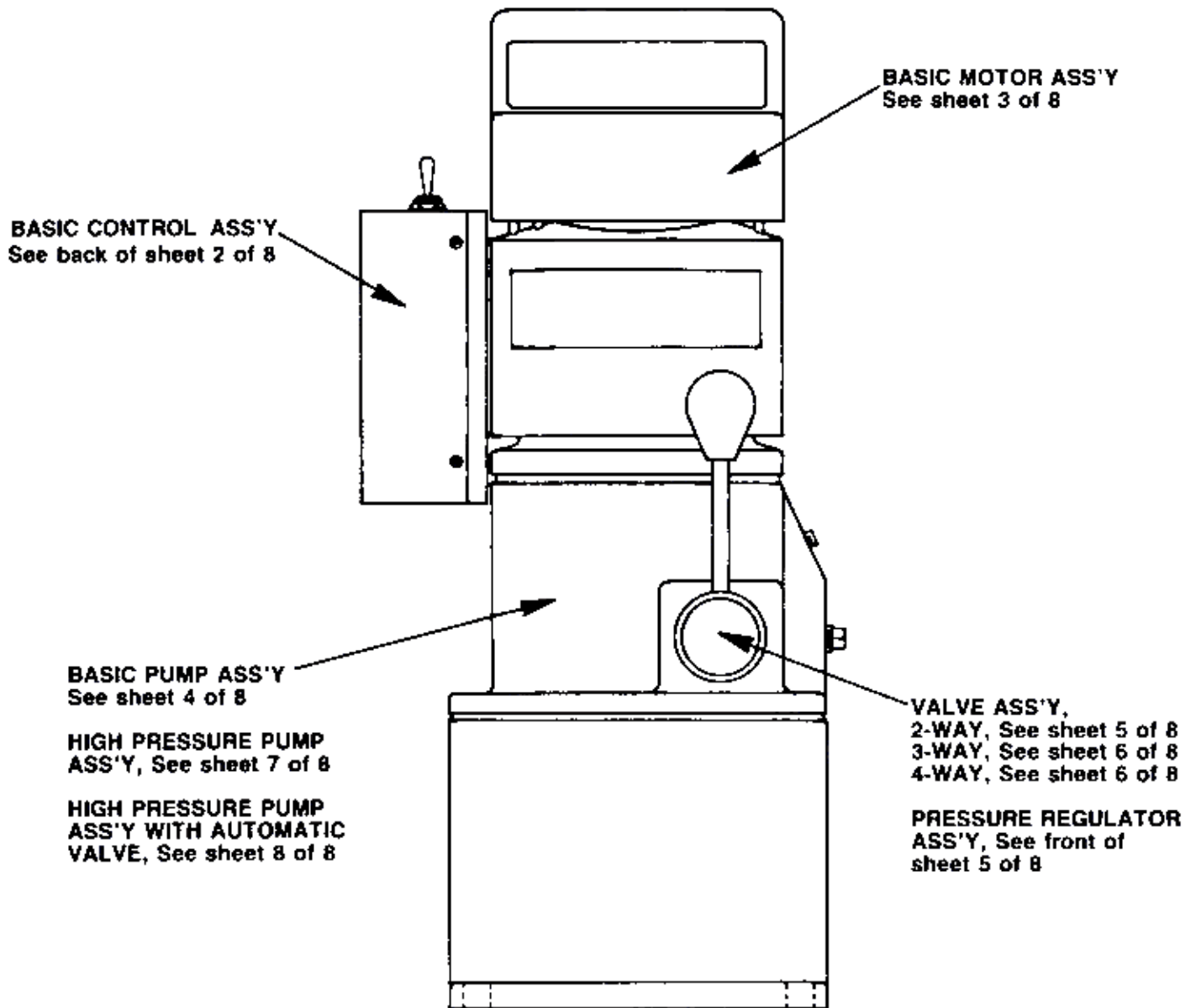


Parts List for:

2P-5500	4033	27571	201636-INT	LRE-Y27-A
2P-5550	4034	28557	201905	P120-10
4030	4035	29610	205242	PE18 Series
4031	4036	35117	D-01023-AA	TO-15
4032	4037	53005	D-01026-AA	Y27 Series

MODEL C & D HIGH SPEED HYDRAULIC PUMP

GENERAL SECTION



ELECTRICAL SCHEMATICS

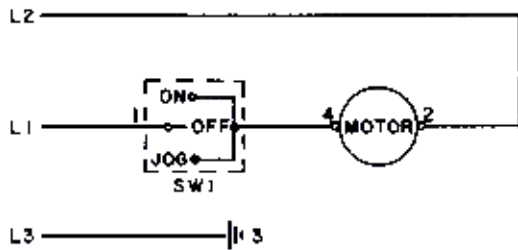


WARNING

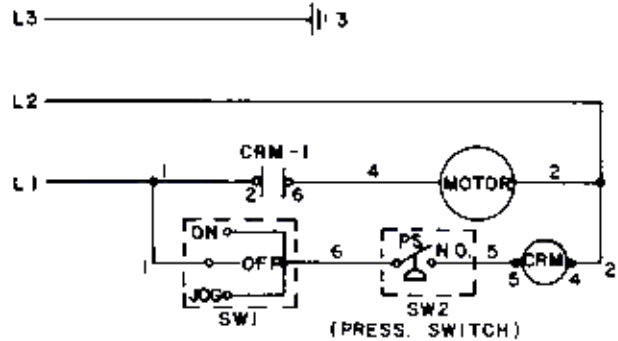
To help avoid personal injury, all electrical work must be done by a qualified electrician.

North American & International Color Codes

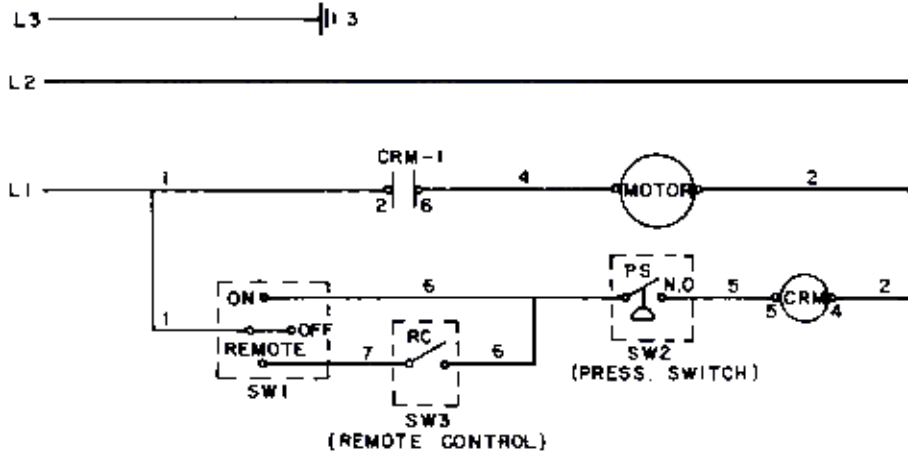
Conductors	North American	International
Line	Black	Brown
Neutral	White	Blue
Ground	Green	Green/Yellow



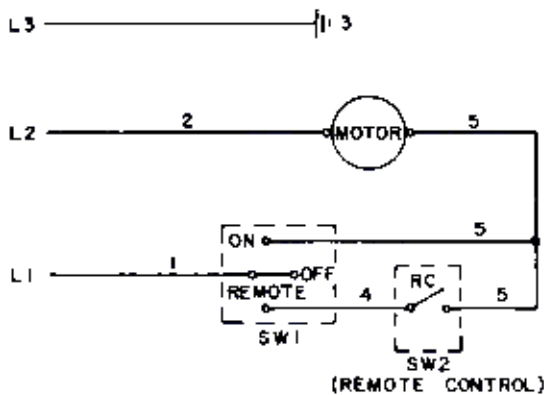
115/230 Volt with
ON/OFF/JOG Switch only



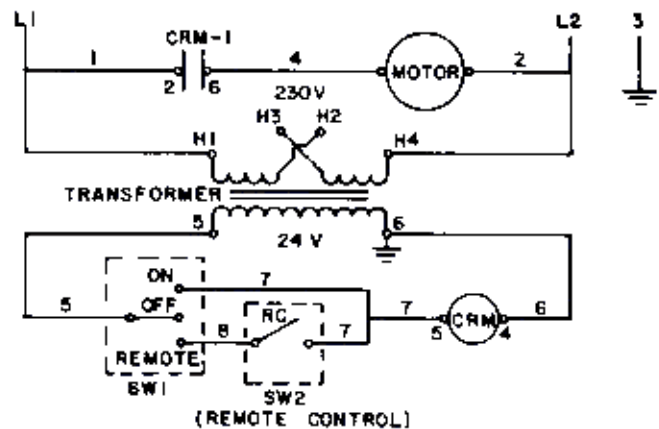
115/230 Volt with
ON/OFF/JOG & Pressure Switch



115/230 Volt with ON/OFF/REMOTE, Pressure Switch & Remote Control



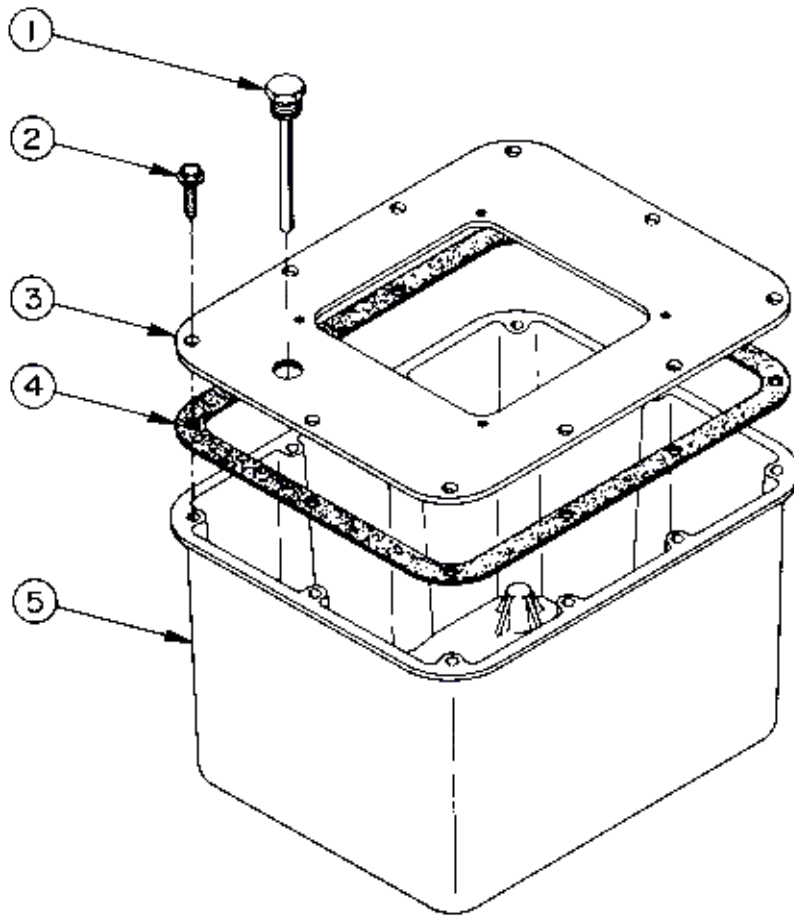
115/230 Volt with ON/OFF/REMOTE
Switch & Remote Control



230/24 Volt with ON/OFF/REMOTE
Switch & Remote Control

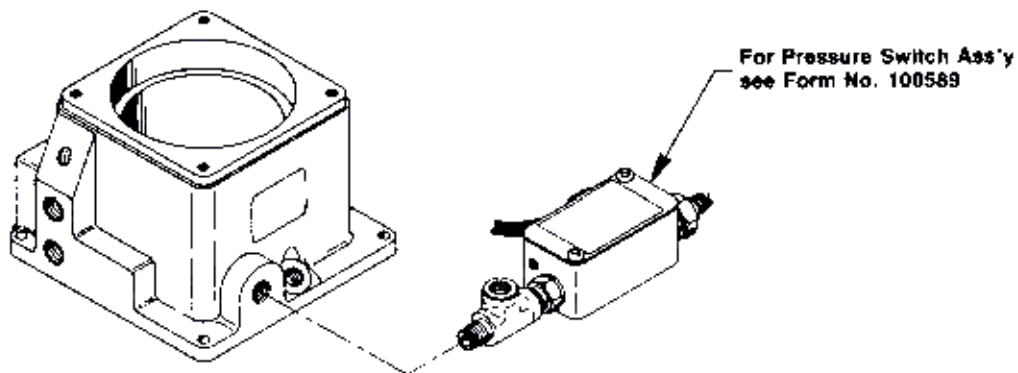
NOTE: For 115 volt system, connect transformer lines H1 & H3 together and H2 & H4 together.

TWO GALLON RESERVOIR ASSEMBLY

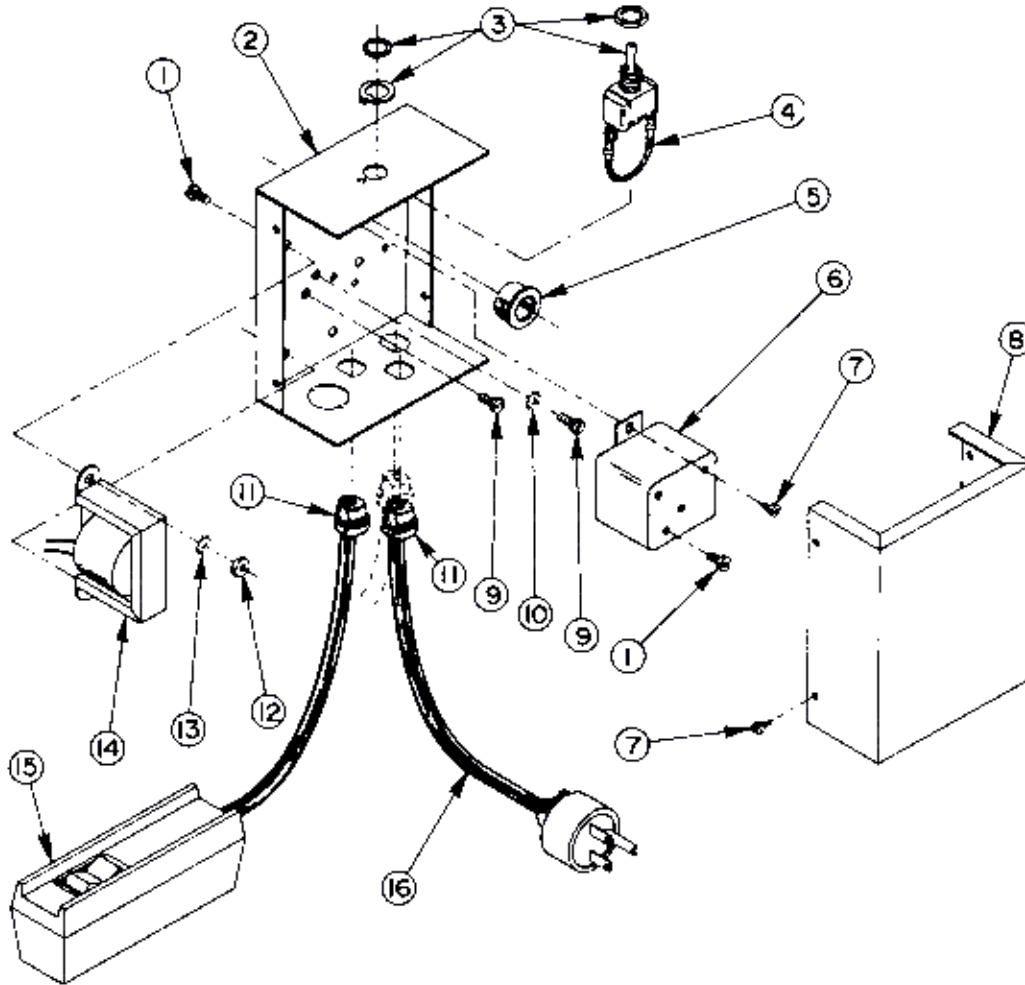


Item No.	Part No.	No. Req'd	Description
1	200291	1	Filler Plug & Dipstick
2	209799	10	Self-tapping Screw (1/4-10 x 7/8 Lg.)
3	41174	1	Cover Plate
4	40164	1	Cover Plate Gasket
5	61165	1	Reservoir

PRESSURE SWITCH ASS'Y



BASIC CONTROL ASSEMBLY



Item No.	Part No.	No. Req'd	Description
1	10975	AR	Machine Screw (8-32 UNC x 5/16 Lg.)
2	42575WH2	1	Control Box
3	16617	1	Toggle Switch (On/Off/Jog)
	12665	1	Toggle Switch (On/Off/Remote)
4	11188	AR	Jumper Wire
5	11143	1	Snap Bushing
6	14667	1	Relay Starter (24 volt)
	13922	1	Relay Starter (115 volt)
	13923	1	Relay Starter (230 volt)
7	11141	AR	Self-tapping Screw (#6-20 x 3/8 Lg.)
8	42576WH2	1	Control Box Cover
9	12062	5	Machine Screw (8-32 UNC x 3/8 Lg.)
10	11361	1	Lockwasher (#8 external tooth)
11	15993	AR	Strain Relief Bushing
12	10196	2	Hex Nut (#8-32)

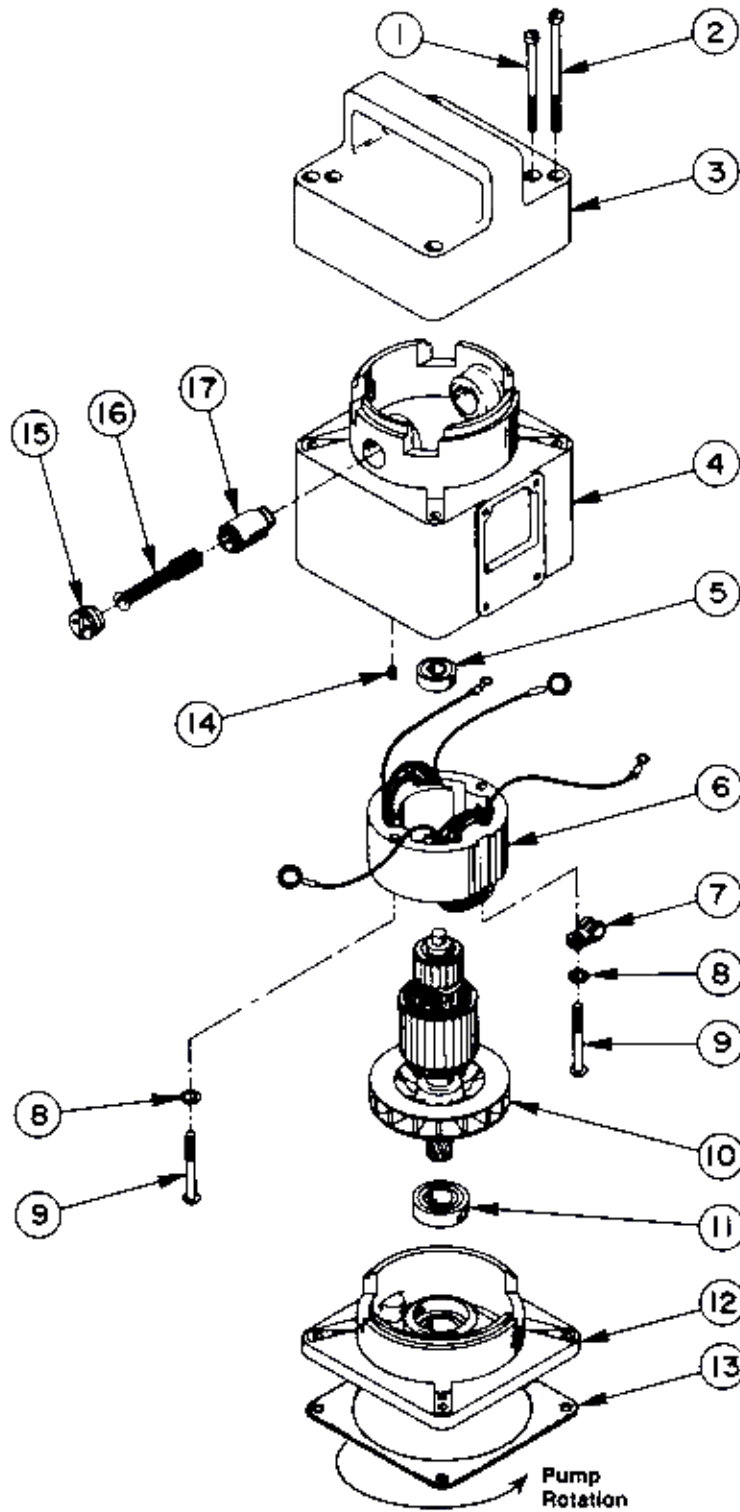
Item No.	Part No.	No. Req'd	Description
13	11388	2	Lockwasher (#8 external tooth)
14	305665	1	Transformer (120/240-24V)
15	25017	1	Remote Control (Hand Operated; See Form No. 101644)
	10461	1	Remote Control (Foot Operated - Not shown)
	203225	1	Remote Control (For PE184-RAY,)
	252160	1	Hand Switch (For 115 V. units not equipped with transformer) 2P-550 & 2P-5550)
16	25015	1	Cord Set (230 volt)
	24733	1	Cord Set (115 volt)

PARTS INCLUDED BUT NOT SHOWN

352080	1	Indicator Decal (On/Off/Remote)
352079	1	Indicator Decal (On/Off/Jog)
352061	1	Metal Switch Guard
200188	1	Warning Decal

AR = As Required

BASIC MOTOR ASSEMBLY



Parts List, Form No. 100360, Back sheet 3 of 8

Item No.	Part No.	No. Req'd	Description
1	12802	2	Machine Screw (10-24 UNC x 5-1/2 Lg.)
2	12820	4	Machine Screw (10-24 UNC x 6" Lg.)
3	32395	1	Motor Shell Cover
4	40750	1	Motor Shell
5	16768	1	Ball Bearing
6	12140	1	Field (115 Volt)
	12141	1	Field (230 Volt)
7	13111	1	Speed Clamp
8	12356	2	Lockwasher (#10 Internal Tooth)
9	12515	2	Machine Screw (10-24 UNC x 1-3/4 Lg.)
10	16769	1	Armature (115 Volt)
	16770	1	Armature (230 Volt)
11	12133	1	Ball Bearing
12	40753	1	Motor Base
13	†32714	1	Gasket
14	12131	2	Set Screw (10-24 UNC x 3/16 Lg.)
15	12143	2	Brush Cap
16	12144	2	Brush Assembly
17	12142	2	Brush Holder

PARTS INCLUDED BUT NOT SHOWN

202210	1	Spec. Decal, 115 V.
203630	1	Spec. Decal, 230 V. (PE18 Series only)
202173	1	Trade Name Decal (PE18 Series)
12858	1	Trade Name Decal (Y27 Series, 4030, 4031, 4032, 4033, 4034, 4035, 4036, & 4037)

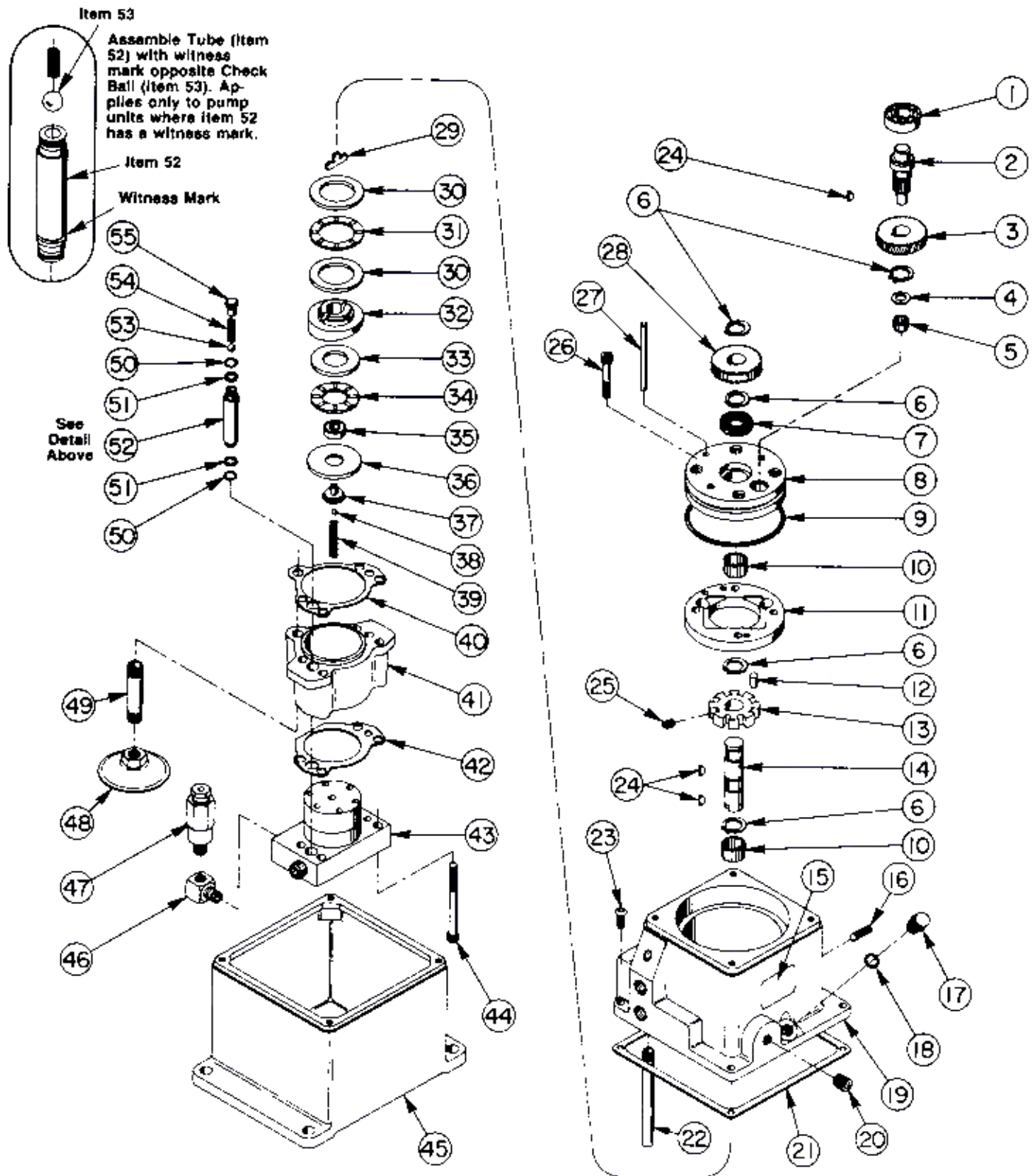
Part numbers marked with a dagger (†) are contained in Repair Kit No. 300914.

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 one of our Technical Services Departments.

BASIC PUMP ASSEMBLY

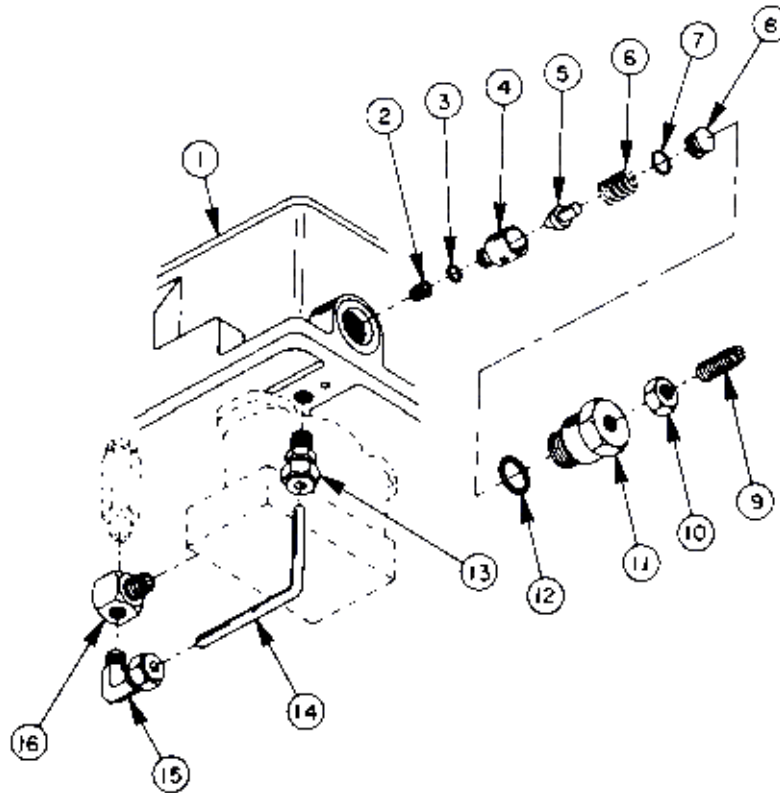


Parts List, Form No. 100360, Back sheet 4 of 8

Item No.	Part No.	No. Req'd	Description	Item No.	Part No.	No. Req'd	Description
1	13115	1	Ball Bearing	39	10361	1	Compression Spring (1/4 O.D. x 1" Lg.)
2	32069	1	Pinion Shaft	40	†202691	1	Upper Gasket
3	24536	1	Helical Gear	41	36923	1	Spacer
4	24744	1	Thrust Washer	42	†202690	1	Lower Gasket
5	12191	1	Needle Bearing	43	36915	1	Pump Assembly, High Pressure (See sheet 7 of 8)
6	12178	5	Retaining Ring (5/8 shaft)		36918	1	Pump Assembly, High Pressure (Used with Automatic Valve only, see sheet 8 of 8)
7	†12194	1	Oil Seal	44	11956	4	Soc. Hd. Cap Screw (1/4-20 UNC x 3" Lg.; Torque to 110/120 in. lbs.)
8	33463	1	Pump End Plate	45	40756OR9	1	Reservoir, 1/2 Gal. (PE18 Series)
9	†10297	1	O-ring (3-1/2 x 3-1/4 x 1/8)		40756BL2	1	Reservoir, 1/2 Gal. (Y27 Series, 4030, 4031, 4032, 4033, 35117 & 201636-INT)
10	12192	2	Needle Bearing		40756GR19	1	Reservoir, 1/2 Gal. (29610 & 205242)
11	33464	1	Pump Ring		40756GR4	1	Reservoir, 1/2 Gal. (27571)
12	12193	8	Roller		40756BR13	1	Reservoir, 1/2 Gal. (D-01023AA, D-01026-AA, & 201905)
13	24632	1	Rotor		40756BL10	1	Reservoir, 1/2 Gal. (P120-10)
	28357	1	Rotor (For Automatic Valve only)		40756RE2	1	Reservoir, 1/2 Gal. (LRE-Y27-A)
14	202875	1	Shaft		40756BL3	1	Reservoir, 1/2 Gal. (TO-15)
15	12204	1	Decal (Venting instructions)		40756TA2	1	Reservoir, 1/2 Gal. (2P-5500 & 2P-5550)
16	15305	1	Set Screw (1/4-20 UNC x 1" Lg.)		34072	1	Reservoir, 1/2 Gal. - Special (28557)
	251700	1	Seal Washer (.56 x 1/4-20 UNC)	46	24730	1	Elbow
	10383	1	Hex Jam Nut (1/4-20)	47	21278	1	Relief Valve Assembly (Pressure setting indicated on Pump Name Plate)
17	350974	1	Filler Cap		21278-15	1	Relief Valve Assembly (For PE184-1600)
18	10300	1	O-ring (5/8 X 15/32 X 5/64)	48	29682	1	Filter Assembly
19	42521	1	Pump Body (For Automatic Valve only; for other Pump Bodies see Valve section sheets 5 of 8 and 6 of 8.)	49	202781	1	Suction Tube
20	10479	1	Pipe Plug (1/4 NPTF)		29681	1	Suction Tube (Used with 2 gal. Reservoir)
21	†32713	1	Gasket	50	†10267	2	O-ring (7/16 x 5/16 x 1/16)
22	27323	1	Tube Return	51	†15085	2	Backup Washer (7/16 x 5/16 x 3/64 Thk.)
23	13026	4	Machine Screw (10-24 UNC x 3/4 Lg.)	52	202688	1	Tube
24	12179	3	Woodruff Ket	53	*10377	1	Steel Ball (5/16 dia.)
25	14070	8	Compression Spring (1/4 O.D. x 3/8 Lg.; For Automatic Valve only)	54	*15141	1	Compression Spring (3/16 O.D. x 5/8 Lg.)
26	10022	4	Soc. Hd. Cap Screw (1/4-20 UNC x 1-1/2 Lg.; Torque to 110/120 in. lbs.)	55	*202681	1	Ball Stop
27	24758	1	Locating Pin	PARTS INCLUDED BUT NOT SHOWN			
28	24567	1	Spur Gear	200257	1	Prime Decal	
29	200397	1	Key				
30	11227	2	Bearing Race				
31	11228	1	Needle Thrust Bearing				
32	35271	1	Angle Plate				
33	15432	1	Bearing Race				
34	15431	1	Thrust Bearing				
35	11814	1	Ball Bearing				
36	23548	1	Top Plate				
37	23547	1	Top Plate Bearing				
38	10375	1	Ball (1/4 dia.)				

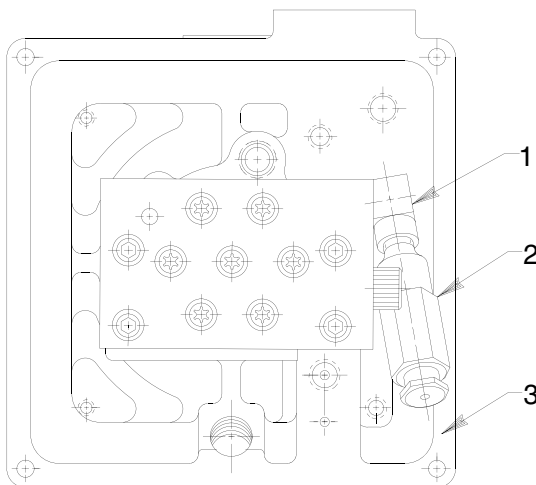
Part numbers marked with an asterisk () are **NOT** used with Pump using Automatic Valve.
Part numbers marked with a dagger (†) are contained in Repair Kit No. 300914.

PRESSURE REGULATOR ASSEMBLY



Item No.	Part No.	No. Req'd	Description
1	42513	1	Pump Body (For 2-way Valve & Pressure Regulator)
	42511	1	Pump Body (For 3-way Valve & Pressure Regulator)
	42517	1	Pump Body (For 4-way Valve & Pressure Regulator)
	42519	1	Pump Body (For Automatic Valve & Pressure Regulator)
	64401	1	Pump Body (For 4-way valve & Pressure Regulator for PE184-RAY only. See illustration below.)
2	11084	1	Pipe Plug (1/16 NPTF)
3	12522	1	O-ring (3/8 x 1/4 x 1/16)
4	24634	1	Valve Seat
5	21046	1	Valve Stem

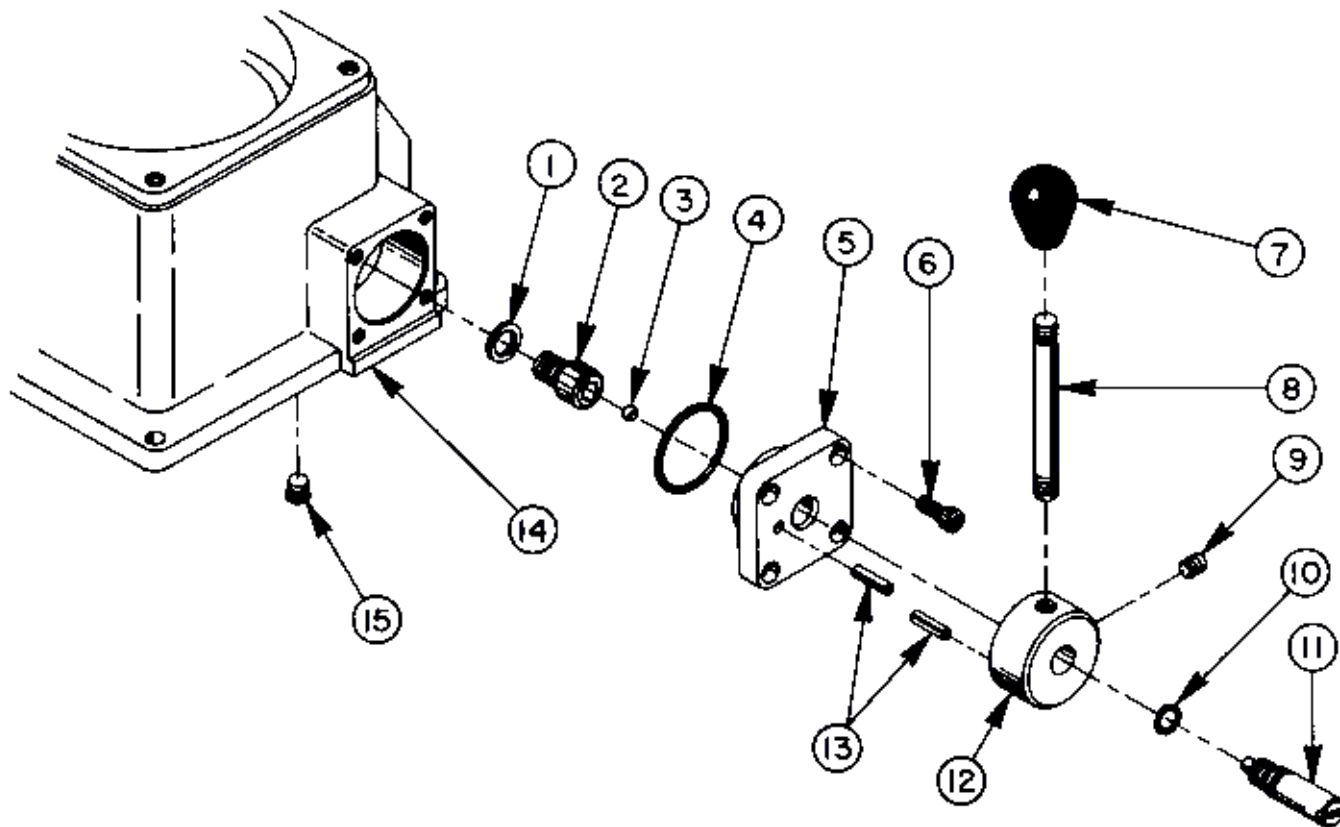
Item No.	Part No.	No. Req'd	Description
6	10428	1	Compression Spring (1/2 O.D. x 3/4 Lg.)
7	10268	1	O-ring (1/2 x 3/8 x 1/16)
8	24629	1	Spring Button
9	22362	1	Valve Adjusting Screw
10	10386	1	Jam Nut
11	21305	1	Valve Cap
12	10527	1	O-ring (13/16 x .644 x .087)
13	11173	1	Tube Connector
14	24788	1	Tube (For 2-way, 3-way & 4-way Valve)
	27397	1	Tube (For Automatic Valve only)
15	11278	1	Tube Connector Elbow
16	24702	1	Tee



BASIC PUMP FOR PE184-RAY ONLY

Item No.	Part No.	No. Req'd	Description
1	19121	1	Tee Fitting
2	21278-10	1	Relief Valve (Position as shown at left and set at 900/1,100 PSI)
3	64401	1	Pump Body

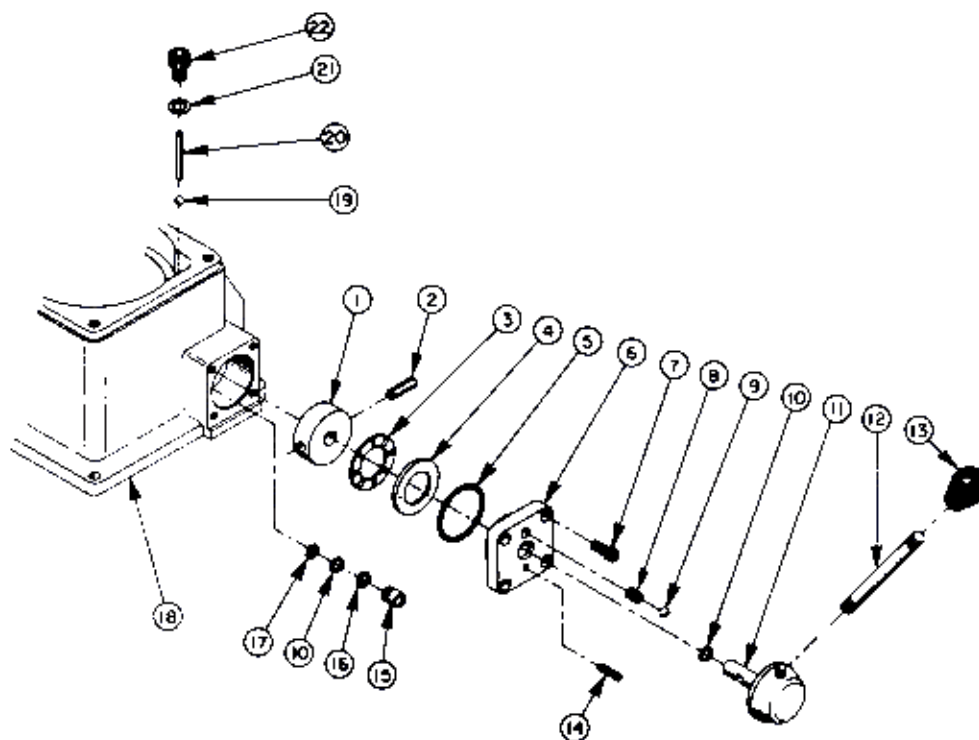
TWO-WAY VALVE ASSEMBLY



Item No.	Part No.	No. Req'd	Description
1	12042	1	Copper Washer (9/16 x 3/8 x 1/32)
2	202774	1	Replaceable Seat (Torque to 180/200 in. lbs.)
3	10375	1	Steel Ball (1/4 dia.)
4	10914	1	O-ring (1-3/8 x 1-3/16 x 3/32)
5	27321	1	Cover
6	11434	4	Soc. Hd. Cap Screw (10-24 UNC x 1/2 Lg.)
7	12821	1	Knob
8	24564	1	Stud
9	10519	1	Set Screw (1/4-20 UNC x 3/8 Lg.; Torque to 87 in. lbs.)
10	†10267	1	O-ring (7/16 x 5/16 x 1/16)
11	202775	1	Valve Stem
12	33137	1	Collar
13	11587	2	Roll Pin (1/8 dia. x 1/2 Lg.)
14	42516	1	Pump Body (For 2-way Valve only)
	42515	1	Pump Body (For 53005 only)
15	15130	1	Pipe Plug (1/16 NPTF)

Part numbers marked with a dagger (†) are contained in Repair Kit No. 300914.

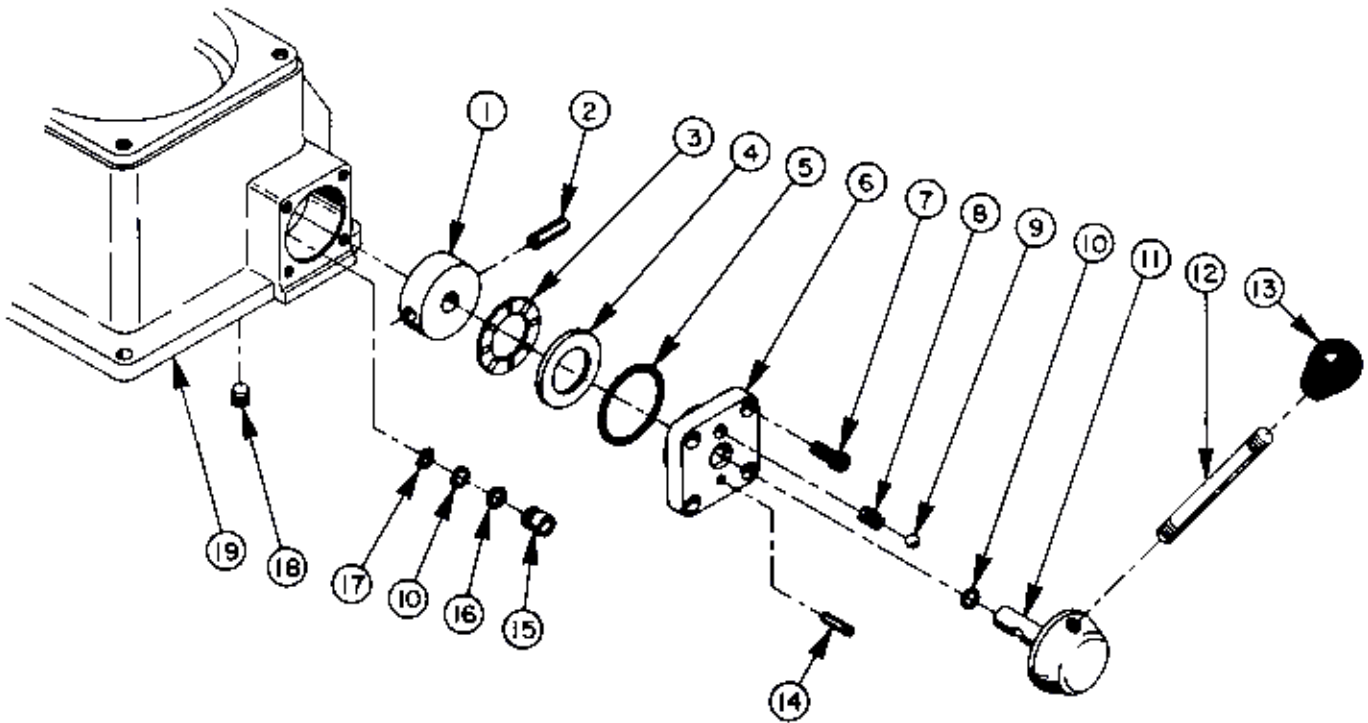
THREE-WAY VALVE ASSEMBLY



Item No.	Part No.	No. Req'd	Description
1	27200	1	Rotor
2	10716	1	Roll Pin (1/4 dia. x 3/4 Lg.)
3	12188	1	Needle Thrust Bearing
4	12189	1	Bearing Race
5	†10930	1	O-ring (1-1/2 x 1-5/16 x 3/32)
6	25821	1	Cover
7	11434	4	Soc. Hd. Cap Screw (10-24 UNC x 1/2 Lg.)
8	12195	1	Compression Spring (1/4 O.D. x 1/2 Lg.)
9	10375	1	Steel Ball (1/4 dia.)
10	†10266	3	O-ring (3/8 x 1/4 x 1/16)
11	33117	1	Stem
12	24564	1	Stud
13	12821	1	Knob
14	11587	1	Roll Pin (1/8 dia. x 1/2 Lg.)
15	24570	2	Shear Seal
16	†12184	2	Backup Washer (3/8 x 1/4 x .058)
17	†12187	2	Spring Washer
18	42522	1	Pump Body (For 3-way Valve only)
19	10374	1	Steel Ball (7/32 dia.)
20	13574	1	Roll Pin (1/8 dia. x 1-1/8 Lg.)
21	†11031	1	Copper Washer (15/32 x 5/16 x 1/32)
22	25683	1	Cap Screw
	201288	1	Directional Decal (Not Shown)

Part numbers marked with a dagger (†) are contained in Repair Kit No. 300914.

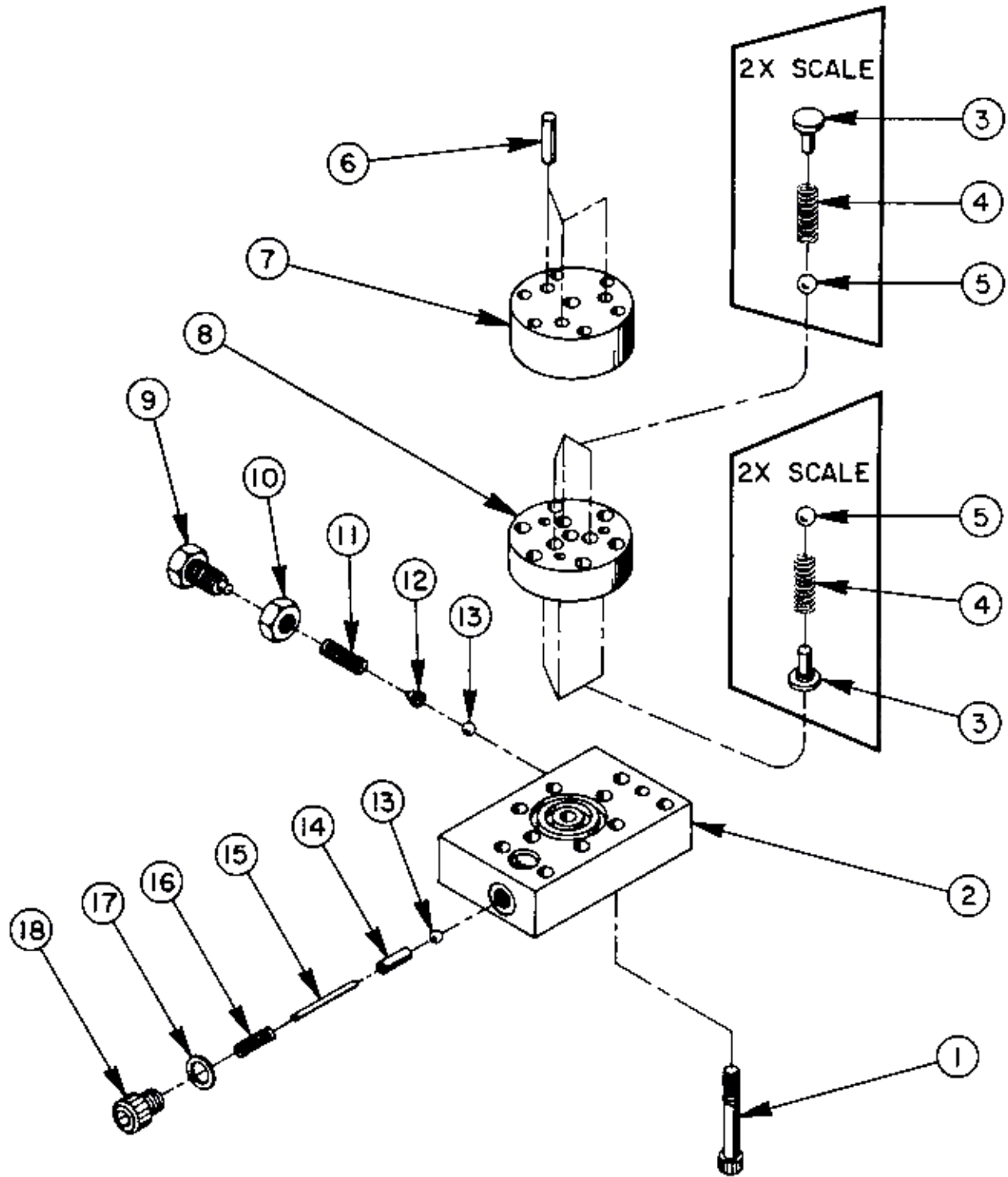
FOUR-WAY VALVE ASSEMBLY



Item No.	Part No.	No. Req'd	Description
1	32071	1	Rotor
2	10716	1	Roll Pin (1/4 dia. x 3/4 Lg.)
3	12188	1	Needle Thrust Bearing
4	12189	1	Bearing Race
5	†10930	1	O-ring (1-1/2 x 1-5/16 x 3/32)
6	25821	1	Cover
7	11434	4	Soc. Hd. Cap Screw (10-24 UNC x 1/2 Lg.)
8	12195	1	Compression Spring (1/4 O.D. x 1/2 Lg.)
9	10375	1	Steel Ball (1/4 dia.)
10	†10266	4	O-ring (3/8 x 1/4 x 1/16)
11	32070	1	Stem
12	24564	1	Stud
13	12821	1	Knob
14	11587	1	Roll Pin (1/8 dia. x 1/2 Lg.)
15	24570	3	Shear Seal
16	12184	3	Backup Washer (3/8 x 1/4 x .048)
17	12187	3	Spring Washer
18	15130	1	Pipe Plug (1/16 NPTF)
19	42520	1	Pump Body (For 4-way Valve only)
	203444	1	Directional Decal (Not Shown)

Part numbers marked with a dagger (†) are contained in Repair Kit No. 300914.

HIGH PRESSURE PUMP ASSEMBLY

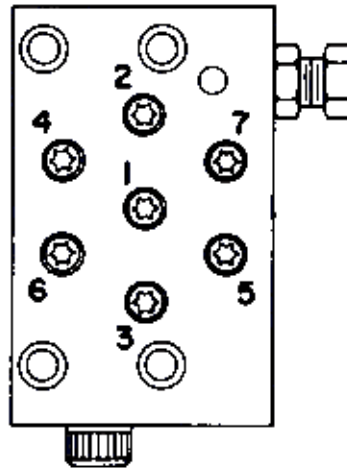


Item No.	Part No.	No. Req'd	Description
1	*16747	7	Torx Drive Cap Screw (See diagram below)
2	*36908	1	Pump End Plate
3	*24549	6	Valve Guide
4	*10445	6	Compression Spring (5/32 O.D. x 3/4 Lg.)
5	*12223	6	Steel Ball (3/16 dia.)
6	*20775	3	Piston
7	*40629	1	Pump Barrel
8	*40630	1	Valve Head
9	200797	1	Adapter
10	10386	1	Jam Nut (3/8-24 UNF)
11	15691	1	Compression Spring (1/4 O.D. x 5/8 Lg.)
12	200796	1	Adapter
13	10375	2	Steel Ball (1/4 dia.)
14	201998	1	Steeve
15	12571	1	Roll Pin (1/8 dia. x 1-3/8 Lg.)
16	14431	1	Compression Spring (3/16 O.D. x 3/4 Lg.)
17	†12042	1	Copper Washer (9/16 x 3/8 x 1/32)
18	29690	1	Cap Screw (Torque to 180 in. lbs.)

Consult factory when replacing items marked with an asterisk (*).

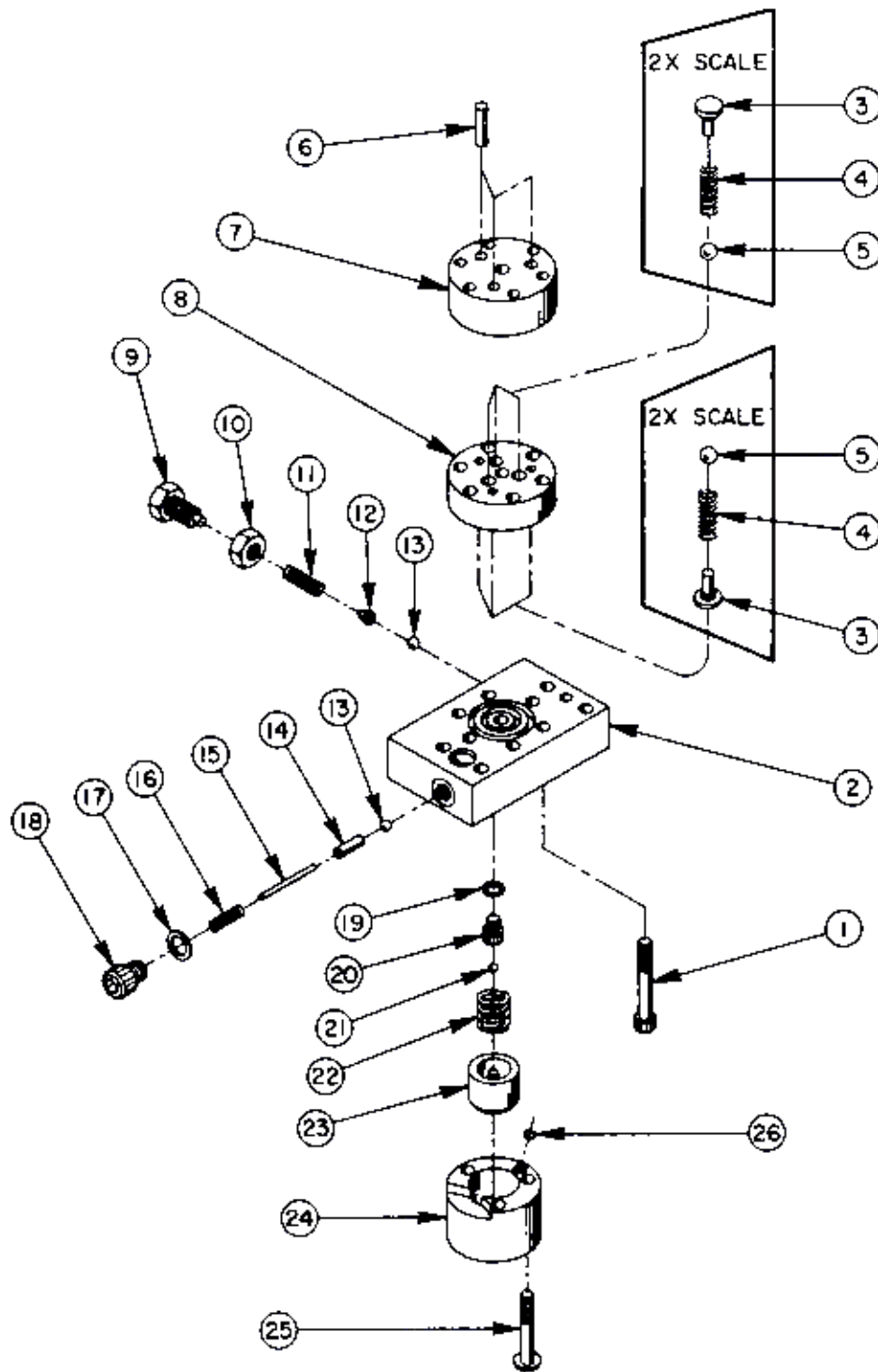
Part numbers marked with a dagger (†) are contained in Repair Kit No. 300914.

BOLT TIGHTENING SEQUENCE



NOTE: Assemble in sequence shown. Lubricate under head and on threads. Torque to 170 in. lbs.

HIGH PRESSURE PUMP ASS'Y WITH AUTOMATIC VALVE

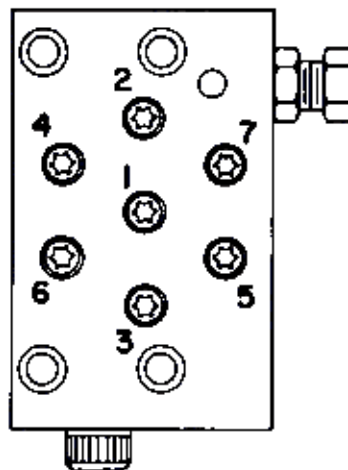


Item No.	Part No.	No. Req'd	Description
1	*16747	7	Torx Drive Cap Screw (See diagram below)
2	*36910	1	Pump End Plate
3	*24549	6	Valve Guide
4	*10445	6	Compression Spring (5/32 O.D. x 3/4 Lg.)
5	*12223	6	Steel Ball (3/16 dia.)
6	*20775	3	Piston
7	*40629	1	Pump Barrel
8	*40630	1	Valve Head
9	200797	1	Adapter
10	10386	1	Jam Nut (3/8-24 UNF)
11	15691	1	Compression Spring (1/4 O.D. x 5/8 Lg.)
12	200796	1	Adapter
13	10375	2	Steel Ball (1/4 dia.)
14	201998	1	Steeve
15	12571	1	Roll Pin (1/8 dia. x 1-3/8 Lg.)
16	15129	1	Compression Spring (3/16 O.D. x 7/8 Lg.)
17	†12042	1	Copper Washer (9/16 x 3/8 x 1/32)
18	29690	1	Cap Screw (Torque to 180 in. lbs.)
19	†10442	1	Copper Washer (3/8 x 1/4 x 1/32)
20	201995	1	Cap Screw (Torque to 80/90 in. lbs.)
21	10419	1	Steel Ball (5/32 dia.)
22	16465	1	Compression Spring (5/8 O.D. x 3/4 Lg.)
23	202088	1	Piston
24	32077	1	Valve Cylinder
25	10614	3	Rd. Hd. Machine Screw (1/4-20 UNC x 1-1/2 Lg.)
26	†10264	1	O-ring (1/4 x 1/8 x 1/16)

Consult factory when replacing items marked with an asterisk (*).

Part numbers marked with a dagger (†) are contained in Repair Kit No. 300914.

BOLT TIGHTENING SEQUENCE



NOTE: Assemble in sequence shown. Lubricate under head and on threads. Torque to 170 in. lbs.