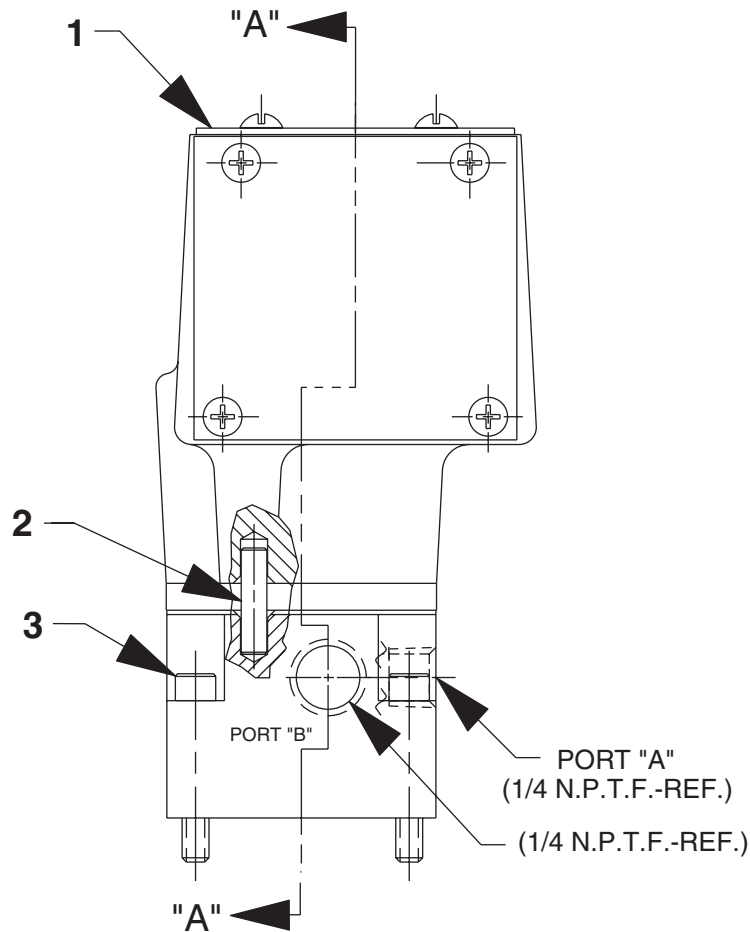
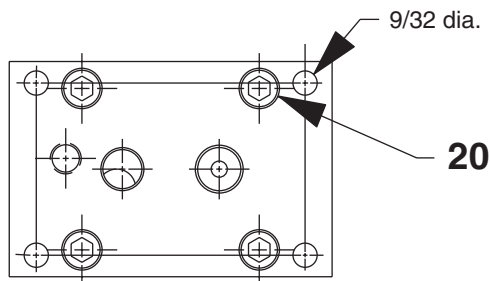
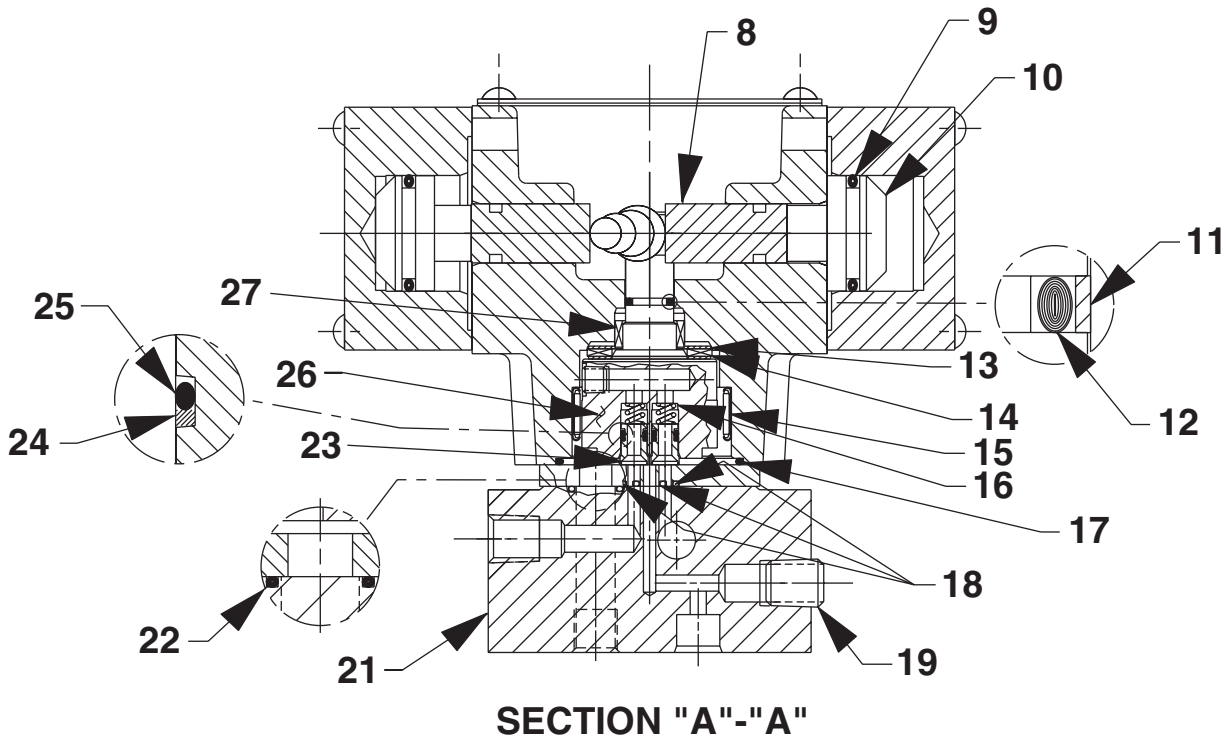
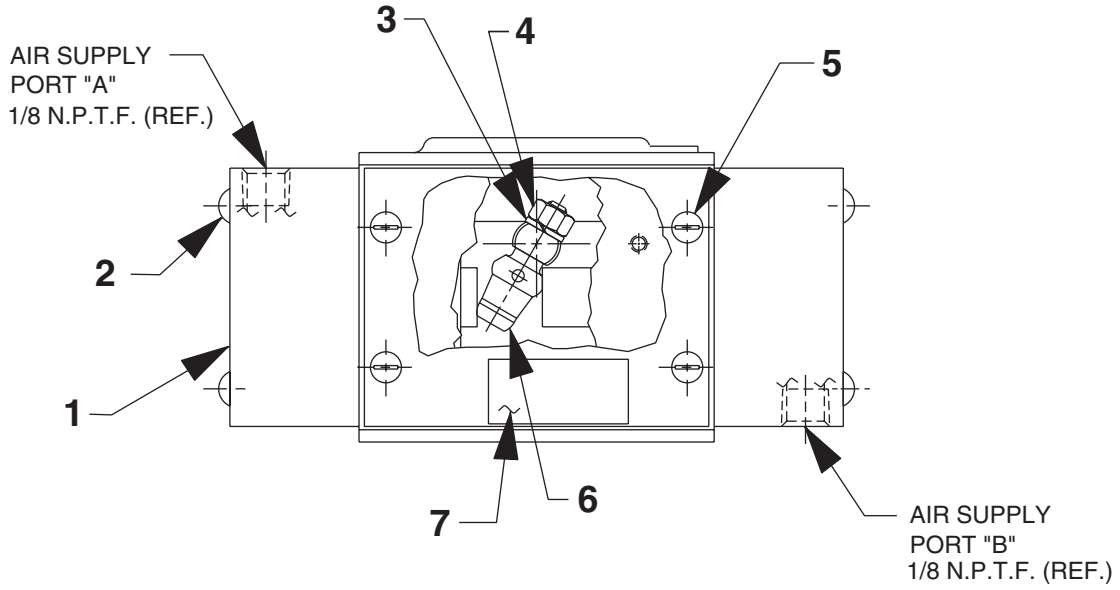


**VALVE ASSEMBLY**

Item No.	Part No.	No. Req'd	Description
1	303976	1	Cover
2	252309	1	Pin, Spring Coiled (.25 x 1.00)
3	10022	4	Screw, Soc. Hd. (1/4-20 x 1-1/2)

### TOP, BOTTOM & SECTION A-A VIEWS

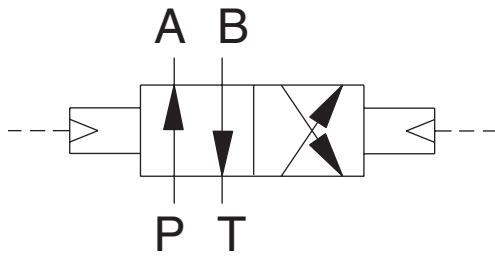


MOUNTING HOLE DIMENSIONS

Item No.	Part No.	No. Req'd	Description	Item No.	Part No.	No. Req'd	Description
1	45593	2	Air Cap	14	12188	1	Bearing, Needle
2	11871	8	Screw, Rd. Hd. (8-32 x 1-3/4; Torque to 12/14 in. lbs.)	15	17505	1	Bearing, Needle Roller
3	10245	1	Washer, Lock (.49 x .26)	16	15095	2	Spring (.24 OD x .47 x .04 ws)
4	15504	1	Nut, Hex Lock (1/4-28)	17	*214699	1	O-ring (2.18 x 2.00 Urethane)
5	10164	4	Screw, Rd. Hd. (10-24 x 3/8)	18	*15023	3	O-ring (.31 x .18 Urethane)
6	304030	1	Lever, Cam (Lubricate with oil to assemble)	19	10479	1	Fitting, Plug (1/4 NPTF)
7	209383	1	Decal, Patent	20	252308	2	Screw, Soc. Hd. (5/16-18 x 2-1/4; Torque to 170/180 in. lbs.)
8	208673	2	Plunger, Cam (Lubricate with oil to assemble)	21	253600	1	Body, Valve
9	*10280	2	O-ring (1.37 x 1.12 Nitrile)	22	*16164	1	O-ring (.63 x .50 Urethane)
10	304882	2	Piston	23	303935	2	Seal, Shear
11	*208672	1	Ring, Glyd (0.562 OD Teflon)	24	*15174	2	Washer, Backup (.31 x .19)
12	*10268	1	O-ring (.50 x .37 Nitrile)	25	*10265	2	O-ring (.31 x .18 Nitrile)
13	15935	2	Washer, Thrust (1.42 x .88)	26	52064	1	Rotor
				27	208671	1	Bearing, Needle Roller

Part numbers marked with an asterisk (\*) are contained in Standard Repair Kit No. 300332.

### SPECIFICATIONS



**HYDRAULIC SCHEMATIC**

2-POSITION, 4-WAY  
 AIR OPERATED (30 P.S.I. MIN. / 150 P.S.I. MAX.)  
 PUMP MOUNTED  
 RATED PRESSURE = 10,000 P.S.I.  
 RATED CASE PRESSURE = 1,000 P.S.I.  
 RATED FLOW = 5 G.P.M.

**FUNCTION:**

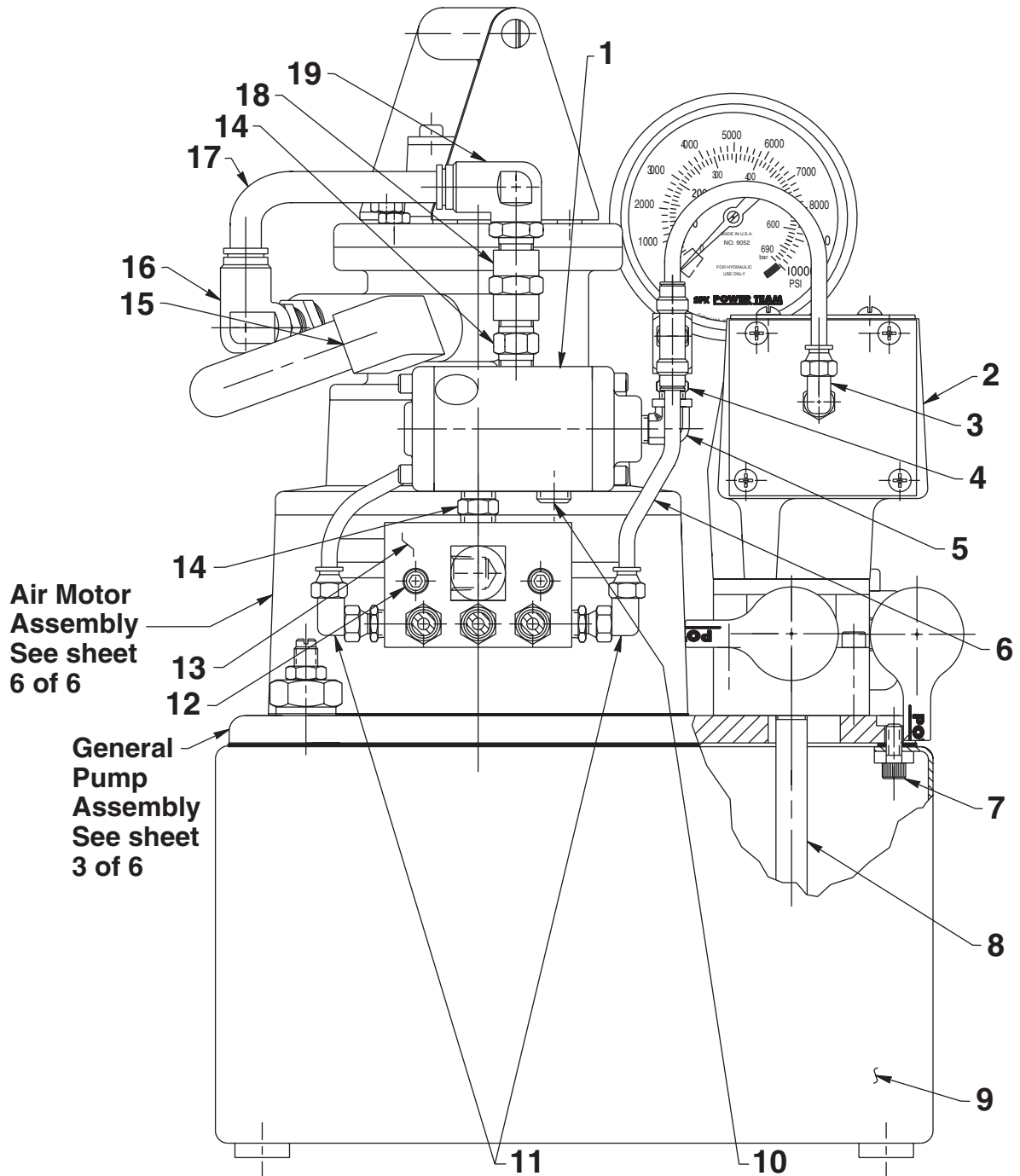
"A" POSITION: (AIR PORT "A")  
 HYD. PRESSURE TO "A" PORT,  
 "B" PORT TO TANK.

"B" POSITION: (AIR PORT "B")  
 HYD. PRESSURE TO "B" PORT,  
 "A" PORT TO TANK.

**NOTE:**

ALL PORTS OPEN TO TANK DURING  
 TRANSITION BETWEEN VALVE POSITIONS.

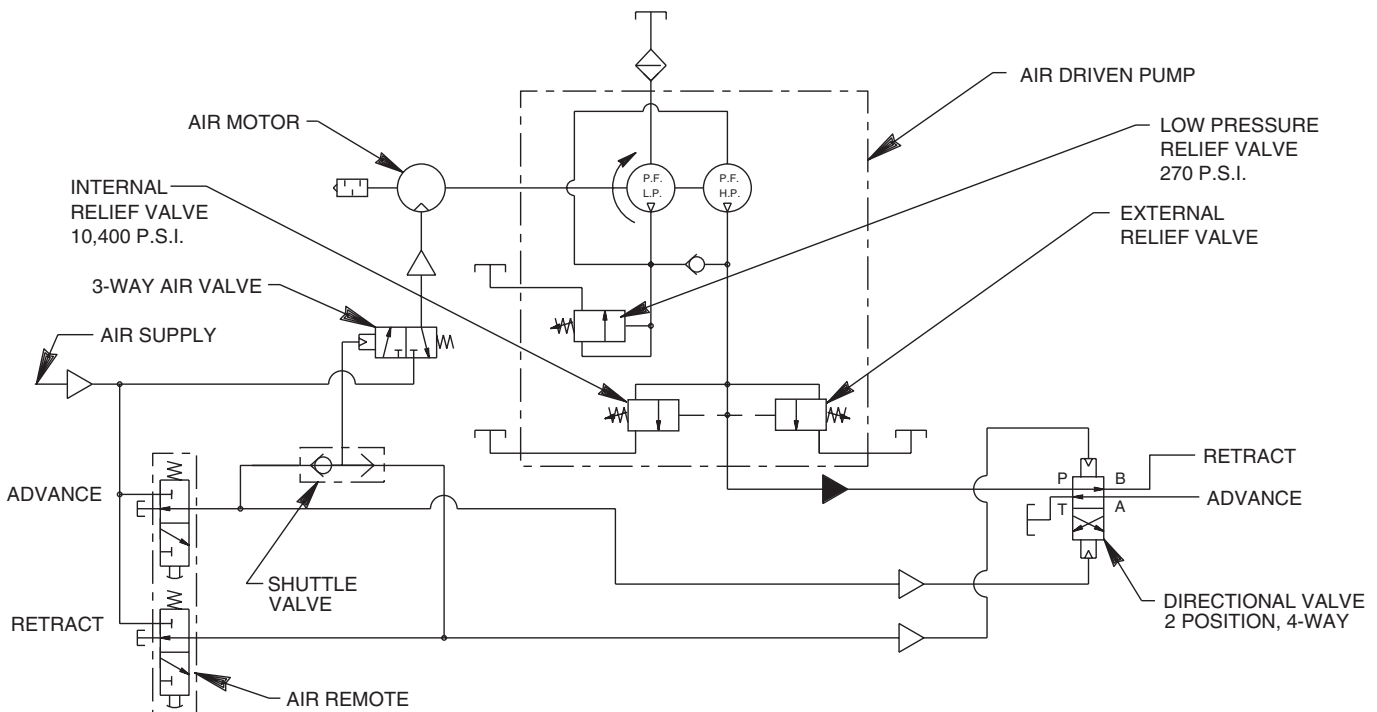
## MODEL C AIR/HYDRAULIC PUMP SIDE VIEW



Item No.	Part No.	No. Req'd	Description
1	212404	1	Air Operated 3-way Valve
2	66209	1	4-way Air Valve (See Form No. 108100)
3	15457	1	90° Elbow Fitting
4	11421	1	Straight Fitting
5	13229	1	90° Elbow Fitting
6	15883	AR	Polyethylene Tubing
7	10006	1	Soc. Hd. Screw (1/4-20 x 5/8)
8	200609	1	Drain Tube
9	40063BK2	1	Reservoir (2 gallon)
10	10479	1	Plug Fitting (1/4 NPTF)
11	250463	2	90° Elbow Fitting
12	10020	2	Soc. Hd. Screw (1/4-20 x 1-1/4)
13	350244	1	Manifold
14	10672	2	Straight Fitting
15	212897	1	90° Elbow Fitting
16	253490	1	90° Elbow Fitting
17	252296	.65'	Nylon Tubing
18	12740	1	Straight Fitting
19	252297	1	90° Elbow Fitting

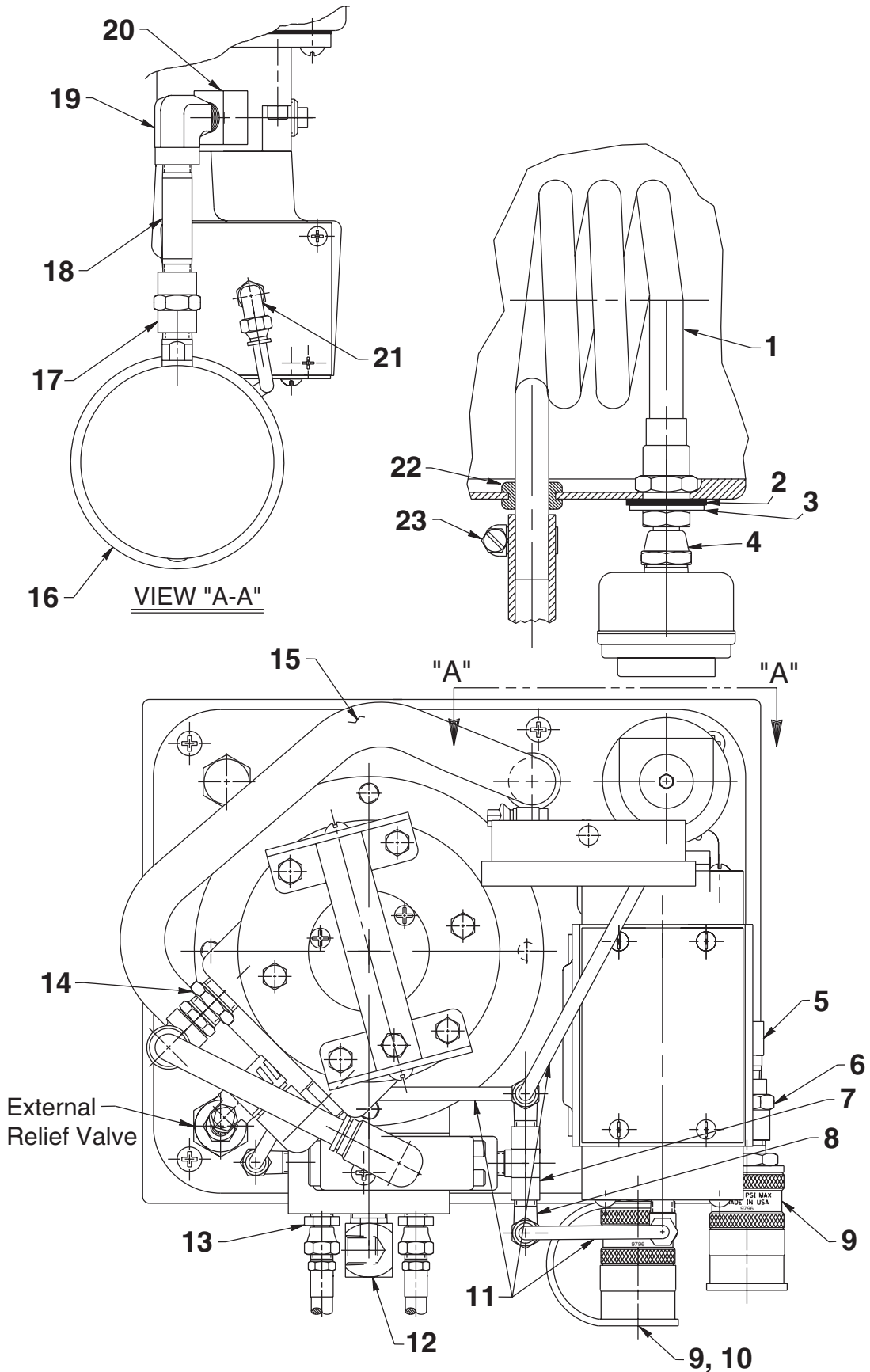
AR = As Required

### HYDRAULIC SCHEMATIC



Note: Shaded areas reflect last revision(s) made to this form.

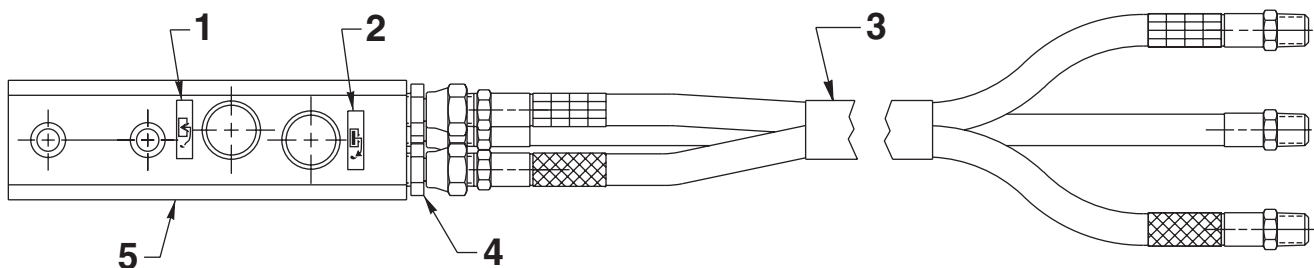
TOP VIEW & VIEW A-A



Item No.	Part No.	No. Req'd	Description
1	46626	1	Heat Exchanger Coil
2	252041	1	Seal Washer (1.50 x 1.05)
3	18286	1	Special Washer (1.38 x .89)
4	252355	1	Straight Fitting (Torque to 80/100 in. lbs.)
5	250381	1	90° Elbow Fitting
6	13831	1	Straight Fitting
7	212405	1	Check Valve (1000 PSI)
8	15378	2	Tee Fitting
9	9796	2	Cylinder Half Coupler w/ Dust Cap
10	9689	1	Reducer Connector
11	15883	AR	Polyethylene Tubing
12	10621	1	90° Elbow Fitting
13	208218	6	Straight Fitting
14	250260	1	Straight Fitting
15	212890	1.5'	Pressure Hose
16	9052	1	Gauge (10,000 PSI; 4" dia.)
17	12740	1	Straight Fitting
18	250026	1	Straight Fitting
19	10617	1	90° Elbow Fitting
20	9678	1	45° Fitting
21	15457	1	90° Elbow Fitting
22	212896	1	Rubber Grommet
23	12367	2	Hose Clamp

AR = As Required

## REMOTE HAND CONTROL ASSEMBLY

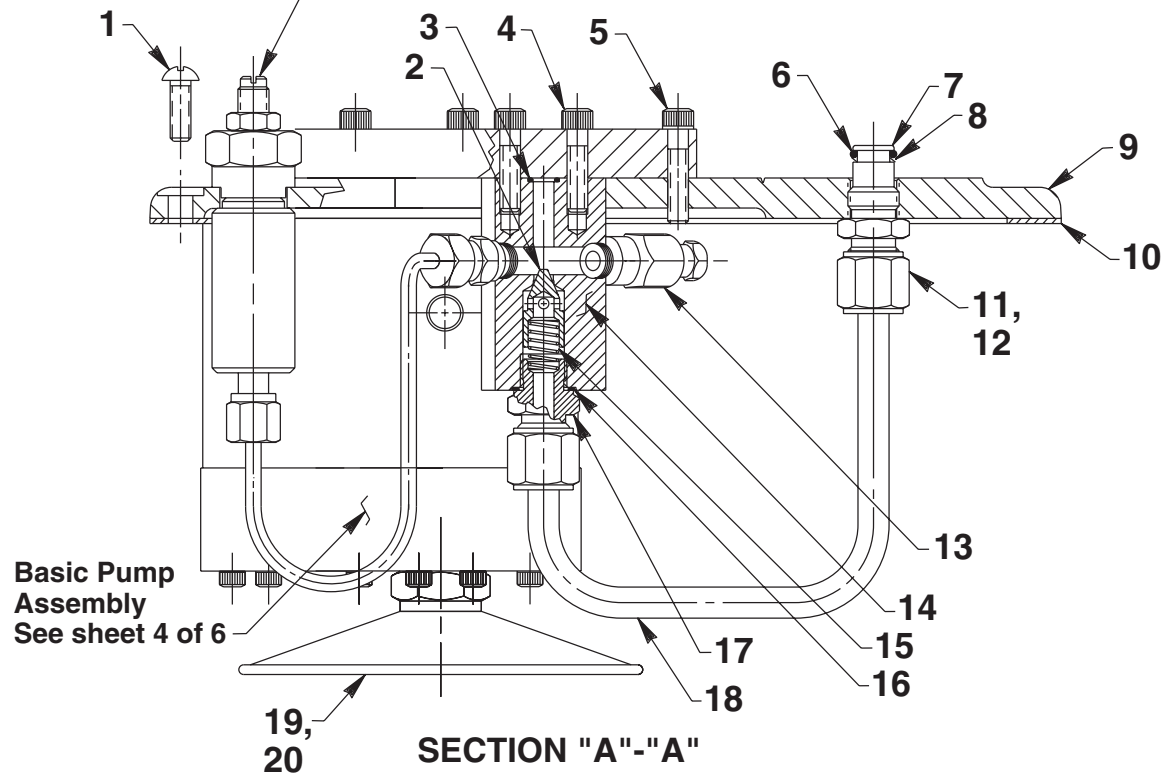


Item No.	Part No.	No. Req'd	Description
1	251760	2	Decal (Release)
2	251759	1	Decal (Pump)
3	45052	1	Hose (Three strand 12")
4	208218	6	Straight Fitting
5	421265	1	Air Operated Hand Control (See Form No. 100426)

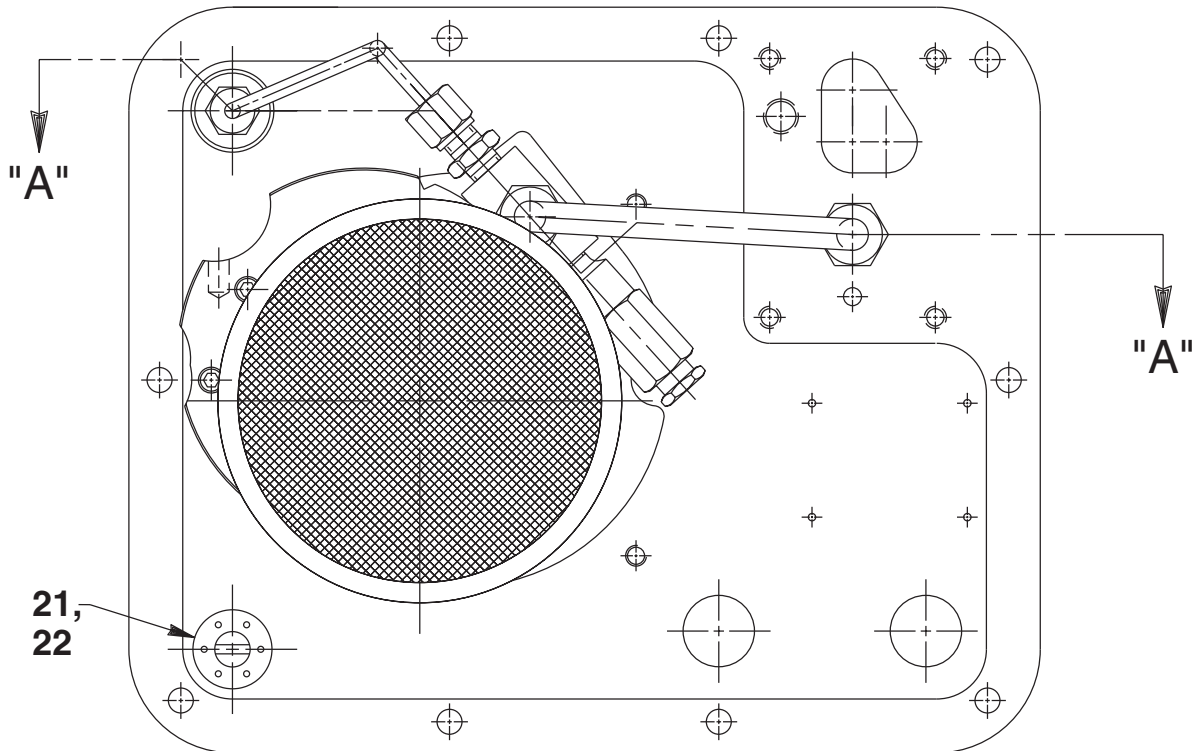
Note: Shaded areas reflect last revision(s) made to this form.

# GENERAL PUMP ASSEMBLY

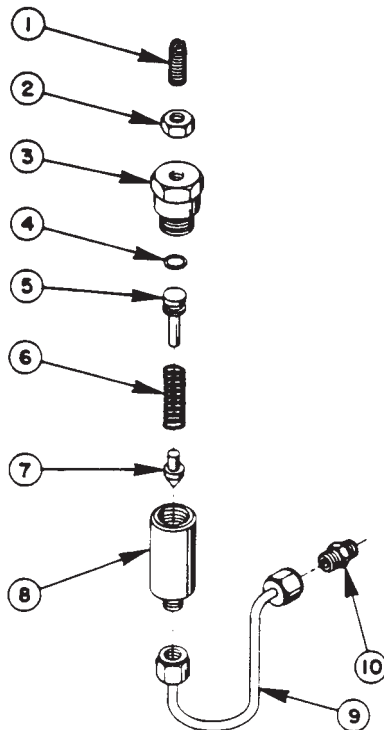
External Relief Valve  
See back sheet 2 of 6



Basic Pump  
Assembly  
See sheet 4 of 6



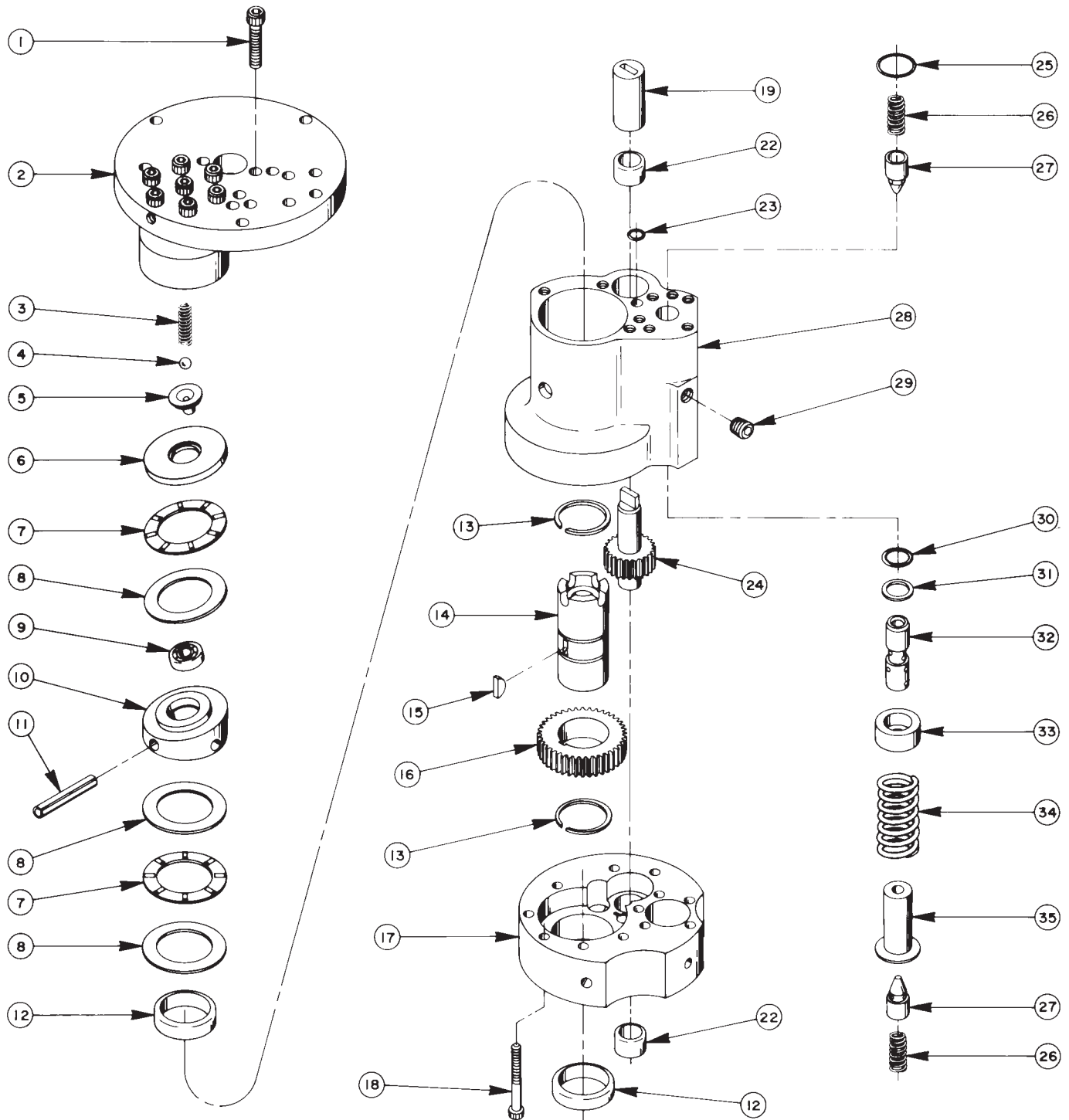
Item No.	Part No.	No. Req'd	Description
1	10177	9	Rnd. Hd. Screw (1/4-20 x 3/4)
2	20771	1	Poppet
3	10266	1	O-ring (.37 x .25 Nitrile)
4	10015	2	Soc. Hd. Screw (1/4-28 x 1; Torque to 140/160 in. lbs.)
5	10016	3	Soc. Hd. Screw (1/4-20 x 1)
6	10268	1	O-ring (.50 x .37 Nitrile)
7	20787	1	Valve Connector
8	11863	1	Backup Washer (.50 x .38)
9	46627BK2	1	Cover Plate
10	40164	1	Reservoir Gasket
11	10430	2	Tube Sleeve
12	10431	2	Tube Nut Fitting
13	21278	1	Relief Valve Assembly (Set at 10,100/10,700 PSI)
14	20776	1	Valve Body
15	10425	2	Spring (.37 OD x .75 x .03 ws)
16	10261	1	Copper Washer (.75 x .60)
17	20770	1	Connector Fitting (Torque to 40/50 ft. lbs.)
18	21045	1	Oil Line Tube
19	21345	1	Filter Assembly (Includes o-ring [Item #20])
20	10527	1	O-ring (13/16 x .644 x .087)
21	20937	1	Vent Cap
22	200415	1	O-ring (13/16 x 5/8 x 3/32)



## #22360 PRESSURE REGULATOR ASSEMBLY

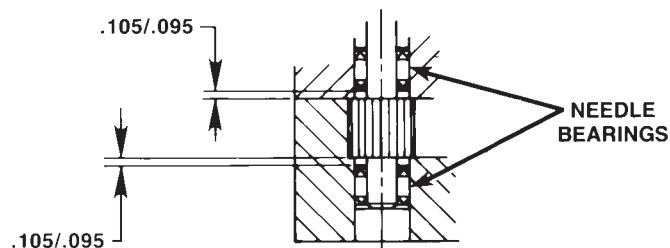
Item No.	Part No.	No. Req'd	Description
1	22362	1	Adjusting Screw
2	10386	1	Hex Jam Nut
3	21305	1	Valve Cap
4	10268	1	O-ring (1/2 X 3/8 X 1/16)
5	21306	1	Spring Guide
6	10495	1	Compression Spring (1/2 O.D. X 1-5/8 Lg.)
7	21046	1	Valve Stem
8	22361	1	Body
9	29267	1	Oil Line Ass'y (With nuts)
10	14844	1	Connector Fitting

# BASIC PUMP ASSEMBLY



Item No.	Part No.	No. Req'd	Description
1	10020	9	Soc. Hd. Cap Screw (1/4-20 X 1-1/4 Lg.; Torque to 170-180 in. lbs.)
2	33113	1	High Pressure Pump Assembly (See sheet 5 of 6)
3	10361	1	Compression Spring (1/4 O.D. X 1" Lg.)
4	10375	1	Steel Ball (1/4 Dia.)
5	23547	1	Bearing Top Plate
6	23548	1	Top Plate
7	11228	2	Thrust Bearing
8	11813	3	Bearing Race
9	11814	1	Ball Bearing
10	23549	1	Angle Plate
11	11955	1	Roll Pin (1/4 Dia. X 3/4 Lg.)
12	11064	2	Needle Bearing
13	11261	2	Retaining Ring (1-1/8 Shaft)
14	23556	1	Shaft
15	11821	1	Woodruff Key
16	23557	1	Gear
17	30533	1	Pump End Plate
18	10001	12	Soc. Hd. Cap Screw (10-32 X 1-3/4 Lg.; Torque to 50 in. lbs.)
19	251206	1	Coupling
20	11199	2	Needle Thrust Bearing (See diagram below)
23	10266	1	O-ring (1/4 X 3/8 X 1/16)
24	21272	1	Drive Gear
25	10303	1	O-ring (7/8 X 3/4 X 1/16)
26	10425	2	Compression Spring (3/8 O.D. X 3/4 Lg.)
27	20771	2	Poppet
28	40120	1	Pump Body
29	10427	1	Pipe Plug (1/8 NPTF)
30	10271	1	O-ring (11/16 x 1/2 X 3/32)
31	12389	1	Teflon Backup Washer (11/16 X 1/2 X 1/16)
32	20849	1	Spool
33	23255	1	Spring Guide
34	10426	1	Compression Spring (1" O.D. X 1-13/16 Lg.)
35	23256	1	Spring Guide

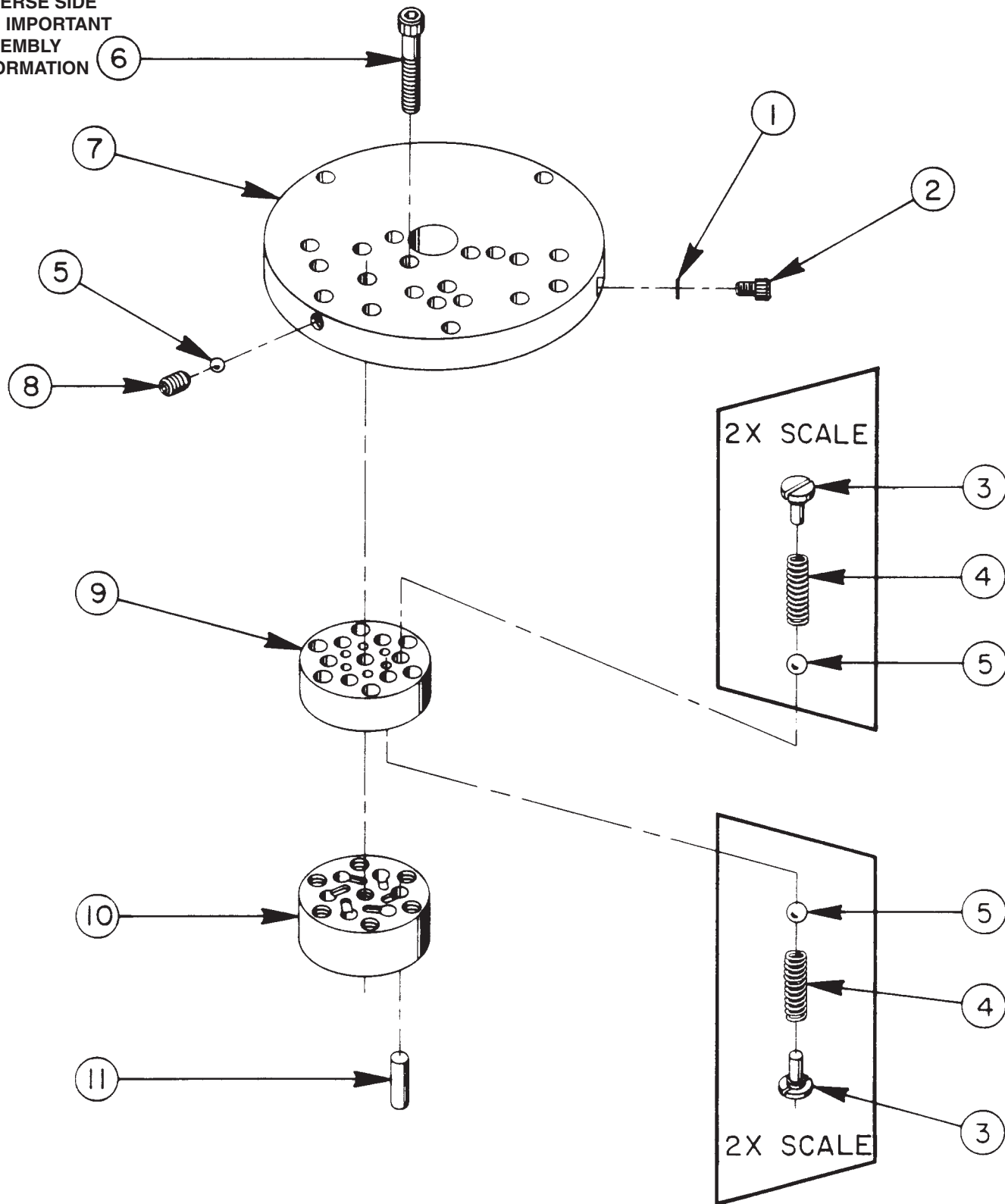
## NEEDLE BEARING INSTALLATION SPECIFICATIONS



When replacing the needle bearings on the drive gear of the basic pumps, the dimensions shown must be as specified.

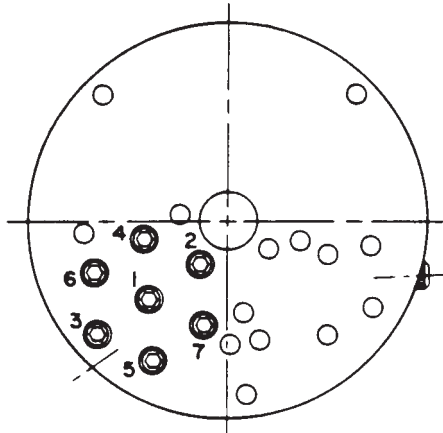
# HIGH PRESSURE PUMP ASSEMBLY

SEE DIAGRAM ON REVERSE SIDE FOR IMPORTANT ASSEMBLY INFORMATION



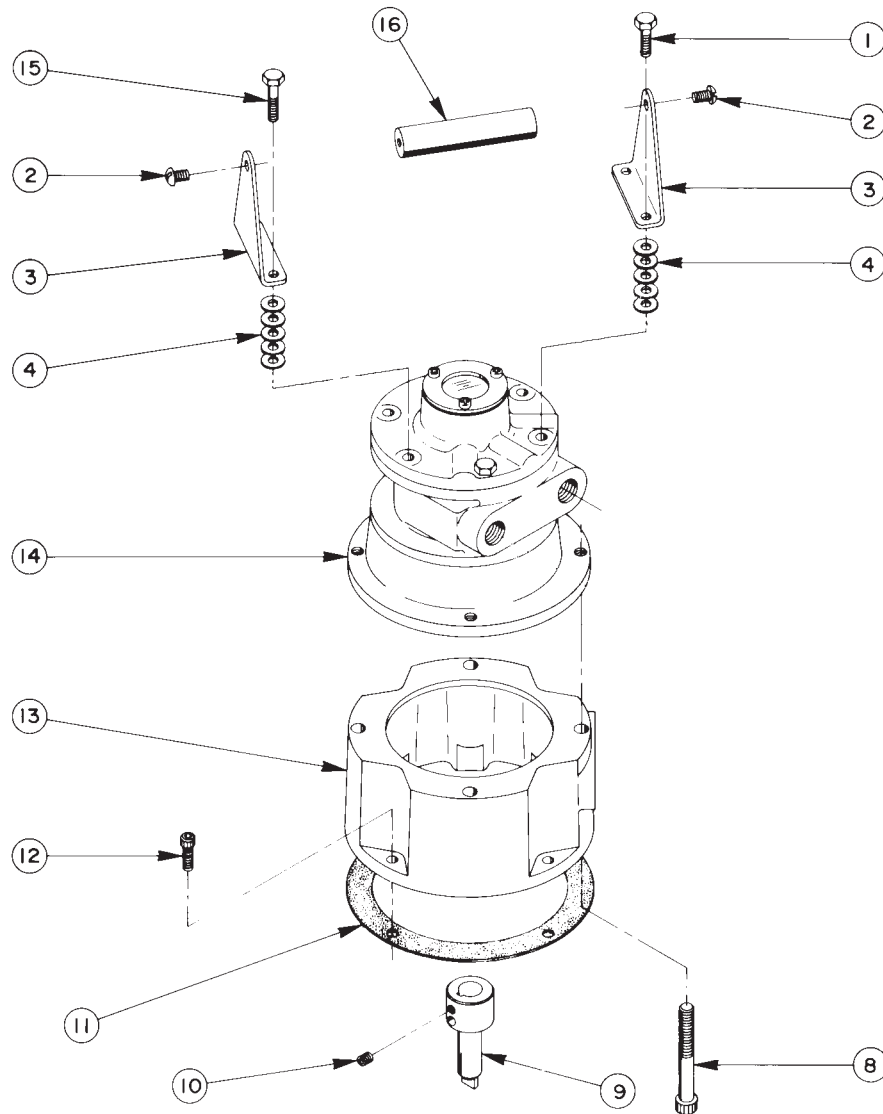
Item No.	Part No.	No. Req'd	Description
1	10442	1	Copper Washer (3/8 X 1/4 X 1/32)
2	10002	1	Soc. Hd. Cap Screw (1/4-20 UNC X 3/8" Lg.; Torque to 140/160 in. lbs.)
3	24549	6	Valve Guide
4	10445	6	Compression Spring (5/32" O.D. X 3/4" Lg.)
5	12223	7	Steel Ball
6	10023	7	Soc. Hd. Cap Screw (1/4-20 UNF X 1-1/2" Lg.; Torque to 170/180 in. lbs.; See note below)
7	50411	1	Top Plate
8	10519	1	Soc. Set Screw (1/4-20 UNC X 3/8 Lg.; Torque to 65/70 in. lbs.)
9	40630	1	Valve Head
10	41062	1	Pump Barrel
11	21628	3	Piston

### BOLT TIGHTENING SEQUENCE



**NOTE: Assemble in sequence shown. Lubricate under head and on threads. Torque to 180 in. lbs.**

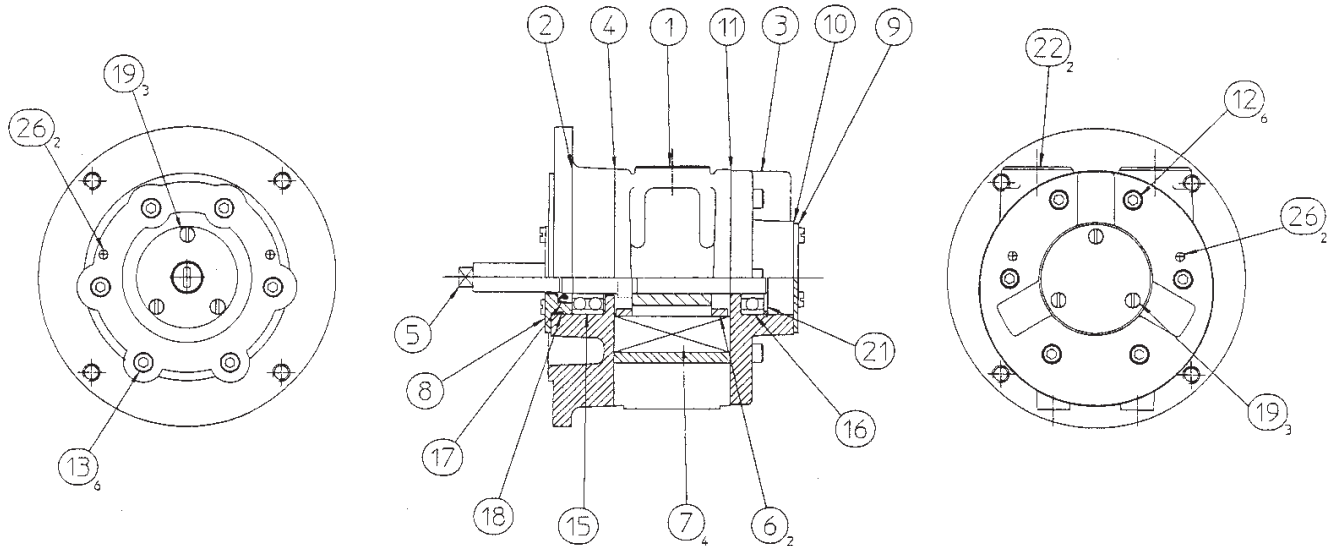
### AIR MOTOR ASSEMBLY



Item No.	Part No.	No. Req'd	Description
1	10014	1	Cap Screw (1/4-28 X 1" Lg.)
2	10174	2	Machine Screw (1/4-20 X 1/2 Lg.)
3	33808	2	Handle Bracket
4	12719	20	Washer
7	14056	1	Reducing Nipple
8	17816	4	Cap Screw (3/8-16 X 3" Lg.)
9	37842	1	Shaft Extension
10	10556	1	Set Screw (1/4-20 UNC X 1/4 Lg.)

Item No.	Part No.	No. Req'd	Description
11	30650	1	Gasket
12	10008	4	Cap Screw (1/4-20 X 3/4 Lg.)
13	51158WH2	1	Motor Base
14	421502BK2	1	Air Motor
15	10018	3	Cap Screw (1/4-28 X 1-1/4 Lg.)
16	28158	1	Handle
	51159	1	Complete Air Motor Ass'y (Includes Items 1 through 16)

## 4.0 H.P. VA6C VANE MOTOR



ITEM	PART NO.	DESCRIPTION	QTY.
001	760-110	BODY - 1/2" NPT PORTS	1
002	760-018	FRONT PLATE (NEMA 56C)	1
003	760-002	END PLATE	1
004	740-062A	BODY GASKET, DARK BLUE (0.050mm) PLASTIC	2
005	760-953	SHAFT-ROTOR - TANG OUTPUT	1
006	760-006	EJECTION RING	2
007	760-005	ROTOR BLADE	4
008	760-007	SEAL HOUSING	1
009	760-008	COVER PLATE	1
010	760-009	COVER PLATE GASKET	1
011	760-062	GASKET-MAY BE 760-062A, B, C, OR F	
012	809-009	HEX.SKT.CAPSCREW M6 x 20	6
013	809-007	HEX.SKT.CAPSCREW M6 x 16	6
015	807-028	BALL BEARING	1
016	807-025	BALL BEARING	1
017	808-052	OIL SEAL, 17 x 28 x 6 R21	1
018	808-031	O-RING	1
019	805-006	CHEESE HEAD SCREW M5 x 10	6
021	804-052	CIRCLIP 40mm INTERNAL	1
022	812-051	SNAP FIT PLUG	2
026	806-024	DOWEL 5 DIA. X 16 LONG	4

Normal servicing requires only replacement of items shown in **Bold \*\*** on list. These are included in spares kit 769-910 (see below). Other major spares are not normally cost-effective in comparison with the cost of a replacement motor.

**BOLT TORQUES:**

Item 012      10 lb ft      13.5 Nm  
Item 013      10 lb ft      13.5 Nm

**SPARES KIT AVAILABLE : 769-910**

THIS CONSISTS OF:

<b>PART No.</b>	<b>DESCRIPTION.</b>	<b>QTY.</b>
760-062A	BODY GASKET, DARK BLUE. (0.050mm/0.002")	2
760-062B	BODY GASKET, GREEN. (0.075mm/0.003")	2
760-062C	BODY GASKET, AMBER. (0.100mm/0.004")	2
760-062F	BODY GASKET, PURPLE. (0.025mm/001")	2
760-009	COVER PLATE GASKET	1
760-005	ROTOR BLADE	4
808-030	O-RING	NU
808-031	O-RING	1
804-052	CIRCLIP 40mm INTERNAL	1
808-052	OILSEAL 17 x 28 x 6	1
808-057	OILSEAL 25 x 35x 7	NU

NU = not used on this unit