

POWER TEAM

Hire Torque Ltd

OTC

Hire Torque Ltd

HTL**HIRE TORQUE LTD****HYDRAULIC SPECIALISTS**

TEL (01670) 365883 & 365049 FAX (01670) 365099

Form No. 100585

Parts List for:

4044-50-220

4046-50-220

HE172 (220V, 50 Hz)

HE174 (220 V., 50 Hz)

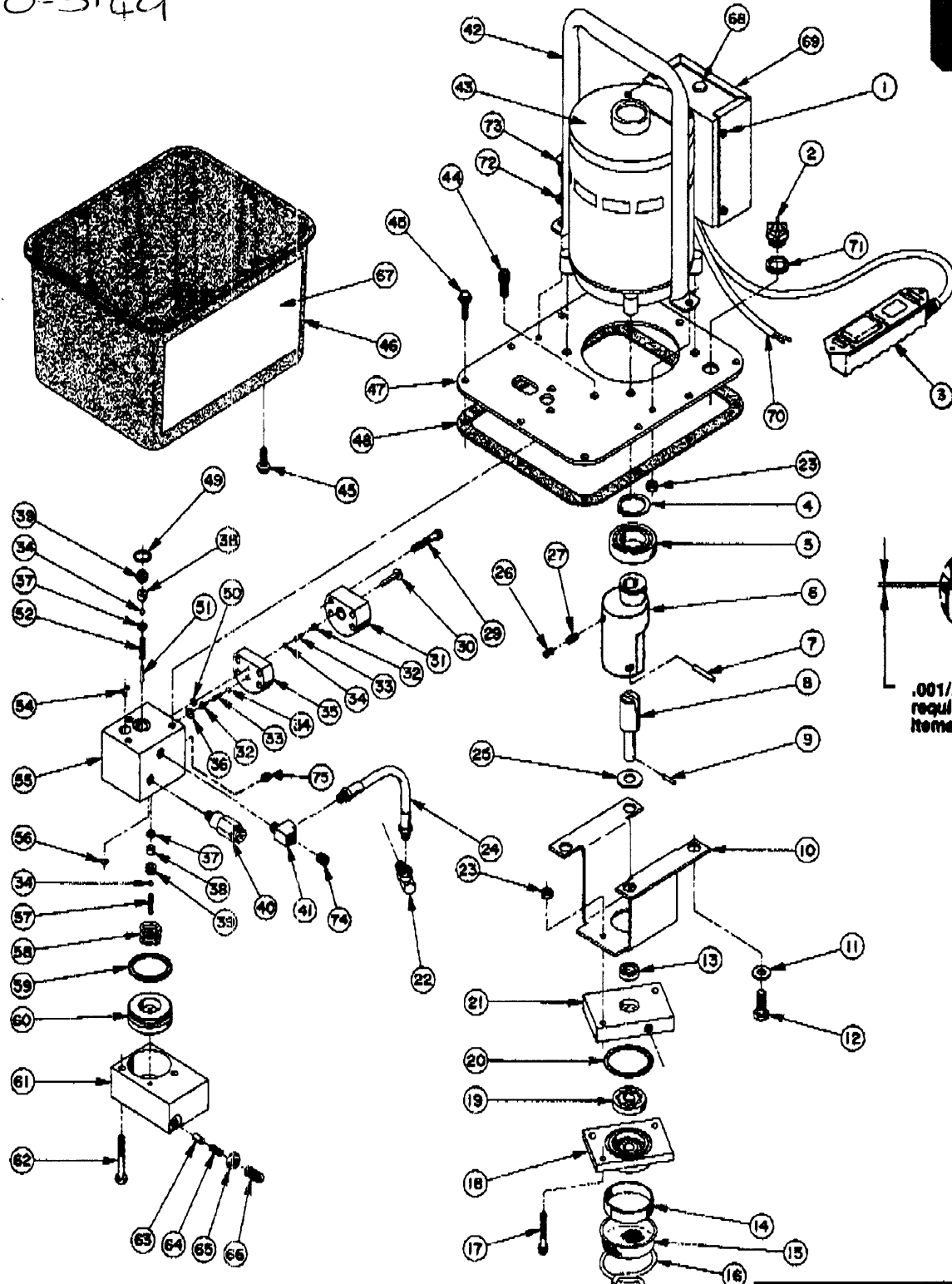
PE17-AMKUS

PE172-50-220

PE172A-50-220

PE172-CCL

PE174-50-220

ELECTRIC HYDRAULIC PUMPTo Parts
List

Sheet No. 1 of 4

Rev. 2

Date: 29 May 1997

Litho in USA

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

Parts List, Form No. 100585, Back sheet 1 of 4

Item No.	Part No.	No. Req'd	Description
1	11141	4	Self-Tapping Screw (#6-20 X 3/8 Lg.)
2	20937	1	Filler/Vent Plug
	†27142	1	Filler/Vent Plug
3	25017	1	Remote Hand Switch Assembly (See Back sheet 4 of 4)
4	209798	1	Retaining Ring
5	209805	1	Ball Bearing
6	45596	1	Eccentric
7	10973	1	Slotted Spring Pin
8	304835	1	Drive Shaft
9	209794	1	Gerotor Drive Pin
10	52174	1	Pump Mounting Bracket
11	10258	4	Washer
12	213663	4	Screw (3/8-16 UNC X 1" Lg.; Torque to 230/250 in. lbs.)
13	*304830	1	Seal
	†250156	1	Seal
14	21846	1	Filter Support
15	21608	1	Filter
16	11461	1	Clamp Ring
17	10854	2	Cap Screw (1/4-20 UNC X 1-3/4 Lg.; Torque to 60/80 in. lbs.)
18	61189	1	Lower Gerotor Housing
	45912	1	Lower Gerotor Housing (For PE17-AMKUS)
19	304826	1	Gerotor Set
20	*10922	1	O-ring (2-1/8" X 1-15/16" X 3/32)
	†250158	1	O-ring (2-1/8" X 1-15/16" X 3/32)
21	61170	1	Upper Gerotor Housing
	45913	1	Upper Gerotor Housing (For PE17-AMKUS)
22	14440	1	Swivel Elbow Fitting
23	10199	4	Nut
24	304819	1	Hose Assembly
25	12595	1	Brass Washer
26	10519	1	Set Screw (1/4-20 UNC X 3/8 Lg.; Torque to 60/80 in. lbs.)
27	10136	1	Set Screw (1/4-20 X 1/4 Lg.; Torque to 60/80 in. lbs.)
29	10022	4	Cap Screw (1/4-20 UNC X 1-1/2" Lg.; Torque to 110/130 in. lbs.)
30	304820	1	High Pressure Piston
31	45580	1	Piston Block
32	24549	2	Valve Guide
33	*10445	2	Compression Spring (5/32 O.D. X 3/4 Lg.)
34	*12223	4	Ball
35	45559	1	Check Block
36	*14763	1	O-ring (7/16 X 5/16 X 1/16)
	†13472	1	O-ring (7/16 X 5/16 X 1/16)
37	*10442	2	Copper Washer
38	*209787	2	Replaceable Seat
39	209797	2	Hollow Lock Screw (7/16-20 UNF-3A; Torque to 110/130 in. lbs.)
40	21278	1	Relief Valve Assembly (Set at 10,100/10,700 PSI)
	21278-B	1	Low Pressure Relief Valve (For PE17-AMKUS, Set at 600/640 PSI)
	209796-105	1	Relief Valve (For PE172-CCL; 10,500 PSI)
41	19463	1	Tee Fitting
42	47492	1	Handle
43	58196WH2	1	Electric Motor
	250313	1	Electric Motor (For PE17-AMKUS; includes toggle switch and power cord)
44	10030	1	Cap Screw (5/16-18 UNC X 3/4 Lg.; Torque to 220/240 in. lbs.)
45	209799	14	Self-Tapping Screw (1/4-10 X 7/8 Lg.; For plastic reservoir)
46	61165	1	Reservoir

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Drawing

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

Item No.	Part No.	No. Req'd	Description
47	61166BK2	1	Cover Plate
48	*40164	1	Cover Gasket
49	*10273	1	O-ring (13/16 X 5/8 X 3/32)
	†250157	1	O-ring (13/16 X 5/8 X 3/32)
50	*10265	1	O-ring (5/16 X 3/16 X 1/16)
	†17714	1	O-ring (5/16 X 3/16 X 1/16)
51	12149	1	Dowel Pin
52	*16057	1	Compression Spring
54	209795	1	Outlet Ball Stop
55	61167	1	Check Body
56	*10266	1	O-ring (3/8 X 1/4 X 1/16)
	†17715	1	O-ring (3/8 X 1/4 X 1/16)
57	211843	1	Dowel Pin (Loctite pin in piston hole with radius end out)
58	*16346	1	Compression Spring (1" O.D. X 7/8 Lg.)
59	*10283	1	O-ring (2" X 1-5/8 X 3/16)
	†250159	1	O-ring (2" X 1-5/8 X 3/16)
60	46063	1	Auto. Valve Piston
61	*52167	1	Auto. Valve Block
62	13037	2	Cap Screw (1/4-20 UNC X 2" Lg.; Torque to 40/50 in. lbs.)
63	15156	1	Dowel Pin (Tapered end toward spring.)
	211170	1	Dowel Pin (For PE17-AMKUS; Tapered end toward threaded plug.)
64	*11271	1	Compression Spring (1/4 O.D. X 1" Lg.)
65	10308	1	Locknut
66	29786	1	Adjusting Screw
	10047	1	Adjusting Screw (For PE17-AMKUS)
67	304840	2	Trade Name Decal (For 4044-50-220)
	304841	2	Trade Name Decal (For PE Series)
	305101	2	Trade Name Decal (For HE172)
	305257	2	Trade Name Decal (For HE174)
	307137	2	Trade Name Decal (For 4046-50-220)
68	17782	1	Snap Button
69	42576WH2	1	Control Box Cover
70	12293	1	Power Cord
71	200415	1	Rubber Seal
	†17723	1	Rubber Seal
72	10245	2	Lockwasher
73	10008	2	Cap Screw (1/4-20 UNC X 3/4 Lg.; Torque to 60/80 in. lbs.)
74	10427	1	Pipe Plug (1/8 NPTF)
75	15130	1	Pipe Plug (1/16 NPTF)

PARTS INCLUDED BUT NOT SHOWN

*200188	1	Warning Decal
†11278	1	Tube Elbow
†15061	1	Male Connector
†251229	1	Oil Line
†250328	1	Decal (EPR Seals)

351060	1	Gasket (Between motor and cover plate)
10020	3	Cap Screw (1/4-20 X 1-1/4" Lg.; For PE17-AMKUS)
18969	1	Tee Fitting (For PE17-AMKUS)
211584	2	Rubber Bumper (For PE17-AMKUS)
250607	2	Seal Washer (For PE172-CCL)
25600-1	1	Cylinder Half Coupler (For PE172-CCL)
9040	1	Gauge (10,000 PSI; For PE172-CCL)
9670	1	Tee Fitting (For PE172-CCL)
9797	1	Dust Cap (For PE172-CCL)

To
Drawing

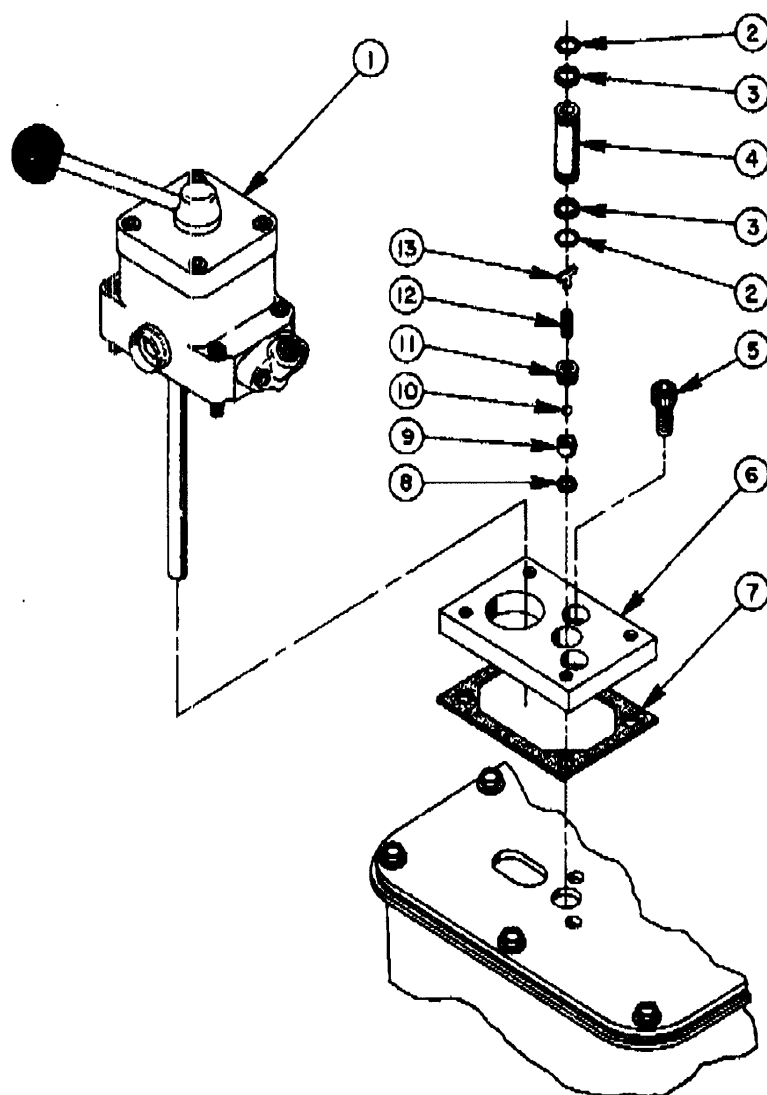
Note: Shaded areas
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Rev. 2 Date: 29 May 1997

OPTIONAL VALVE ASSEMBLIES

4-Way Tandem Center Directional Valve



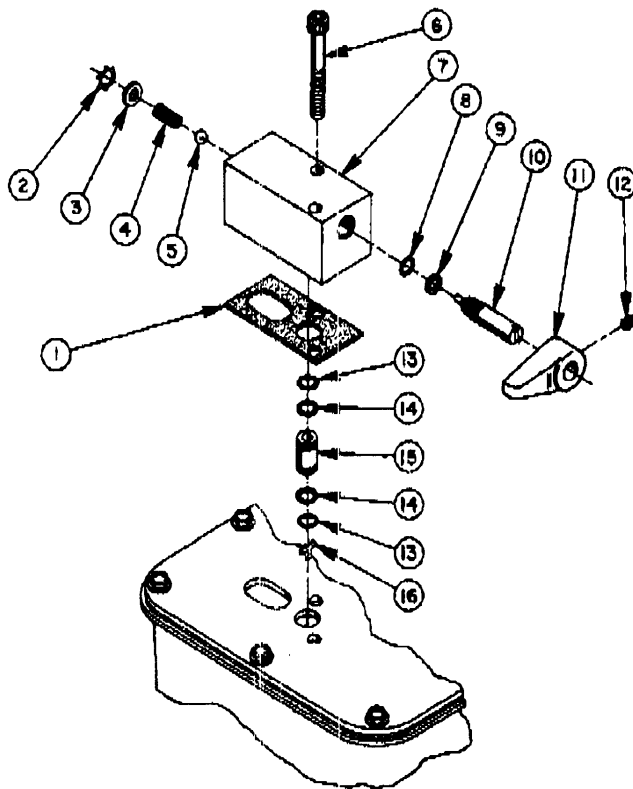
Item No.	Part No.	No. Req'd	Description	Item No.	Part No.	No. Req'd	Description
1	9500	1	4-Way Valve Ass'y (See Form No. 100623)	7	*200395	1	Gasket
2	*10268	2	O-ring (1/2 X 3/8 X 1/16)	8	*10442	1	Copper Washer
	†17716	2	O-ring (1/2 X 3/8 X 1/16)	9	*209787	1	Replaceable Seat
3	*11863	2	Backup Washer	10	*12223	1	Steel Ball
4	209809	1	Coupling	11	209797	1	Hollow Lock Screw (7/16-20 UNF-3A; Torque to 110/130 in. lbs.)
5	10030	2	Cap Screw (5/16-18 UNC X 3/4 Lg.; Torque to 220/240 in. lbs.)	12	*211797	1	Compression Spring (5/32 O.D. X 5/8 Lg.)
6	52165	1	Adapter Block Manifold	13	*209795	1	Outlet Ball Stop

Part numbers marked with an asterisk (*) are contained in Repair Kit No. 300430.

Part numbers marked with a dagger (†) are contained in EPR Seal Kit No. 300648.

Part numbers marked with a bullet (•) are contained in Outlet Check Repair Kit No. 300606.

Two Position, 2-Way Manual Valve

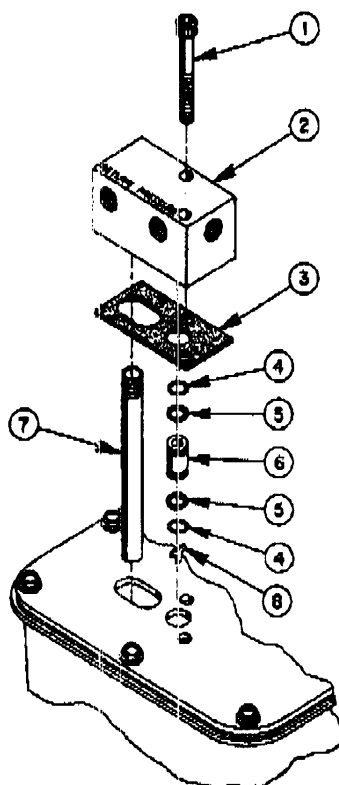


Item No.	Part No.	No. Req'd	Description
1	*304829	1	Gasket
2	*11088	1	Retaining Ring
3	11089	1	Washer
4	*11024	1	Compression Spring (1/4 O.D. X 5/8 Lg.)
5	*10375	1	Steel Ball
6	209945	2	Cap Screw (5/16-18 UNC X 2-1/2 Lg.; Torque to 220/240 in. lbs.)
7	52168	1	Valve Body
8	*10267	1	O-ring (7/16 X 15/16 X 1/16)
	†13472	1	O-ring (7/16 X 15/16 X 1/16)
9	*15085	1	Backup Washer
10	304849	1	Release Valve Screw
11	213109	1	Release Valve Handle
12	10556	1	Set Screw (1/4-20 UNC X 1/4 Lg.)
13	*10268	2	O-ring (1/2 X 3/8 X 1/16)
	†17716	2	O-ring (1/2 X 3/8 X 1/16)
14	*11863	2	Backup Washer
15	202505	1	Coupling
16	209795	1	Outlet Ball Stop (Part of the Basic Pump Ass'y)
	52170	1	Complete Valve Ass'y (Consists of items 1 thru 15)

Part numbers marked with an asterisk (*) are contained in Repair Kit No. 300430.

Part numbers marked with a dagger (†) are contained in EPR Seal Kit No. 300648.

Manifold Assembly



Item No.	Part No.	No. Req'd	Description
1	209945	2	Cap Screw (5/16-18 UNC X 2-1/2 Lg.; Torque to 220/240 in. lbs.)
2	45554	1	Manifold
3	*304829	1	Gasket
4	*10268	2	O-ring (1/2 X 3/8 X 1/16)
	†17716	2	O-ring (1/2 X 3/8 X 1/16)
5	*11863	2	Backup Washer
6	202505	1	Coupling
7	200609	1	Drain Line
8	209795	1	Outlet Ball Stop (Part of the Basic Pump Ass'y)

Part numbers marked with an asterisk (*) are contained in Repair Kit No. 300430.

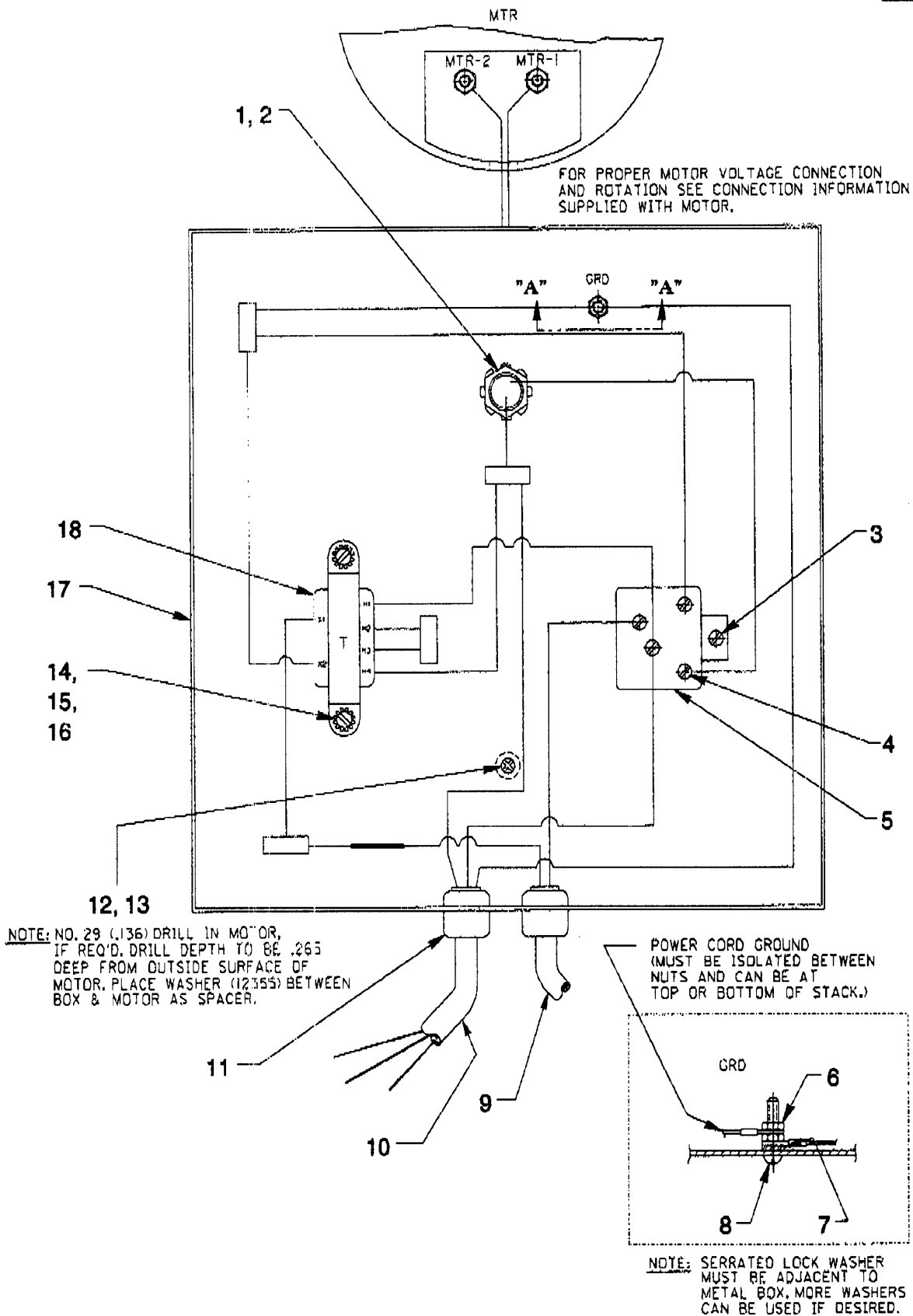
Part numbers marked with a dagger (†) are contained in EPR Seal Kit No. 300648.

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Rev. 2 Date: 29 May 1997

MOTOR CONTROL ASSEMBLY

To Parts
List



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

VIEW A-A
(NOT PART OF PE172-001)

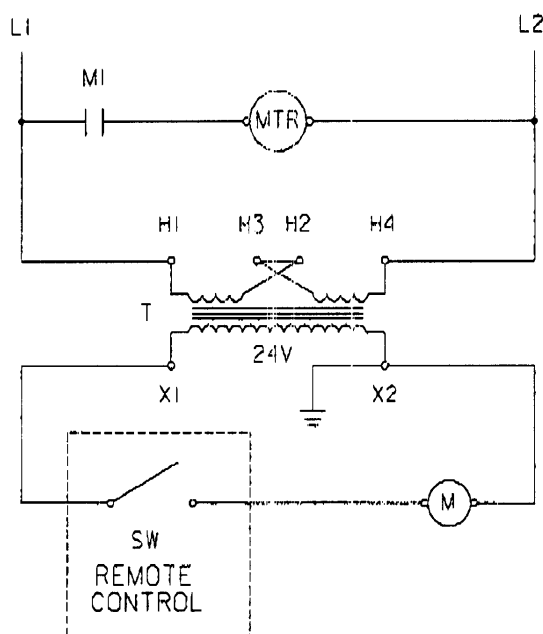
Item No.	Part No.	No. Req'd	Description
1	11202	1	Nipple
3	17370	1	Screw (6-20 X 1/4 Lg.)
4	10975	4	Machine Screw (#8-32 UNC X 5/16 Lg.)
5	14667	1	Starter
6	10197	1	Nut
7	11108	1	Washer
8	10167	1	Machine Screw (10-24 UNC X 3/4 Lg.)
9	25017	1	Remote Hand Switch (See Back sheet 4 of 4.)

Item No.	Part No.	No. Req'd	Description
10	12293	7.25 ft.	Power Cord
11	15993	2	Bushing
12	252253	1	Screw (#8-32 X 1/2 Lg.)
13	12355	1	Washer
14	10962	2	Mach. Screw (8-32 UNC X 1/2 Lg.)
15	10196	2	Nut
16	11388	2	Lockwasher
17	42575WH2	1	Elect. Control Box
18	305665	1	Transformer

To
Drawing

ELECTRIC SCHEMATIC

220 V., 50 Hz.



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



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

ASSEMBLY INSTRUCTIONS

After all components have been installed and torqued, the electric motor/gerotor shafts must turn freely when rotated by hand. If binding is encountered, proceed as follows:

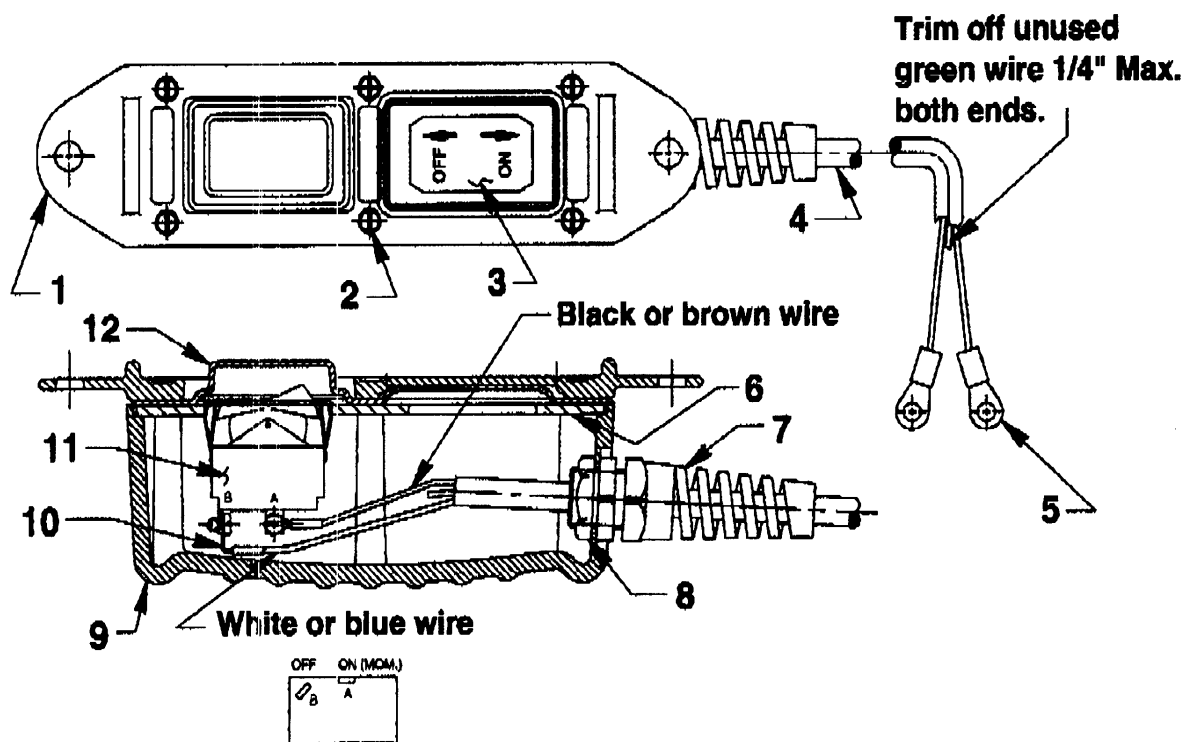
1. Loosen electric motor mounting screws and gerotor housing bolts.
2. Retighten screws finger tight.
3. Rotate shafts by hand until free (no binding).
4. Retorque per print.
5. Rotate shafts again by hand to verify that binding is not encountered after torquing.

Adjust the alignment of the low pressure pump section and the alignment of the high pressure pump section to reduce noise to a minimum. Torque screw #10030 (Item #44 on sheet 1 of 4) and screws #209945 (Item #6 on sheet 3 of 4, if pump is equipped with a two position, 2-way valve. Item #1 on sheet 3 of 4, if pump is equipped with a manifold.) or screws #10030 (Item #5 on sheet 3 of 4, if pump is equipped with a 4-way tandem valve) before testing and after any alignment of the high pressure pump section. Always replace washers #10258 (Item #11 on sheet 1 of 4) if the low pressure pump section has been realigned and the washers have been deformed.

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Rev. 2 Date: 29 May 1997

REMOTE HAND SWITCH ASSEMBLY
No. 25017



Item No.	Part No.	No. Req'd	Description
1	420050-1	1	Cover
2	250248	6	Screw (4-24 x 3/4 Lg.)
3	202763	1	Decal
4	12908	11 ft.	Cable (18/3 SJTO)
5	10458	2	Ring Terminal
6	420050-3	1	Switch Mounting Plate
7	251818	1	Strain Relief Connector
8	251802	1	Locknut (3/4-16 UNF; Torque to 30/35 in. lbs.)
9	420050-4	1	Switch Housing
10	10525	2	Ring Terminal
11	16772	1	Rocker Switch
12	420050-2	1	Gasket

Note: This page was added at the last revision(s) made to this form.

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.