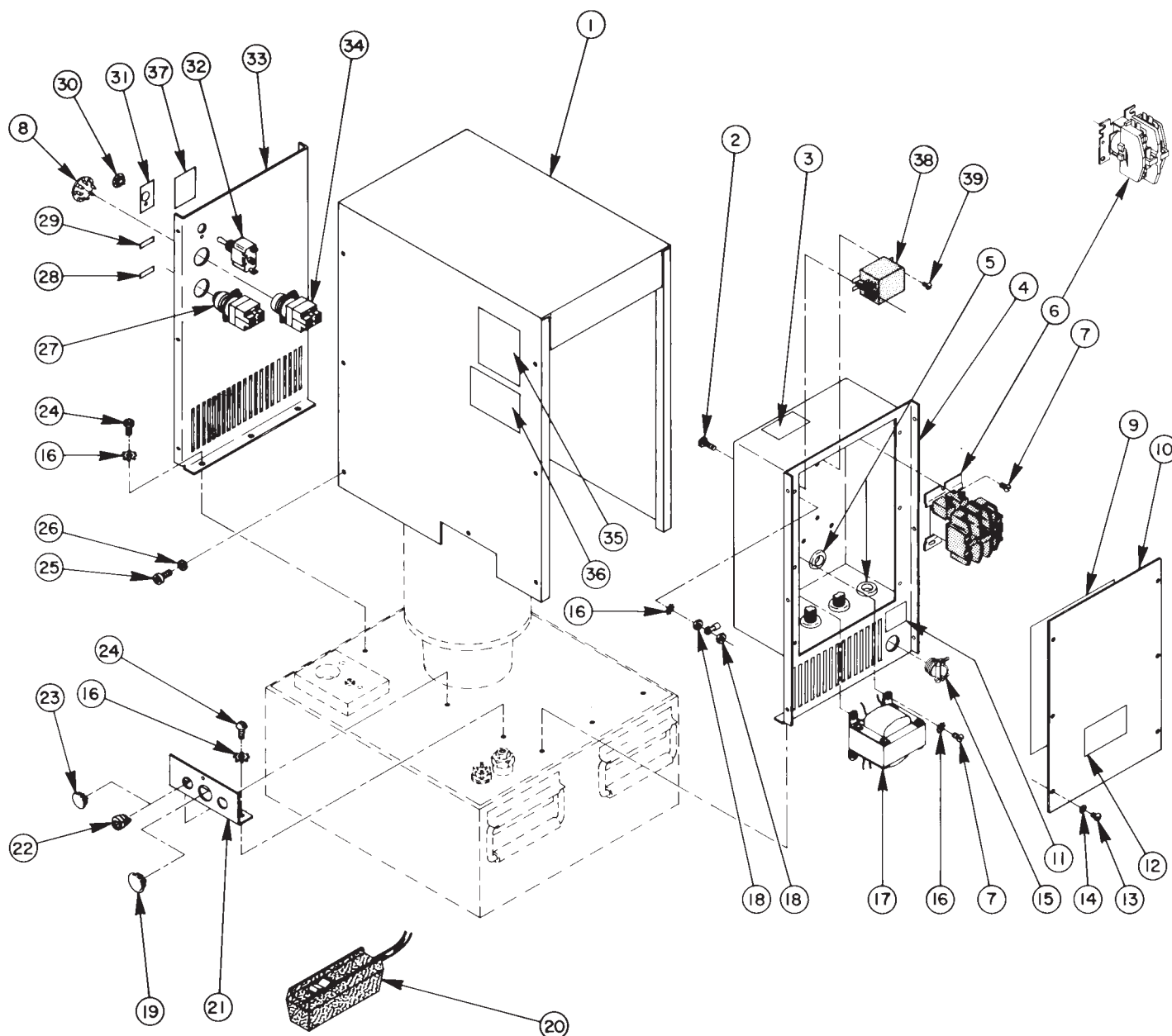
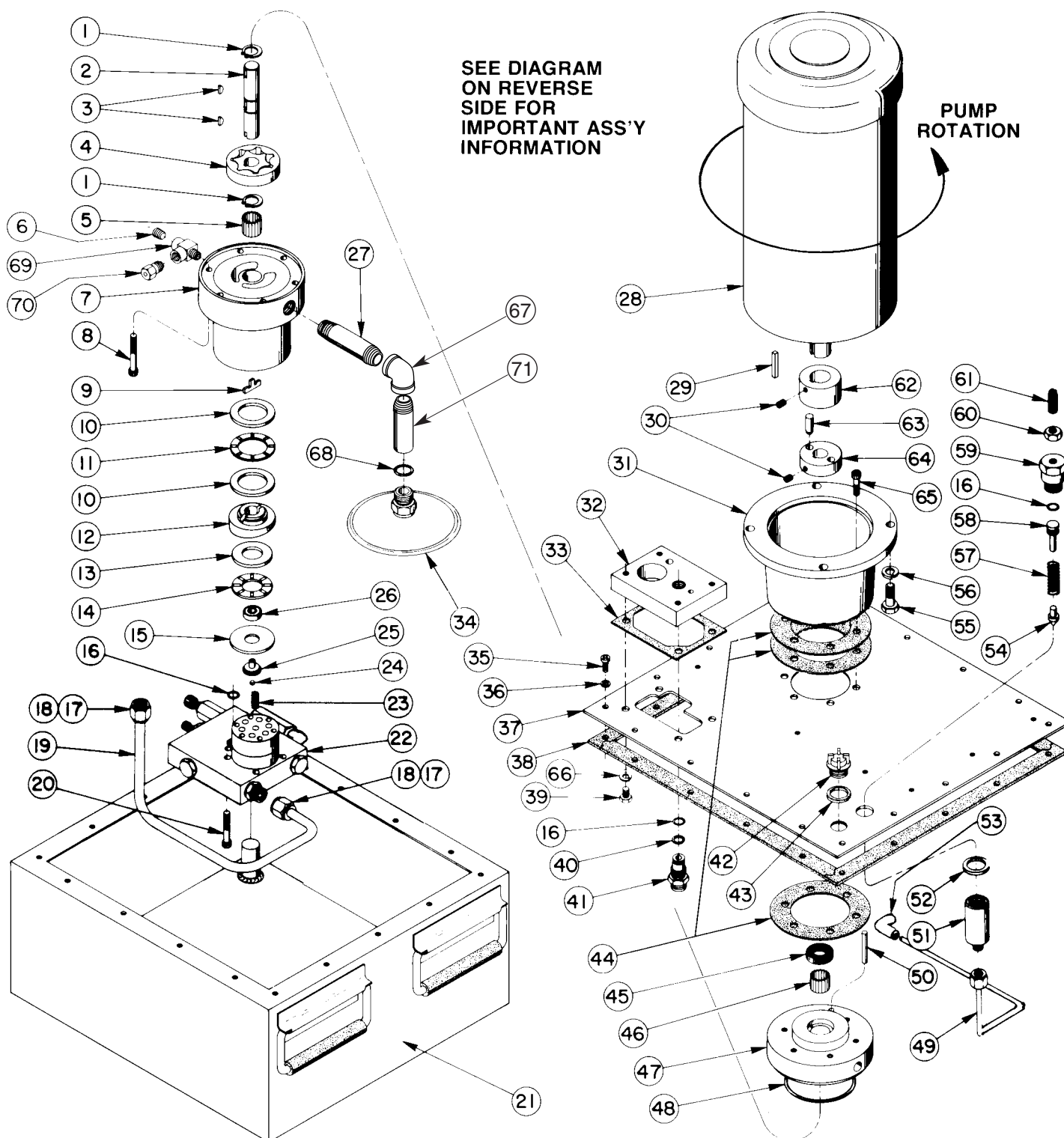


MODEL C
ELECTRIC TWO-STAGE HYDRAULIC PUMP
CONTROL BOX & COVER ASSEMBLY

Parts List, Form No. 100384, Back sheet 1 of 5

Item No.	Part No.	No. Req'd	Description	Item No.	Part No.	No. Req'd	Description
1	50946WH2	1	Shroud Cover	26	12356	13	Serrated Washer (#10 internal tooth)
2	104484	1	Hex Hd. Mach. Screw (#10-24 UNC X 3/4 Lg.)	27	39283	1	Pushbutton Switch (Red)
3	202504	1	Rotation Decal	28	203769	1	Stop Decal
4	60235OR9	1	End Panel & Elect. Box	29	203808	1	Start Decal
5	15497	6	Rubber Grommet	30	17782	1	Snap Plug (for 1/2" hole; Solenoid & Auto. Valve units)
6	16666-2	1	Starter Relay, 230V (Manual Valve & Press. Switch units)	31	360133	1	On-Off-Jog Decal (Manual Valve & Press. Switch units)
	***420718-2	1	Starter Relay, 230V (Manual Valve & Press. Switch units)	32	16617	1	On-Off-Jog Switch (Manual Valve & Press. Switch units)
	16666-4	1	Starter Relay, 24V. (Solenoid & Auto. Valve units)	33	51124OR9	1	End Panel
	***420718-4	1	Starter Relay, 24 V. (Solenoid & Auto. Valve units)	34	39282	1	Pushbutton Switch (Green)
7	11539	2	Rd. Hd. Mach. Screw (#10-24 UNC X 1/4 Lg.; Manual. Valve units)	35	309221	2	Trade Name Decal
	10164	4	Rd. Hd. Mach. Screw (#10-24 UNC X 3/8 Lg.; Solenoid & Auto. Valve units)	36	39270	1	Rating Decal (60 cycle units)
8	19502	2	Snap Plug (for 1" hole; Auto. Valve units)	37	204015	1	Instruction Decal
9	39479	1	Elect. Schematic Decal (for Manual & Sol. units)	38	39520	1	Control Relay-230V (Pressure Switch units)
	39521	1	Elect. Schematic Decal (for Press. Switch units)	39	10159	2	Rd. Hd. Mach. Screw (#6-32 UNC X 5/16 Lg.; used to mount Control Relay)
	388912	1	Elect. Schematic Decal (for Automatic Valve units)		***10166	2	Machine Screw (10-24 x 1/2 Lg.; used to mount Control Relay)
10	42457OR9	1	Cover Plate	PARTS INCLUDED BUT NOT SHOWN			
11	203801	1	Voltage Decal (50 cycle units)	9041	1	Pressure Gauge (Pressure Switch units)	
12	200188	1	Warning Decal	205189	1	Ground Decal	
13	10975	6	Mach. Screw (8-32 X 5/16 Lg.)	216666	1	Strain Relief Bushing (Sol. units)	
14	11107	6	Serrated Washer (#8 internal tooth)	216680	1	Strain Relief Bushing Nut	
15	11203	1	Strain Relief (Connector)	12908	2 Ft.	Solenoid Cable (Sol. units)	
16	11108	10	Serrated Washer (#10 external tooth; for Manual Valve & Press. Switch units)	39273	1	Power Cord (230V, 60 cycle)	
	11108	14	Serrated Washer (#10 external tooth; for Sol. & Auto. Valve units)	308752	8 Ft.	Power Cable (no plug; 14/3 SJTO, 220V, 50 Hz.)	
17	39692	1	Transformer (for Sol. & Auto. Valve units)	307439	8 Ft.	Power Cable (no plug; 2/3 SJTO, 110V, 50 Hz.)	
18	10197	2	Hex Nut (#10-24 UNC)	350155	8 Ft.	Power Cable (with plug; 12/3 SJTO, 115V, 60 Hz.)	
19	15327	1	Snap Plug (for 7/8" hole)	203972	1	CSA Decal	
20	202777	1	Remote Control (for 3-Way Sol. Valve units; See form no. 101644)	352061	1	Metal Switch Guard	
	202778	1	Remote Control (for 4-Way Sol. Valve units; See form no. 101644)	OPTIONAL VALVES/MANIFOLD/PRESSURE SWITCH			
	25017	1	Remote Control (for Automatic Valve units; See form no. 101644)	V33S	1	3-Way Solenoid Valve (see Form #100422)	
21	36746WH2	1	Angle Plate	9506	1	4-Way Manual Valve (see Form #100628)	
22	15993	2	Strain Relief Bushing (for Solenoid units)	9512	1	4-Way Solenoid Valve (see Form #101653)	
	15993	1	Strain Relief Bushing (for Press. Switch & Auto. Valve units)	9626	1	Manifold (see Form #100605)	
23	16412	2	Snap Plug (for 5/8" hole; Manual Valve units)	9625	1	Pressure Switch (see Form #100589)	
	16412	1	Snap Plug (for 5/8" hole; Press. SW & Auto. Valve units)	V23A	1	Automatic Valve (see Form #100415)	
24	16613	8	Pan Hd. Mach. Screw (#10-24 X 5/16 Lg.)	9520	1	3-Way Manual Valve (see Form #101377)	
25	14394	14	Self-Tapping Screw (#10 X 3/8 Lg.)	*** On units built after March 1983.			

BASIC PUMP ASSEMBLY



Parts List, Form No. 100384, Back sheet 2 of 5

Item No.	Part No.	No. Req'd	Description
1	12178	2	Retaining Ring (5/8" shaft)
	**12178	3	Retaining Ring (5/8" shaft)
2	35272	1	Pump Shaft
	**303009	1	Pump Shaft
3	12179	2	Woodruff Key
4	15428	1	Gerotor Set
5	15461	1	Needle Bearing
6	10427	1	Pipe Plug (1/8" NPTF)
7	50705	1	Pump Housing
8	10854	6	Soc. Hd. Cap Screw (1/4-20 UNC X 1-3/4 Lg.; see Note Below)
9	200397	1	Key
10	11227	2	Needle Thrust Race
11	11228	1	Needle Thrust Bearing
12	35271	1	Angle Plate
13	15432	1	Needle Thrust Race
14	15431	1	Needle Thrust Bearing
15	23548	1	Top Plate
16	10268	3	O-ring (1/2 X 3/8 X 1/16)
17	10430	2	Tube Sleeve
18	10431	2	Tube Nut
19	35281	1	Oil Line (3/8 Dia.)
20	10022	5	Soc. Hd. Cap Screw (1/4-20 UNC X 1-1/2 Lg.; Torque to 110/120 in. lbs.)
21	60234OR9	1	Reservoir
22	41806	1	High Pressure Pump Assembly (see sheet 3 of 5; Adjustment required)
23	10361	1	Compression Spring (1/4 O.D. X 1" Lg.)
24	10375	1	Steel Ball (1/4" Dia.)
25	23547	1	Top Bearing Plate
26	11814	1	Ball Bearing
27	260022	1	Straight Fitting
28	15435	1	Motor (2 H.P., 60 Hz)
	17646	1	Motor (2 H.P., 50 Hz)
29	27778	1	Square Key
30	10133	3	Soc. Hd. Set Screw (#10-24 X 1/4 Lg.)
	**10133	3	Soc. Hd. Set Screw (#10-24 X 1/4 Lg.)
31	41838	1	Motor Mount
32	43110	1	Valve Mounting Block
33	200395	1	Gasket
34	21345	1	Filter Assembly
35	16876	18	Machine Screw (#10-24 X 1/2 Lg.)
36	12356	18	Serrated Washer (#10 internal tooth)
37	60231WH2	1	Cover Plate (.104 Thk.)
	**60922	1	Cover Plate (.164 Thk.)
38	50712	1	Cover Gasket

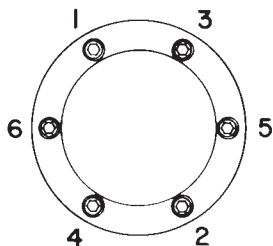
Item No.	Part No.	No. Req'd	Description
39	10004	4	Hex Hd. Cap Screw (1/4-20 X 3/8 Lg.)
	**10005	4	Hex Hd. Cap Screw (1/4-20 X 1/2 Lg.)
40	11863	1	Backup Washer (1/2 X 3/8 X 1/16)
41	20787	1	Connector
42	20937	1	Filler Plug
43	200415	1	Washer
44	35266	1	Gasket
45	12194	1	Seal
46	15430	1	Needle Bearing
47	50706	1	Gerotor Pump Housing
48	12504	1	O-ring (3 X 2-13/16 X 3/32)
49	350524	1	Oil Line Ass'y with Fittings (3/16" Dia.)
50	13152	1	Dowel Pin (3/16 X 1-1/2 Lg.)
51	22361	1	Body
52	17065	1	Flat Washer (.125 Thk.)
	14857	1	Flat Washer (.062 Thk.)
53	16177	1	90° Elbow Fitting
54	21046	1	Valve Stem
55	10049	4	Hex Hd. Cap Screw (3/8-16 UNC X 1" Lg.)
56	10247	4	Lockwasher (for 3/8" bolt)
57	10495	1	Compression Spring (1/2 O.D. X 1-5/8 Lg.)
58	21306	1	Spring Guide
59	21305	1	Valve Cap
60	10386	1	Hex Nut (3/8-24 UNF)
61	22362	1	Valve Adjusting Screw
62	200396	1	Coupling (see diagram below)
	**207440	1	Coupling (see diagram below)
63	27003	2	Nylon Pin
64	27001	1	Coupling (see diagram below)
65	10012	6	Soc. Hd. Cap Screw (1/4-20 X 7/8 Lg.; Torque to 110/120 in. lbs.)
66	**207440	1	Coupling (see diagram below)
67	260023	1	90° Elbow Fitting
68	10527	1	O-ring (13/16 X .644 X .087)
69	18969	1	Tee Fitting
70	306957	1	Air Bleed Valve
71	260021	1	Tube Extension

PARTS INCLUDED BUT NOT SHOWN

200609 1 Drain Tube
(For PQ603S,
PQ603S-115 &
PQ603S-50-220)

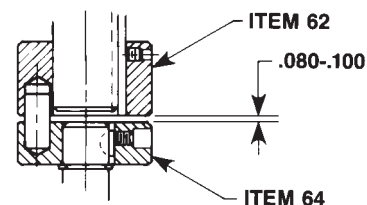
****AFTER AUGUST 1981**

BOLT TIGHTENING SEQUENCE

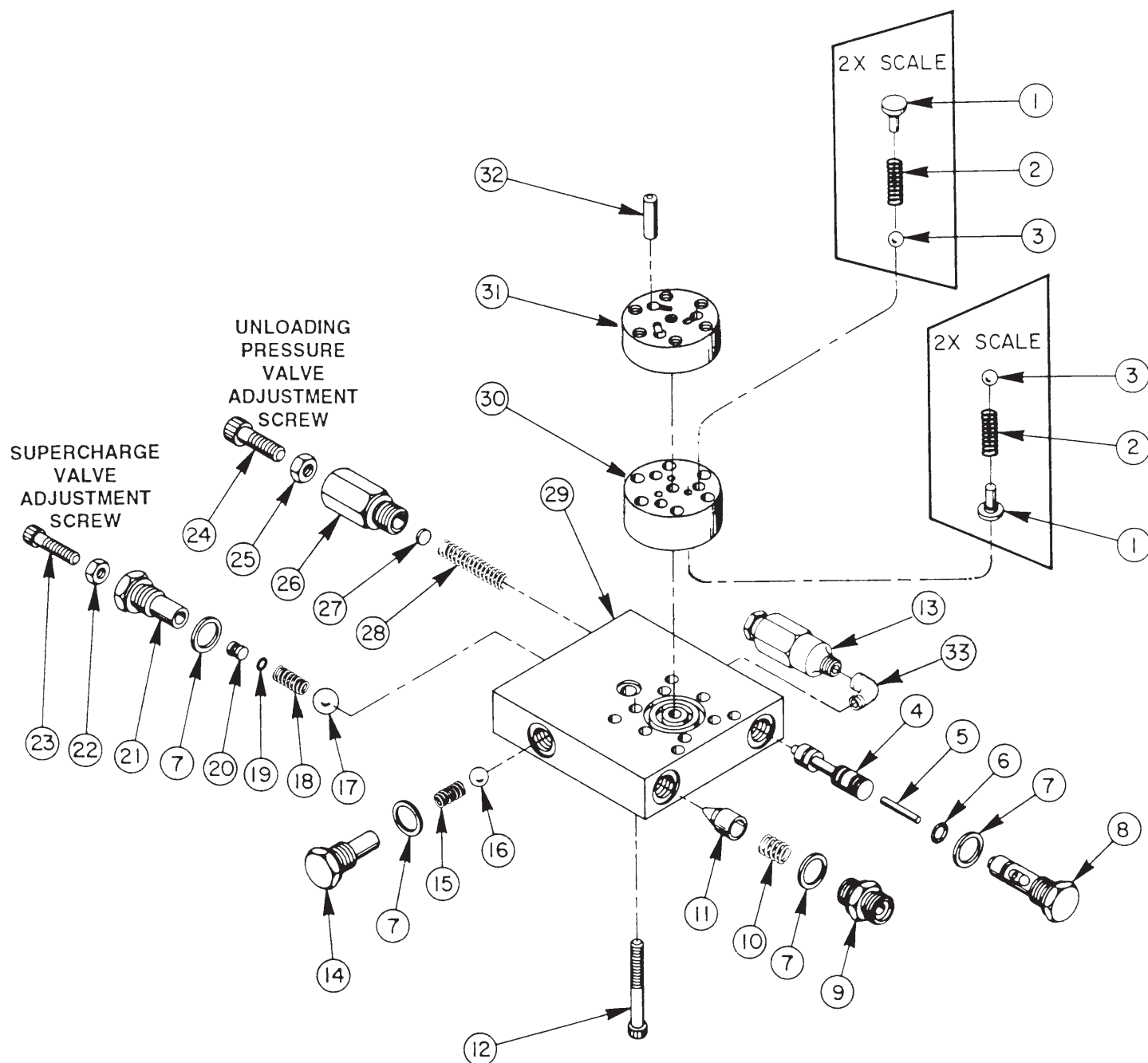


NOTE: Bolts must be torqued in sequence shown. Torque to 110/120 in. lbs. in increments of 50/60 in. lbs.

COUPLING CLEARANCE



#41806 HIGH PRESSURE PUMP ASSEMBLY



SEE DIAGRAM ON REVERSE
SIDE FOR IMPORTANT
ASSEMBLY INFORMATION

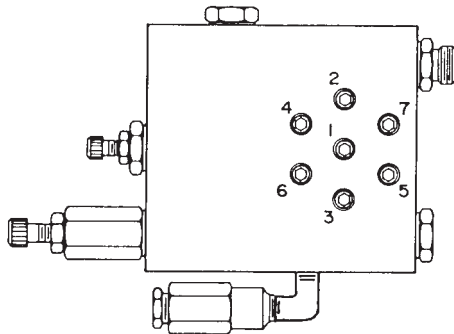
Note: Supercharge Valve and Unloading Pressure Valve of the high pressure pump assembly are NOT factory set! They require adjustment at final pump assembly. Refer to the pump's hydraulic schematic for specifications.

Item No.	Part No.	No. Req'd	Description
1	*24549	6	Valve Guide
2	*10445	6	Compression Spring (5/32 O.D. X 3/4 Lg.)
3	*12223	6	Steel Ball (3/16" Dia.)
4	200273	1	Spool
5	16471	1	Dowel Pin (1/8 X 1" Lg.)
6	14763	1	O-ring (7/16 X 5/16 X 1/16)
7	10261	4	Copper Washer (3/4 X 19/32 X 1/32)
8	202561	1	Actuating Pin Adapter (Torque to 30/35 ft. lbs.)
9	20770	1	Connector (Torque to 30/35 ft. lbs.)
10	10425	1	Compression Spring (3/8 O.D. X 3/4 Lg.)
11	20771	1	Poppet
12	*15318	7	Cap Screw (1/4-28 X 2" Lg.; see diagram below)
13	21278	1	Relief Valve Assembly (set at 10,000/10,700 PSI)
14	200269	1	Adapter Plug (Torque to 30/35 ft. lbs.)
15	11451	1	Compression Spring (1/4 O.D. X 5/8 Lg.)
16	10378	1	Steel Ball (3/8" Dia.)

Item No.	Part No.	No. Req'd	Description
17	10379	1	Steel Ball (1/2" Dia.)
18	15319	1	Compression Spring (1/4 O.D. X 3/4 Lg.)
19	12099	1	O-ring (9/32 X 5/32 X 1/16)
20	200271	1	Adapter
21	200270	1	Super Charge Fitting (Torque to 30/35 ft. lbs.)
22	10383	1	Jam Nut (1/4-20)
23	10016	1	Cap Screw (1/4-20 UNC X 1" Lg.)
24	10809	1	Cap Screw (5/16-18 X 1-1/4 Lg.)
25	10385	1	Jam Nut (5/16-18)
26	36545	1	Unloading Fitting (Torque to 30/35 ft. lbs.)
27	16528	1	Disc
28	203031	1	Compression Spring (.300 O.D. X 1-3/4 Lg.)
29	*50691	1	Valve Body
30	*40630	1	Valve Head
31	*41062	1	Pump Barrel
32	*21628	3	Piston (9/32 Dia.)
33	13229	1	90° Elbow Fitting

When replacing items marked with an asterisk (*), contact Power Team Technical Services Department.

BOLT TIGHTENING SEQUENCE



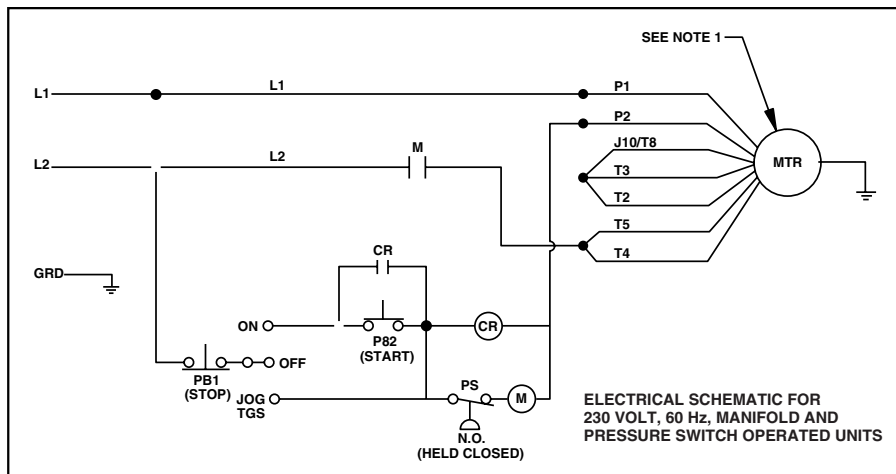
NOTE: Assemble in sequence shown. Lubricate under head and on threads. Torque to 180 in. lbs.

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 Power Team replacement parts!**

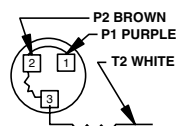
Additional questions can be directed to our Technical Services Department.

ELECTRICAL SCHEMATICS

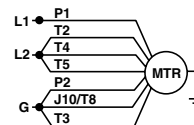
Pressure Switch Controlled Units
230 Volt, 60 Cycle

NOTES:

1. THIS MOTOR IS INTERNALLY PROTECTED WITH THERMAL OVERLOAD PROTECTION AS FOLLOWS:



2. FOR LOW (110/115 V.) MOTOR CONNECTIONS USE ELECTRICAL SCHEMATIC AS FOLLOWS:



3. ALL VOLTAGES MUST BE WIRED FOR CCW ROTATION VIEWED FROM LEAD END OF MOTOR.

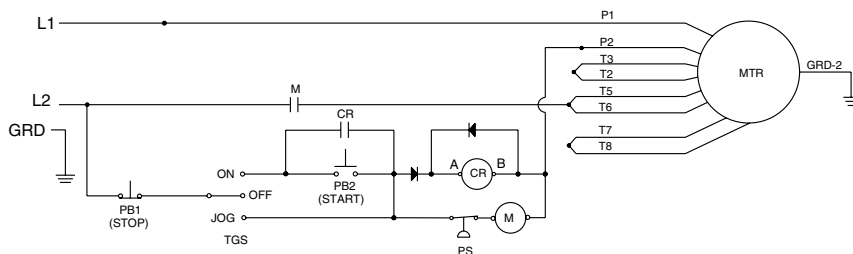
Leeson Motor 39521Rev5

WARNING

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

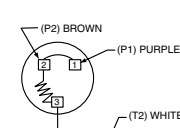
North American & International Color Codes:

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

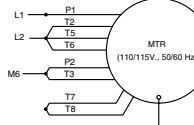
ELECTRIC SCHEMATIC
230 V., 60 Hz., SINGLE PHASE

NOTES:

1. THIS MOTOR IS INTERNALLY PROTECTED WITH THERMAL OVERLOAD PROTECTION AS FOLLOWS:



2. FOR LOW (110/115 V.) MOTOR CONNECTIONS USE ELECTRICAL SCHEMATIC AS FOLLOWS:



3. ALL VOLTAGES MUST BE WIRED FOR CCW ROTATION VIEWED FROM LEAD END OF MOTOR.

Emerson Motor 39521Rev5

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

The following Voltage Conversion Kits are available to convert from 230 Volt to 115 Volt:

205735 - Manual Valve Operated
205736 - Solenoid Valve Operated
205737 - Pressure Switch Operated

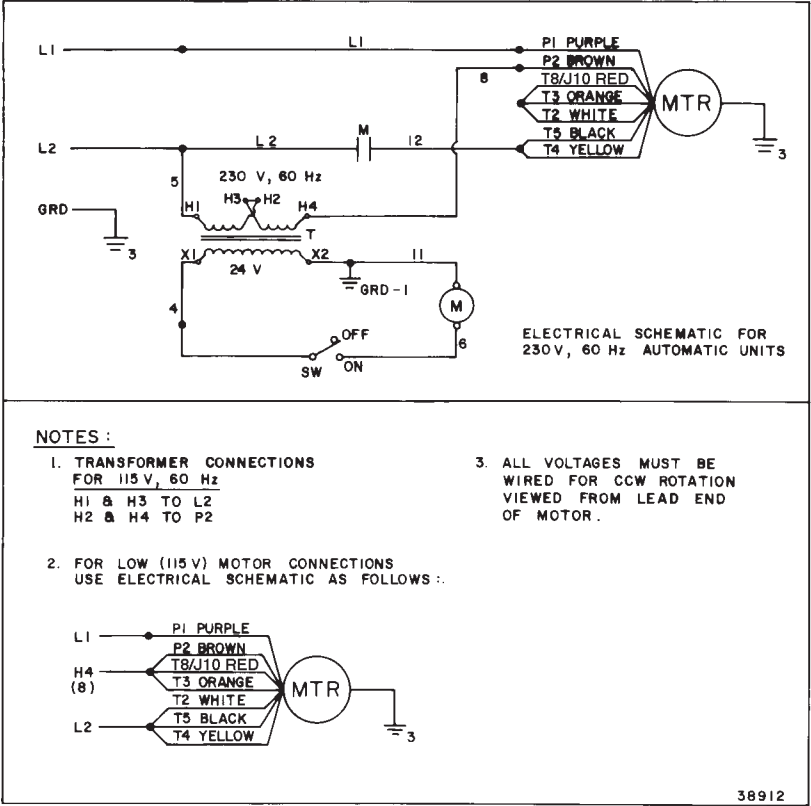
Sheet No. 4 of 5

Rev 8

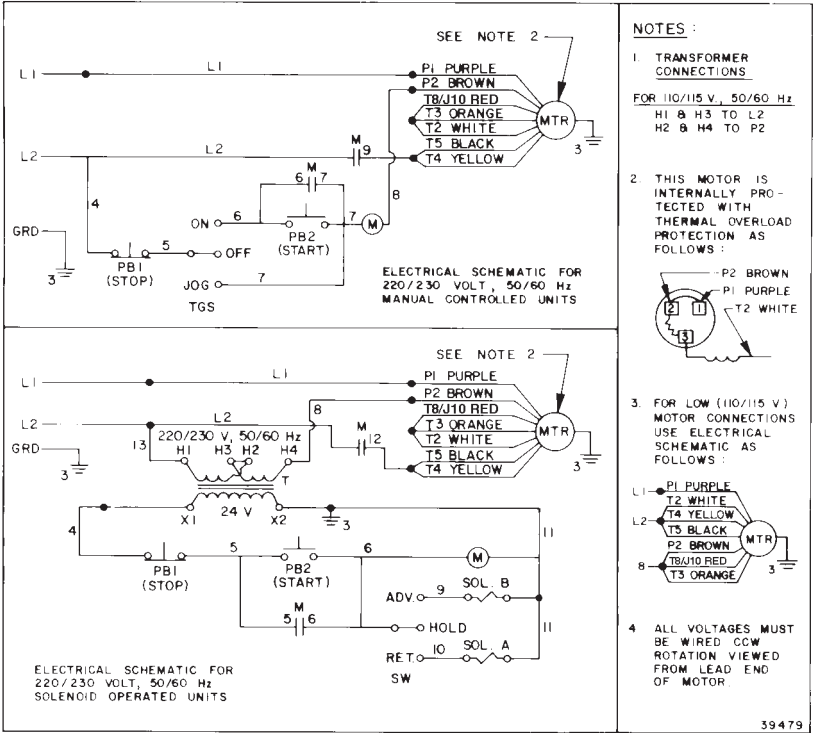
Date: 14 Mar 2003

ELECTRICAL SCHEMATICS CONT.

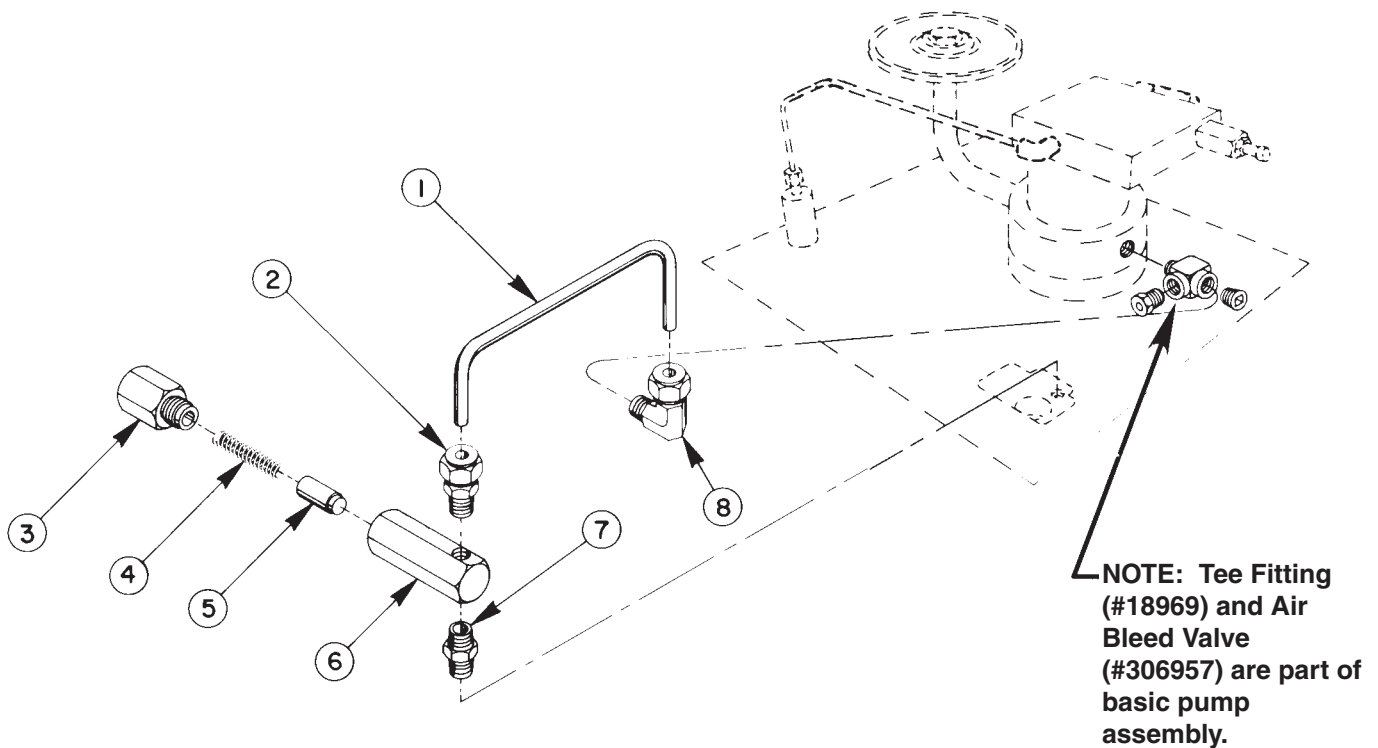
Automatic Operated Units
230 Volt, 60 Cycle



Manual and Solenoid Operated Units
220/230 Volt, 50/60 Cycle



OPTIONAL PILOT OIL LINE / ACCUMULATOR ASSEMBLY



Item No.	Part No.	No. Req'd	Description
1	200405	1	Oil Line
2	11173	1	Connector
3	202121	1	Spring Retainer (Torque to 50/70 in. lbs.)
4	16499	1	Compression Spring (1/4 O.D. X 2-3/16 Lg.)
5	21945	1	Plunger
6	21944	1	Cylinder Body
7	11421	1	Pipe Nipple
8	11278	1	Connector
	21943	1	Accumulator (Consists of Items 3, 4, 5, & 6)