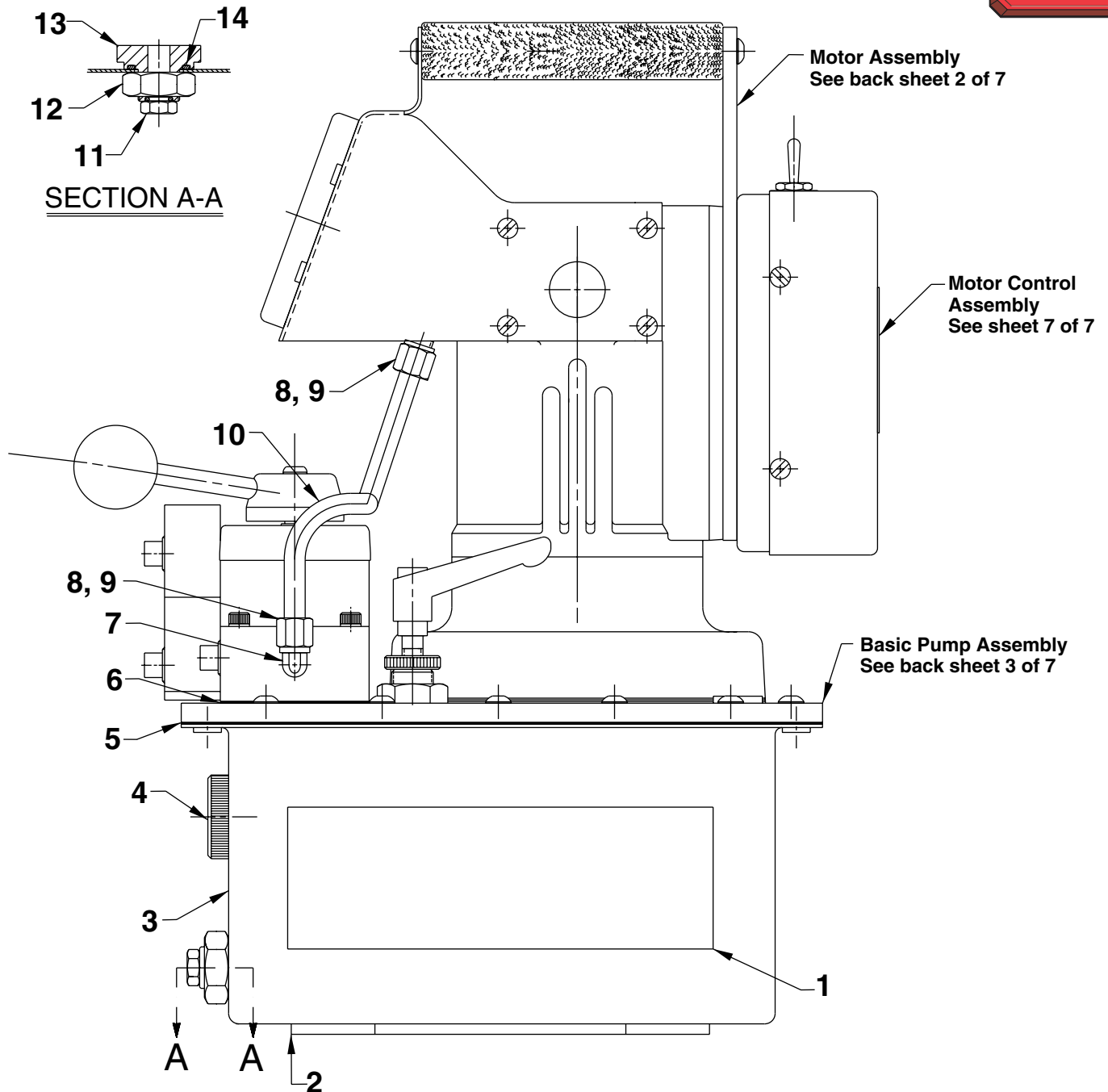


MODEL A
ELECTRIC TWO-STAGE HYDRAULIC PUMP

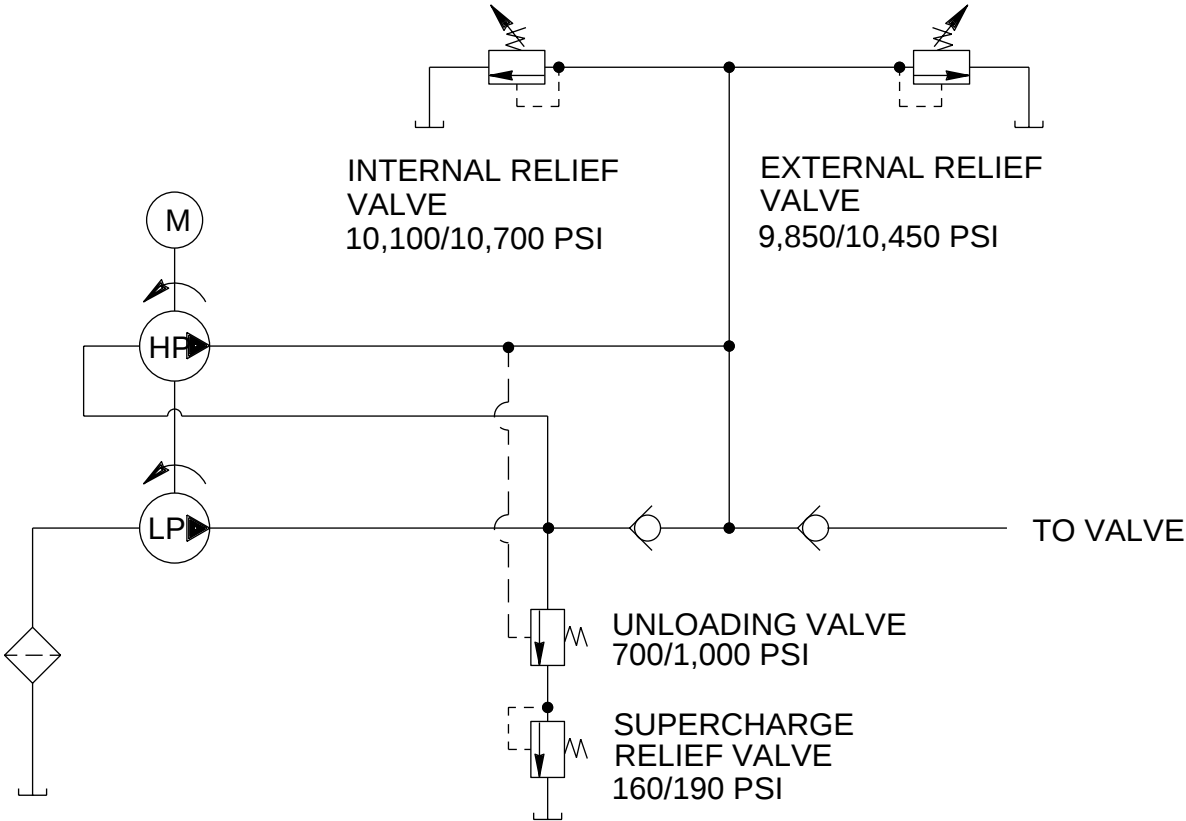
To Parts
List



Item No.	Part No.	No. Req'd	Description
1	309219	2	Trade Name Decal
2	420948	1	Rubber Pad
3	65316OR9	1	Aluminum Reservoir
4	17586	1	Sight Gauge
5	58843	1	Reservoir Gasket
6	252497	1	Valve Gasket
7	10665	1	90° Elbow Fitting (Note: Remove nut and ferrule.)
8	214269	2	Nut Fitting
9	214270	2	Tube Sleeve
10	252496	1	Oil Line Tube
11	17147	1	Plug Fitting
12	10396	1	Jam Nut
13	351000	1	Drain
14	14725	1	O-ring (1-1/8" x 15/16 x 3/32)

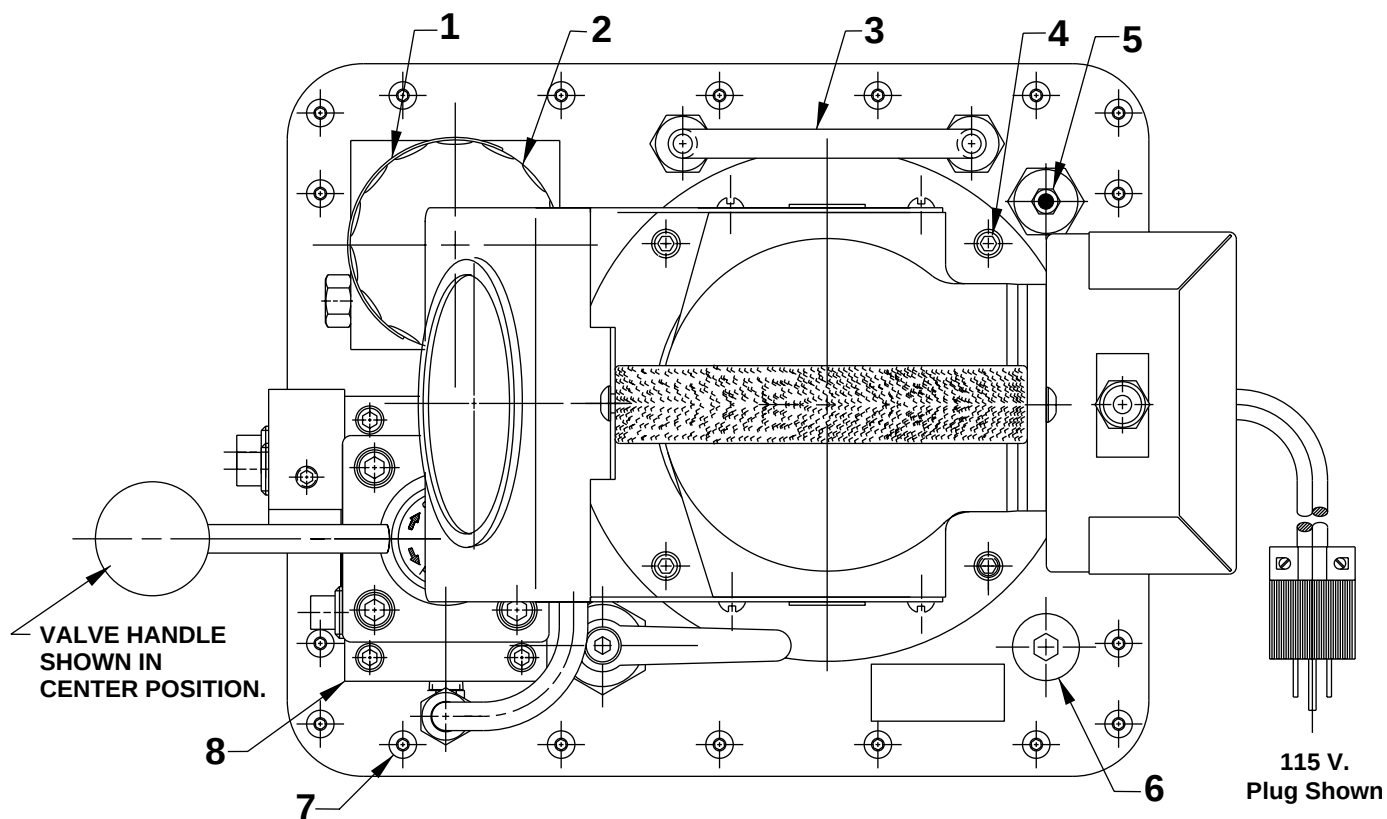


HYDRAULIC SCHEMATIC



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

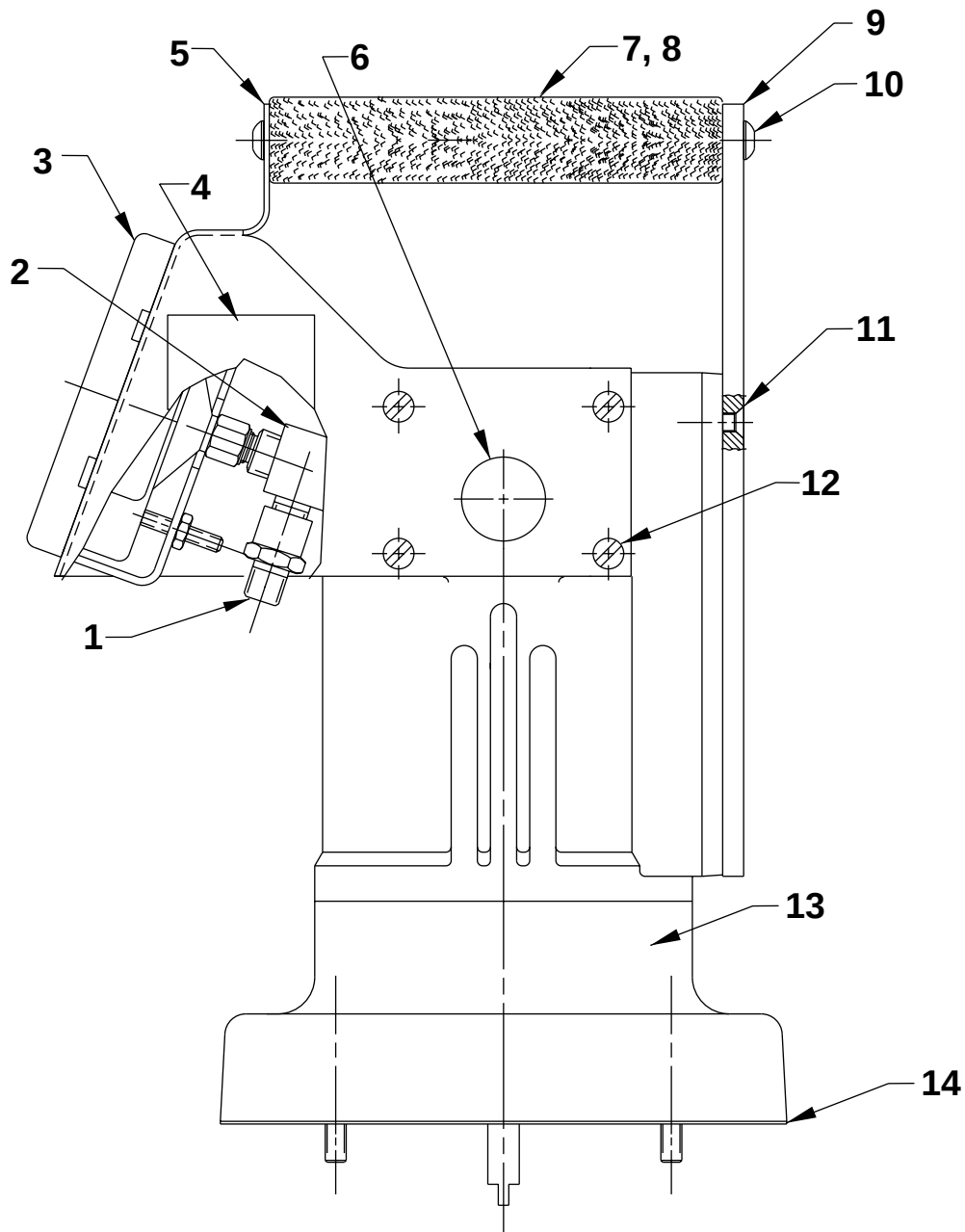
PUMP TOP VIEW



Item No.	Part No.	No. Req'd	Description
1	309219	1	Trade Name Decal
2	252425	1	Oil Filter
3	252495	1	Oil Line Tube
4	10016	4	Screw (1/4-20 UNC X 1" Lg.; Apply Loctite 242)
5	251599	1	Filler Breather Cap
6	214014	1	Plug Fitting
7	250383	20	Screw (1/4-20 UNC x 3/4 Lg.)
8	9500HD	1	Manual Valve (For PE604T & PE604T-220; See Form No. 101824)
	9628	1	Manual Valve (For PE604PT & PE604PT-220; See Form No. 101810)

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

MOTOR ASSEMBLY

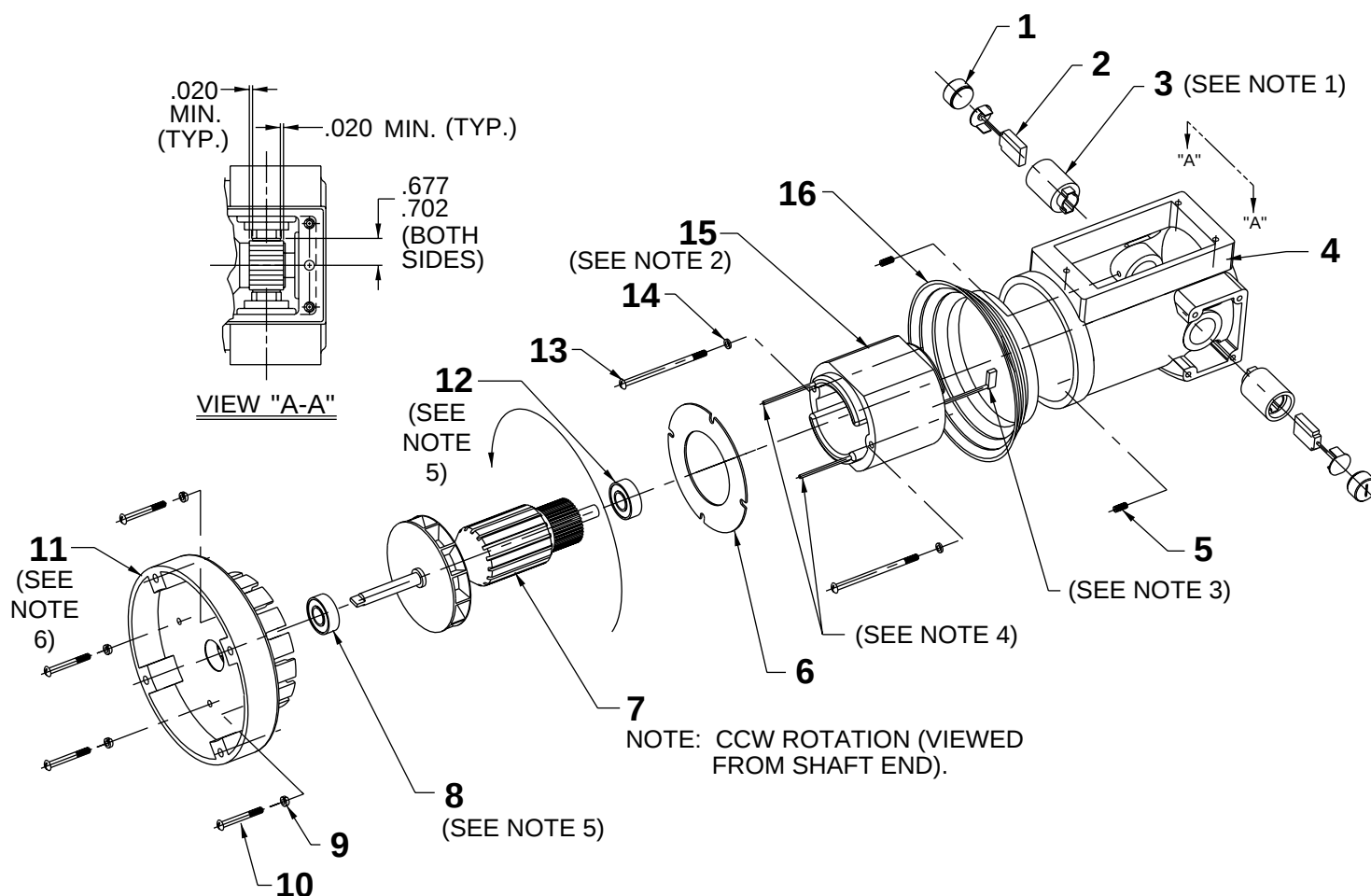


Item No.	Part No.	No. Req'd	Description
1	252528	1	Straight Fitting
2	16823	1	90° Elbow Fitting
3	252426	1	Gauge (10,000 PSI; 4" dia.)
4	215364	1	Specifications Decal (110/115 V.; 50/60 Hz.)
	215363	1	Specifications Decal (220/230 V.; 50/60 Hz.)
5	58884WH2	1	Gauge Bracket
6	19502	2	Hole Plug
7	252154	1	Handle
8	251600	1	Handle Grip
9	351388WH2	1	Handle Bracket
10	251437	2	Screw (1/4-20 UNC x 1/2 Lg.)
11	252529	3	Screw (#10-24 UNC x 1/2 Lg.)
12	11539	8	Screw (#10-24 X 1/4 Lg.)
13	65420	1	Electric Motor (110/115 V. , 50/60 Hz.; See sheet 3 of 7)
14	30650	1	Motor Base Gasket

Note: Shaded area indicates revision(s) made

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

UNIVERSAL MOTOR

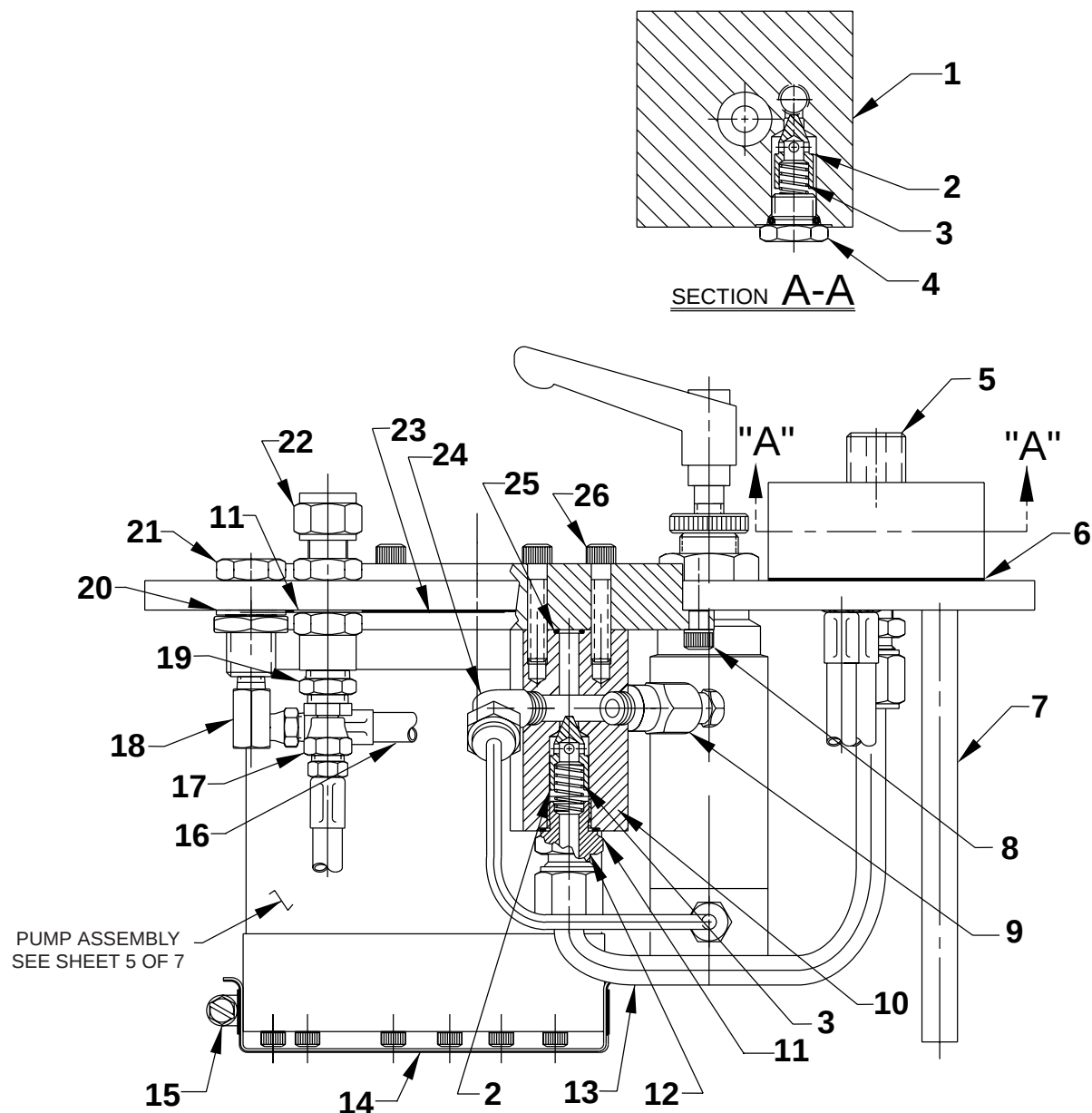


Item No.	Part No.	No. Req'd	Description
1	10806	2	Brush Holder Cap
2	10804	2	Brush
3	10805	2	Brush Holder
4	65479WH2	1	Motor Shell
5	10133	2	Screw (#10-24 UNC X 1/4 Lg.)
6	20786	1	Baffle Plate
7	10800	1	Armature (115 V.)
	58841A	1	Armature (230 V.)
8	10438	1	Ball Bearing

Item No.	Part No.	No. Req'd	Description
9	10241	4	Lockwasher (For #10 bolt)
10	10169	4	Screw (#10-24 UNC X 2" Lg.)
11	351416WH2	1	Motor Base
12	10439	1	Ball Bearing
13	10170	2	Screw (#10-24 UNC X 3-1/4 Lg.)
14	12356	2	Washer (#10 Internal Tooth)
15	10802	1	Field (115 V.)
	58841F	1	Field (230 V.)
16	421204	1	Plastic Cover

- Notes:**
1. Brush holders (Item #3) must be installed with slot and dimple facing the open end of the motor shell casting.
 2. Stator must be installed with part no. and date code up (must be visible through the rectangular opening in the motor shell casting).
 3. Insert flag terminals into adjacent brush holders.
 4. Line leads must be routed through the rectangular opening in the motor shell casting.
 5. Press bearings into armature and install as a unit into the motor shell casting.
 6. Casting number must be on top when the motor base casting is fastened to the motor shell casting.

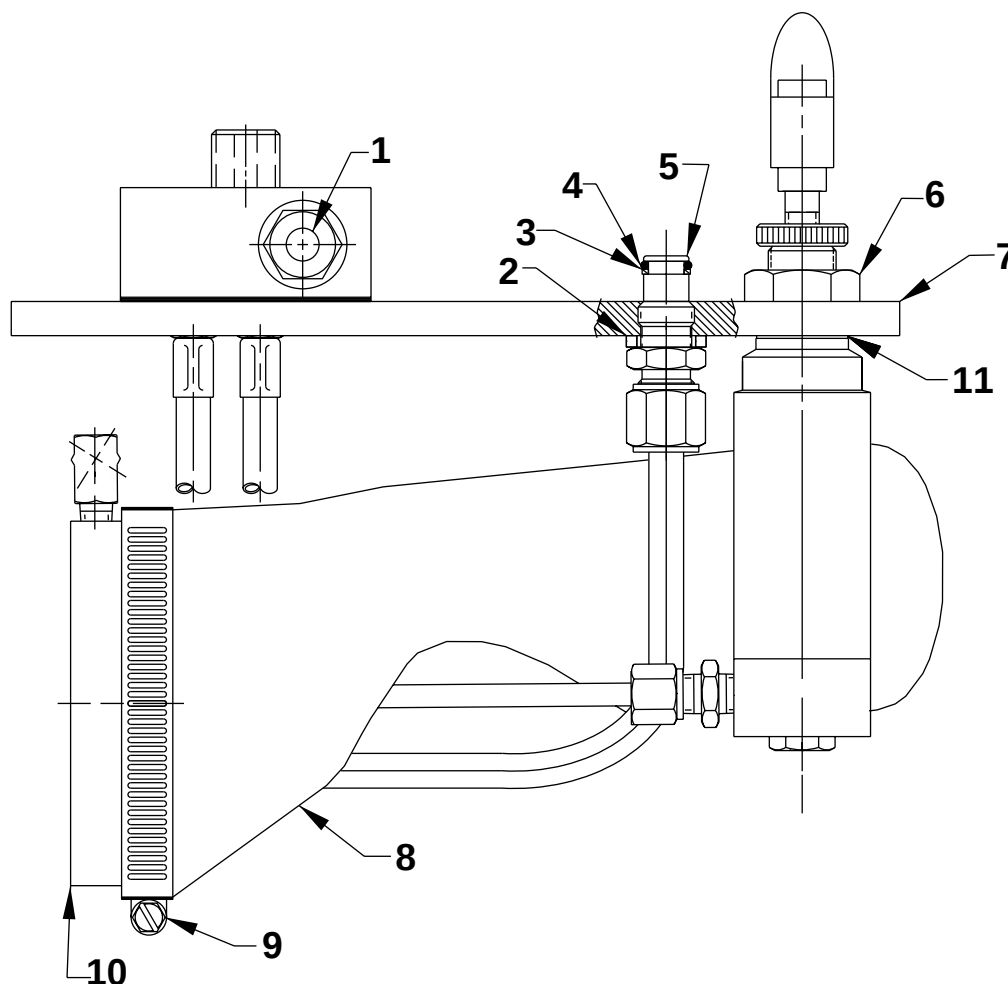
GENERAL PUMP ASSEMBLY - SIDE VIEW



Item No.	Part No.	No. Req'd	Description
1	421428	1	Filter Manifold
2	20771	2	Poppet
3	252231	1	Compression Spring
4	252635	1	Plug Fitting
5	252428	1	Straight Fitting
6	252367	1	Valve Gasket
7	14463	1	Straight Fitting
8	10006	3	Screw (1/4-20 UNC X 5/8 Lg.; Apply Loctite 242 and torque to 60 in. lbs.)
9	21278	1	Relief Valve Assembly (Set at 10,100/10,700 PSI)
10	20776	1	Valve Body
11	10261	3	Copper Washer (3/4 X 19/32 X 1/32)
12	20770	1	Connector Fitting
13	252494	1	Oil Line Tube

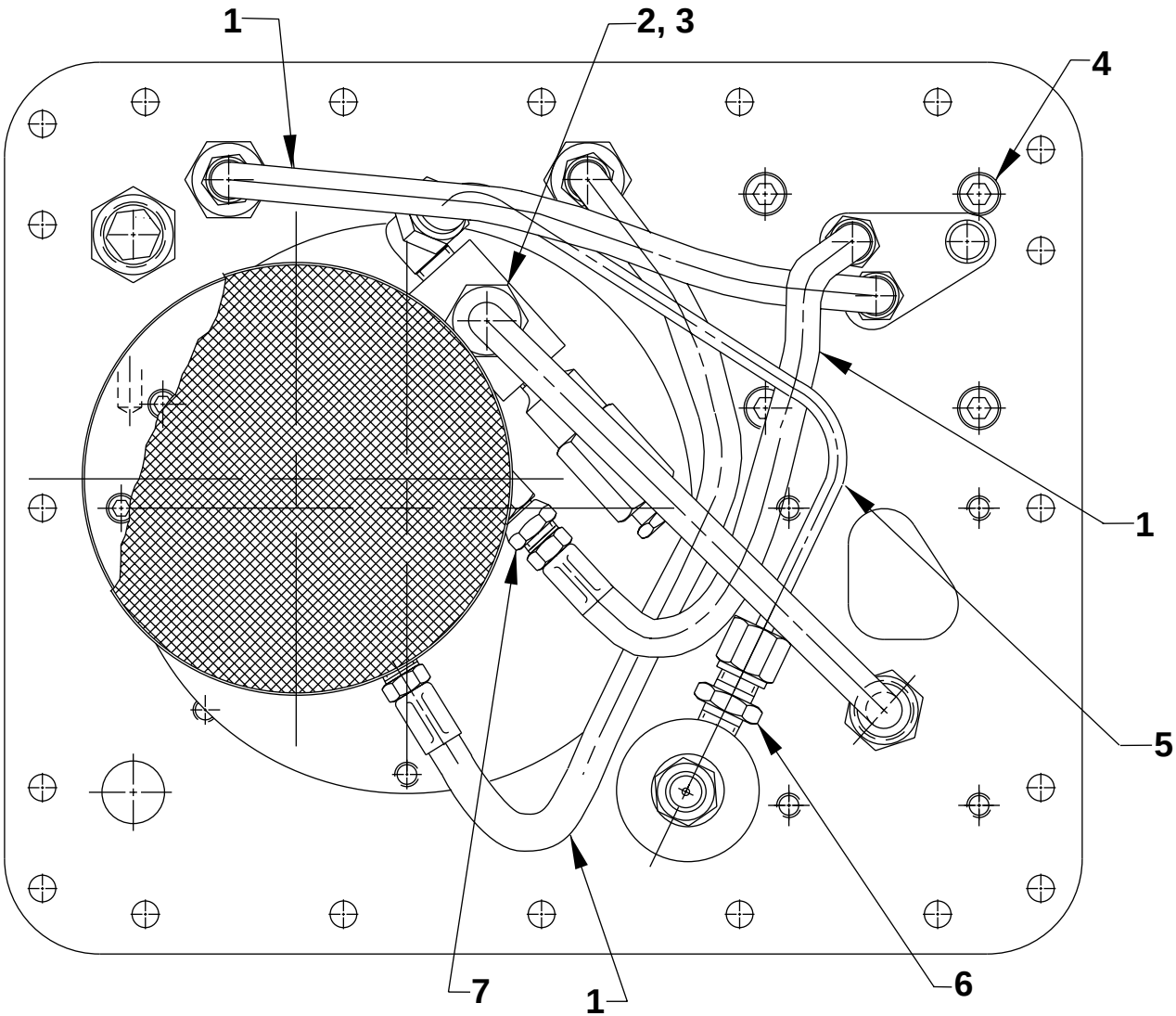
Item No.	Part No.	No. Req'd	Description
14	350304	1	Filter
15	350995	1	Hose Clamp
16	304819	1	Hose
17	208218	2	Straight Fitting
18	14440	2	90° Elbow Fitting
19	206324	2	Straight Fitting
20	10263	1	Special Washer
21	252492	1	Straight Fitting (Note: Remove and discard lockwasher. Torque locking nut to 425 in. lbs.)
22	252483	2	Straight Fitting (Torque locking nut to 225 in. lbs.)
23	252366	1	Top Plate Gasket
24	16177	1	90° Elbow Fitting
25	10266	1	O-ring (3/8 X 1/4 X 1/16)
26	252482	2	Screw (1/4-28 UNF-2B x 1-1/2 Lg.)

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

GENERAL PUMP ASSEMBLY - REGULATOR

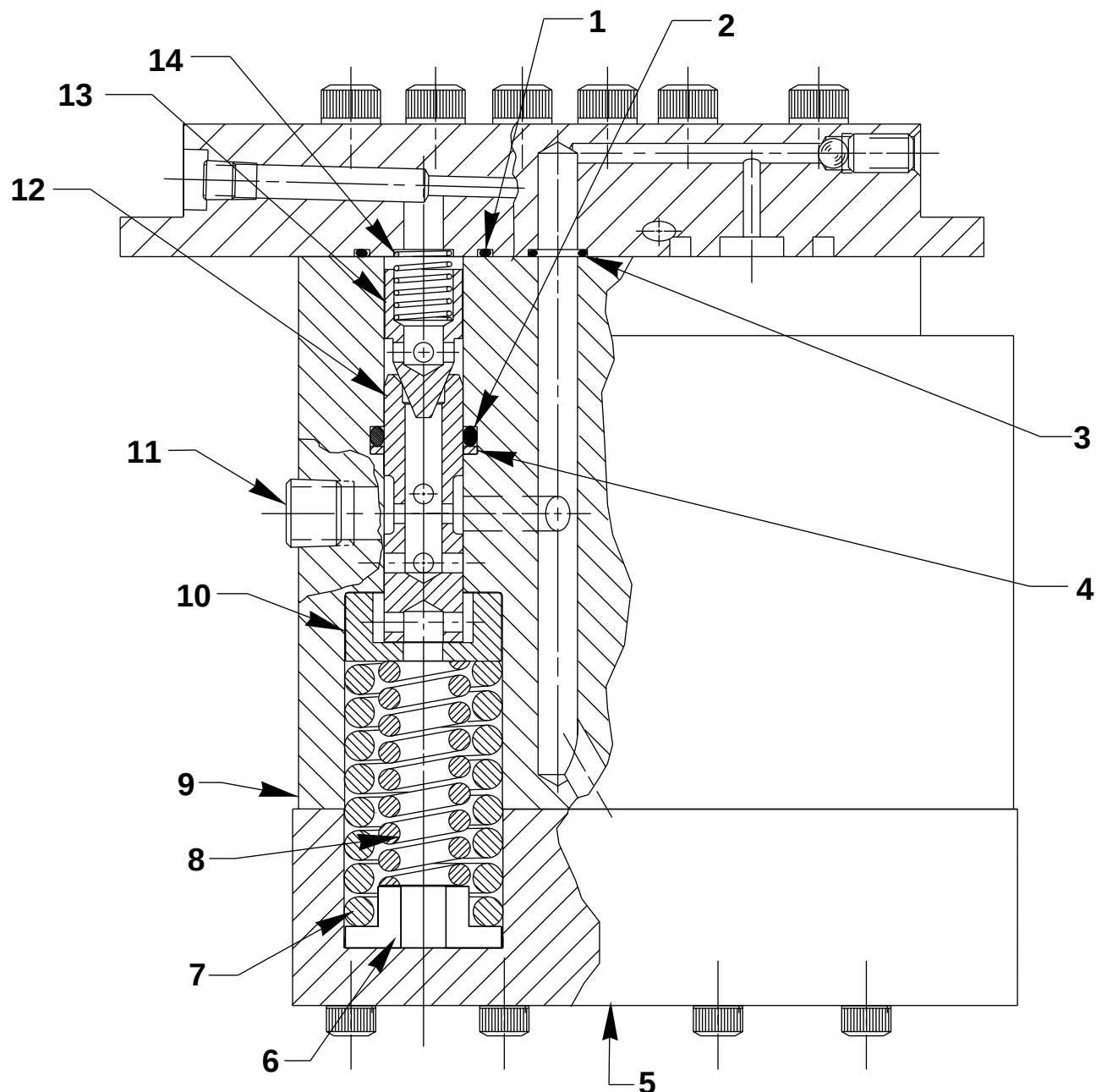
Item No.	Part No.	No. Req'd	Description
1	215907	1	Instruction Decal
2	21484	1	Spacer
3	11863	1	Backup Washer (1/2 X 3/8 X 1/16)
4	10268	1	O-ring (1/2 X 3/8 X 1/16)
5	20787	1	Valve Connector
6	421429	1	Pressure Regulator Assembly (See sheet 6 of 7)
7	65378WH2	1	Cover Plate
8	420587	1	Bladder
9	350995	1	Hose Clamp
10	351425	1	Bladder Adapter
11	10263	1	Copper Washer (1" X .765 X 1/32)

GENERAL PUMP - BOTTOM VIEW



Item No.	Part No.	No. Req'd	Description
1	252484	3	Hose
2	10430	2	Tube Sleeve
3	10431	2	Tube Nut Fitting
4	10008	4	Screw (1/4-20 UNC X 3/4 Lg.)
5	252493	1	Oil Line Tube
6	14844	1	Straight Fitting
7	208218	1	Straight Fitting

BASIC PUMP ASSEMBLY - VIEW 1



Item No.	Part No.	No. Req'd	Description
1	10303	1	O-ring (7/8 X 3/4 X 1/16)
2	10271	1	O-ring (11/16 X 1/2 X 3/32)
3	10266	1	O-ring (3/8 X 1/4 X 1/16)
4	12389	1	Backup Washer (11/16 x 1/2 X 1/16)
5	65417	1	End Plate
6	252637	1	Spacer
7	10426	1	Compression Spring (1" O.D. X 1-13/16 Lg.)

Item No.	Part No.	No. Req'd	Description
8	206001	1	Spring (37/64 O.D. X 1-1/2" Lg.)
9	65416	1	Pump Body
10	23255	1	Spring Guide
11	10427	1	Plug Fitting
12	20849	1	Spool
13	20771	1	Poppet
14	10425	1	Compression Spring (3/8 O.D. X 3/4 Lg.)

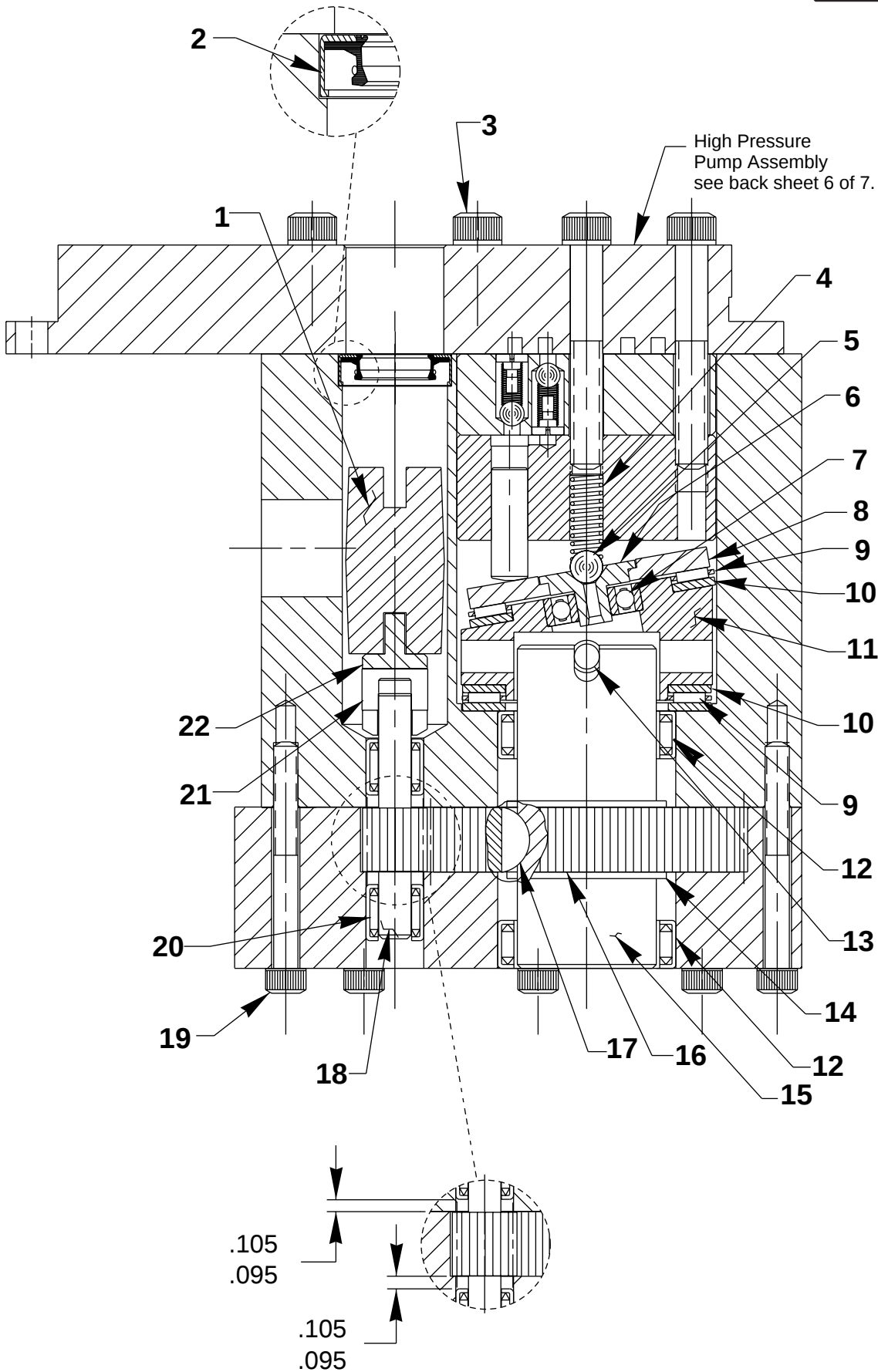
Note: Shaded areas reflect last revision(s) made to this form.

Sheet No. 5 of 7

Rev. 1 Date: 5 May 1997



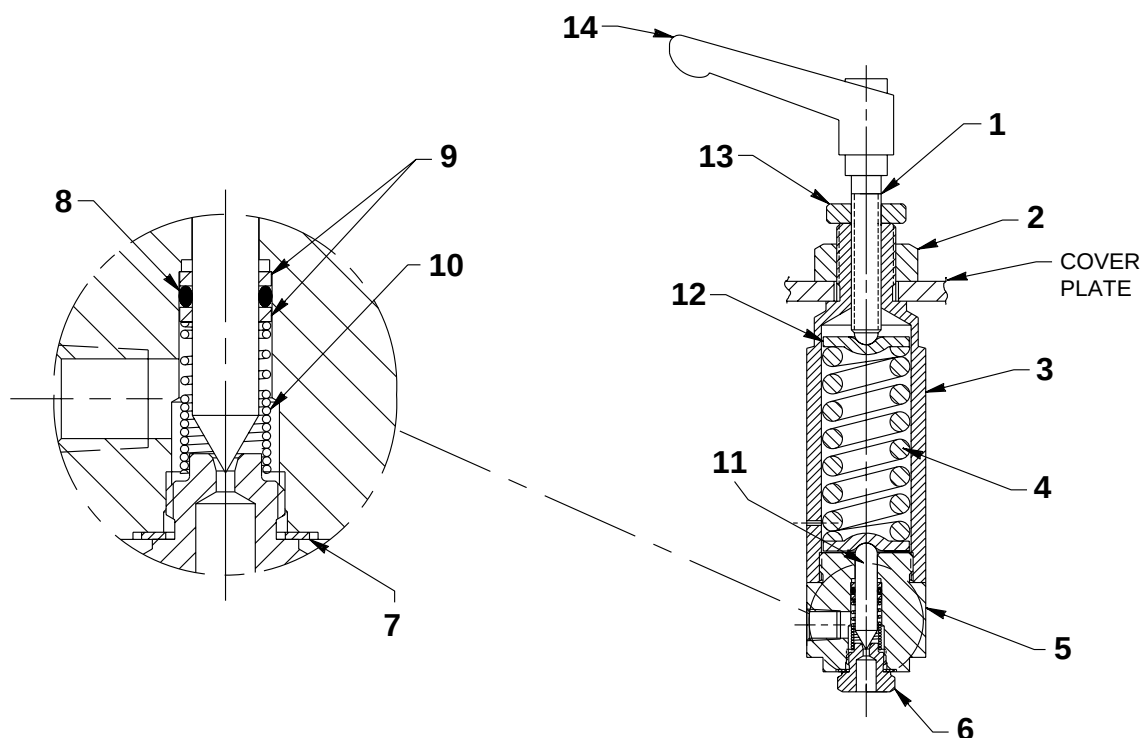
BASIC PUMP ASSEMBLY - VIEW 2



Item No.	Part No.	No. Req'd	Description	Item No.	Part No.	No. Req'd	Description
1	252108	1	Coupling	12	11064	2	Needle Bearing
2	252429	1	Oil Seal	13	11955	1	Slotted Spring Pin
3	10022	9	Screw (1/4-20 UNC X 1-1/2 Lg.; Torque to 170/180 in. lbs.)	14	11261	2	Retaining Ring
4	10361	1	Compression Spring (1/4 O.D. X 1" Lg.)	15	23556	1	Shaft
5	10375	1	Ball (1/4 Dia.)	16	23574	1	Drive Gear
6	23547	1	Bearing Top Plate	17	11821	1	Woodruff Key
7	11814	1	Ball Bearing	18	20774	1	Drive Gear
8	23548	1	Top Plate	19	10001	13	Screw (#10-32 UNF X 1-3/4 Lg.; Torque to 50/60 in. lbs.)
9	11228	2	Needle Bearing	20	11198	2	Needle Bearing
10	11227	3	Bearing Race	21	21093	1	Key
11	351004	1	Angle Plate	22	21092	1	Adapter



PRESSURE REGULATOR ASSEMBLY

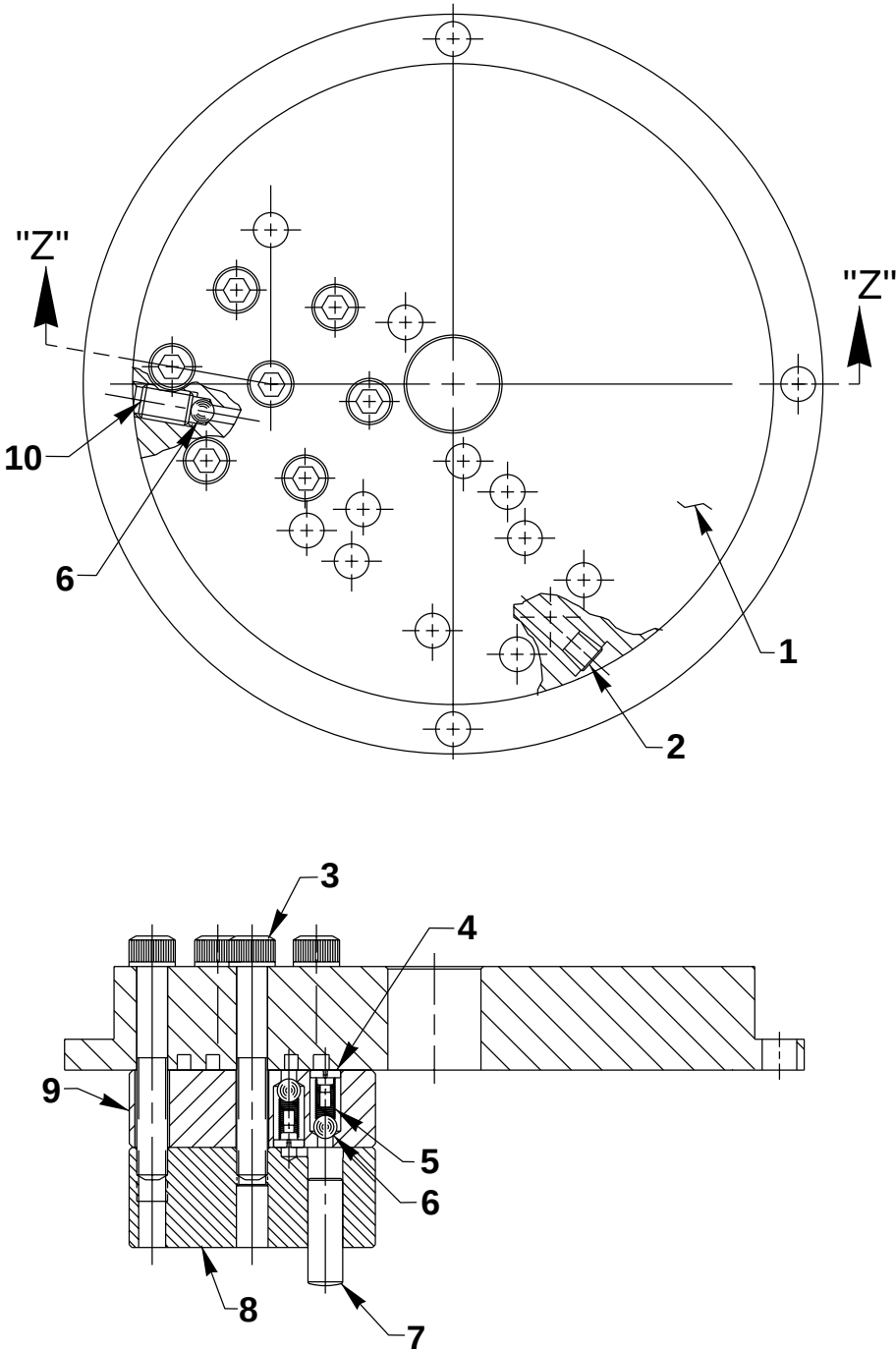


Item No.	Part No.	No. Req'd	Description	Item No.	Part No.	No. Req'd	Description
1	252427	1	Adjustment Stem (Note: Assemble to handle with Loctite 242 or equiv.)	8	10266	1	O-ring (3/8 X 1/4 X 1/16)
2	10396	1	Jam Nut	9	215430	2	Backup Washer (.385 x .282 x .050)
3	351350	1	Regulator Housing	10	215431	1	Spring (3/8 O.D. x 21/32 Lg.; Note: Assemble closed coils of spring form towards seat fitting [Item#6])
4	215429	1	Compression Spring (1.100 O.D. X 2-1/2 Lg.)	11	309079	1	Poppet
5	420891	1	Regulator Body	12	215428	2	Spring Retainer (Grease pocket before assembling [both ends])
6	351343	1	Seat Fitting (Torque to 440/460 in. lbs.)	13	215683	1	Regulator Locking Nut
7	14874	1	Copper Washer (.700 X 1/2 X 1/32)	14	252332	1	Adjustable Handle

Sheet No. 6 of 7

Rev. 1 Date: 5 May 1997

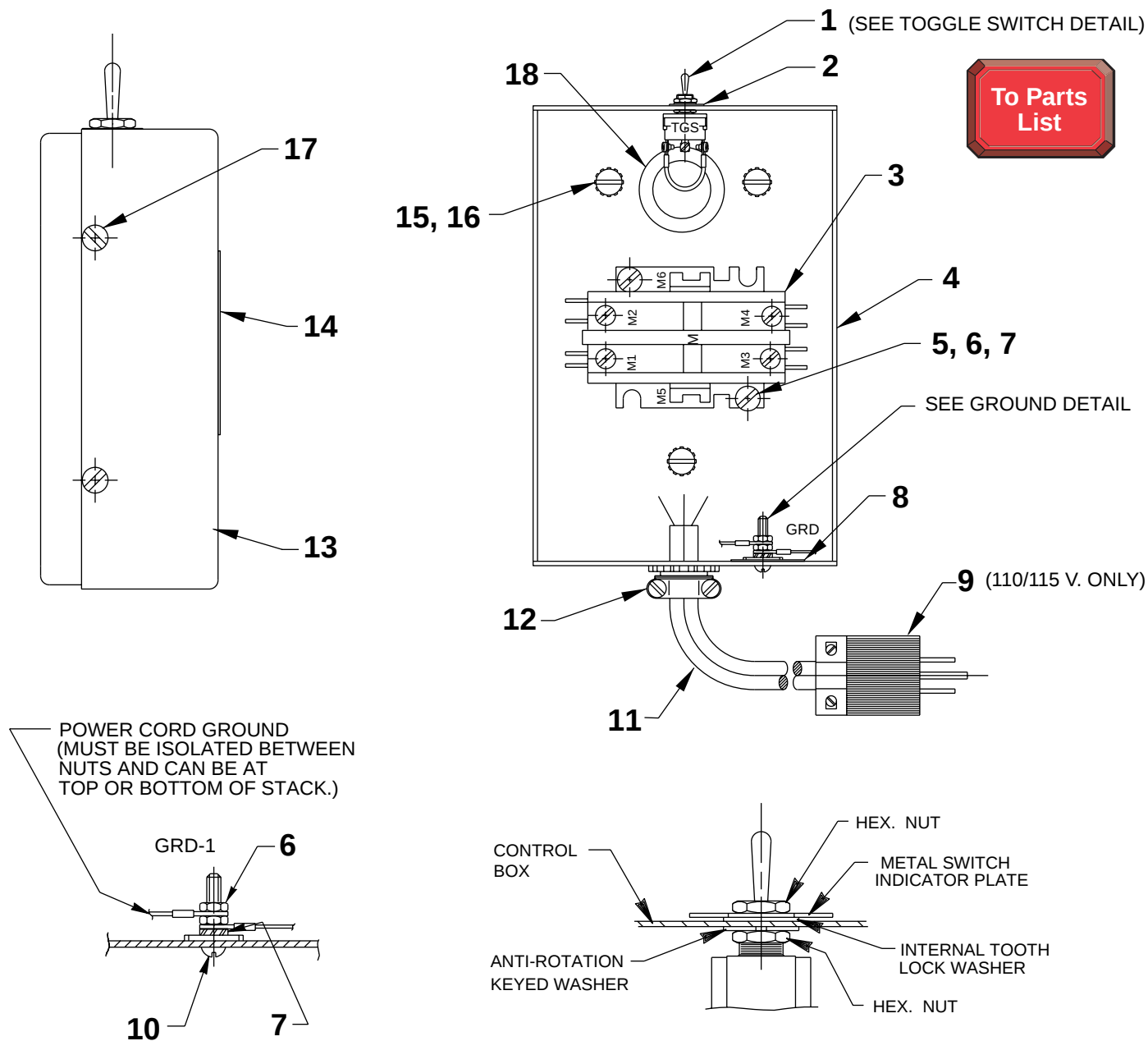
HIGH PRESSURE PUMP ASSEMBLY



Item No.	Part No.	No. Req'd	Description
1	65377	1	Top Plate
2	15130	1	Plug Fitting (Apply thread tape and torque to 130/150 in. lbs.)
3	252475	7	Soc. Hd. Cap Screw (1/4-28 UNF-2B x 1-3/4" Lg.; Torque to 170/180 in. lbs.)
4	24549	6	Ball Guide
5	10445	6	Compression Spring (5/32 O.D. X 3/4" Lg.)
6	12223	7	Steel Ball (3/16" Dia.)
7	21628	3	Piston
8	41062	1	Pump Barrel
9	421473	1	Valve Head
10	10519	1	Soc. Set Screw (1/4-20 UNC X 3/8 Lg.; Torque to 65/70 in. lbs.)

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

MOTOR CONTROL ASSEMBLY


 To Parts List
TOGGLE SWITCH DETAIL

NOTE: SERRATED LOCK WASHER MUST BE ADJACENT TO METAL BOX. MORE WASHERS CAN BE USED IF DESIRED.

GROUND DETAIL

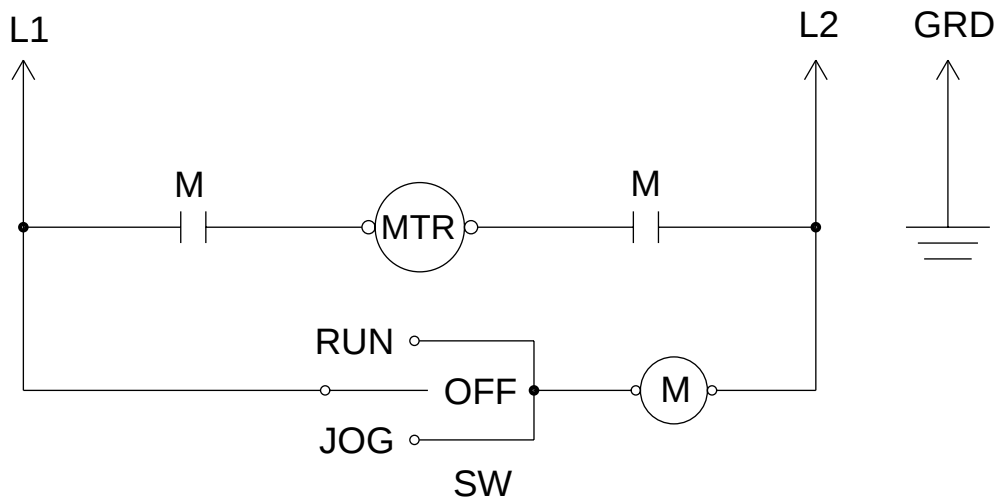
Item No.	Part No.	No. Req'd	Description
1	12175	1	Switch (On/Off/Momentary)
2	203912	1	Decal (On/Off/Jog)
3	420718-1	1	Contactor (110/115 V., 50/60 Hz.)
	420718-2	1	Contactor (220/230 V., 50/60 Hz.)
4	42575WH2	1	Electrical Control Box
5	12354	2	Screw (10-24 UNC X 5/8 Lg.)
6	10197	4	Hex Nut (#10-24 UNC)
7	11108	3	Washer (#10 External Tooth)
8	205189	1	Ground Decal
9	16896	1	Electrical Plug (110/115 V. only)
10	10167	1	Screw (#10-24 UNC X 3/4 Lg.)

Item No.	Part No.	No. Req'd	Description
11	307439	1 ft.	Electrical Cable (110/115 V., 50/60 Hz.)
	307852	1 ft.	Electrical Cable (220/230 V., 50/60 Hz.)
12	11203	1	Conduit Connector
13	42576WH2	1	Control Box Cover
14	200188	1	Warning Decal
15	10447	3	Screw (#8-32 UNC X 5/16 Lg.)
16	11388	3	Washer (#8 External Tooth)
17	11141	4	Screw (#6-20 X 3/8 Lg.)
18	15497	1	Rubber Grommet



ELECTRICAL SCHEMATIC

115 V., 60 Hz. Single Phase



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