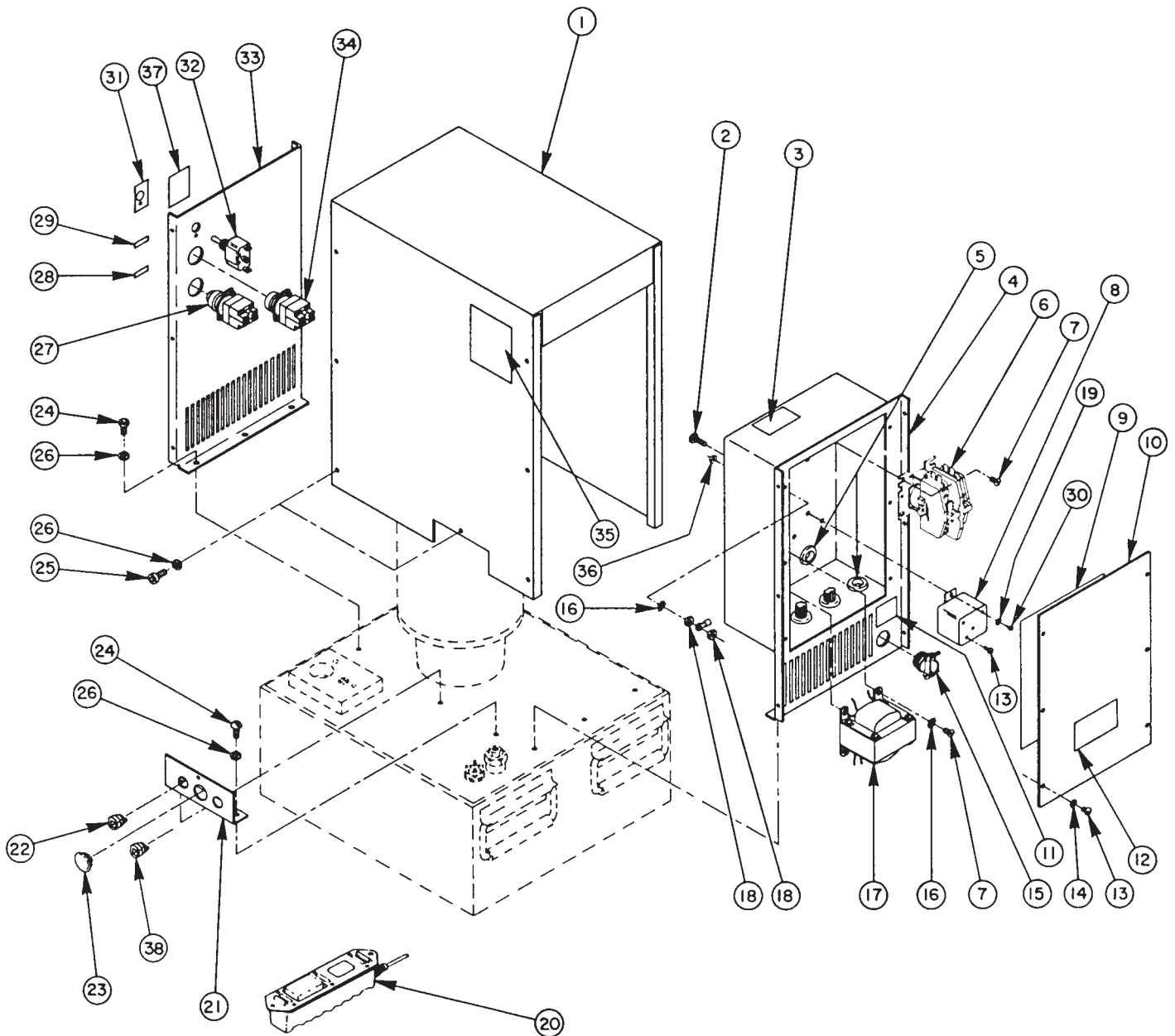


# ELECTRIC TWO-STAGE HYDRAULIC PUMP

## CONTROL BOX & COVER ASSEMBLY



# Parts List, Form No. 100684, Back sheet 1 of 5

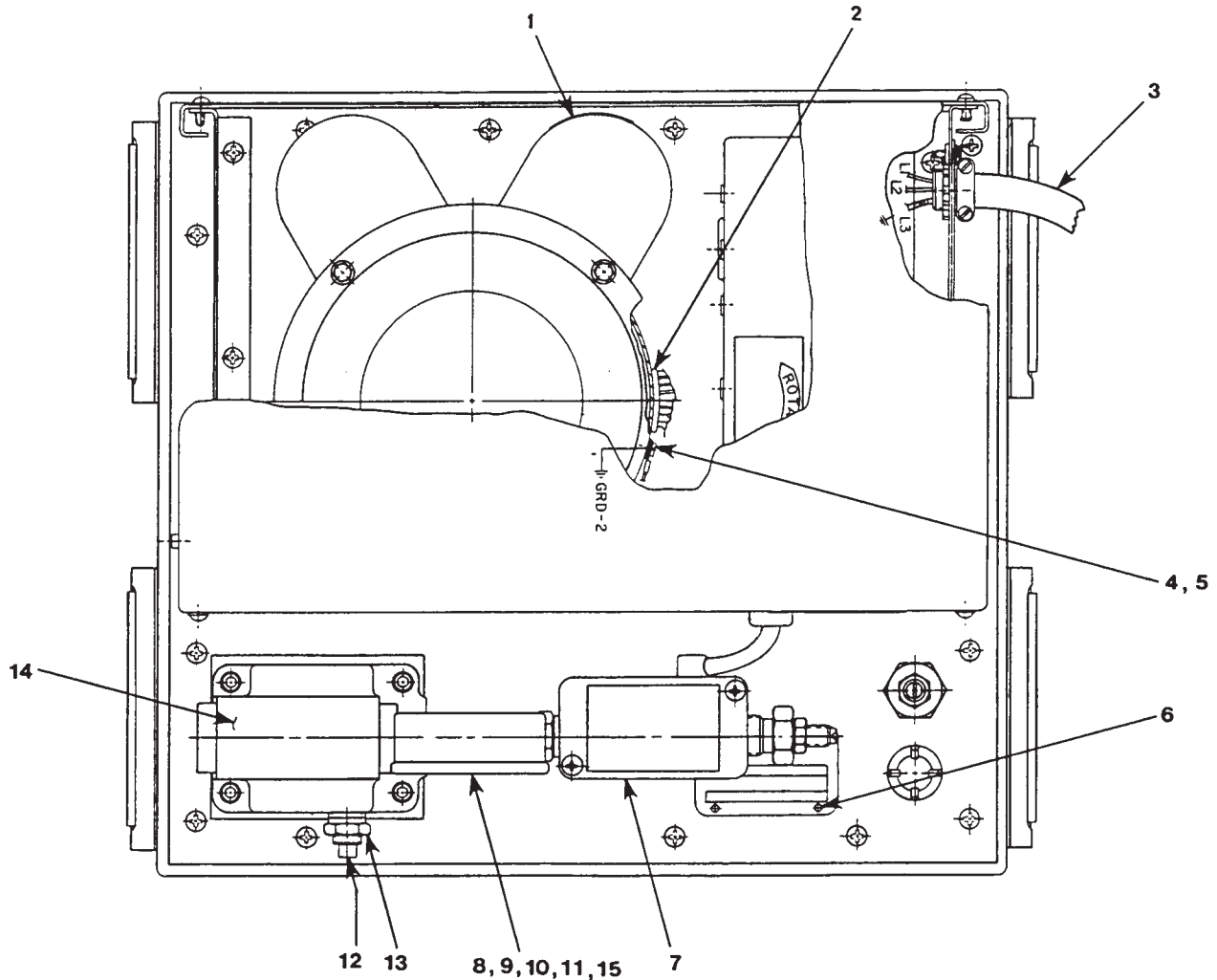
Item No.	Part No.	No. Req'd	Description
1	50946WH2	1	Shroud Cover
2	104484	1	Hex Hd. Mach. Screw (10-24 UNC X 3/4 Lg.)
3	202504	1	Rotation Decal
4	60235PU2	1	End Panel & Electrical Box
5	15497	5	Rubber Grommet
6	420718-4	1	Contactator
7	10166	AR	Rd. Hd. Machine Screw (#10-24 UNC X 1/2 Lg.)
8	14667	1	Relay Starter
9	307980	1	Electrical Schematic Decal
10	42457PU2	1	Cover Plate
11	204607	1	Specifications Decal
12	200188	1	Warning Decal
13	10975	AR	Pan Hd. Machine Screw (#8-32 X 5/16 Lg.)
14	11107	AR	Serrated Washer (#8 Internal Tooth)
15	11203	1	Strain Relief
16	11108	AR	Serrated Washer (#10 External Tooth)
17	39692	1	Transformer
18	10197	2	Hex Nut (#10-24 UNC)
19	15906	1	Lockwasher (#6 External Tooth)
20	25017	1	Remote Control Assembly
	202763	1	Decal (Used on Remote Control)
21	36746WH2	1	Angle Plate
22	12176	1	Strain Relief Bushing
23	15327	1	Snap Plug (For 7/8 Hole)
24	16613	AR	Pan Hd. Machine Screw (#10-24 X 5/16 Lg.)
25	14394	AR	Self-Tapping Screw (#10 X 3/8 Lg.)
26	12356	AR	Serrated Washer (#10 Internal Tooth)
27	39283	1	Pushbutton Switch (Red)
28	203769	1	Stop Decal
29	203808	1	Start Decal
30	17898	1	Machine Screw (#6-32 X 3/8 Lg.)
31	204577	1	ON/JOG Decal
32	12301	1	ON/OFF Switch
33	51124PU2	1	End Panel
34	39282	1	Pushbutton Switch (Green)
35	309233	2	Trade Name Decal
36	10195	1	Nut (#6-32 UNC)
37	204015	1	Instruction Decal
38	215857	1	Strain Relief Bushing

## PARTS INCLUDED BUT NOT SHOWN

11423	11 ft.	Electrical Cable (18/2 SJT; for Remote Control)
213771	1	Quick Disconnect Coupler

AR = As Required

TOP VIEW

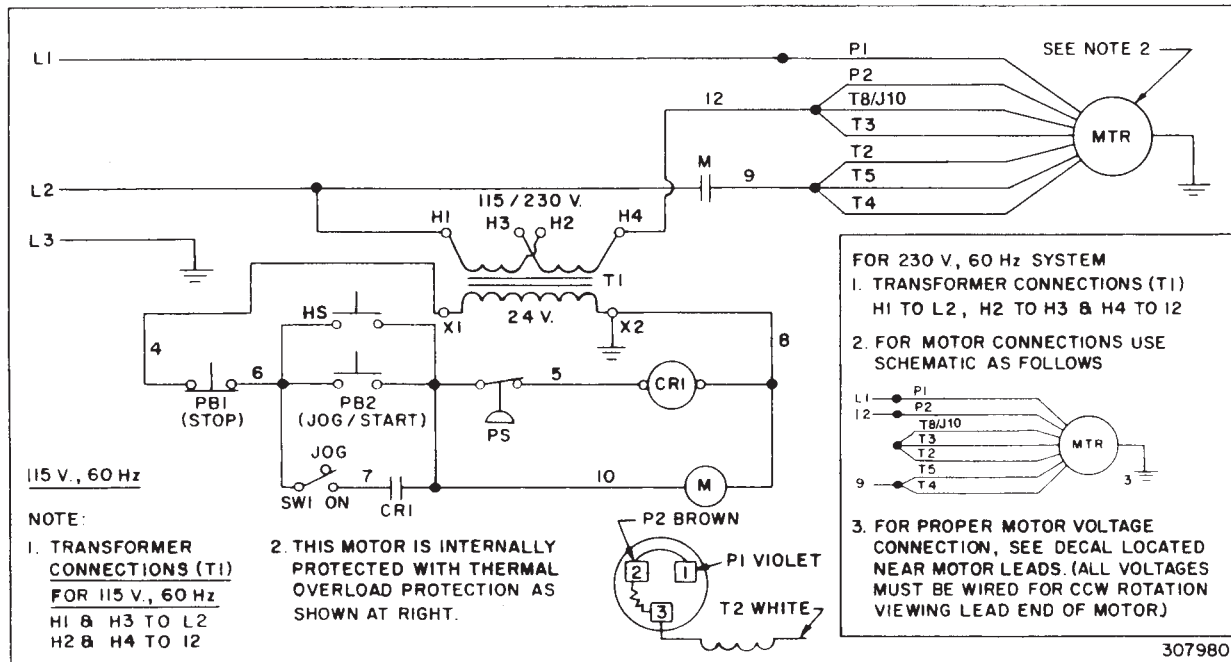


Item No.	Part No.	No. Req'd	Description
1	204609	1	Motor Leads Decal
2	15497	1	Rubber Grommet
3	307439	8 ft.	Electrical Cable (12/3 SJTO)
4	14394	1	Self-tapping Screw (#10 X 3/8 Lg.)
5	12356	1	Lockwasher (#10 Internal Tooth)
6	10575	4	Drive Screw
7	9625	1	Pressure Switch (See Form #100589)
8	17946	1	Pressure Gauge
9	12740	1	Straight Fitting (1/4 F NPTF X 1/4 F NPTF)

Item No.	Part No.	No. Req'd	Description
10	10672	1	Straight Fitting (1/4 M NPTF X 1/4 M NPTF)
11	10618	1	Tee Fitting (1/4 NPTF M X F X F)
12	10676	1	Straight Fitting (3/8 M NPTF X 1/4 F NPTF)
13	13272	1	Plug (1/4 NPT)
14	9610	1	Automatic Valve (See Form #101200)
15	11310	1	Straight Fitting

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

## ELECTRICAL SCHEMATIC



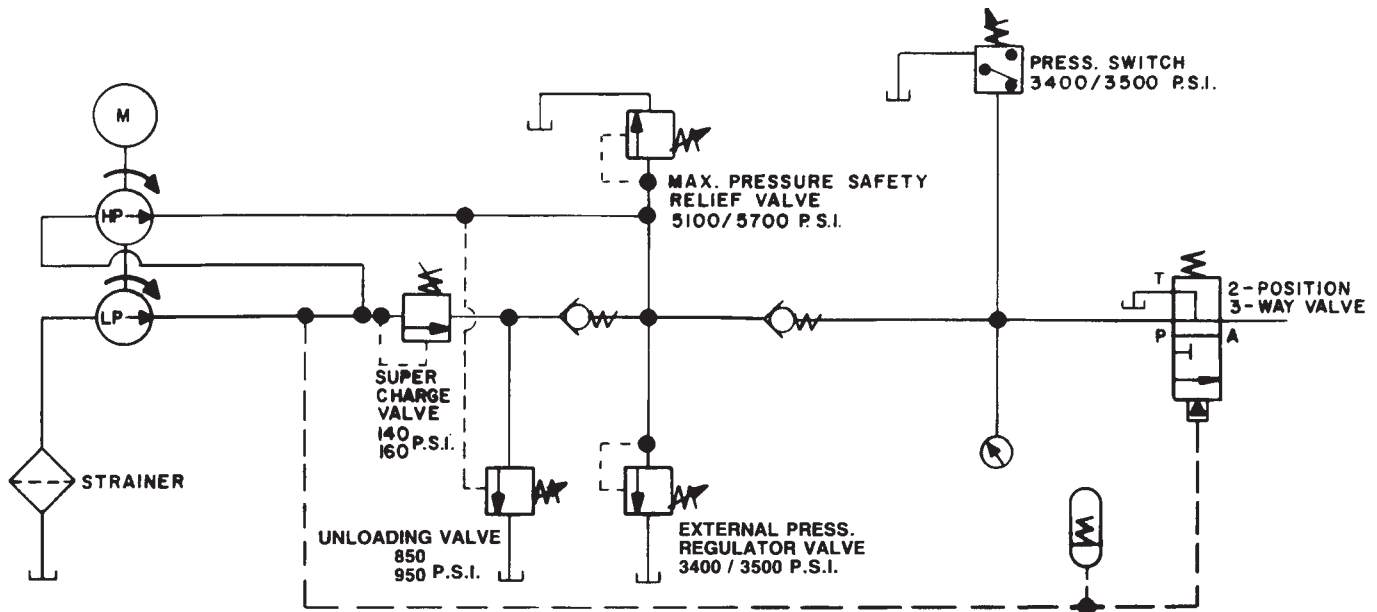
## WARNING

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

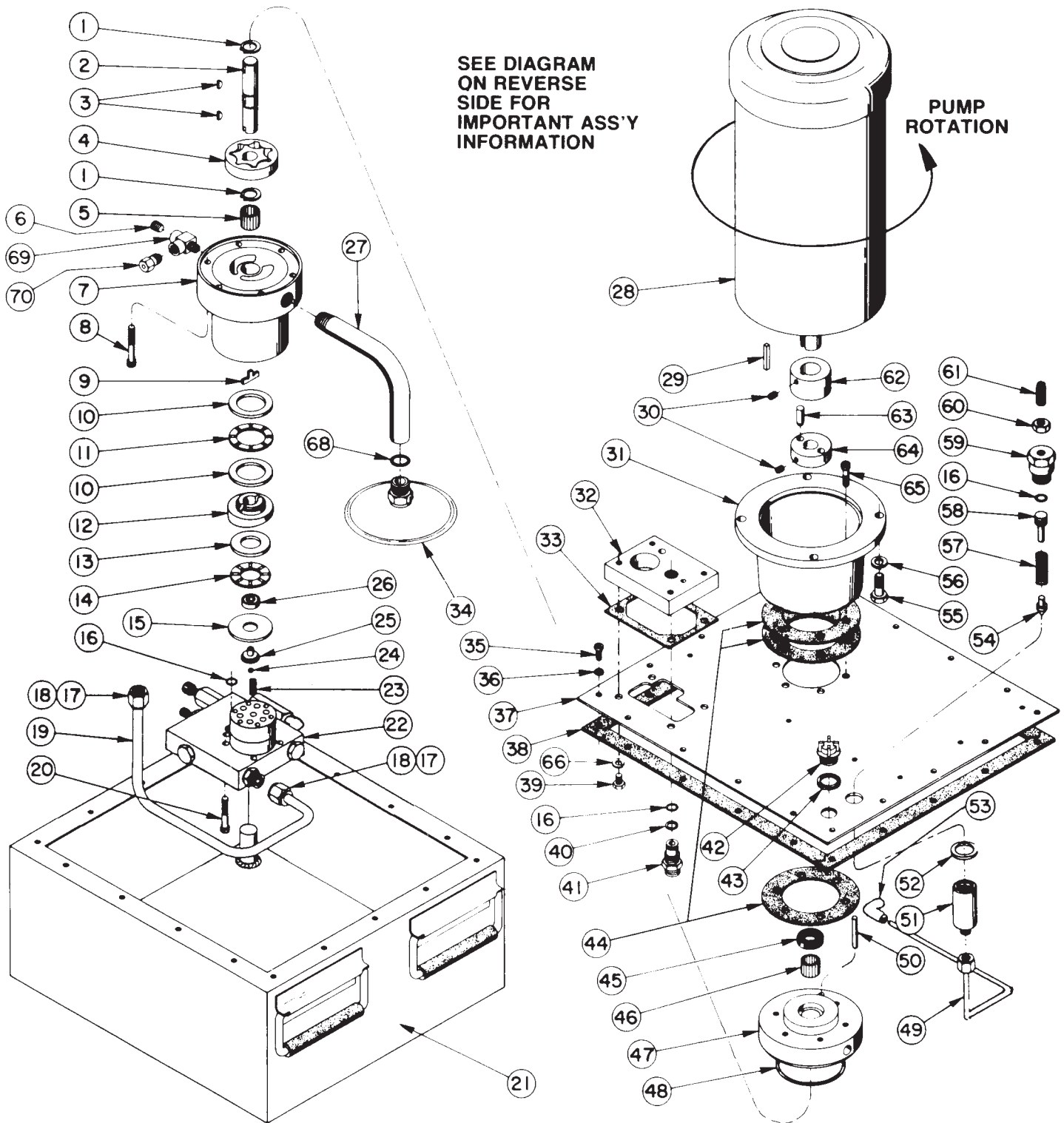
### North American & International Color Codes

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

## HYDRAULIC SCHEMATIC



# BASIC PUMP ASSEMBLY

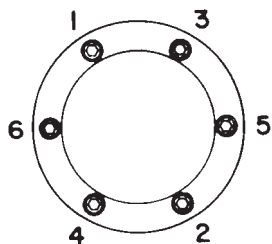


# Parts List, Form No. 100684, Back sheet 3 of 5

Item No.	Part No.	No. Req'd	Description	Item No.	Part No.	No. Req'd	Description
1	12178	2	Retaining Ring (5/8 Shaft)	37	60231WH2	1	Cover Plate (.104 Thk.)
	*12178	3	Retaining Ring (5/8 Shaft)		*60922	1	Cover Plate (.164 Thk.)
2	35272	1	Pump Shaft	38	50712	1	Cover Gasket
	*303009	1	Pump Shaft	39	10004	4	Hex Hd. Cap Screw (1/4-20 X 3/8 Lg.)
3	12179	2	Woodruff Key		*10005	4	Hex Hd. Cap Screw (1/4-20 X 1/2 Lg.)
4	15428	1	Gerotor Set	40	11863	1	Backup Washer (1/2 X 3/8 X 1/16)
5	15461	1	Needle Bearing	41	20787	1	Connector
6	10427	1	Pipe Plug (1/8 NPTF)	42	20937	1	Filler Plug
7	50705	1	Pump Housing	43	200415	1	Washer
8	10854	6	Soc. Hd. Cap Screw (See NOTE Below; 1/4-20 X 1-3/4 Lg.)	44	35266	3	Gasket
9	200397	1	Key	45	12194	1	Seal
10	11227	2	Needle Thrust Race	46	15430	1	Needle Bearing
11	11228	1	Needle Thrust Bearing	47	50706	1	Gerotor Pump Housing
12	35271	1	Angle Plate	48	12504	1	O-ring (3" X 2-13/16 X 3/32)
13	15432	1	Needle Thrust Race	49	350524	1	Oil Line Ass'y with Fittings (3/16 Dia.)
14	15431	1	Needle Thrust Bearing	50	13152	1	Dowel Pin (3/16 X 1-1/2 Lg.)
15	23548	1	Top Plate	51	22361	1	Body
16	10268	3	O-ring (1/2 X 3/8 X 1/16)	52	17065	1	Flat Washer (.125 Thk.)
17	10430	2	Tube Sleeve		*14857	1	Flat Washer (.062 Thk.)
18	10431	2	Tube Nut	53	16177	1	Connector Fitting
19	35281	1	Oil Line (3/8 Dia.)	54	21046	1	Valve Stem
20	10022	5	Soc. Hd. Cap Screw (1/4-20 X 1-1/2 Lg.; Torque to 110/120 in. lbs.)	55	10049	4	Hex Hd. Cap Screw (3/8-16 X 1" Lg.)
21	60234PU2	1	Reservoir	56	10247	4	Lockwasher (For 3/8 Bolt)
22	41833	1	High Pressure Pump Ass'y (See Sheet 4 of 5)	57	10495	1	Compression spring (1/2 O.D. X 1-5/8 Lg.)
23	10361	1	Compression spring (1/4 O.D. X 1" Lg.)	58	21306	1	Spring Guide
24	10375	1	Steel Ball (1/4 Dia.)	59	21305	1	Valve Cap
25	23547	1	Top Bearing Plate	60	10386	1	Hex Nut (3/8-24)
26	11814	1	Ball Bearing	61	22362	1	Valve Adjusting Screw
27	204242	1	Tube Extension	62	200396	1	Coupling (See Diagram Below)
28	15435	1	Motor (2 H.P., 230/460 V., 60 Hz.)		*207440	1	Coupling (See Diagram Below)
29	27778	1	Square Key	63	27003	2	Nylon Pin
30	10133	2	Soc. Hd. Set Screw (#10-24 X 1/4 Lg.)	64	27001	1	Coupling
	*10133	3	Soc. Hd. Set Screw (#10-24 X 1/4 Lg.)	65	10012	6	Soc. Hd. Cap Screw (1/4-20 X 7/8 Lg.; Torque to 110/120 in. lbs.)
31	41838	1	Motor Mount	66	*10244	4	Washer (For 1/4 Bolt)
32	41839	1	Valve Mounting Block	68	10527	1	O-ring (13/16 X .644 X .087)
33	200395	1	Gasket	69	18969	1	Tee Fitting
34	21345	1	Filter Assembly	70	306957	1	Air Bleed Valve
35	16876	18	Mach. Screw (#10-24 X 1/2 Lg.)				
36	12356	18	Serrated Washer (#10 Internal Tooth)				

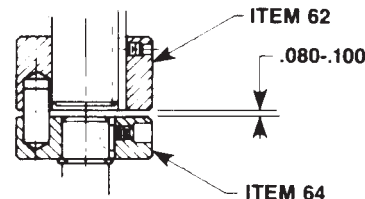
\*After August 1981

## GEROTOR TIGHTENING SEQ.

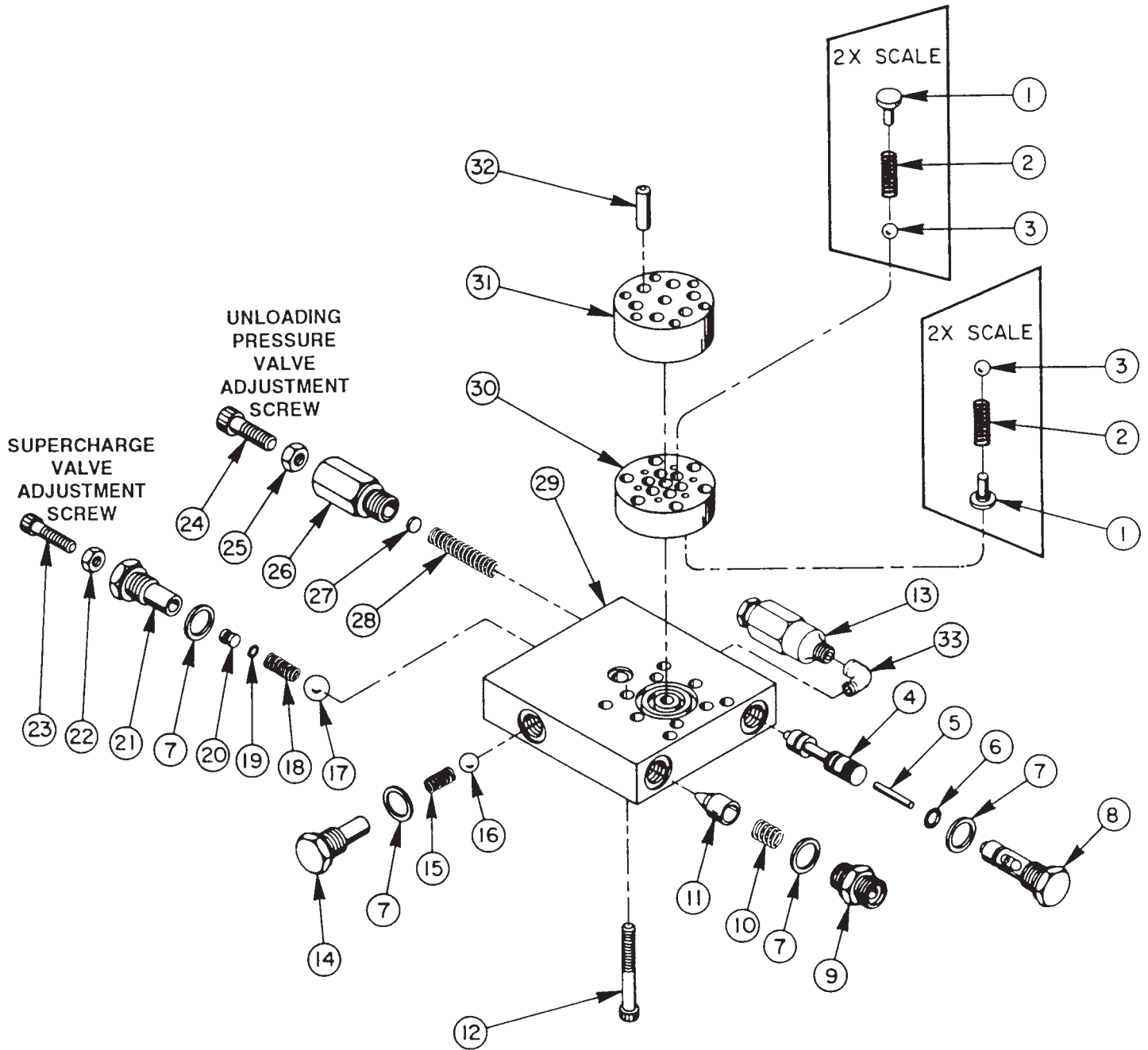


**NOTE: Bolts MUST be torqued in sequence shown. Torque to 110/120 in. lbs. in increments of 50/60 in. lbs.**

## COUPLING CLEARANCE



### #41833 HIGH PRESSURE PUMP ASSEMBLY



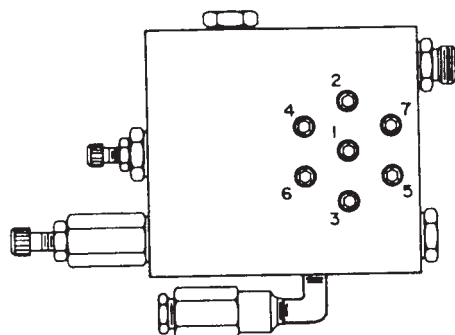
SEE DIAGRAM ON REVERSE  
SIDE FOR IMPORTANT  
ASSEMBLY INFORMATION

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	Item No.	Part No.	No. Req'd	Description
1	*24549	12	Valve Guide	17	10379	1	Steel Ball (1/2 Dia.)
2	*10445	12	Compression Spring (5/32 O.D. X 3/4 Lg.)	18	15319	1	Compression spring (1/4 O.D. X 3/4 Lg.)
3	*12223	12	Steel Ball (3/16 Dia.)	19	12099	1	O-ring (9/32 X 5/32 X 1/16)
4	200273	1	Spool	20	200271	1	Adapter
5	16471	1	Dowel Pin (1/8 Dia. X 1" Lg.)	21	200270	1	Super Charge Fitting (Torque to 30/35 ft. lbs.)
6	14763	1	O-ring (7/16 X 5/16 X 1/16)	22	10383	1	Finished Jam Nut (1/4-20)
7	10261	4	Copper Washer (3/4 X 19/32 X 1/32)	23	10016	1	Soc. Hd. Cap Screw (1/4-20 X 1" Lg.)
8	202561	1	Actuating Pin Adapter (Torque to 30/35 ft. lbs.)	24	10809	1	Soc. Hd. Cap Screw (5/16-18 X 1-1/4 Lg.)
9	20770	1	Connector (Torque to 40/45 ft. lbs.)	25	10385	1	Finished Jam Nut (5/16-18)
10	10425	1	Compression Spring (3/8 O.D. X 3/4 Lg.)	26	36545	1	Unloading Fitting (Torque to 30/35 ft. lbs.)
11	20771	1	Poppet	27	16528	1	Disc
12	*15318	7	Soc. Hd. Cap Screw (1/4-28 X 2" Lg.; See Diagram Below)	28	203031	1	Compression Spring (.300 O.D. X 1-3/4 Lg.)
13	21278-50	1	Relief Valve Assembly (Set at 5,100/5,700 PSI)	29	*50691	1	Valve Body
14	200269	1	Adapter Plug (Torque to 30/35 ft. lbs.)	30	*41048	1	Valve Head
15	11451	1	Compression Spring (1/4 O.D. X 5/8 Lg.)	31	*41063	1	Pump Barrel
16	10378	1	Steel Ball (3/8 Dia.)	32	*21628	6	Piston (9/32 Dia.)

When replacing items marked with an asterisk (\*), consult Hytec Technical Services Department.

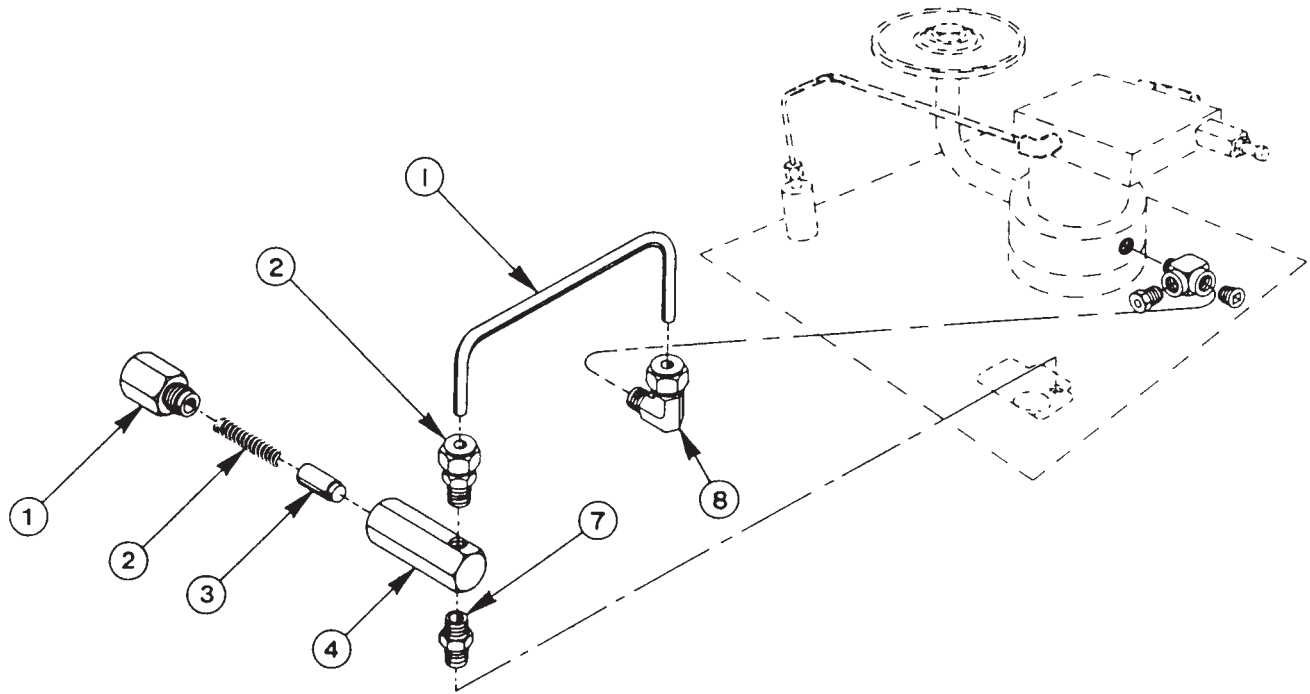
### VALVE TIGHTENING SEQ.



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



### OPTIONAL PILOT OIL LINE / ACCUMULATOR ASSEMBLY



Item No.	Part No.	No. Req'd	Description
1	22747	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)