

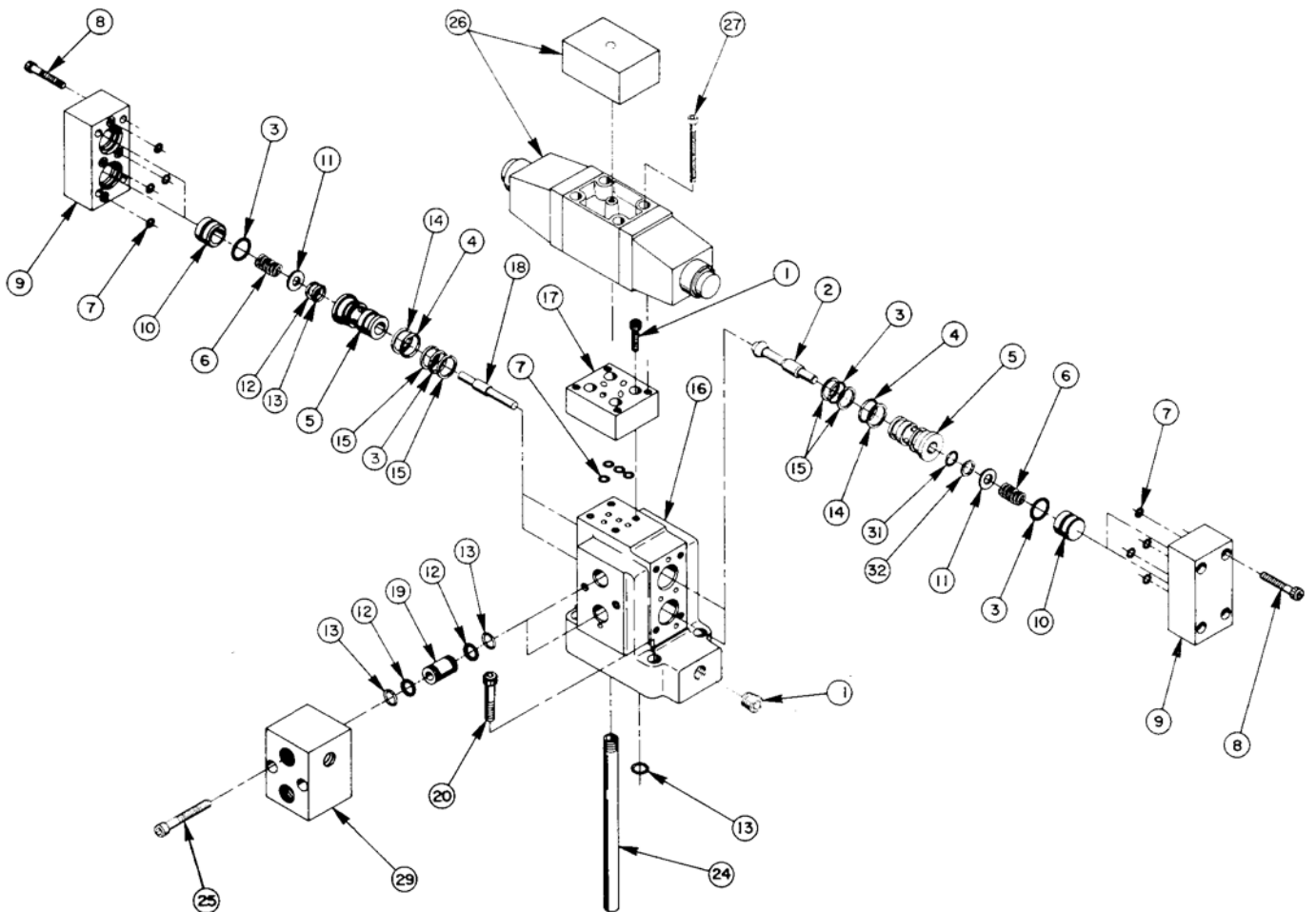
Parts List For:

9522  
9590  
9615  
31057

THREE POSITION, 4-WAY -- SOLENOID CONTROLLED - PILOT OPERATED

**DIRECTIONAL VALVE**

Max. Capacity: 10,000 PSI



**NOTE:**

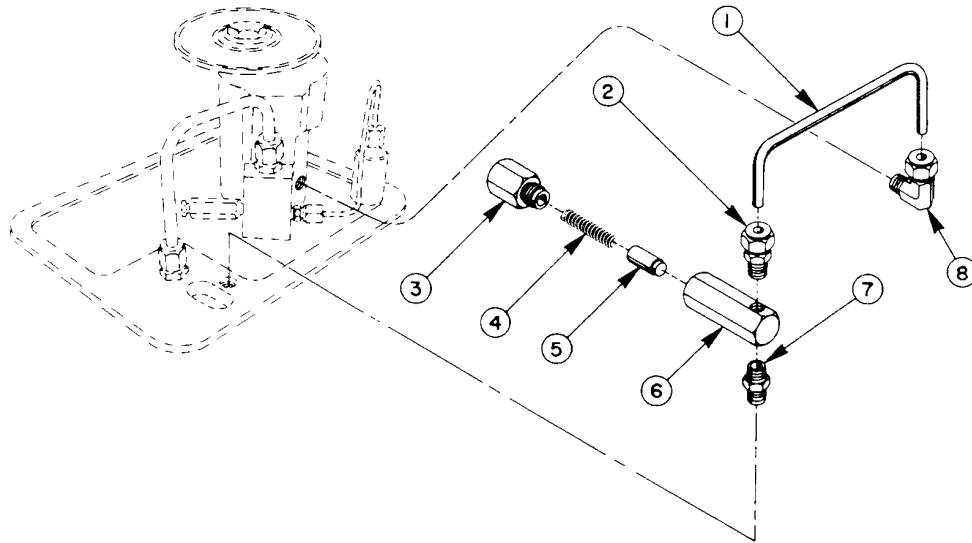
- 31057 consists of items 1 thru 25.
- 9590, 9615, and 9522 consist of all items except item 30.

## PARTS LIST

ITEM	PART NO.	DESCRIPTION	QTY.
1	12102	CAP SCREW (#10-24 X 3/4 Lg.; Torque to 80/100 in. Lbs.)	4
2	200542	POPPET HALF	2
3	*11284	O-RING (11/16 X 9/16 X 1/16)	8
4	*10302	O-RING (3/4 X 5/8 X 1/16)	4
5	22068	BUSHING	4
6	10362	COMPRESSION SPRING (3/8 O.D. X 3/4 Lg.)	4
7	*10265	O-RING (5/16 X 3/16 X 1/16)	12
8	11151	CAP SCREW (#10-24 X 1-1/4 Lg.; Torque to 50/70 in. Lbs.)	8
9	31008	CAP END	2
10	22070	PISTON	4
11	209541	WASHER	4
12	*11863	BACKUP WASHER (1/2 X 3/8 X 1/16)	8
13	*10268	O-RING (1/2 X 3/8 X 1/16)	9
14	*12392	BACKUP WASHER (3/4 X 5/8 X 1/16)	4
15	*12391	BACKUP WASHER (11/16 X 9/16 X .048)	8
16	50119	BODY	1
17	42934	PORT PLATE	1
18	200541	POPPET HALF	2
19	21094	BUSHING	2
20	10020	CAP SCREW (1/4-20 X 1-1/4 Lg.; Note: When using this valve on a PE30 Series pump order (4) 10854 Screws for mounting valve to pump.)	4
21	10479	PIPE PLUG (1/4 NPTF)	1
24	20847	DRAIN LINE	1
25	10854	CAP SCREW (1/4-20 x 1-3/4 Lg.; Torque to 150/180 in. Lbs.)	2
26	15643-1	SOLENOID (115 Volt, 50/60 Hz.; For 9590)	1
	15643-2	SOLENOID (230 Volt, 50/60 Hz.; For 9522)	1
	15643-4	SOLENOID (24 Volt, 50/60 Hz.; For 9615)	1
27	14423	CAP SCREW (#10-24 X 2" Lg.; Torque to 50/80 in. Lbs.)	4
28	22747	PILOT OIL LINE/ACCUMULATOR ASS'Y (See below)	1
29	31039	MANIFOLD (For 9590, 9615, and 9522)	1

**Part numbers marked with an asterisk (\*) are contained in Repair Kit No. 3000590.**

**STANDARD PILOT OIL LINE/ACCUMULATOR ASS'Y**  
 (For use with Y26, Y60, Y70, PE55, PE90 & PE120 series pumps)



ITEM	PART NO.	DESCRIPTION	QTY.
1	22746	OIL LINE	1
2	11173	CONNECTOR	1
3	202121	SPRING RETAINER (Torque to 50/70 in. Lbs.)	1
4	16499	COMPRESSION SPRING (1/4 O.D. X 2-3/16 Lg.)	1
5	21945	PLUNGER	1
6	21944	CYLINDER BODY	1
7	11421	PIPE NIPPLE	1
8	11278	CONNECTOR	1
	22747	PILOT OIL LINE/ACCUMULATOR ASS'Y (Consists of items 1 through 8)	1
	21943	ACCUMULATOR ASS'Y (Consists of items 3, 4, 5, & 6)	1

**NOTE: 22747 is the standard Pilot Oil Line/Accumulator Assembly that is supplied with 9590, 9615 & 9522 Valves. Various Pilot Oil Line/Accumulator Assemblies for use with other pump units are shown on pages 5, 6 and 7.**

## SPECIFICATIONS

This is a sub-plate mounted, solenoid-controlled, pilot-operated, 3-position, 4-way valve for use on hydraulic power units. This valve is intended for use with double-acting cylinders and provides the possibility of remote operation. The manifold provides two 3/8" NPTF ports. A connection is provided on the valve body for a pressure switch and/or gauge. If required, a pressure switch or gauge may be mounted on a special manifold. The solenoid coils are available in a wide range of voltages.

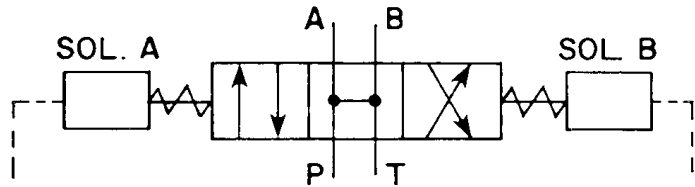
### OPERATION

**Solenoid "A" Energized:** When solenoid "Sol. A" is energized, oil is directed through port "A" to one end of a double-acting cylinder. Oil from the other end of the double-acting cylinder returns through port "B" to the reservoir.

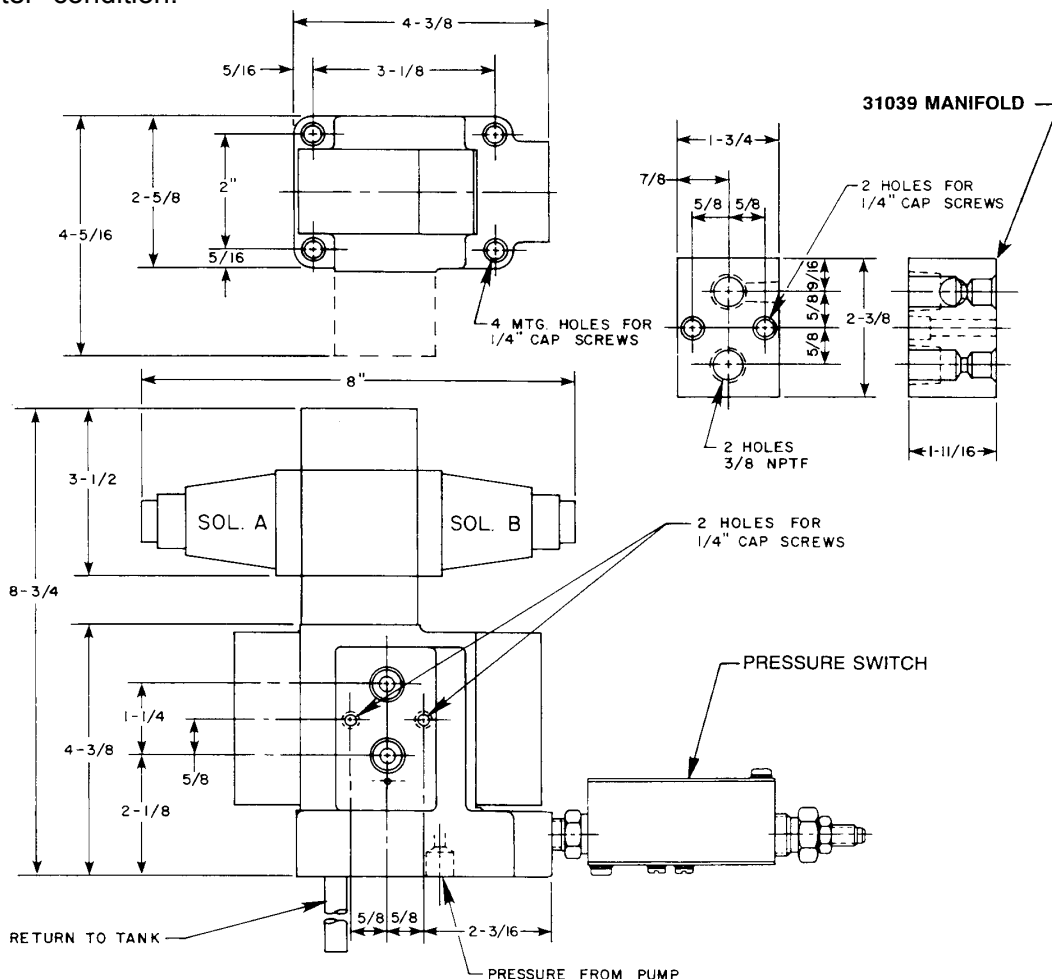
**Solenoid "B" Energized:** When solenoid "Sol. B" is energized, oil is directed through port "B" to one end of a double-acting cylinder and oil returns through port "A" to the reservoir from the other end of the double-acting cylinder.

**Neutral (Hold):** When both solenoids are de-energized, the valve is in the neutral position and all ports are connected, thereby giving a true "open-center" condition.

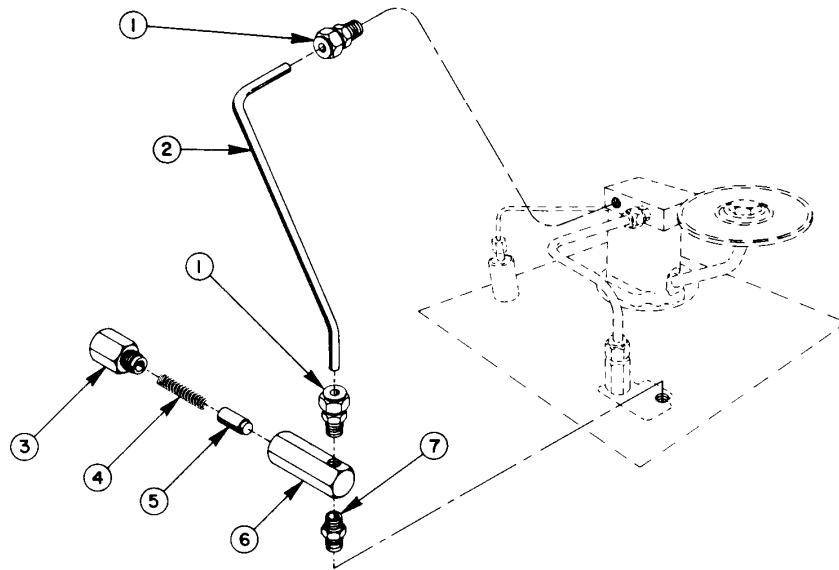
### HYDRAULIC SCHEMATIC



PORT SIZE: 3/8" NPTF  
 MAXIMUM PRESSURE: 10,000 PSI  
 MAX. RECOMMENDED FLOW: 5GPM



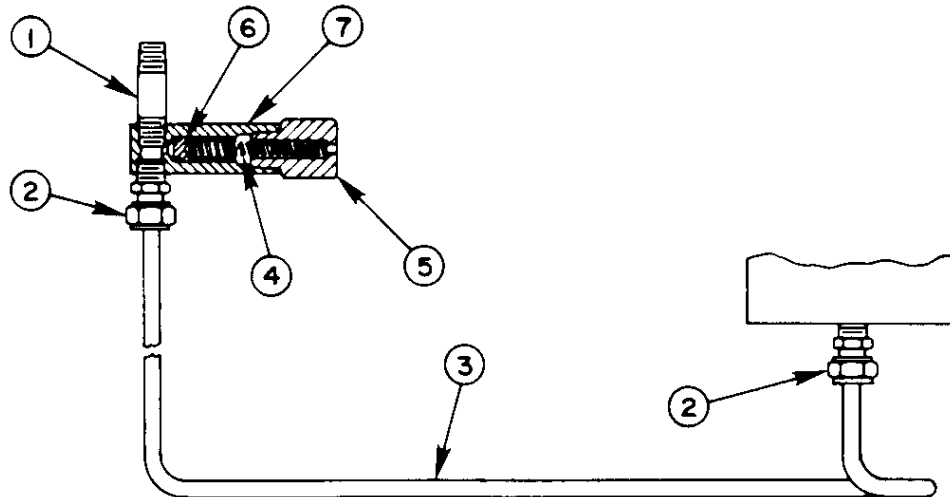
## OPTIONAL PILOT OIL LINE/ACCUMULATOR ASSEMBLIES (For use with PQ20 series pumps)



ITEM	PART NO.	DESCRIPTION	QTY.
1	11173	CONNECTOR	2
2	36754	OIL LINE	1
3	202121	SPRING RETAINER (Torque to 50/70 in. Lbs.)	1
4	16499	COMPRESSION SPRING (1/4 O.D. X 2-3/16 Lg.)	1
5	21945	PLUNGER	1
6	21944	CYLINDER BODY	1
7	11421	PIPE NIPPLE	1
	21943	ACCUMULATOR ASS'Y (Consists of items 3, 4, 5, & 6)	1

**NOTE: The above parts are not included with this valve but are an option.**

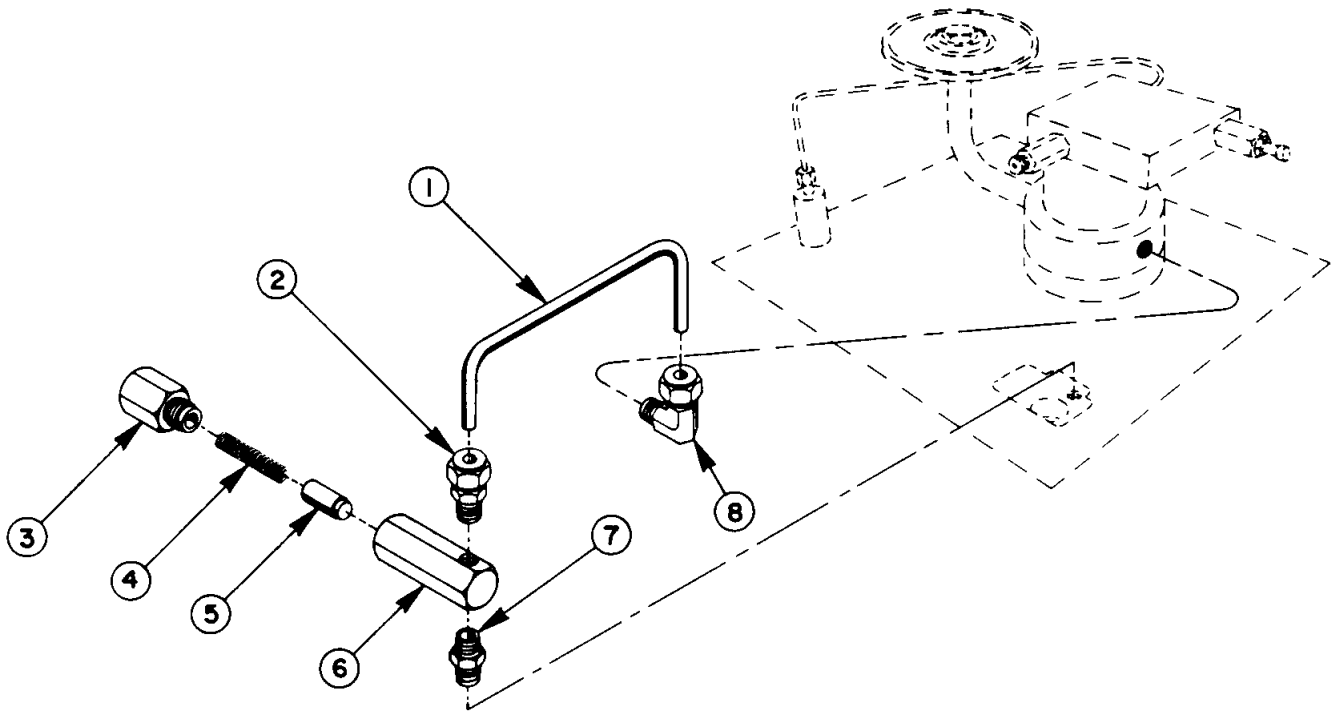
**OPTIONAL PILOT OIL LINE/ACCUMULATOR ASSEMBLIES**  
 (For use with PE200 & PE400 series pumps)



ITEM	PART NO.	DESCRIPTION	QTY.
1	11530	NIPPLE	1
2	15061	CONNECTOR	2
3	44303	OIL LINE	1
4	16499	COMPRESSION SPRING (1/4 O.D. X 2-3/16 Lg.)	1
5	202121	SPRING RETAINER (Torque to 50/70 in. Lbs.)	1
6	21945	PLUNGER	1
7	21944	CYLINDER BODY	1
	21943	ACCUMULATOR ASS'Y (Consists of items 4, 5, 6, & 7)	1

**NOTE: The above parts are not included with this valve but are an option.**

## OPTIONAL PILOT OIL LINE/ACCUMULATOR ASSEMBLIES (For use with PQ60 & PQ120 series pumps)



ITEM	PART NO.	DESCRIPTION	QTY.
1	200405	OIL LINE	1
2	11173	CONNECTOR	1
3	202121	SPRING RETAINER (Torque to 50/70 in. Lbs.)	1
4	16499	COMPRESSION SPRING (1/4 O.D. X 2-3/16 Lg.)	1
5	21945	PLUNGER	1
6	21944	CYLINDER BODY	1
7	11421	PIPE NIPPLE	1
8	11278	CONNECTOR	1
	21943	ACCUMULATOR ASS'Y (Consists of item 3, 4, 5, & 6)	1

**NOTE:** These parts are not included with this valve but are an option.

## POWER TEAM FACILITIES AND CONTACT

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