

# Directional Controls

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## Wet Armature Solenoid Controlled Pilot Operated Directional Valves

DF5S4-16\*A\*-(E)-W(3)\*-53

DF5S4-16\*B\*-(E)-W(3)\*-53

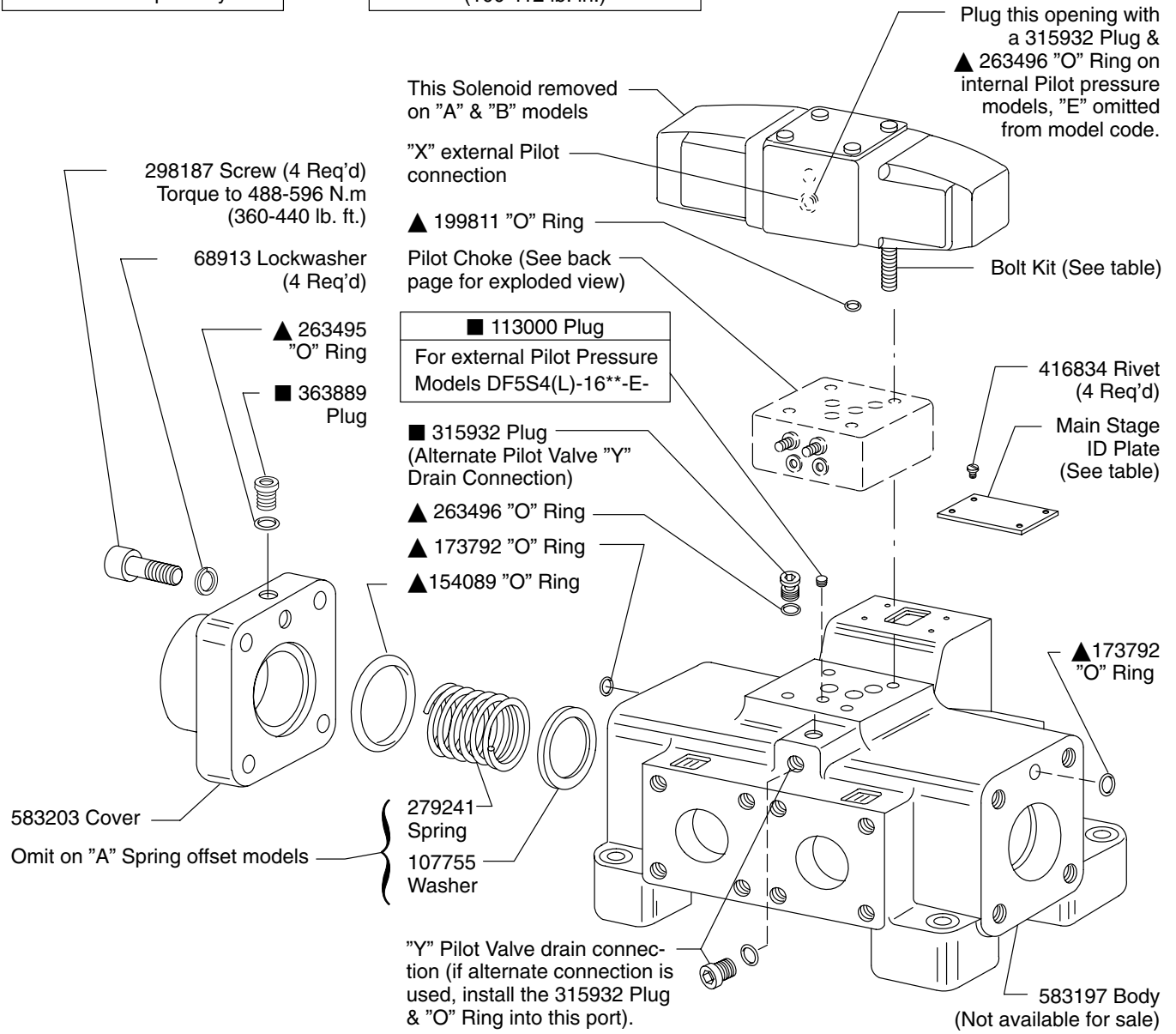
DF5S4-16\*C\*-(E)-W(3)\*-53

DF5S4-16\*N\*-(E)-W(3)\*-53

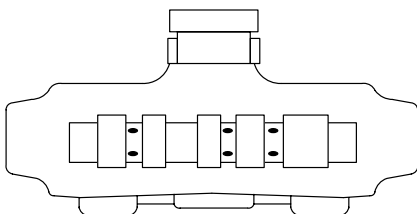
**Note**  
See model code page for solenoid indicator light parts.

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

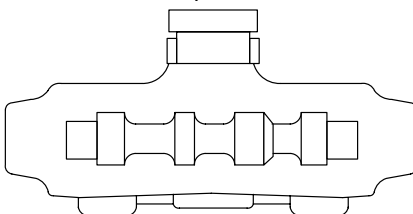
Pilot Attaching Parts	
Model	Bolt Kit
W/Out Pilot Choke	255633
W/Pilot Choke	255654
Torque to 11.3 -12.65 N.m (100-112 lb. in.)	



Assemble type 4 & 8 Spools with wide undercut toward "A" end.



Assemble type 1 & 3 Spools with taper toward "B" end. Type 31 Spool is assembled with taper toward "A" end.



Spool Assembly

▲ Included in Seal Kit 919405  
F3 equivalent Seal Kit 919434  
■ Plug Torques (See table)

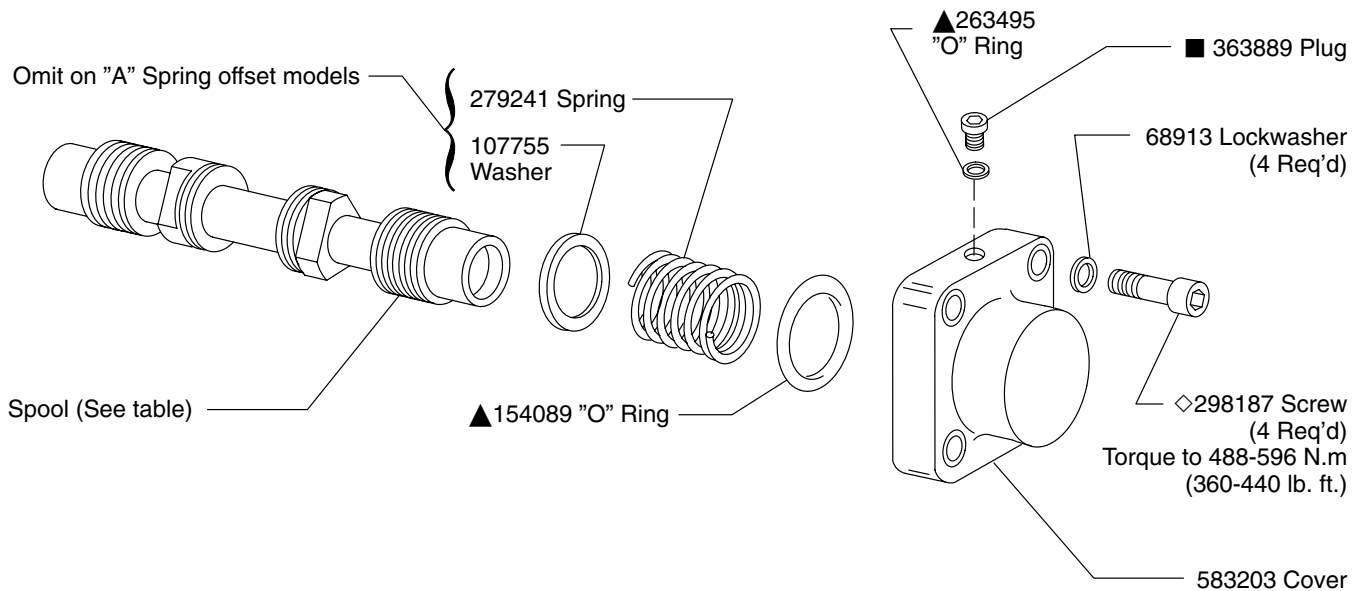
Valve Model Code	Main Stage Spool Type	Pilot Valve Model Code	Parts Drawing See Note
DF5S4-16*A-*-53	0, 2, 6, 9, 33	DG4S4-012A-W-*-50-S344	I-3557-S
DF5S4-16*B-*-53	0, 1, 2, 3, 6 9, 31, 33	DG4S4-016B-W-*-50-S344	I-3558-S
	4 & 8	DG4S4-0168B-W-*-50-S344	
DF5S4-16*C-*-53	0, 1, 2, 3, 6 9, 31, 33	DG4S4-016C-W-*-50-S344	
	4 & 8	DG4S4-0168C-W-*-50-S344	
DF5S4-16*N-*-53	0, 2, 6, 9, 33	DG4S4-012N-W-*-51-S344	I-3559-S

Note

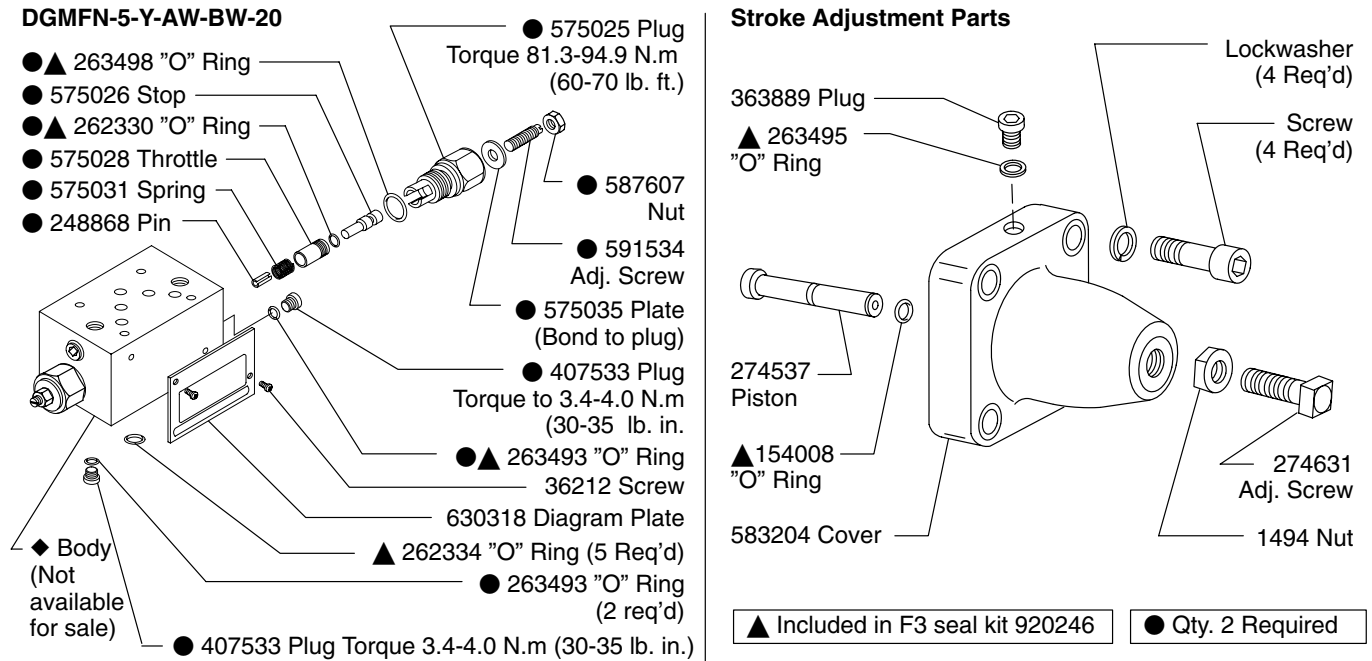
The -S344 Pilot Valve is the same as the valve shown on the tabulated parts drawing except: 434286 body replaces 400817 body. 407533 Plug & 263493 "O" Ring are omitted.

Valve Model Code		Spool	Main Stage ID Plate w/Circuit Diagram	
Main Stage	Valve Type		"A" only	B/C/N
DF5S4-160-	A/B/C/N	273677	400975	400976
DF5S4-161-	B/C	*386581		400977
DF5S4-162-	A/B/C/N	273676		400978
DF5S4-163-	B/C	*275803		400979
DF5S4-164-	B/C	*273720		400980
DF5S4-166-	A/B/C/N	275804		400981
DF5S4-168-	B/C	*275805		400980
DF5S4-169-	A/B/C/N	275806		400976
DF5S4-1631-	B/C	*275803		580475
DF5S4-1633-	A/B/C/N	317777		400981

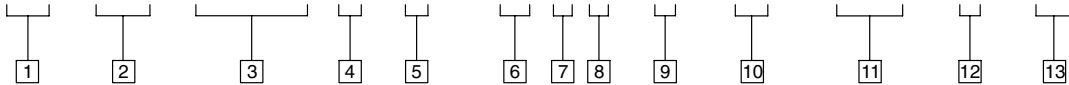
\*See Spool Assembly View



# Model Code



**(F3) (P\*\*) DF5S 4 (L) - 16 \* \* - \* - (E) - W(3) - \* - 53**



<p><b>1 Seal Material</b></p> <p><b>F3</b> - Seals for mineral oil and fire resistant fluids</p>	<p><b>6 Valve Size</b></p> <p>160 Series (2.00 inch)</p>	<p><b>10 Pilot Pressure</b></p> <p><b>E</b> - External Omitted - Internal pilot pressure</p>
<p><b>2 Electrical Plug Feature</b></p> <p>(See note below)</p>	<p><b>7 Type of Main Stage Spool</b></p>	<p><b>11 Core Tube</b></p> <p><b>W</b> - Non-serviceable core tube in pilot <b>W3</b> - Serviceable core tube in pilot</p>
<p><b>3 Model Series</b></p> <p><b>DF5S</b> - Directional valve, flange connection, solenoid controlled, sliding spool</p>	<p><b>8 Valve Type</b></p> <p><b>A</b> - Spring offset <b>B</b> - Spring centered (one solenoid) <b>C</b> - Spring centered <b>N</b> - Detented</p>	<p><b>12 Coil Identification Letter</b></p>
<p><b>4 Flow Direction</b></p> <p>4 - 4 way</p>	<p><b>9 Spool Control Modification (Omit if not required)</b></p> <p>1 - Stroke adjustments 2 - Pilot choke 3 - Pilot choke &amp; stroke adjustment 7 - Stroke adjustment "A" end only 8 - Stroke adjustment "B" end only</p>	<p><b>13 Design</b></p> <div style="border: 1px solid black; padding: 5px;"> <p><b>Electrical Plug Feature (Omit if not required)</b></p> <p><b>PA</b> - Insta-Plug, male receptacle only <b>PB</b> - Insta-Plug, male &amp; female receptors <b>PA3</b> (3 pin) &amp; <b>PA5</b> (5 pin) - receptacles that meet NFPA hydraulic valve electrical standard T3. 5.29M-1980.</p> </div>

For satisfactory service life of these components, 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.