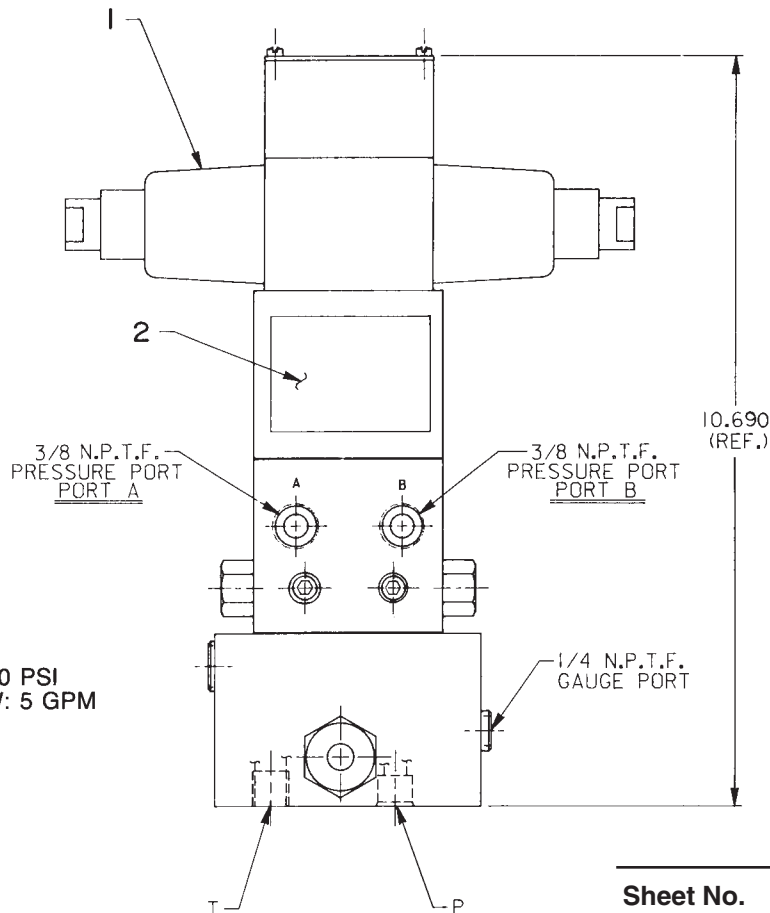
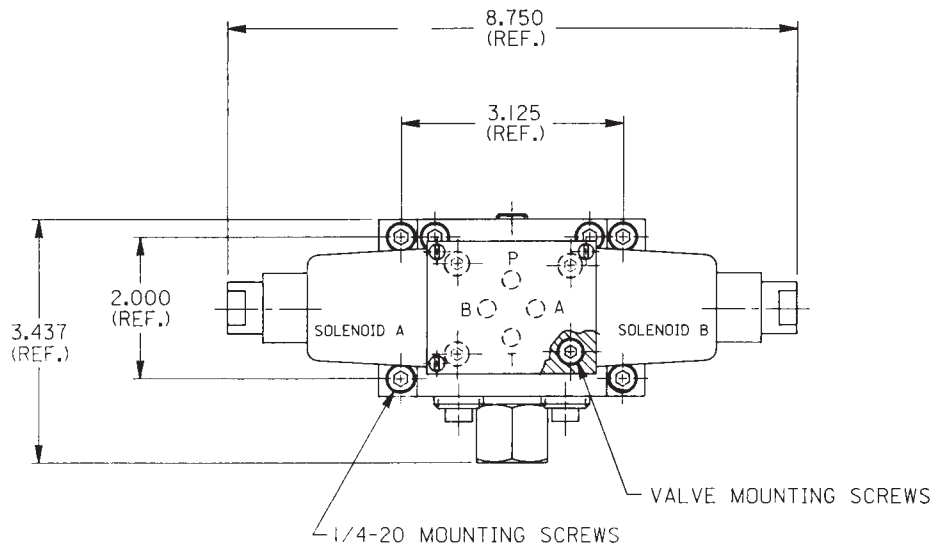


Parts List for:

- 9512
- 9513
- 9516
- 9519
- 61537

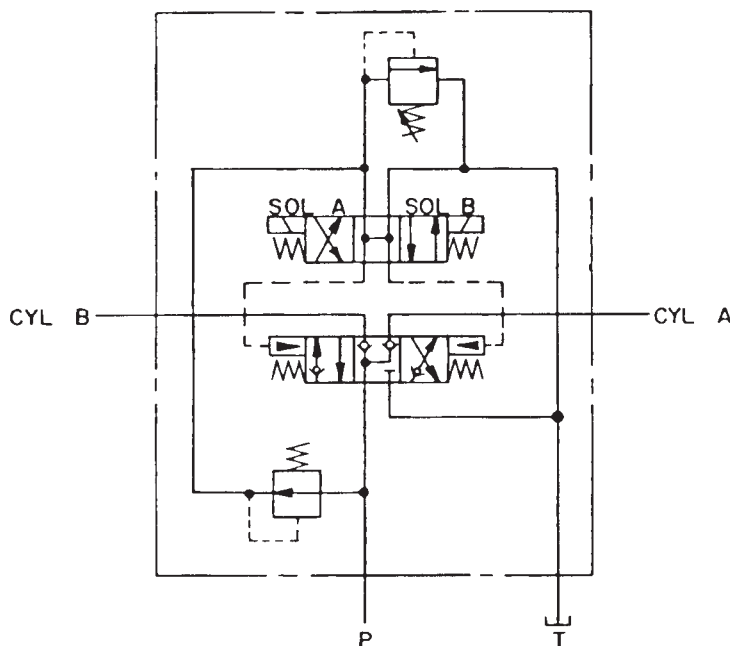
**SOLENOID CONTROLLED, PILOT OPERATED, 3-POSITION, 4-WAY VALVE ASSEMBLY**



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

Item No.	Part No.	No. Req'd	Description
1	16664-4	1	Solenoid Valve (24 V., For 9512)
	16664-1	1	Solenoid Valve (115 V., For 9513)
	16664-2	1	Solenoid Valve (230 V., For 9519)
	420417	1	Solenoid Valve (12 Volt DC, For 9516)
2	213950	1	Identification Decal (For 9512)
	213951	1	Identification Decal (For 9513)
	251293	1	Identification Decal (For 9519)
	251403	1	Identification Decal (For 9516)

### HYDRAULIC SCHEMATIC



### OPERATION

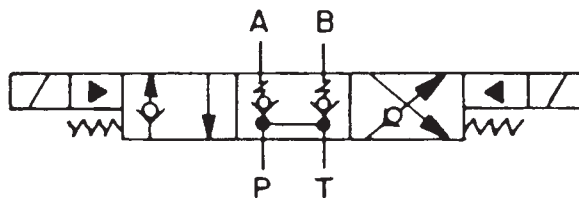
**Neutral (Hold):** When both solenoids are de-energized, oil from pump circulates at free flow from the pressure port "P" to tank "T". Both cylinder ports are blocked.

**Solenoid "A" Energized:** Pressure to cylinder port "A". Cylinder port "B" to tank.

**Solenoid "B" Energized:** Pressure to cylinder port "B". Cylinder port "A" to tank.

**NOTE:** Pressure holds without loss when shifted from cylinder port to the neutral (Hold) position.

### SIMPLIFIED SYMBOL

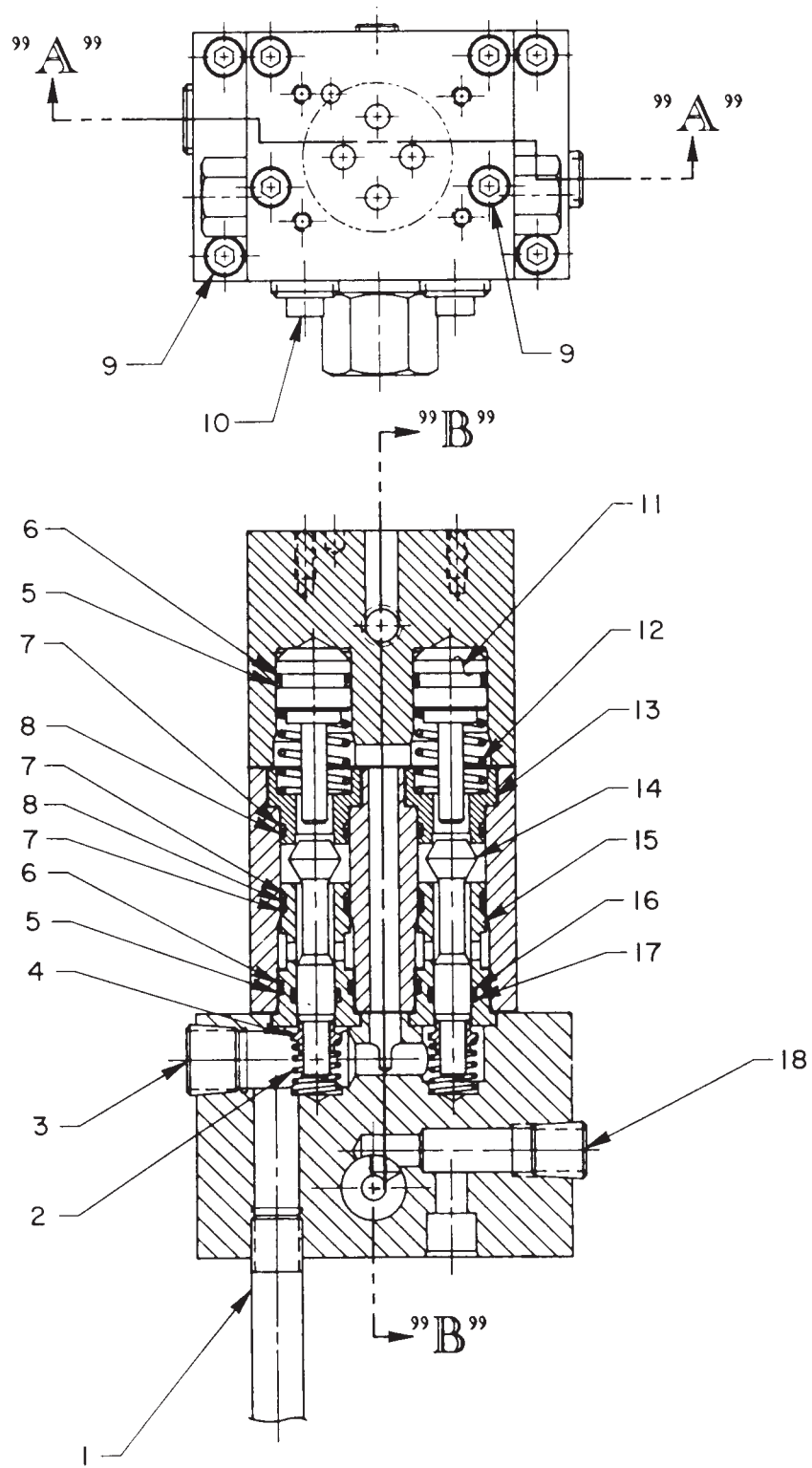


Refer to any operating instructions included with this product for detailed information about operation, testing, disassembly, reassembly, and preventive maintenance.

Items found in this parts list have been carefully tested and selected. **Therefore: Use only genuine replacement parts!**

Additional questions can be directed to our Technical Services Department.

### TOP VIEW & SECTION A-A



Section AA

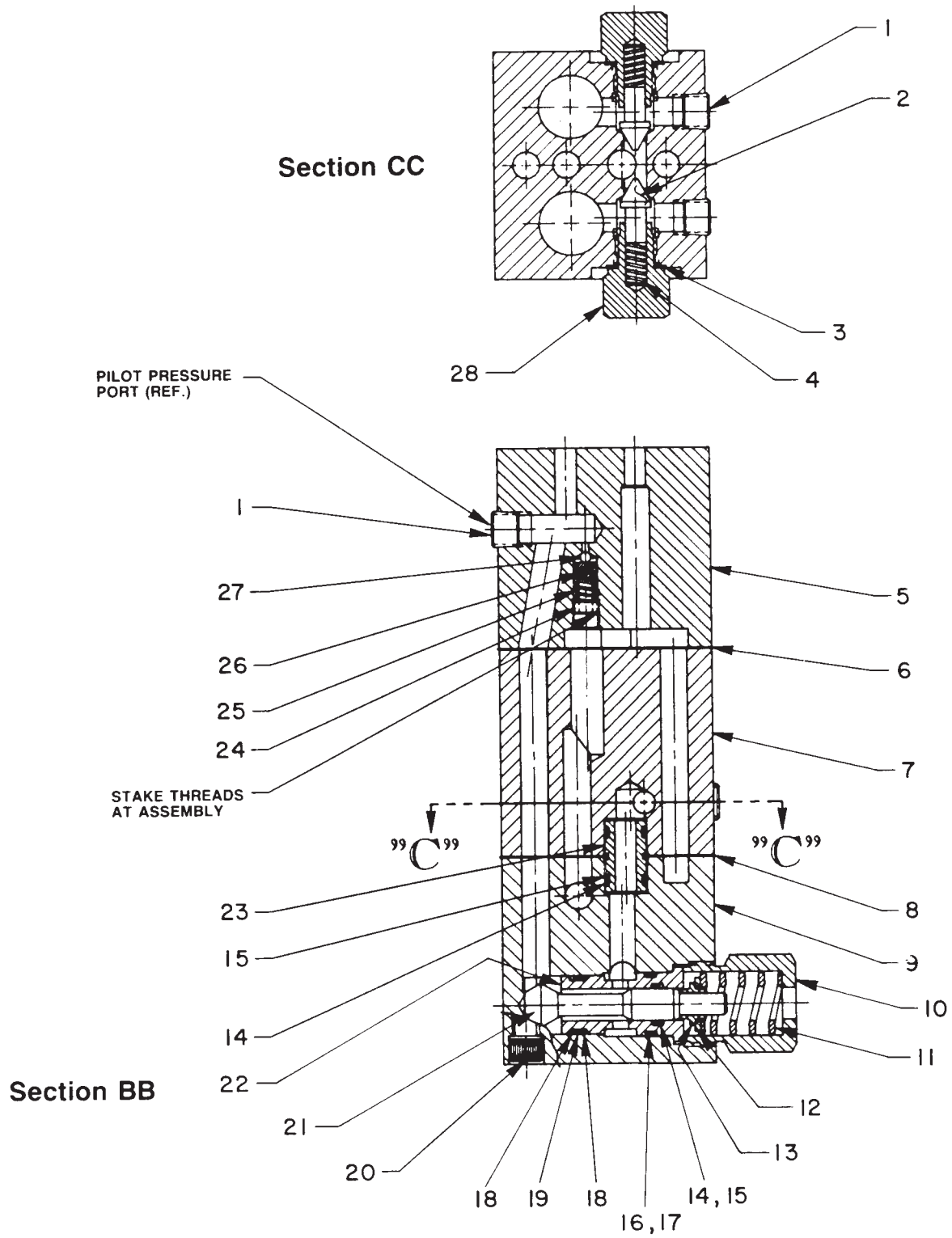
# Parts List, Form No. 100682, Back sheet 2 of 3

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<b>Item No.</b>	<b>Part No.</b>	<b>No. Req'd</b>	<b>Description</b>
1	<b>200609</b>	1	Drain Tube
2	<b>11195</b>	2	Compression Spring (1/2 O.D. X 3/4 Lg.)
3	<b>10909</b>	1	Plug (3/8 NPTF)
4	<b>202479</b>	2	Check Valve Spring Guide
5	<b>*12392</b>	4	Backup Washer (3/4 X 5/8 X 3/64, -016)
6	<b>*10302</b>	4	O-ring (3/4 X 5/8 X 1/16, -016; Nitrile)
	<b>11442</b>	4	O-ring (3/4 X 5/8 X 1/16, -016; Viton)
	<b>12400</b>	4	O-ring (3/4 X 5/8 X 1/16, -016; EPR)
7	<b>*12391</b>	6	Backup Washer (11/16 X 9/16 X 3/64, -015)
8	<b>*11284</b>	4	O-ring (11/16 X 9/16 X 1/16, -015; Nitrile)
	<b>11441</b>	4	O-ring (11/16 X 9/16 X 1/16, -015; Viton)
	<b>250137</b>	4	O-ring (11/16 X 9/16 X 1/16, -015; EPR)
9	<b>10856</b>	8	Cap Screw (1/4-20 X 2-1/2 Lg.; Torque to 200/230 in. lbs.)
10	<b>11127</b>	2	Plug (3/8 NPTF)
11	<b>307090</b>	2	Pilot Piston
12	<b>213880</b>	2	Compression Spring (11/16 O.D. X 1" Lg.)
13	<b>307089</b>	2	Valve Seat
14	<b>200542</b>	2	Poppet
15	<b>22068</b>	2	Bushing
16	<b>*10268</b>	2	O-ring (1/2 X 3/8 X 1/16, -012; Nitrile)
	<b>11439</b>	2	O-ring (1/2 X 3/8 X 1/16, -012; Viton)
	<b>17716</b>	2	O-ring (1/2 X 3/8 X 1/16, -012; EPR)
17	<b>*11863</b>	2	Backup Washer (1/2 X 3/8 X 3/64, -012)
18	<b>10479</b>	1	Pipe Plug (1/4 NPTF)

Part numbers marked with an asterisk (\*) are contained in Repair Kit No. 300495.

### SECTION B-B & C-C



# Parts List, Form No. 100682, Back sheet 3 of 3

Item No.	Part No.	No. Req'd	Description
1	10427	3	Pipe Plug (1/8 NPTF)
2	213096	2	Poppet
3	*14874	2	Copper Washer (11/16 X 1/2 X 1/32)
4	15691	2	Compression Spring (1/4 O.D. X 5/8 Lg.)
5	61530	1	Valve Body (Top)
6	*307282	1	Gasket (Top/Center)
7	61529	1	Valve Body (Center)
8	*307579	1	Gasket (Center/Lower)
9	61528	1	Valve Body (Lower)
10	202494	1	Spring Retainer (Torque to 100/125 ft. lbs.)
11	14979	1	Compression Spring (3/4 O.D. X 1" Lg.)
12	16668	1	Washer (5/8 X 3/8 X 1/16)
13	202479	1	Check Valve Spring Guide
14	*10268	3	O-ring (1/2 X 3/8 X 1/16, -012; Nitrile)
	11439	3	O-ring (1/2 X 3/8 X 1/16, -012; Viton)
	17716	3	O-ring (1/2 X 3/8 X 1/16, -012; EPR)
15	*11863	3	Backup Washer (1/2 X 3/8 X 3/64, -012)
16	*10302	1	O-ring (3/4 X 5/8 X 1/16, -016; Nitrile)
	11442	1	O-ring (3/4 X 5/8 X 1/16, -016; Viton)
	12400	1	O-ring (3/4 X 5/8 X 1/16, -016; EPR)
17	*12392	1	Backup Washer (3/4 X 5/8 X 3/64, -016)
18	*12391	2	Backup Washer (11/16 X 9/16 X 3/64, -015)
19	*11284	1	O-ring (11/16 X 9/16 X 1/16, -015; Nitrile)
	11441	1	O-ring (11/16 X 9/16 X 1/16, -015; Viton)
	250137	1	O-ring (11/16 X 9/16 X 1/16, -015; EPR)
20	10856	4	Cap Screw (1/4-20 X 2-1/2 Lg.; Torque to 150/170 in. lbs.)
21	200542	1	Poppet
22	22068	1	Bushing
23	21094	1	Bushing
24	16704	1	Soc. Hd. Jam Screw (5/16-24 UNF X 5/32 Lg.)
25	16665	1	Compression Spring (5/32 I.D. X 1/2 Lg.)
26	202499	1	Spring Guide
27	10418	1	Steel Ball (1/8 dia.)
28	307136	2	Valve Screw (Torque to 35/40 ft. lbs.)

Part numbers marked with an asterisk (\*) are contained in Repair Kit No. 300495.