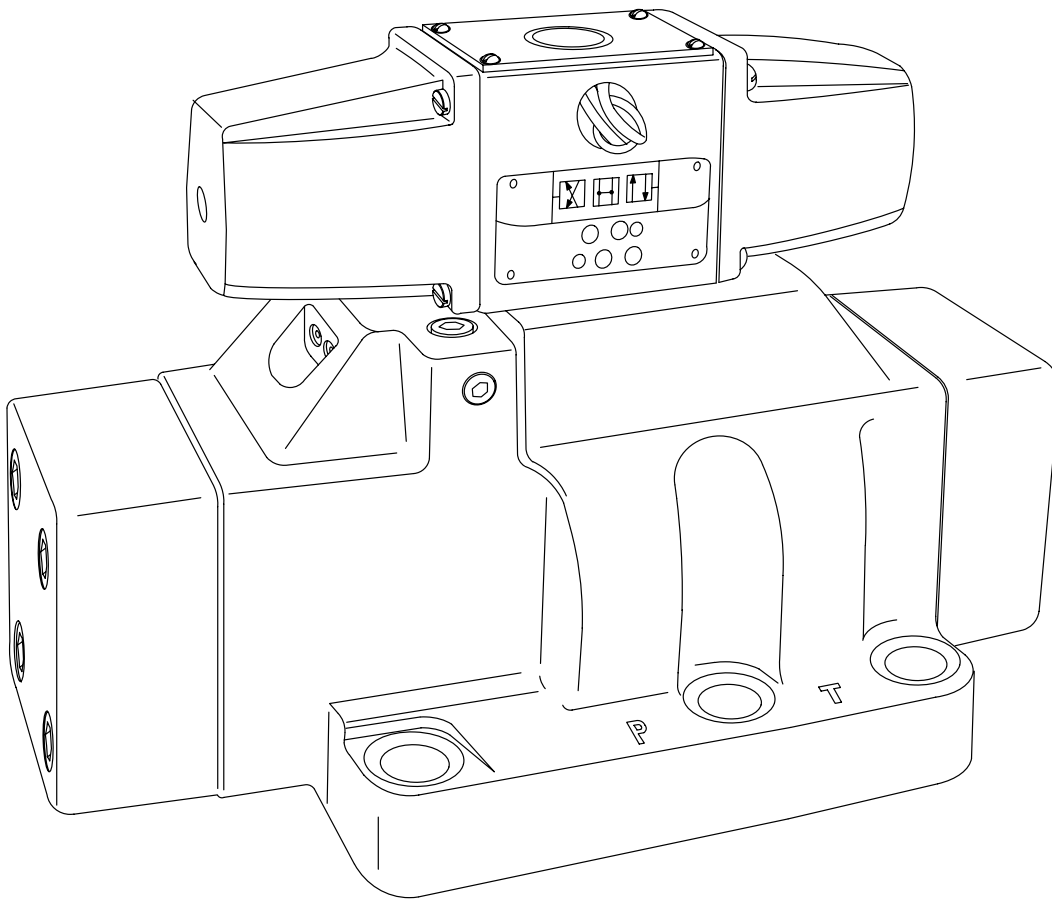


# Directional Controls



## Pilot Operated Directional Control Valves

DG5S4-10\*\*-\*\*-53



Plug Installation Table					
Model	Plug "A"	Plug "B"	Plug "C"		
DG5S4-10**-53	Does Not Exist	30560	Out		
DG5S4-10**-E-53		7074	30560		
DG5S4-10**-X-53		Out	Out		
DG5S4-10**-X-E-53		161809		7074	
DG5S4-10**-K/L/R/S-53			113000		30560
DG5S4-10**-E-K/L/R/S-53			Out		Out
DG5S4-10**-X-K/L/R/S-53			113000		

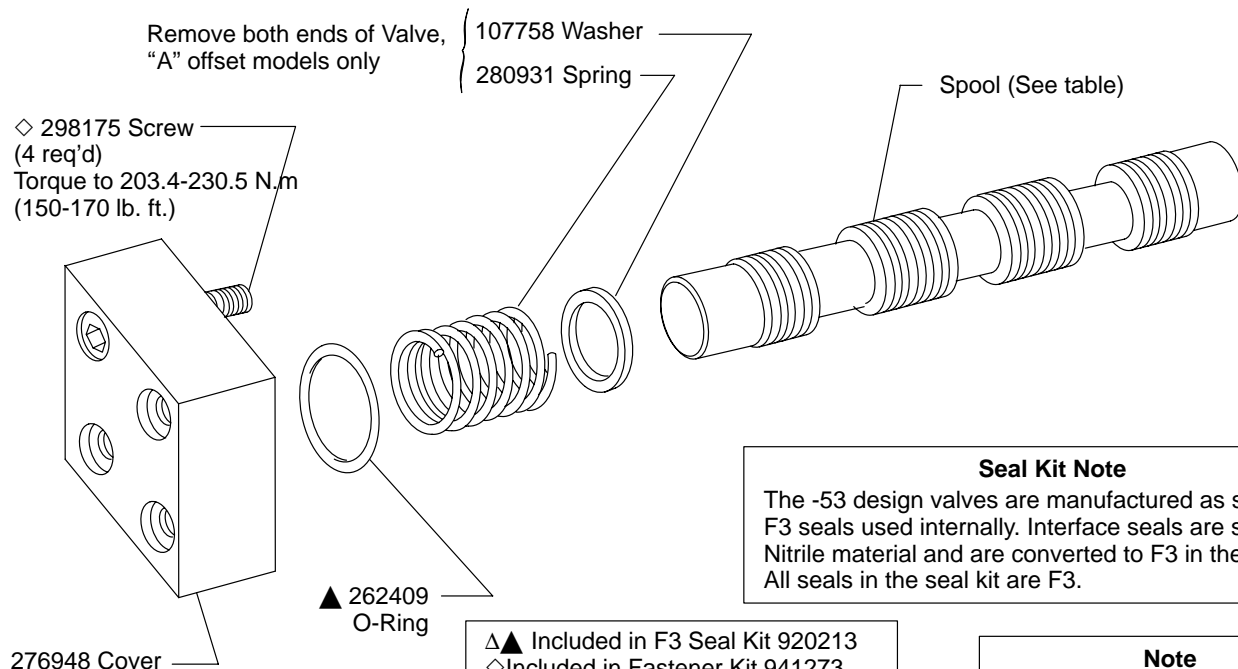
■ Plug Torques (Oiled)		
Plug	N.m	lb. in.
7074	8.5 - 9.6	75-85
7075	20.0-23.0	180-205
30560	8.5-9.6	75-85
113000	5.0-5.9	45-52
161809		
343740	10.0-11.8	90-105
363889	16.9-18.0	150-160
407533	3.4-4.0	30-35

Valve Model Code		Spool	ID Plate W/Circuit Diagram	
Main Stage Spool	Valve Type		A	B, C, N
DG5S4-100-	A/B/C/N	364037	400975	400976
DG5S4-101-	B/C	*331404	_____	400977
DG5S4-102-	A/B/C/N	364038	400975	400978
DG5S4-103-	B/C	*277479	_____	400979
DG5S4-104-		281193	_____	400980
DG5S4-106-	A/B/C/N	364039	400975	400981
DG5S4-108-	B/C	364041	_____	400980
DG5S4-109-	A/B/C/N	277563	400975	400976
DG5S4-1031-	B/C	*277479	_____	580475
DG5S4-1033-	A/B/C/N	364042	400975	400981

Pilot Attaching Parts		
Model	Bolt (4 req'd)	L'Washer (4 req'd)
W/Out Pilot Choke	□ 1034	☒ 68907
W/Pilot Choke (See back page)	☑ 10938	
Torque to 11.3 - 12.65 N.m 100-112 lb. in.		

**\*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". The type "31" spool is installed in reverse of type "3", with narrow center land toward "B" end.



**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.

- ▲ 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
- ⊖ Used On Check Valve Models Only

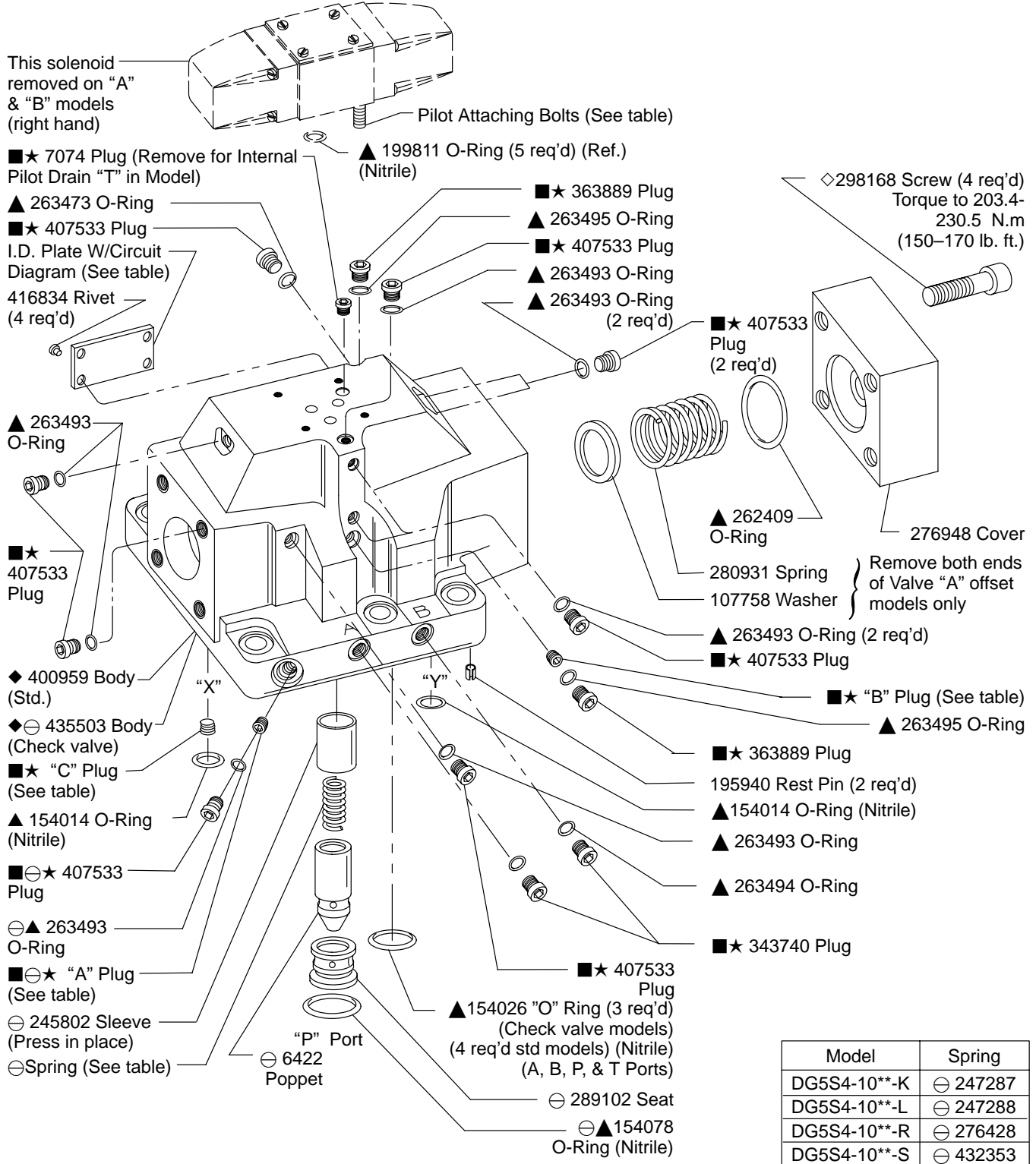
**Note**

SAE straight thread plugs used on exterior of valve.

**Note**

Parts included in service kits not sold separately.

Valve Model	Main Stage Spool	Valve Is Assembled:	
		Left Hand	Right Hand (STD)
		Pilot Valve Model Code (See Back Page For Exploded View)	
DG5S4-10*A-53	0, 2, 6, 9, 33	DG4S4-012A-*-50-LH	DG4S4-012A-*-50
DG5S4-10*B-53	0, 1, 2, 3, 6 9, 31, 33	DG4S4-016C-*-50-S163	DG4S4-016C-*-50-S87
	4 & 8	DG4S4-0168C-*-50-S163	DG4S4-0168C-*-50-S87
DG5S4-10*C-53	0, 1, 2, 3, 6 9, 31, 33		DG4S4-016C-*-50
	4 & 8		DG4S4-0168C-*-50
DG5S4-10*N-53	0, 2, 6, 9, 33		DG4S4-012N-*-51



Model	Spring
DG5S4-10**-K	⊖ 247287
DG5S4-10**-L	⊖ 247288
DG5S4-10**-R	⊖ 276428
DG5S4-10**-S	⊖ 432353

● Included in 941853 Body S/A

\* Included in 942132 Detent Kit

Δ Included in F3 Pilot Valve Seal Kit 919214

Voltage	Solenoid S/A			
	S/A Complete		Coil	
	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

● Identification Plate

● 174638 Screw (4 req'd)  
Torque to 0.8-1.0 N.m (7-9 lb. in.)

● 36212 Screw

● 286122 Wire & Gasket S/A

185645 Screw (4 req'd)  
Torque to 2.1-2.5 N.m (19-23 lb. in.)

Use on "A" Offset Models

287968 Cover

Δ 281545 Gasket

Δ 262354 O-Ring

284931 Guide

294226 Limiter (2 req'd)

236451 Spring

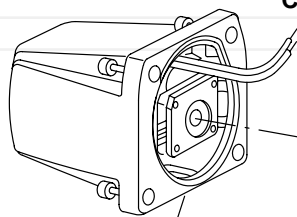
Screw (See Main Stage for Fastener Kit)

Δ 262327 O-Ring

Lockwasher (Part of Fastener Kit)

Use on "C, N, & C-S163" Models

● 64765 Plug



Push Pin	Model
213268	DG4S4-01*C/N/S163
220234	DG4S4-01*A/-S87

Solenoid S/A (See table)

287968 Cover

236797 Snap Ring

281422 Guide

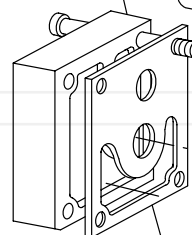
Δ 262354 O-Ring

● 941853 Body S/A

Spool (See table)

● 7074 Plug

Δ 199811 O-Ring (5 req'd) (Nitrile)



Use on "C-S87" Models

Δ 281545 Gasket

185645 Screw (4 req'd)  
Torque to 2.1-2.5 N.m (19-23 lb. in.)

211846 Washer (Omit on "N" Models)

237976 Spring ("N" Models only)

290072 Spring ("C", -S87, & -S163)

288159 Spacer "N" Models only (Omit on "C", "S87 & S163 models)

281423 Washer

Δ 262327 O-Ring

Spool		Diagram Plate			
Type	Part	"A"		"C"	"N"
		LH	RH	STD/S87/S163	
2	213231	577490	290348		577486
6	213232			290345	
68				577480	

**Note**

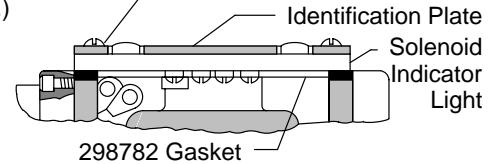
A Spool designation of (68B) indicates valve is assembled "LH" & is used as a pilot for two Stage Valves with "4" or "8" type Main Stage Spools.

**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.

**For models with Solenoid Indicator Lights**

298785 Screw  
Torque to 0.8-1.0 N.m  
(7-9 lb. in.)



Solenoid Indicator Light Kit  
(Includes all parts identified)

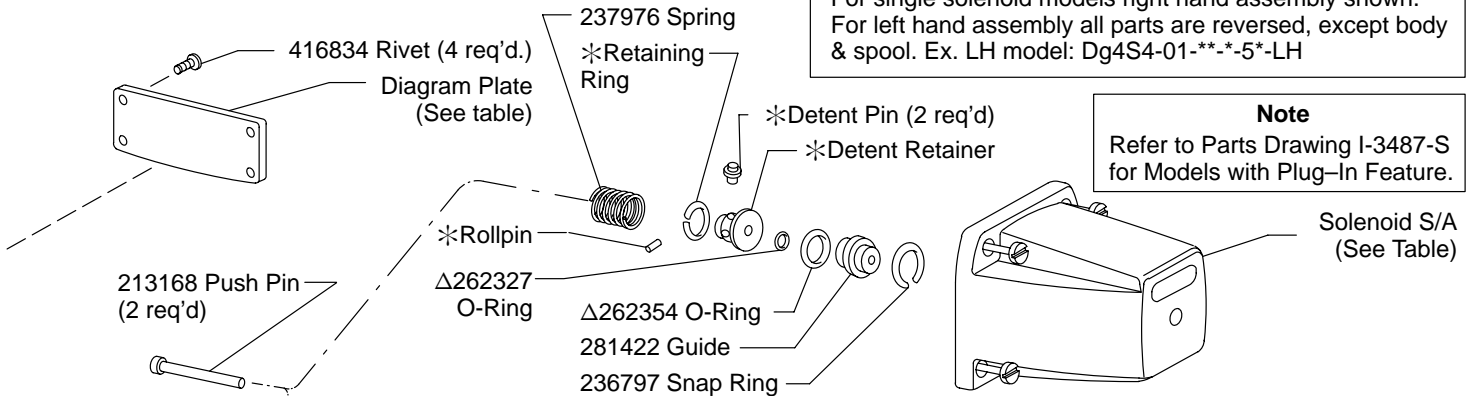
Voltage Range	Kit
100 thru 127	941615
192 thru 233	941617

**Note**

For single solenoid models right hand assembly shown. For left hand assembly all parts are reversed, except body & spool. Ex. LH model: Dg4S4-01-\*\*\*-5\*-LH

**Note**

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



**Use on "N" Detent Models**

Included in Std. Solenoid S/A. Use "F3" Solenoid S/A for "F3" Applications.

345825 Screw  
Torque to 3.4-3.9 N.m  
(30-35 lb. in.)

**Use on "A,C & C-S87" Models**

211846 Washer  
(Omit on "A" models)

290072 Spring  
(Use on all models except "A")  
237976 Spring for "A" models only)

281457 Spacer ("A" models only; omit on "C", -S87 & -S163 models)

281423 Washer

Δ 262327 O-Ring

Δ 262354 O-Ring

281422 Guide

236797 Snap Ring

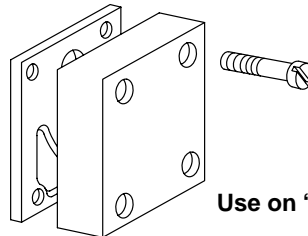
750024 Retainer

Coil (See table)

750040 Plunger

Δ 154002 O-Ring (Nitrile)

345913 Gasket (Nitrile)

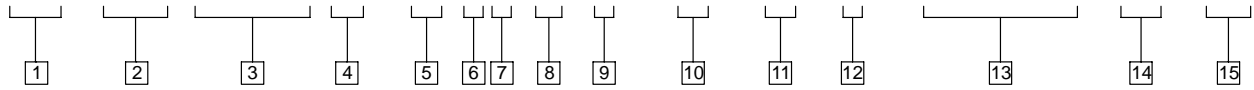


**Use on "C S163" Models**

345824 Screw  
(4 req'd)  
Torque to 2.1-2.5 N.m  
(19-23 lb. in.)

750039 Housing  
(Not available for sale)

# (F3) - (P\*\*) DG5S4 (L) - 10 \*\* (X) (\*) - (E) - (T) - (\*) - (\*\*AC\*\*) - 53 - LH



## 1 Seal Material

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

## 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 way

## 4 Solenoid Indicator Lights

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

## 5 Series

**10** - 100 (1.250 inch)

## 6 Spool Type

Main Stage Spool

## 7 Valve Type

**A** - Spring offset  
**B** - Spring centered (one solenoid)  
**C** - Spring centered  
**N** - No spring detented

## 8 Response

**"X"** - Fast response model  
**Omitted** - Low shock model

## 9 Spool Control Modifications

(Omit if not required)

- 1 - Stroke adjustments
- 2 - Pilot choke adjustments
- 3 - Pilot choke & stroke adjustment
- 7 - Stroke adj. cylinder "A" end only
- 8 - Stroke adj. cylinder "B" end only

## 10 Pilot Pressure

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

## 11 Pilot Drain

**T** - Internal Pilot Drain  
**Omitted** - External pilot drain

## 12 Check Valve

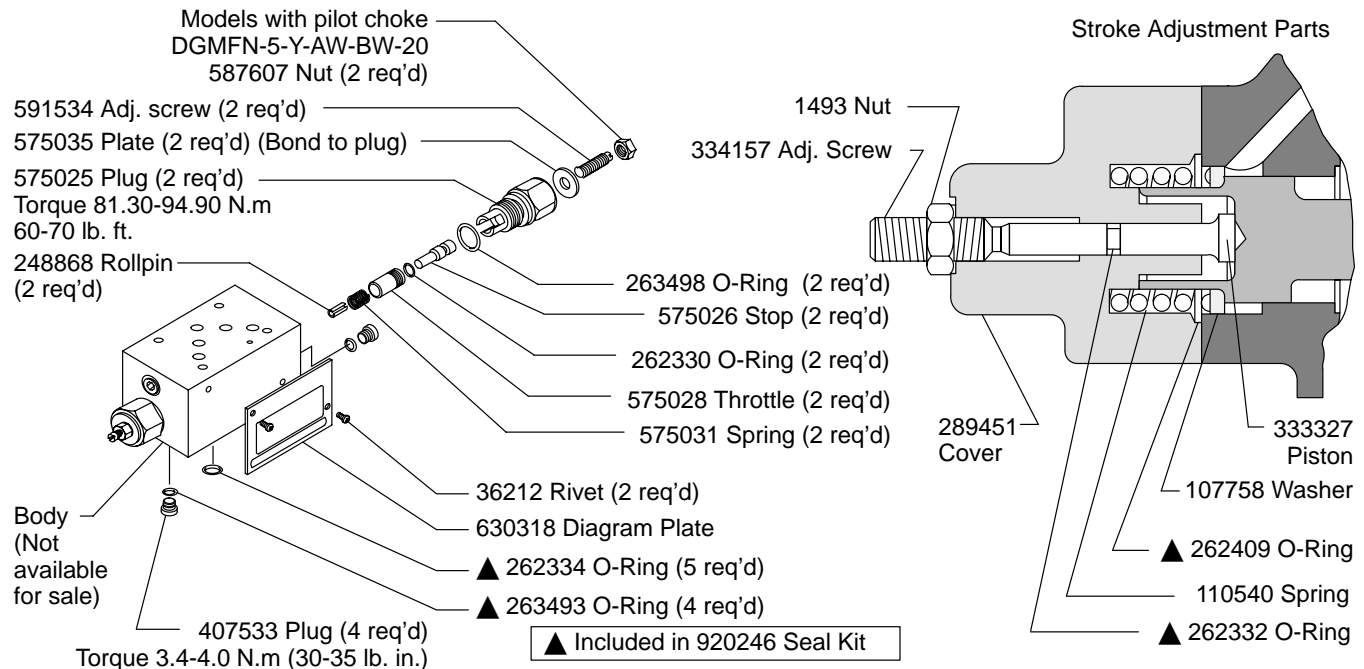
**K** - 0.35 bar (5 psi)  
**L** - 2.4 bar (2.4 psi)  
**R** - 3.45 bar (3.45 psi)  
**S** - 5.2 bar (5.2 psi)  
**Omitted** - No check valve

## 13 Voltage & Frequency

**Omitted** - 115AC60 standard

## 14 Design

## 15 Left Hand Assembly



## Electrical Plug Feature (Omit if not required)

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

PA3 (3 Pin) & PA5 (5 PIN) 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 OFP, OFR, and OFRS series are recommended.