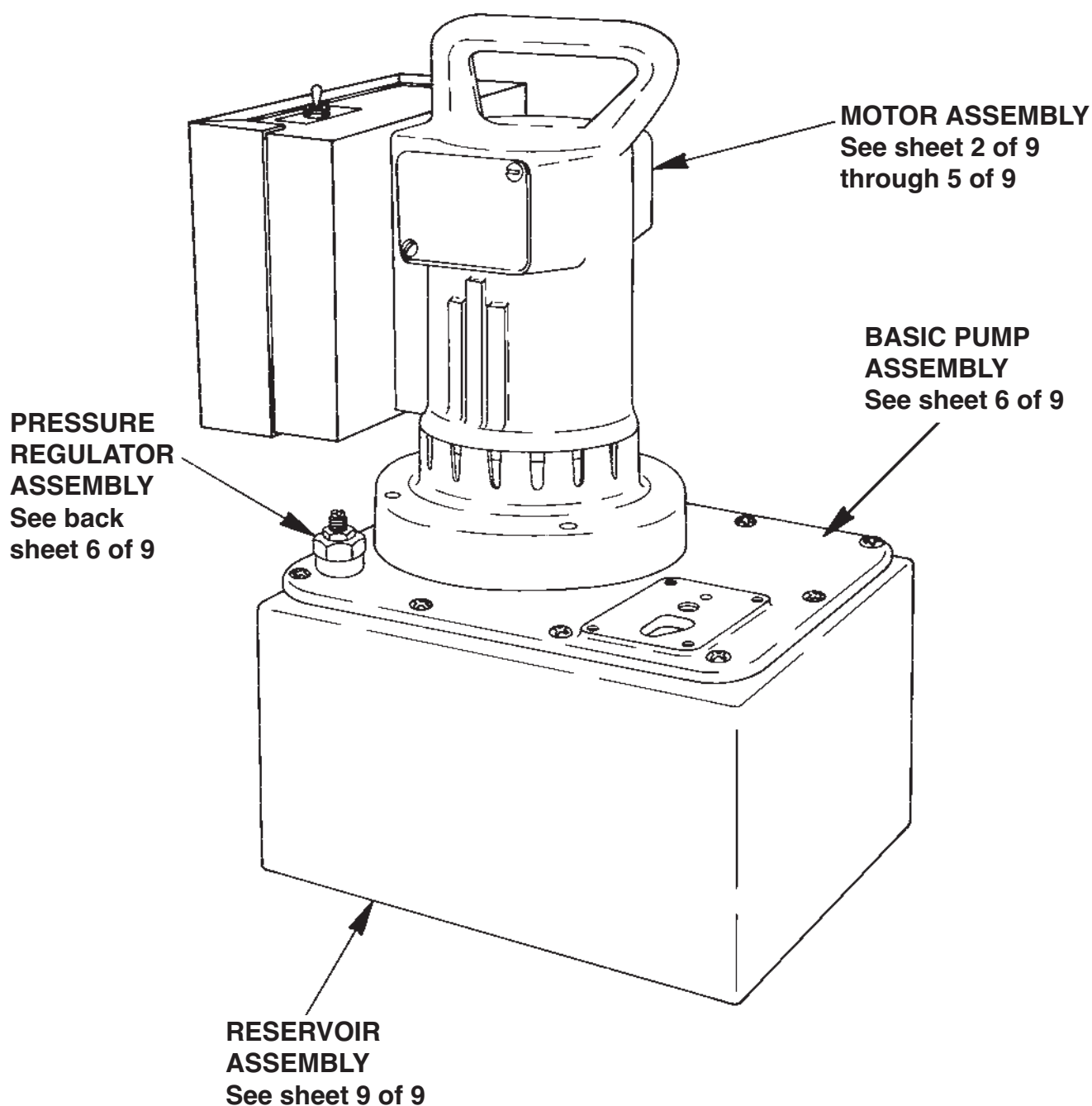


Parts List for:

3S-6224	4065	HPE-410	PE553 Series
8S-8033	4070	HPE-420	PE554 Series
4060	4080	JT07192	PE90A
4061	4081	PE55A Series	PE90B
4062	100220	PE55B Series	Y26A
4063	100220-230	PE550	Y26B
4064	HPE-310	PE550-220	Y60A
	HPE-320	PE552 Series	Y60B

MODEL B
ELECTRIC TWO-STAGE HYDRAULIC PUMP
GENERAL SECTION



Parts List, Form No. 100518, Back sheet 1 of 9

NOTE: These schematics are only for standard pumps. Special applications may require different schematics that are not shown here.

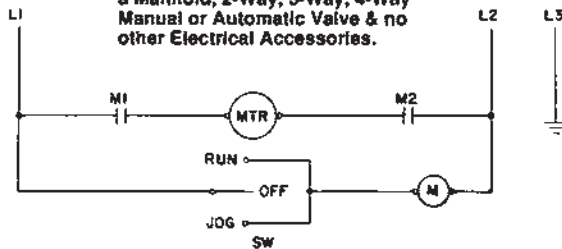
⚠ WARNING

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

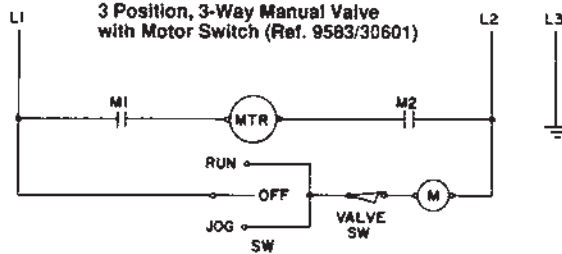
North American & International Color Codes:

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

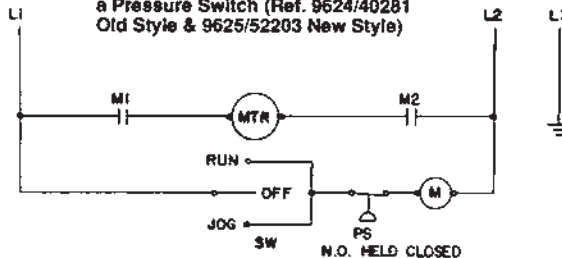
Electrical Schematic for Units with a Manifold, 2-Way, 3-Way, 4-Way Manual or Automatic Valve & no other Electrical Accessories.



Electrical Schematic for Units with a 3 Position, 3-Way Manual Valve with Motor Switch (Ref. 9583/30601)

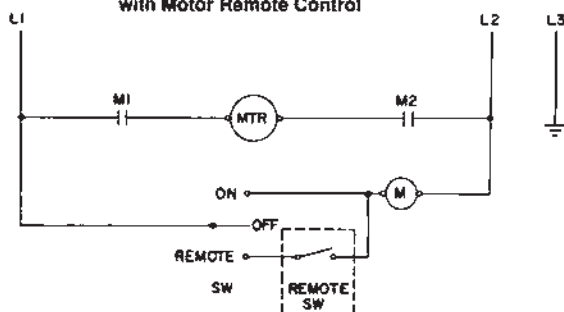


Electrical Schematic for Units with a Pressure Switch (Ref. 9624/40281 Old Style & 9625/52203 New Style)

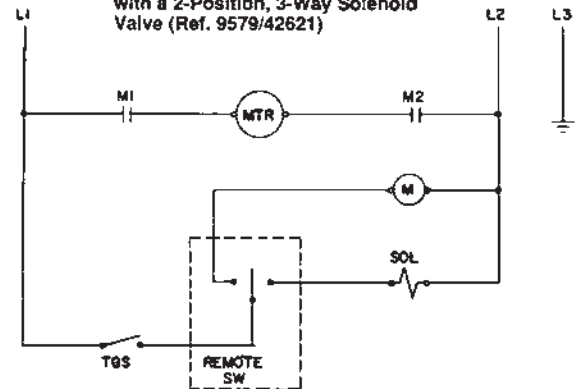


NOTE: REGARDLESS OF CIRCUIT DESIGN, PRESSURE SWITCH MUST BE INSTALLED SO THAT MOTOR WILL SHUT OFF WHEN PRESSURE SETTING IS OBTAINED.

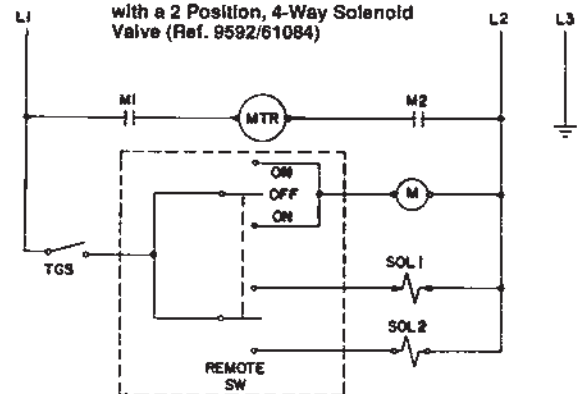
Electrical Schematic for Units with Motor Remote Control



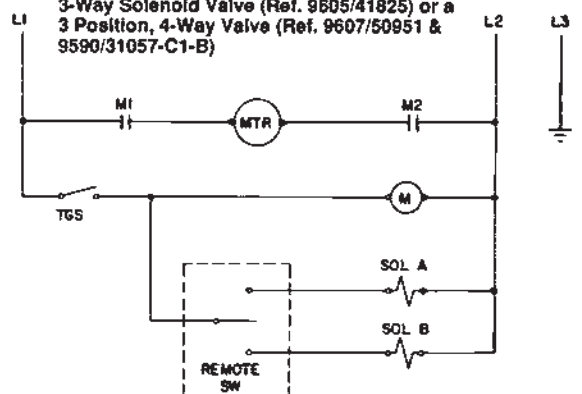
Electrical Schematic for Units with a 2-Position, 3-Way Solenoid Valve (Ref. 9579/42621)



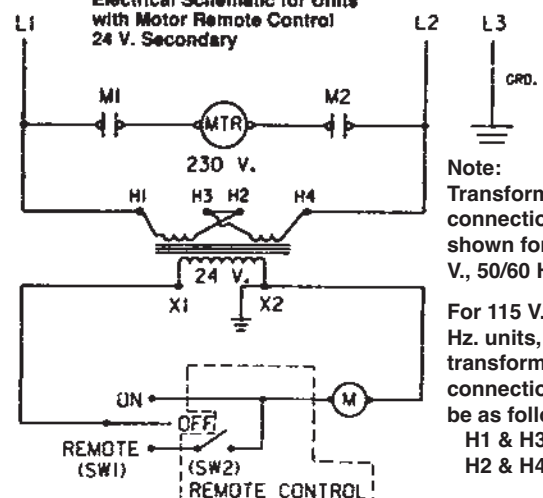
Electrical Schematic for Units with a 2 Position, 4-Way Solenoid Valve (Ref. 9582/61084)



Electrical Schematic for Units with a 3 Position, 3-Way Solenoid Valve (Ref. 9605/41825) or a 3 Position, 4-Way Valve (Ref. 9607/50951 & 9590/31057-C1-B)



Electrical Schematic for Units with Motor Remote Control 24 V. Secondary



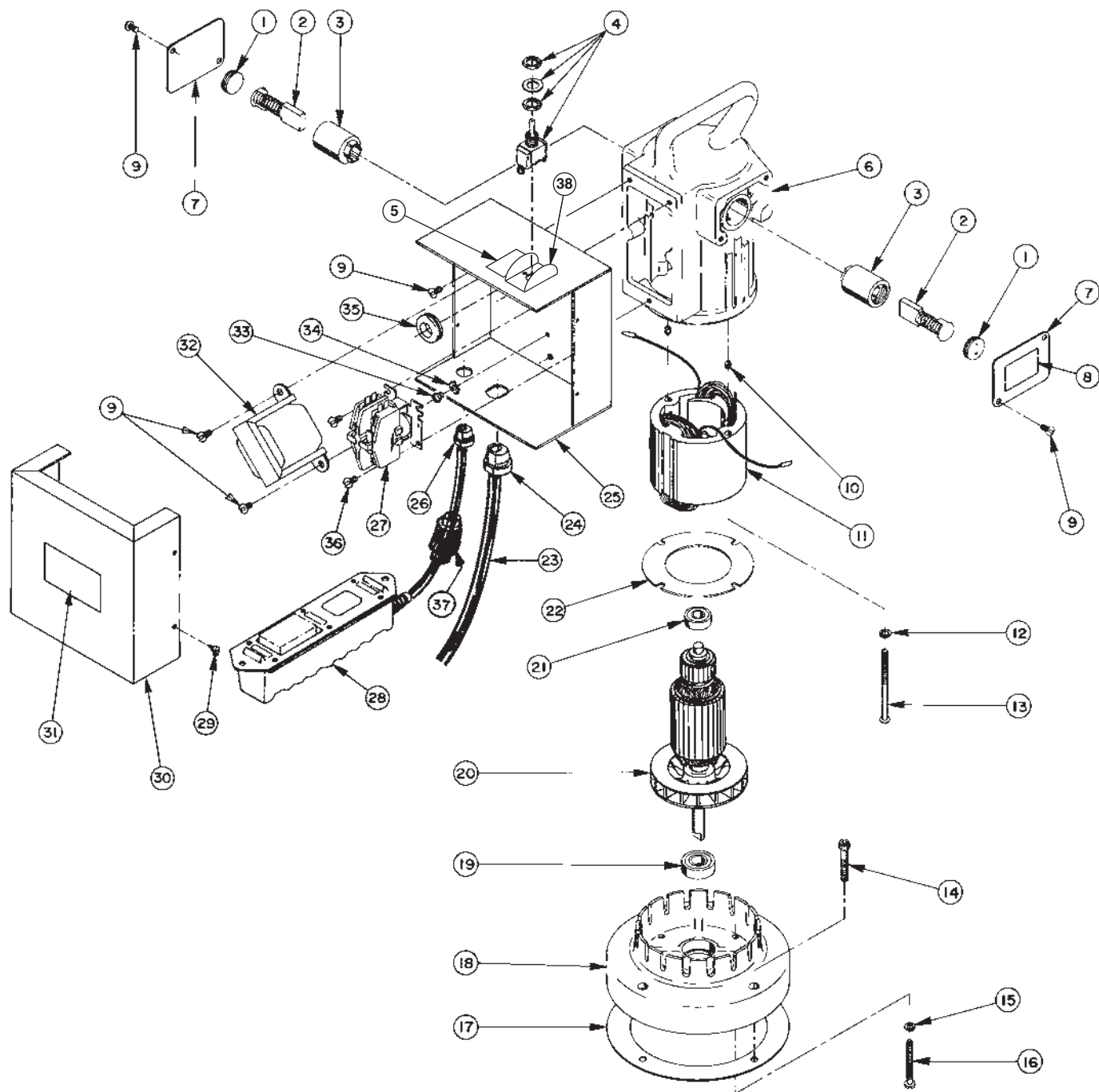
Note: Transformer connections are shown for 230 V., 50/60 Hz.

For 115 V., 50/60 Hz. units, transformer connections to be as follows:
H1 & H3 to L1
H2 & H4 to L2

UNIVERSAL MOTOR & CONTROL ASSEMBLY

12,000 R.P.M. -- 115 & 230 Volt, 50/60 Hz.

(For pumps built after May 1988)



(Note: This control assembly information also pertains to PE55A, PE55B, PE90A & PE90B built before Aug 1, 1990.)

Item No.	Part No.	No. Req'd	Description
1	10806	2	Brush Holder Cap
2	10804	2	Brush Assembly
3	10805	2	Brush Holder (See note below)
4	12175	1	Switch (On/Off/Jog)
	12665	1	Switch (On/Off/Remote)
	16617	1	Switch (On [momentary]/Off [remote])
5	25926	1	Decal (On/Off/Jog)
	352080	1	Decal (On/Off/Remote)
6	61901WH2	1	Motor Shell
7	21008	2	Cover
8	215164	1	Spec. Decal (For 115 volt)
	215163	1	Spec. Decal (For 230 volt)
9	11539	2	Mach. Screw (#10-24 X 1/4 Lg.)
10	10133	2	Set Screw
11	10802	1	Field (For 115 volt)
	58841F	1	Field (For 230 volt)
12	12356	2	Lockwasher
13	10170	2	Mach. Screw
14	10022	4	Cap Screw (1/4-20 X 1-1/2" Lg.)
15	10241	4	Lockwasher
16	10169	4	Mach. Screw (#10-24 X 2" Lg.; Torque to 20/25 in. lbs.)
17	30650	1	Gasket
18	40059WH2	1	Motor Base
19	10439	1	Ball Bearing
20	10800	1	Armature (For 115 volt; See note below)
	58841A	1	Armature (For 230 volt; See note below)
21	10438	1	Ball Bearing
22	20786	1	Baffle Plate
23	307440	8 ft.	Cord Set (For 115 volt)
	308752	8 ft.	Cable (For 230 volt)
24	210112	1	Strain Relief Bushing (For 7/8" hole)
25	51218WH2	1	Control Box
26	15993	1	Strain Relief Bushing (For 5/8" hole; Note included on PE554-HYDRA)

Item No.	Part No.	No. Req'd	Description
27	420718-1	1	Contactor (115 volt)
	420718-2	1	Contactor (230 volt)
	420718-4	1	Contactor (24 volt)
28	25017	1	Remote Control Hand Switch (On/Off; Not included on PE554-HYDRA, See Form No. 101644)
	203225	1	Remote Control Hand Switch (Heavy Duty Rubber; Not Shown)
29	14812	4	Self-Tapping Screw (#8)
30	43126WH2	1	Control Box Cover
31	200188	1	Warning Decal
32	11852	1	Transformer (Used on Remote Control Versions Only)
33	11457	1	Mach. Screw (#10-24 X 1/4 Lg.)
34	11456	1	Lockwasher (#10)
35	15497	1	Grommet
36	11539	2	Mach. Screw (#10-24 UNC X 1/4 Lg.)
37	250895	1	Twist Lock Elec. Connector (For PE55A-DUZ)
38	352061	1	Switch Guard

PARTS INCLUDED BUT NOT SHOWN

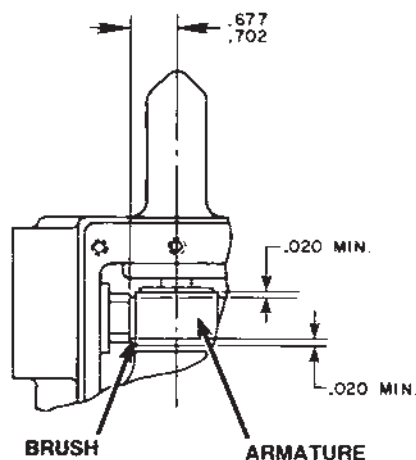
205189	1	Ground Decal
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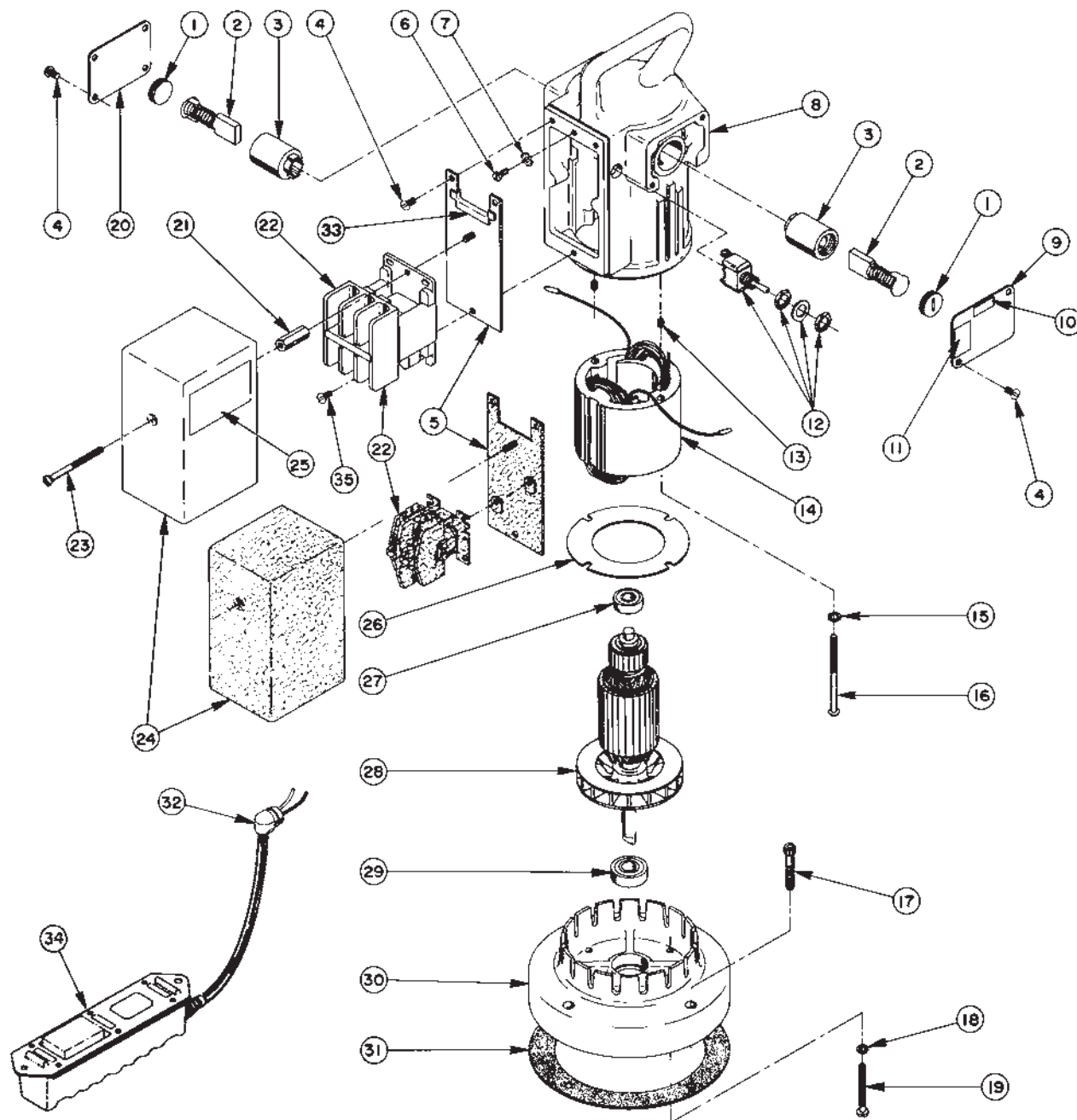
OPTIONAL REMOTE SOLENOID VALVE CONTROLS

202777	1	Remote Control Hand Switch (Mom. On/Hold/Off; For 3-Way Sol. Valve; See Form No. 101644)
202778	1	Remote Control Hand Switch (Mom. On/Off/Mom. On; For 4-Way Sol. Valve; See Form No. 101644)
304718	1	Remote Control Hand Switch (Mom. On/Hold/Mom. Off; See Form No. 101644)

BRUSH HOLDER & ARMATURE INST. SPEC. AFTER MAY 1988

When replacing brushes or the armature, the dimensions shown must be as specified.



UNIVERSAL MOTOR & CONTROL ASSEMBLY**12,000 R.P.M. -- 115 & 230 Volt, 50/60 Hz.****(For pumps built before May 1988)**

Parts List, Form No. 100518, Back sheet 3 of 9

Item No.	Part No.	No. Req'd	Description
1	10806	2	Brush Holder Cap
2	10804	2	Brush Assembly
3	10805	2	Brush Holder (See note below)
4	11539	2	Mach. Screw (#10-24 X 1/4 Lg.)
5	22736	1	Mounting Plate
	†304423GY8	1	Mounting Plate
6	11457	1	Pan Hd. Mach. Screw
7	11456	1	Lockwasher
8	50160	1	Motor Shell
9	22719	1	Spec. Cover (115 Volt)
	22720	1	Spec. Cover (230 Volt)
10	203972	1	Decal (CSA)
11	207438	1	Decal (On/Off/Remote)
	205409	1	Decal On/Off)
12	12175	1	Switch (On/Off/Jog)
	12665	1	Switch (On/Off/Remote)
	12301	1	Switch (On/Off)
13	10133	2	Set Screw
14	10802	1	Field (115 Volt)
	58841F	1	Field (230 Volt)
15	12356	2	Lockwasher
16	10170	2	Rd. Hd. Mach. Screw
17	10022	4	Soc. Hd. Cap Screw
18	10241	4	Lockwasher
19	10169	4	Pan Hd. Mach. Screw (Torque to 20/25 in. lbs.)
20	21008	1	Cover (Unmarked)
21	22738	1	Extension Nut
22	16666-1	1	Contactor (115 Volt)
	†420718-1	1	Contactor (115 Volt)
	16666-2	1	Contactor (230 Volt)
	†420718-2	1	Contactor (230 Volt)
23	11432	1	Oval Hd. Mach. Screw
24	31280	1	Cover
	†304422WH2	1	Cover
25	200188	1	Warning Decal
26	20786	1	Baffle Plate

Item No.	Part No.	No. Req'd	Description
27	10438	1	Ball Bearing (Upper)
28	10800	1	Armature (115 Volt [See note below])
	58841A	1	Armature (230 Volt [See note below])
29	10439	1	Ball Bearing (Lower)
30	40059	1	Motor Base
31	30650	1	Gasket
32	12176	1	Strain Relief Bushing (Not included on PE554-HYDRA)
33	22821	1	Rubber Channel
35	10166	2	Mach. Screw (#10-24 UNC X 1/2 Lg.)

OPTIONAL REMOTE MOTOR CONTROLS

34	25017	1	Remote Control Hand Switch (On/Off; Not included on PE554-HYDRA; See Form No. 101644)
	203225	1	Remote Control Hand Switch (Rubber Heavy Duty)
	10461	1	Remote Control Foot Switch (Not Shown)

OPTIONAL REMOTE SOLENOID VALVE CONTROLS

	202777	1	Remote Control Hand Switch (Mom. On/Hold/Off; For 3-Way Sol. Valve; See Form No. 101644)
	202778	1	Remote control Hand Switch (Mom. On/Off/Mom. On; For 4-Way Sol. Valve; See Form No. 101644)
	304718	1	Remote Control Hand Switch (Mom. On/Hold/Mom. Off; See Form No. 101644)

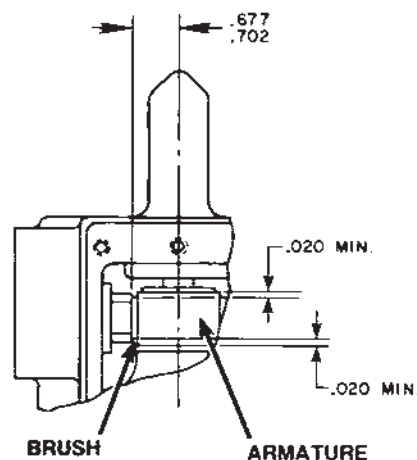
PARTS INCLUDED BUT NOT SHOWN

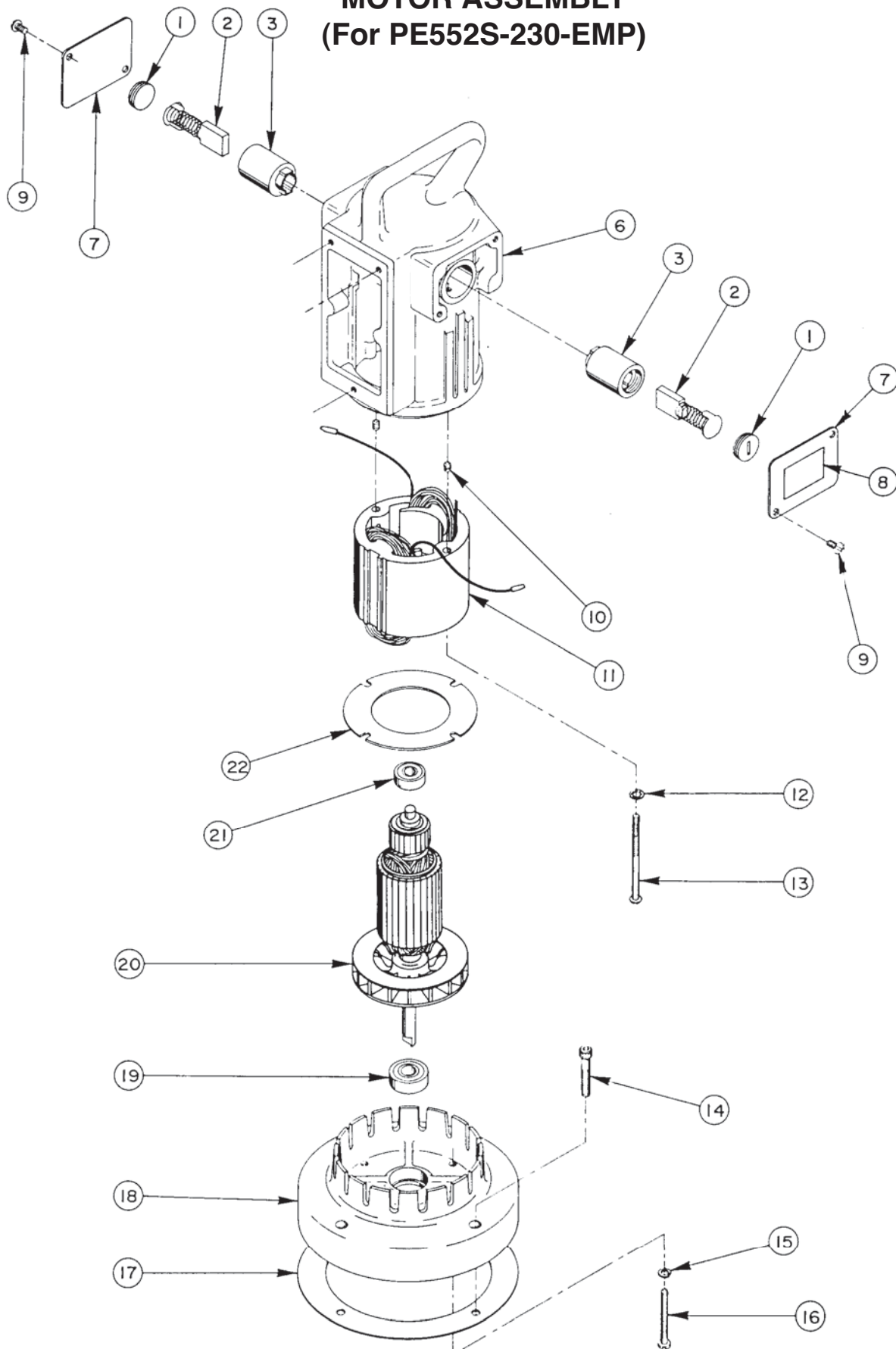
	11431	1	Strain Relief Bushing
	11455	2	Snap Plug
	21051	1	Cord & Plug (115 Volt)
	21771	1	Cord (230 Volt)

Parts marked with a dagger (†) are used after approximately 3-1-83

BRUSH HOLDER & ARMATURE INST. SPEC. BEFORE MAY 1988

When replacing brushes or the armature, the dimensions shown must be as specified.



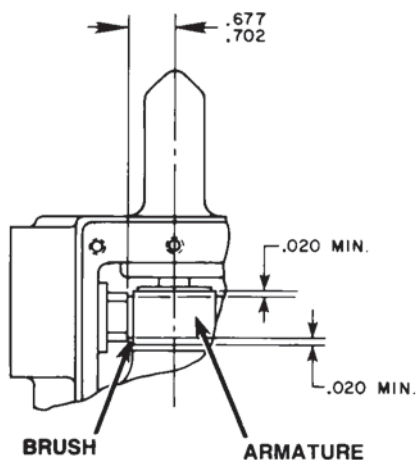
**MOTOR ASSEMBLY
(For PE552S-230-EMP)**

Item No.	Part No.	No. Req'd	Description
1	10806	2	Brush Holder Cap
2	10804	2	Brush Assembly
3	10805	2	Brush Holder (See note below)
6	61901WH2	1	Motor Shell
7	21008	2	Cover
8	215163	1	Spec. Decal (For 230 volt)
9	11539	4	Mach. Screw (#10-24 X 1/4 Lg.)
10	10133	2	Set Screw
11	58841F	1	Field (For 230 volt)
12	12356	2	Lockwasher
13	10170	2	Mach. Screw

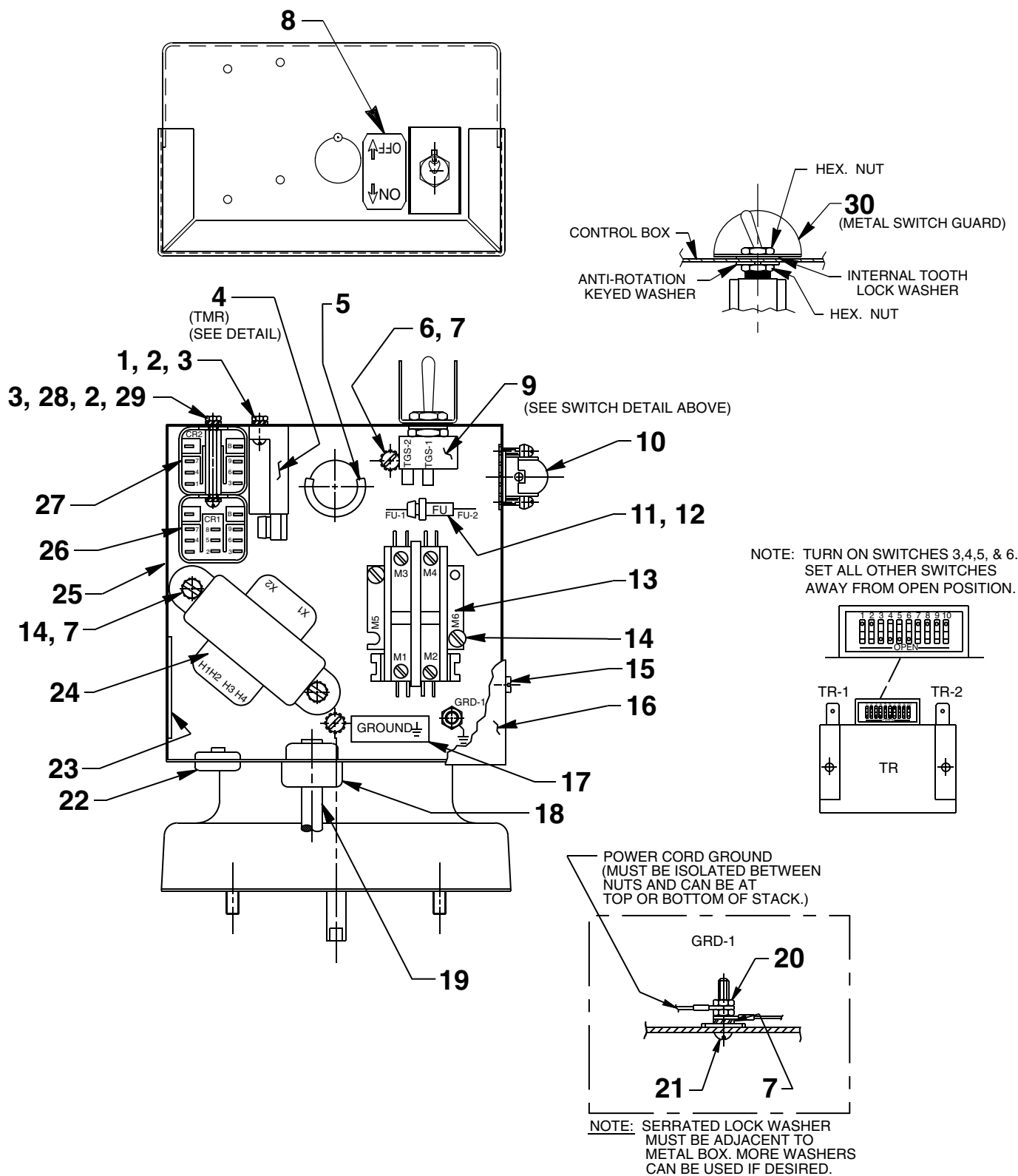
Item No.	Part No.	No. Req'd	Description
14	10022	4	Cap Screw (1/4-20 X 1-1/2" Lg.)
15	10241	4	Lockwasher
16	10169	4	Mach. Screw (#10-24 X 2" Lg.; Torque to 20/25 in lbs.)
17	30650	1	Gasket
18	40059WH2	1	Motor Base
19	10439	1	Ball Bearing
20	58841A	1	Armature (For 230 volt; See note below)
21	10438	1	Ball Bearing
22	20786	1	Baffle Plate

BRUSH HOLDER & ARMATURE INST. SPEC. FOR PE552S-230-EMP

When replacing brushes or the armature, the dimensions shown must be as specified.



MOTOR CONTROL ASSEMBLY (For PE552S-230-EMP)

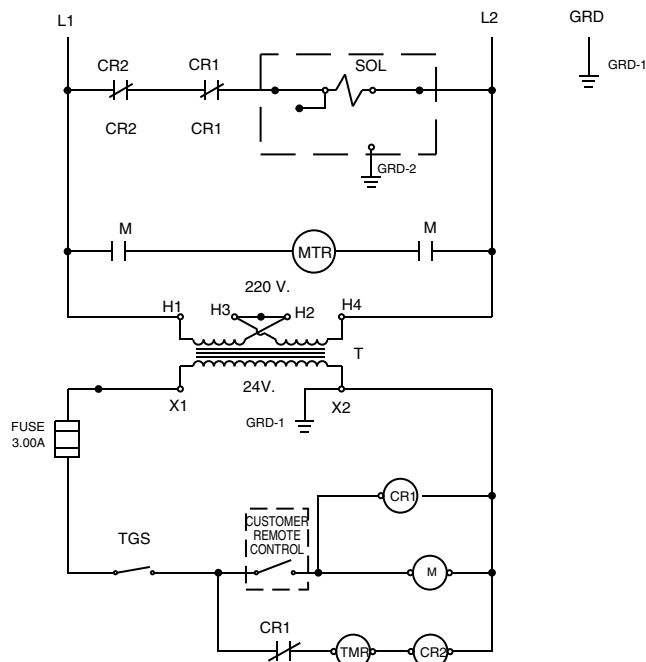


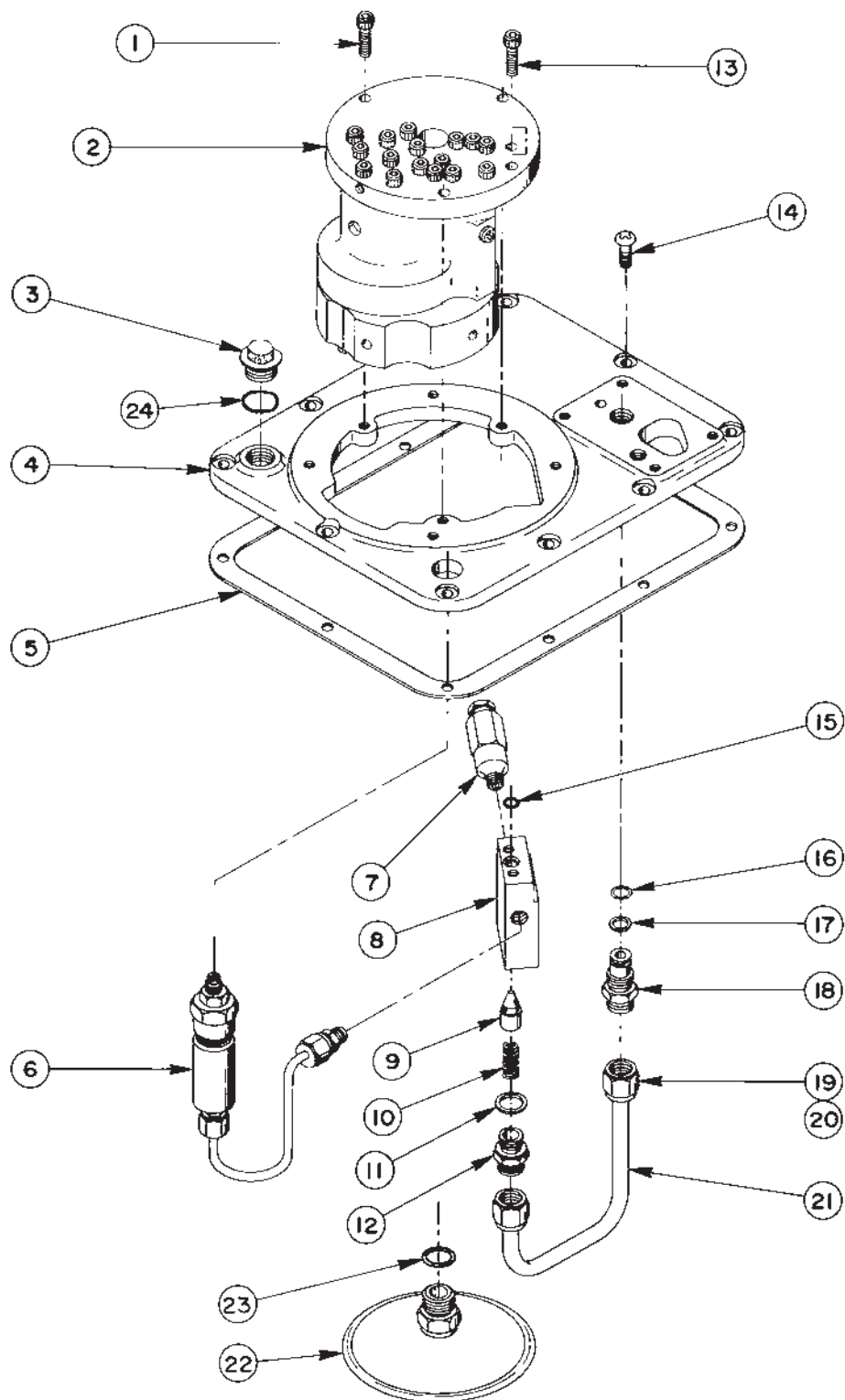
Item No.	Part No.	No. Req'd	Description
1	11426	2	Screw, Round Hd (6-32 x 1/2)
2	15906	2	Washer, Tooth Ext (.31 x .15)
3	10195	4	Nut, Hex (6-32)
4	251467	1	Timer, Adjustable
5	15497	1	Grommet, Rubber
6	10164	3	Screw, Round Hd (10-24 x 3/8)
7	11108	6	Washer, Tooth Ext. (.40 x .20)
8	205409	1	Decal, Indicator
9	12301	1	Switch, Toggle
10	11144	2	Connector, 90 degree Elbow
11	206962	1	Fuse, (3 AMP 250 V)
12	16887	1	Holder, Fuse
13	420718-4	1	Contactor, 2 Pole
14	11539	4	Screw, Pan Hd (8-18 x 3/8)
15	14812	4	Screw, Pan Hd (8-18 x 3/8)
16	43126WH2	1	Cover, Control Box
17	205189	1	Decal, Label Ground

Item No.	Part No.	No. Req's	Description
18	210112	1	Bushing, Strain Relief
19	308752	8 ft.	Cable (14/3 SJTO)
20	10197	2	Nut, Hex (10-24)
21	11856	1	Screw, Round Hd (10-24 x 1)
22	15993	1	Bushing, Strain Relief
23	250150	1	Decal, Warning
24	11852	1	Transformer
25	51218WH2	1	Box, Electrical Control
26	305602	1	Relay, General Purpose
27	39092	1	Relay, General Purpose
28	17563	2	Screw, Pan Hd (6-32 x 1/4)
29	215376	2	Standoff Threaded
30	352061	1	Guard, Switch

PARTS INCLUDED BUT NOT SHOWN
200188 1 Decal, Warning Important

ELECTRICAL SCHEMATIC 220 V. , 50 Hz. Single Phase



GENERAL PUMP ASSEMBLY

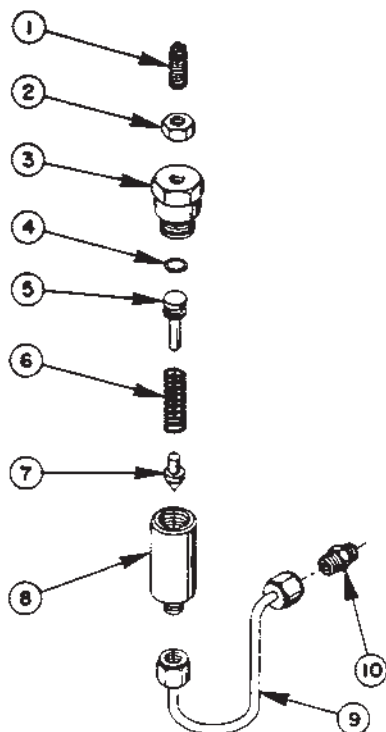
Parts List, Form No. 100518, Back sheet 6 of 9

Item No.	Part No.	No. Req'd	Description	Item No.	Part No.	No. Req'd	Description
1	10016	3	Soc. Hd. Cap Screw (1/4-20 UNC X 1" Lg.)	9	20771	1	Poppet
2	*27207	1	Basic Pump Ass'y Replacement (See chart below)	10	10425	1	Compression Spring (3/8 O.D. X 3/4 Lg.)
	*28348	1	Basic Pump Ass'y Replacement (See chart below)	11	10261	1	Copper Washer (3/4 X 19/32 X 1/32)
3	251689	1	Filler Plug	12	20770	1	Connector (Torque to 40/45 ft. lbs.)
	20937	1	Vent Cap (For PE552S-230-EMP)	13	10015	2	Soc. Hd. Cap Screw (1/4-28 UNF X 1" Lg.; Torque to 180 in. lbs.)
4	40064WH2	1	Cover	14	10177	10	Mach. Screw
5	40164	1	Gasket	15	10266	1	O-ring (3/8 X 1/4 X 1/16)
6	22360	1	Pressure Regulator Ass'y (See below)	16	10268	1	O-ring (1/2 X 3/8 X 1/16)
7	21278	1	Relief Valve (Set at 10,100/10,700 PSI)	17	11863	1	Teflon Backup Washer
	21278-50	1	Relief Valve (Set at 5,100/5,700 PSI)	18	20787	1	Valve Connector
	21278-83	1	Relief Valve (Set at 8,400/9,000 PSI; For PE554-HYDRA)	19	10430	2	Tube Sleeve
8	20776	1	Valve Body	20	10431	2	Tube Nut
				21	21045	1	Oil Line
				22	21344	1	Filter Ass'y (Includes Item 23)
				23	10300	1	O-ring (5/8 X 15/32 X 5/62)
				24	200415	1	O-ring (13/16 X 5/8 X 3/32, Not included on PE552S-230-EMP)

*Includes all items on sheet 7 of 9 and items 1, 7, 8, 9, 10, 11, 12, 13, 15 & 22 on this sheet.

HIGH SPEED (12,000 RPM)

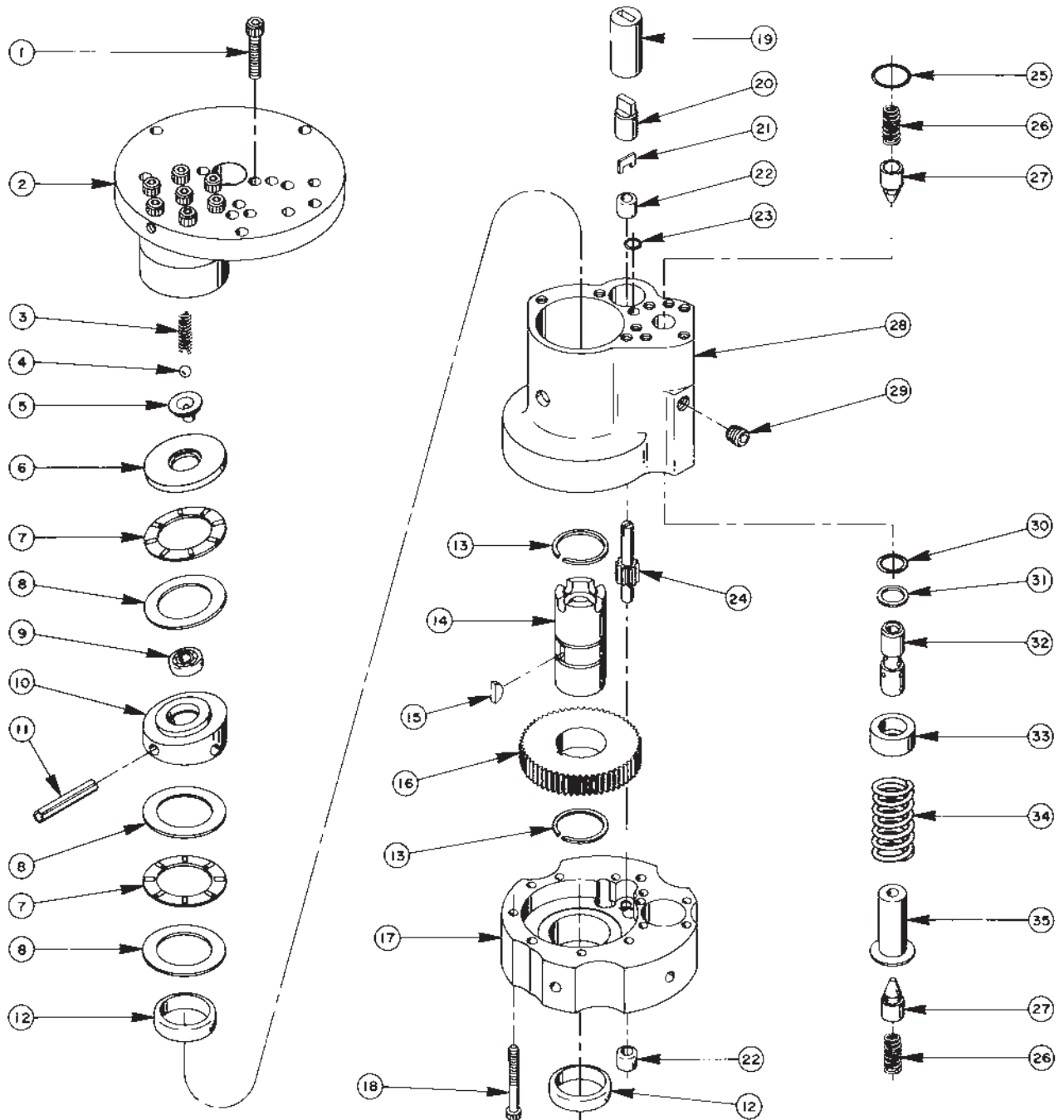
Series	Max. PSI	Basic Pump & Cover Plate Ass'y	Basic Pump Replacement	High Pressure Pump Ass'y Used	No. of Pistons
PE55A, PE55B, 4060, 4061, 4062, 4063, 4064, 4065, 4070, Y26A, Y26B, 3S6224, 8S8033, JT07192, All PE55 Series except PE554-HYDRA	10,000	50403	*27207	33113	3
100220, 100220-230, 4080, 4081, Y60A, Y60B	5,000	50405	*28348	33114	6



PRESSURE REGULATOR ASSEMBLY

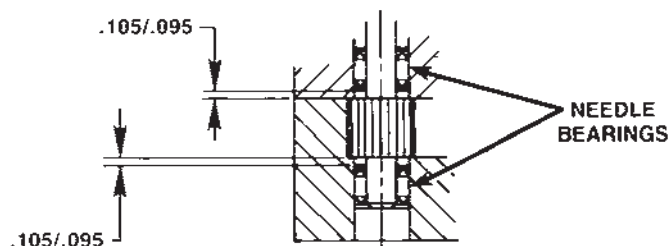
Item No.	Part No.	No. Req'd	Description
1	22362	1	Adjusting Screw
2	10386	1	Hex Jam Nut
3	21305	1	Valve Cap
4	10268	1	O-ring (1/2 X 3/8 X 1/16)
5	21306	1	Spring Guide
6	10495	1	Compression Spring (1/2 O.D. X 1-5/8 Lg.)
7	21046	1	Valve Stem
8	22361	1	Body
9	29267	1	Oil Line Ass'y (With nuts)
10	14844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

BASIC PUMP ASSEMBLY



Item No.	Part No.	No. Req'd	Description
1	10020	9	Soc. Hd. Cap Screw (1/4-20 UNC X 1-1/4 Lg.: Torque to 170-180 in. lbs.)
2	33113	1	High Pressure Pump Ass'y (See sheet 8 of 9 & chart on back of sheet 6 of 9)
	33114	1	High Pressure Pump Ass'y (See sheet 8 of 9 & chart on back of sheet 6 of 9)
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 1-3/4 Lg.)
12	11064	2	Needle Bearing
13	11261	2	Retaining Ring
14	23556	1	Shaft
15	11821	1	Woodruff Key
16	23574	1	Gear
17	40072	1	Pump End Plate
18	10001	13	Soc. Hd. Cap Screw (#10-32 UNF X 1-3/4" Lg.; Torque to 50 in. lbs.)
19	21091	1	Coupling
20	21092	1	Adapter
21	21093	1	Key
22	11198	2	Needle Thrust Bearing (See Note below)
23	10266	1	O-ring (3/8 X 1/4 X 1/16)
24	20774	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	40071	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

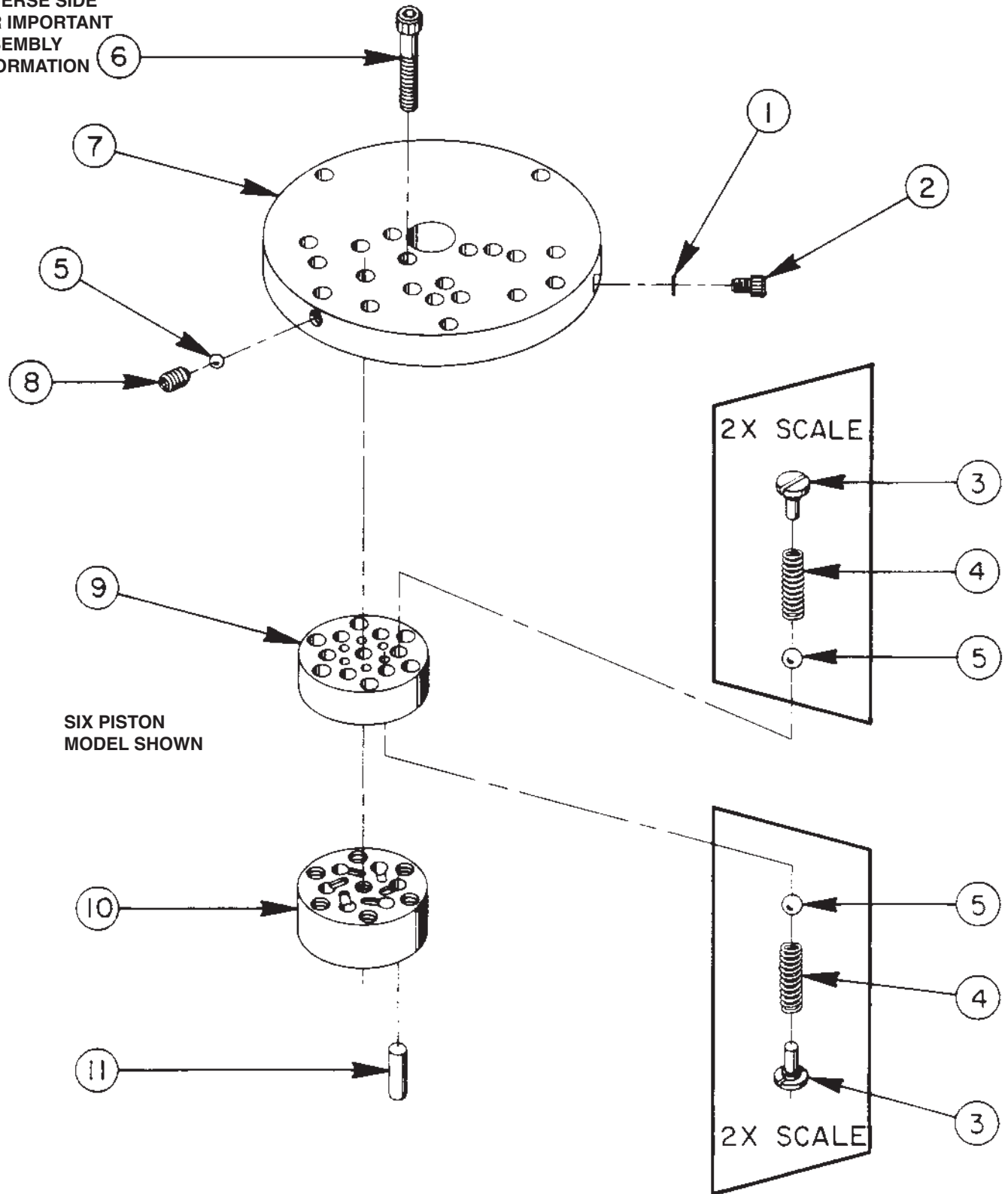
NEEDLE BEARING INSTALLATION SPECIFICATIONS



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



33113 PUMP ASS'Y

3 Pistons -- 9/32 Dia.

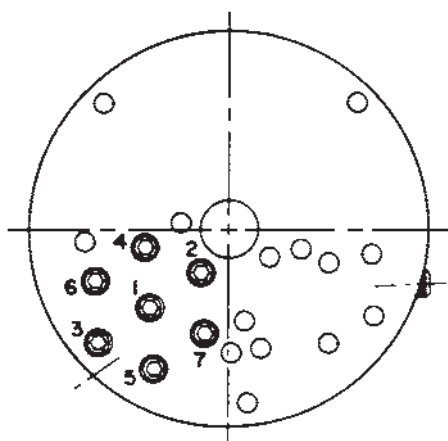
Item No.	Part No.	No. Req'd	Description
1	10442	1	Copper Washer (3/8 X 1/4 X 1/32)
2	10002	1	Soc. Hd. Cap Screw (1/4-20 UNC X 3/8" Lg.; Torque to 140/160 in. lbs.)
3	24549	6	Valve Guide
4	10445	6	Compression Spring (5/32" O.D. X 3/4" Lg.)
5	12223	7	Steel Ball
6	10023	7	Soc. Hd. Cap Screw (1/4-20 UNF 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

33114 PUMP ASS'Y

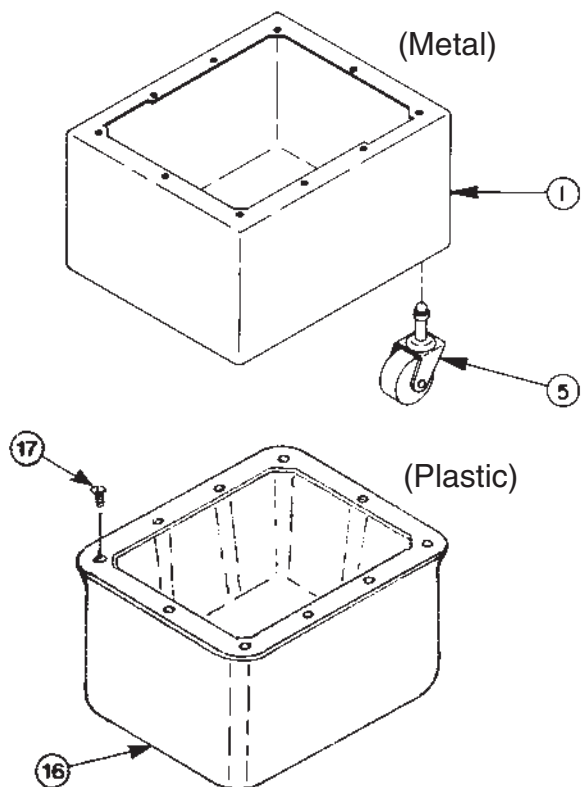
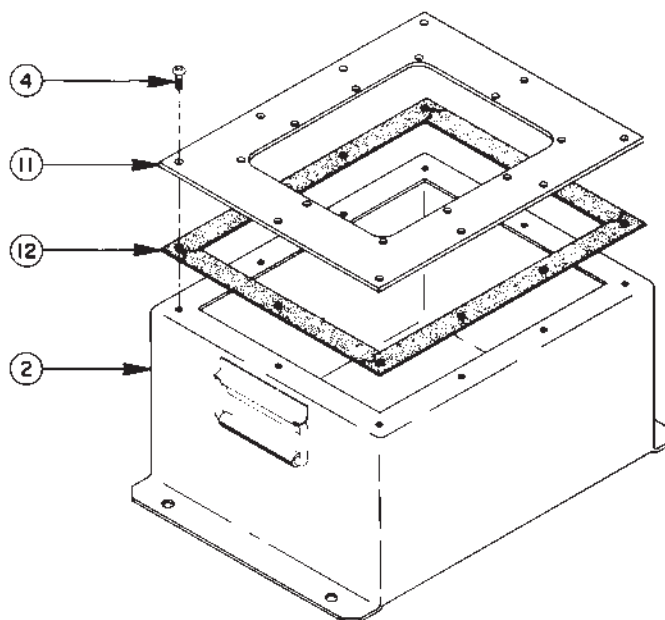
6 Pistons -- 9/32 Dia.

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	12	Valve Guide
4	10445	12	Compression Spring (5/32" O.D. X 3/4" Lg.)
5	12223	13	Steel Ball (3/16" dia.)
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	41048	1	Valve Head
10	41063	1	Pump Barrel
11	21628	6	Piston

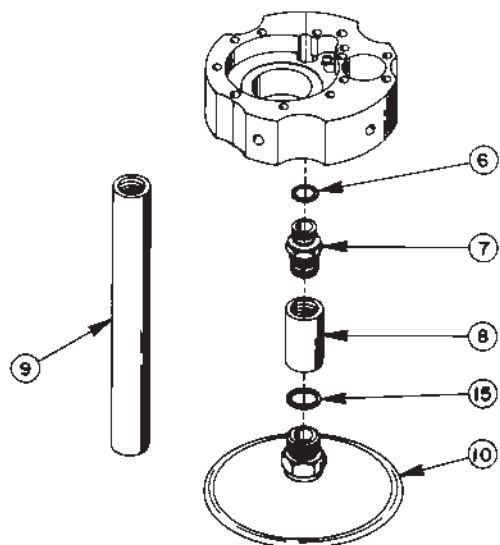
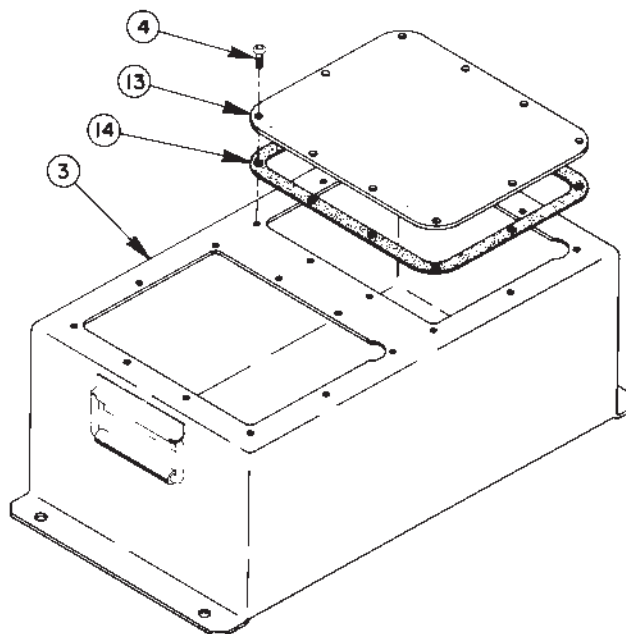
BOLT TIGHTENING SEQUENCE



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

RESERVOIR ASSEMBLIES**2 GAL. RESERVOIR****5 & 10 GAL. RESERVOIRS****FILTER & EXTENSIONS**

Used on 5, 7 & 10 Gal. Reservoirs as Applicable

**7 GAL. RESERVOIR**

RESERVOIR ASSEMBLIES

NOTE: For complete Reservoir Assembly order the following:

- 21856** -- OTC complete 5 Gal. Reservoir Assembly
- 21847** -- OTC complete 7 Gal. Reservoir Assembly
- 21858** -- OTC complete 10 Gal. Reservoir Assembly
- 209122** - Power Team complete 5 Gal. Reservoir Assembly
- 209123** - Power Team complete 7 Gal. Reservoir Assembly
- RP100** - Power Team complete 10 Gal. Reservoir Assembly

These no.'s. include the following parts listed below as applicable.

Item No.	Part No.	No. Req'd	Description
1	40063BL2	1	2 Gal. Reservoir (OTC)
	40063OR9	1	2 Gal. Reservoir (Power Team)
	40063PU2	1	2 Gal. Reservoir (Hytec)
	60597OR9	1	2 Gal. Reservoir with Handles & Drain (Power Team)
	64364BL2	1	2 Gal. Reservoir (For JTO7192)
	61799OR9	1	2 Gal. Reservoir with Drain Plug (For PE553A-230-EMP, PE553A-EMP & PE552S-230-EMP)
2	40137BL2	1	5 Gal. Reservoir (OTC)
	40137OR9	1	5 Gal. Reservoir (Power Team)
	40193BL2	1	10 Gal. Reservoir (OTC)
	40193OR9	1	10 Gal. Reservoir (Power Team)
3	50051BL2	1	7 Gal. Reservoir (OTC)
	50051OR9	1	7 Gal. Reservoir (Power Team)
4	10177	10	Machine Screw (1/4-20 UNC X 3/4 Lg.)
5	10494	4	Swivel Caster (For 2 gal. Res.)
6	10300	1	O-ring (5/8 X 15/32 X 5/64)
7	20879	1	Connector
8	22032	1	Suction Line (For 5 & 7 Gal. Res.)
9	22038	1	Suction Line (For 10 Gal. Res.)
10	21344	1	Filter Assembly
11	40194BK2	1	Adapter Cover Plate (For 5 & 10 Gal. Res.)
12	40490	1	Gasket (For 5 & 10 Gal. Res.)
13	40188AL2	1	Cover Plate (For 7 Gal. Res.)
14	40164	1	Gasket (For 7 Gal. Res.)
15	10527	1	O-ring (13/16 X .644 X .087)
16	61165	1	2 Gal. Plastic Reservoir
17	209799	10	Self-tapping Screw (1/4-10 X 7/8 Lg.)
18	210995	1	Tradename Decal

PARTS NOT SHOWN

11023	2	Trade Name Decal (OTC)
309219	2	Trade Name Decal (Power Team PE55 Series)
309233	2	Trade Name Decal (Hytec)
350431	1	Sight Gauge (For JTO7192)

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.