



HYTORC®

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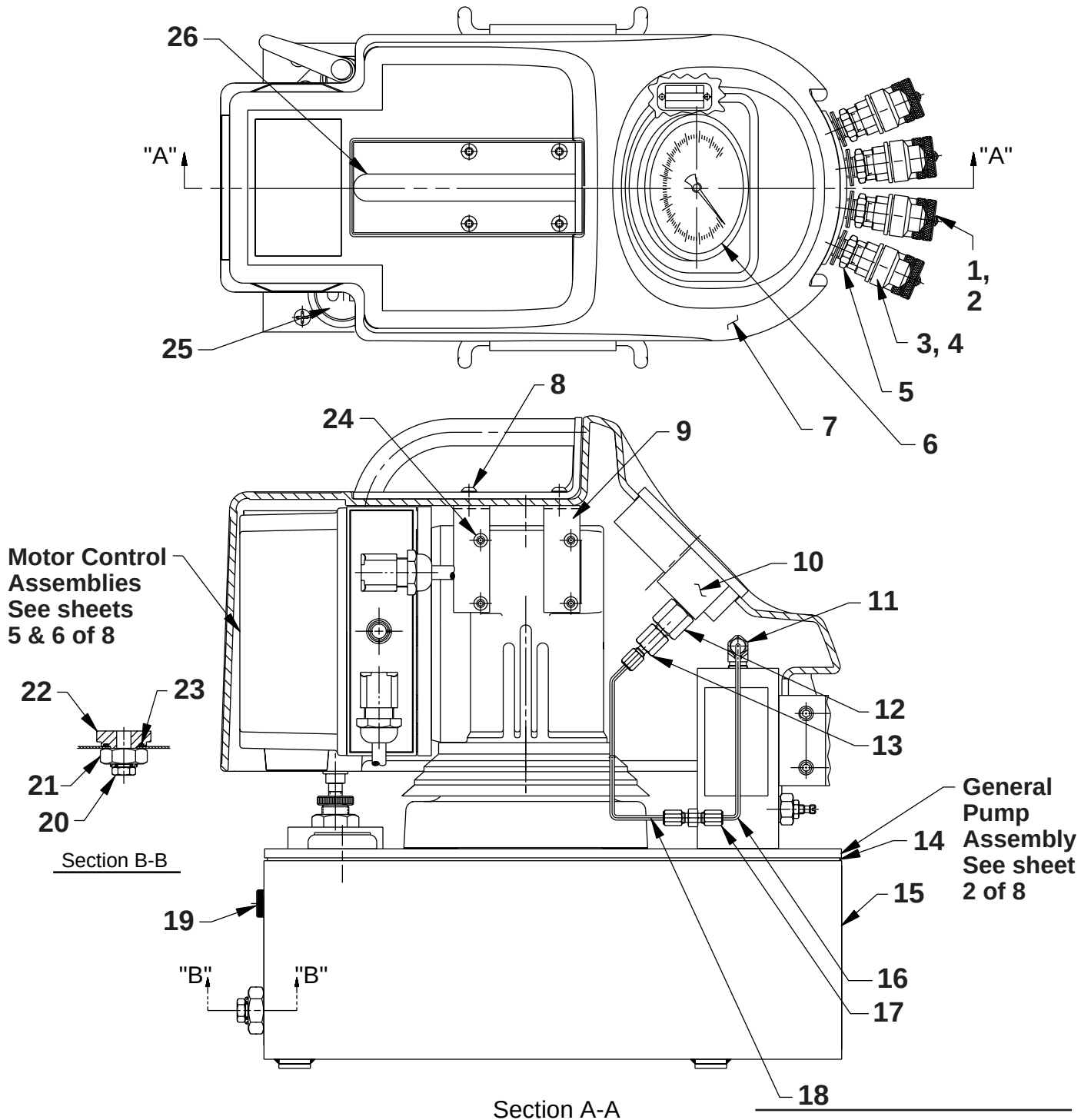
Parts List for:

Form No. 108153

HYTORCQAS-C115

HYTORCQAS-C230

**MODEL B
ELECTRIC HYDRAULIC PUMP**



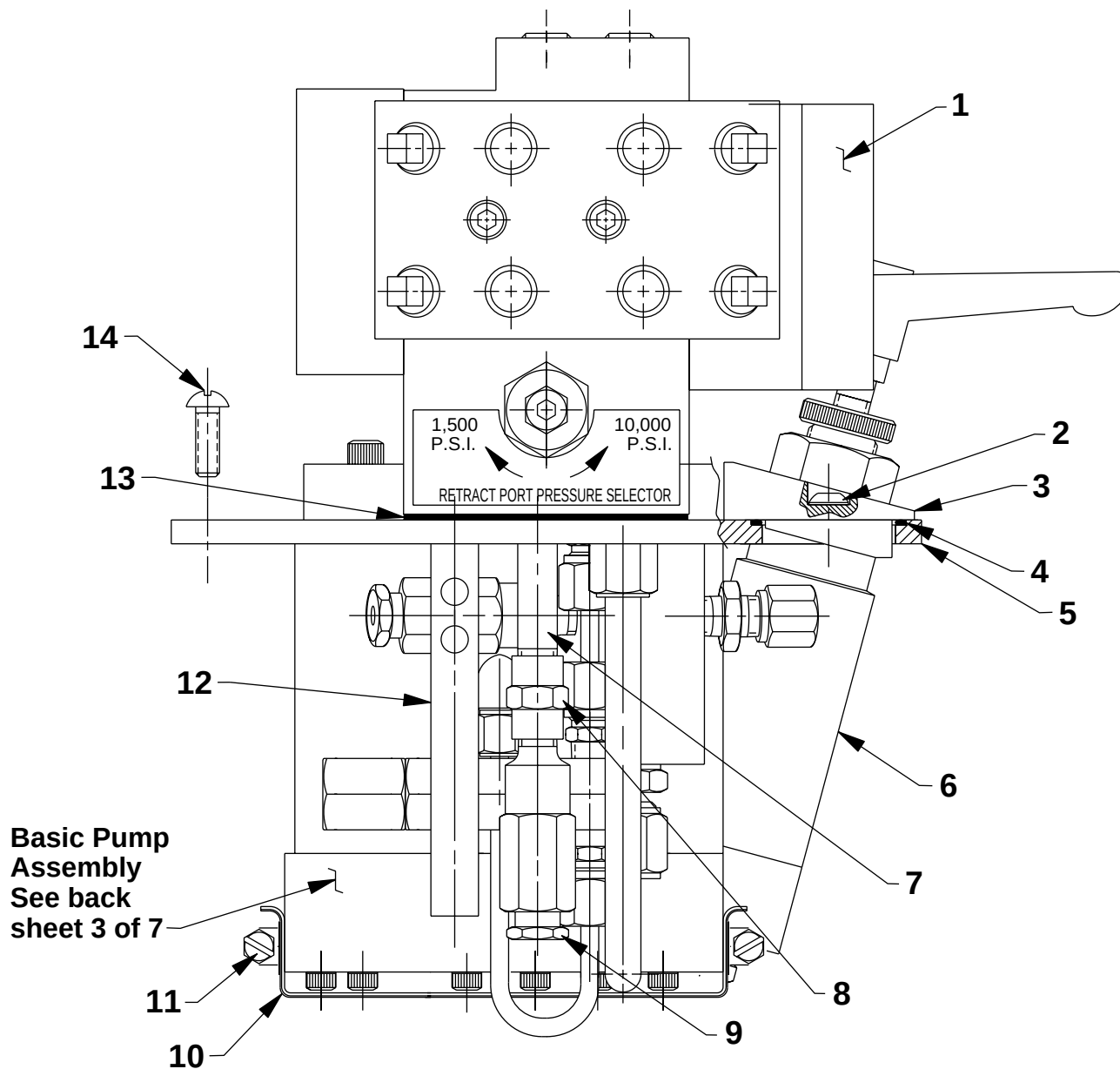
Sheet No. 1 of 8

Rev. Date: 28 Sept. 2000

Item No.	Part No.	No. Req'd	Description
1	251797	4	Quick Coupler
2	252068	4	Dust Plug
3	251798	4	Quick Plug Coupler
4	252069	4	Dust Cap
5	10672	4	Straight Fitting
6	253568	1	Pressure Gauge
7	66088	1	Shroud
8	253517	4	Button Hd. Screw (1/4-10 x 5/8)
9	421888	2	Bracket
10	351942	1	Gauge Mounting Bracket
11	253159	1	90° Elbow Fitting
12	15235	1	Straight Fitting
13	253474	1	Tube Fitting
14	*59300	1	Reservoir Gasket
15	66083GY8	1	Reservoir (2 gallon)
16	253564	1	Oil Line Tube
17	253473	1	Tube Fitting
18	253563	1	Oil Line Tube
19	17586	1	Sight Gauge
20	17147	1	Plug Fitting (7/16)
21	10396	1	Hex Jam Nut (3/4-16)
22	351000	1	Drain
23	14725	1	O-ring (1.12 x .93 Nitrile)
24	251486	8	Button Hd. Screw (10-24 x 1/2)
25	*350925	1	Filler Cap
26	59298GY8	1	Handle

Part numbers marked with an asterisk (*) are contained in
Maintenance Kit No. 090203.

GENERAL PUMP SIDE VIEW



Item No.	Part No.	No. Req'd	Description
1	421860	1	Valve Assembly (See Form No. 105549)
2	253517	2	Button Hd. Screw (1/4-20 x 5/8)
3	421886	1	Regulator Plate
4	14875	1	O-ring (1.62 x 1.50 Nitrile)
5	66084GY8	1	Cover Plate
6	421429	1	Pressure Regulator Assembly (See sheet 3 of 8)
7	15456	2	Straight Fitting

Item No.	Part No.	No. Req'd	Description
8	18841	1	Straight Fitting
9	*21278-15	1	Relief Valve Assembly (Set at 1,500/1,700 PSI)
10	†350304	1	Filter
11	†350995	1	Hose Clamp
12	250630	1	Drain Tube
13	351095	1	Valve Gasket
14	10177	18	Rnd. Hd. Screw (1/4-20 x 3/4)

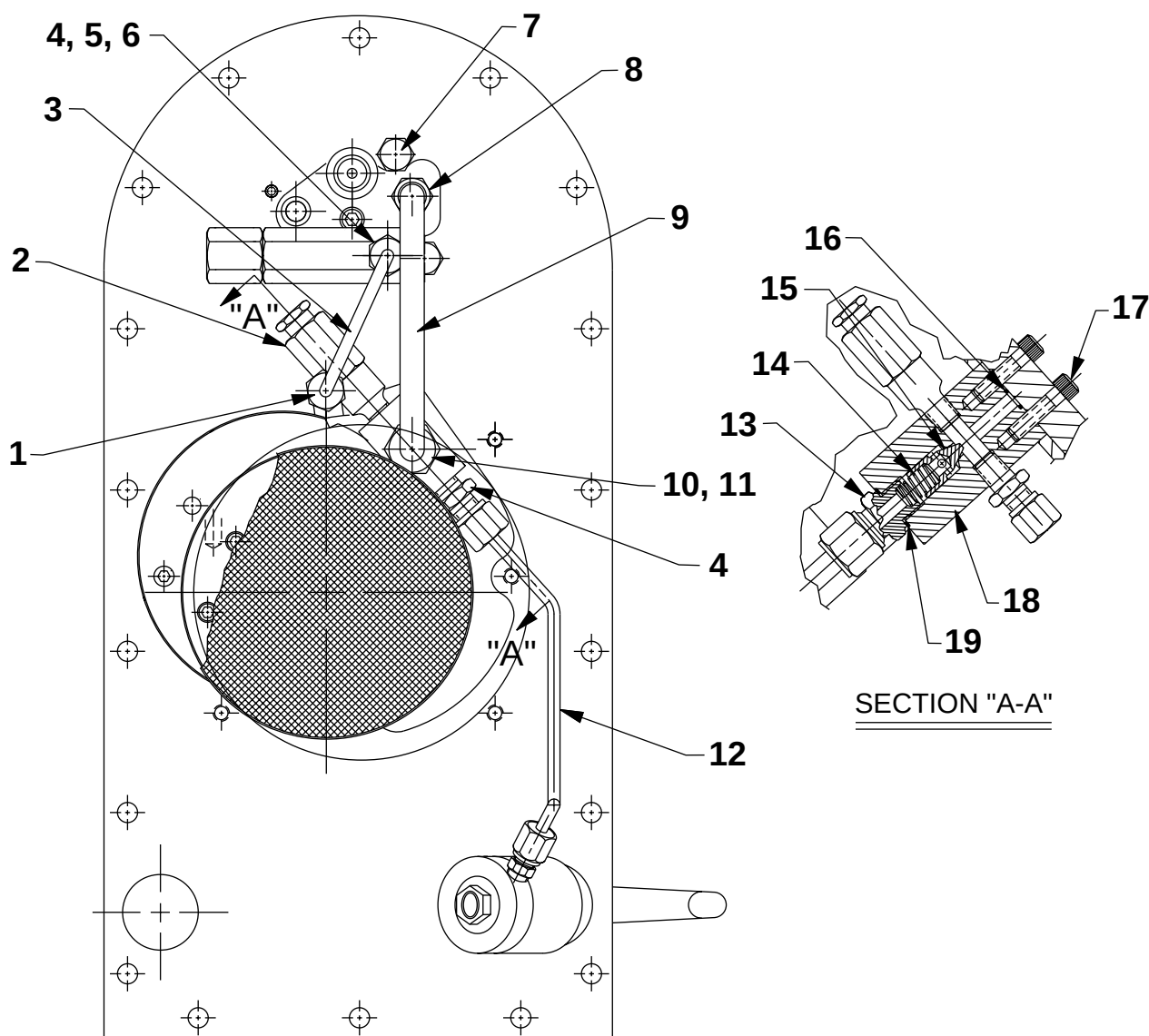
Part numbers marked with an asterisk (*) are contained in
Maintenance Kit No. 090203.

Part numbers marked with a dagger (†) are contained in
Replacement Basic Pump Assembly No. 501052.

Sheet No. 2 of 8

Rev. Date: 28 Sept. 2000

GENERAL PUMP BOTTOM VIEW & SECTION A-A



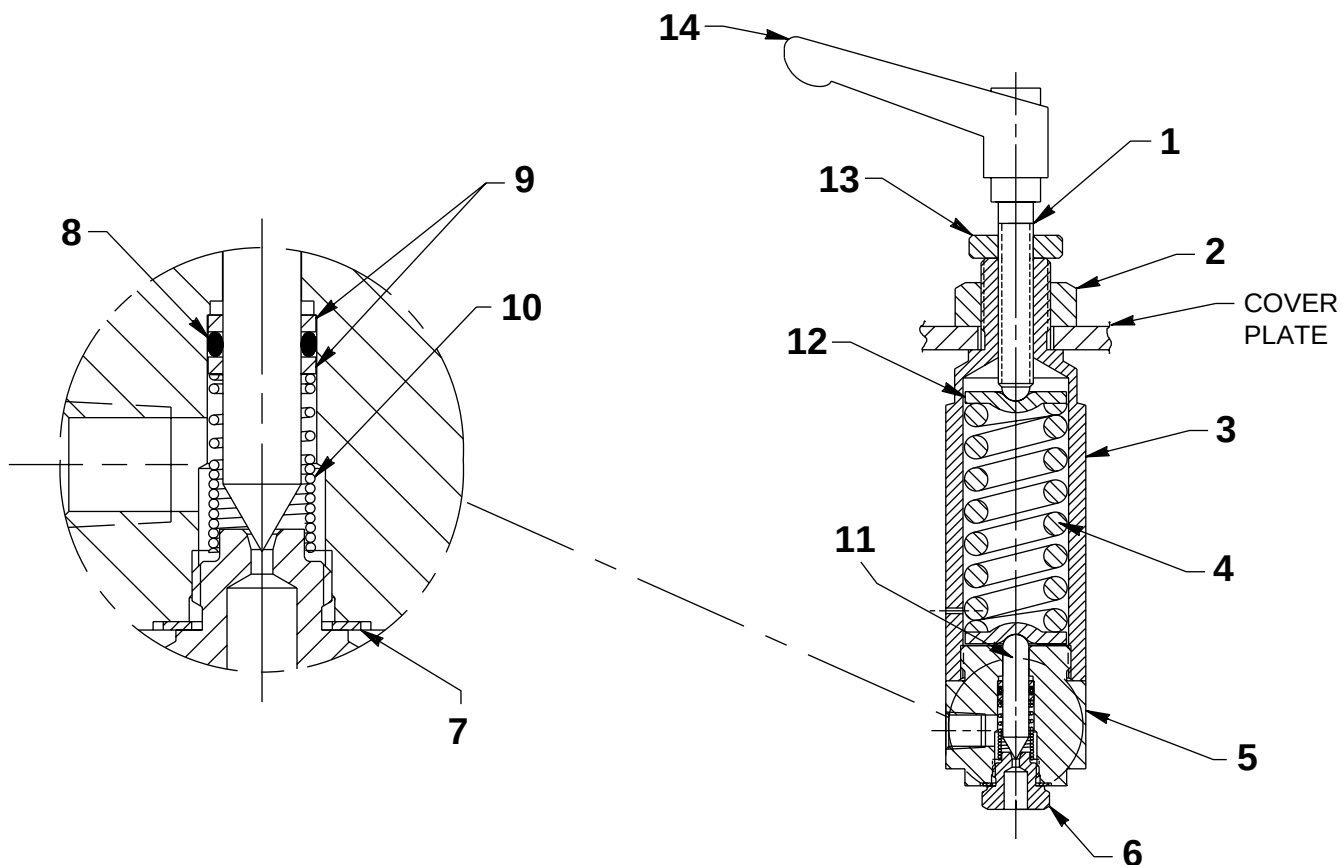
Item No.	Part No.	No. Req'd	Description
1	16177	2	90° Elbow Fitting
2	†* 21278	1	Relief Valve Assembly (Set at 10,100/10,700 PSI)
3	253562	1	Pressure Regulator Tube
4	14844	5	Straight Fitting
5	21943	1	Accumulator
6	360029	1	Oil Line Tube
7	12825	3	Cap Screw (1/4-20 x 5/8)
8	10661	1	Straight Fitting
9	253476	1	Oil Line Tube
10	10430	1	Tube Sleeve

Item No.	Part No.	No. Req'd	Description
11	10431	1	Tube Nut Fitting
12	253561	1	Pressure Regulator Tube
13	20770	1	Connector Fitting
14	10425	1	Spring (.37 OD x .75 x .03 WS)
15	20771	1	Poppet
16	10266	1	O-ring (.37 x .25 Nitrile)
17	10015	2	Soc. Hd. Screw (1/4-28 x 1; Torque to 160/170 in. lbs.)
18	20776	1	Valve Body
19	10261	1	Copper Washer (.75 x .60)

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#421429 PRESSURE REGULATOR ASSEMBLY

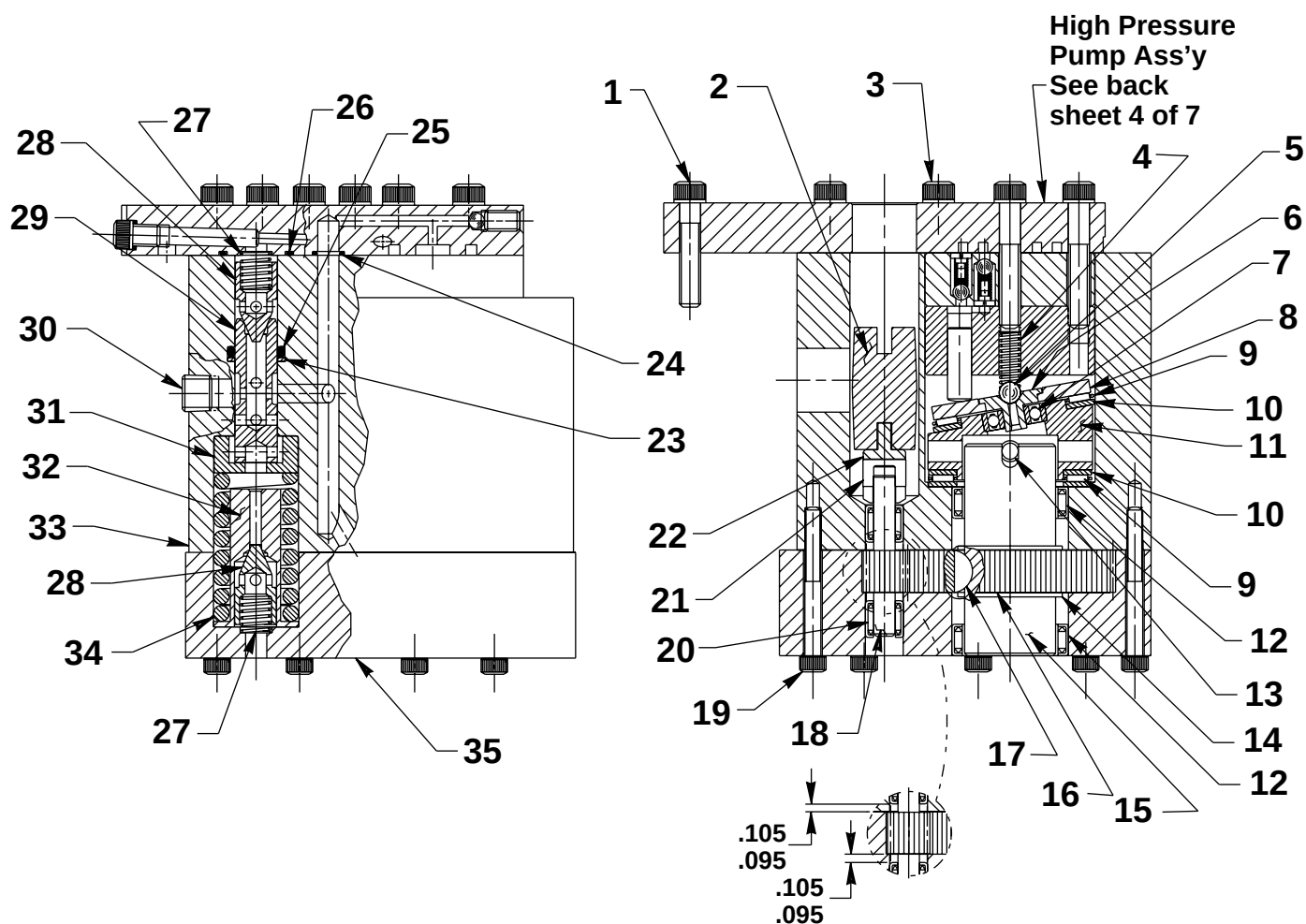


Item No.	Part No.	No. Req'd	Description
1	252427	1	Adjustment Stem (Note: Assemble to handle with Loctite 242 or equiv.)
2	10396	1	Jam Nut
3	351350	1	Regulator Housing
4	215429	1	Compression Spring (1.100 O.D. X 2-1/2 Lg.)
5	420891	1	Regulator Body
6	*351343	1	Seat Fitting (Torque to 440/460 in. lbs.)
7	*14874	1	Copper Washer (.700 X 1/2 X 1/32)

Item No.	Part No.	No. Req'd	Description
8	*10266	1	O-ring (3/8 X 1/4 X 1/16)
9	*215430	2	Backup Washer (.385 x .282 x .050)
10	215431	1	Spring (3/8 O.D. x 21/32 Lg.; Note: Assemble closed coils of spring form towards seat fitting [Item#6])
11	*309079	1	Poppet
12	215428	2	Spring Retainer (Grease pocket before assembling [both ends])
13	215683	1	Regulator Locking Nut
14	252332	1	Adjustable Handle

Part numbers marked with an asterisk (*) are contained in
Maintenance Kit No. 090203.

BASIC PUMP ASSEMBLY



Item No.	Part No.	No. Req'd	Description
1	10016	3	Soc. Hd. Screw (1/4-20 x 1)
2	†*21091	1	Coupling
3	†10020	9	Soc. Hd. Screw (1/4-20 x 1-1/4; Torque to 175 in. lbs.)
4	†10361	1	Spring (.25 OD x 1" x .03 WS)
5	†10375	1	Ball (1/4 dia. steel)
6	†23547	1	Bearing Top Plate
7	†11814	1	Ball Bearing
8	†23548	1	Top Plate
9	†11228	2	Needle Bearing
10	†11813	3	Bearing Race
11	†23549	1	Angle Plate
12	†11064	2	Needle Bearing
13	†11955	1	Spring Slotted Pin (.25 x 1.75)
14	†11261	2	Ext. Retaining Ring (1.05 x .050)
15	†23556	1	Shaft
16	†23574	1	Drive Gear
17	†11821	1	Woodruff Key

Item No.	Part No.	No. Req'd	Description
18	†20774	1	Connector Fitting (9/16 x 5/8)
19	†10001	13	Soc. Hd. Screw (10-32 x 1-3/4)
20	†11198	2	Needle Bearing
21	†21093	1	Key
22	†21092	1	Adapter
23	†12389	1	Backup Washer (.69 x .50)
24	†10266	1	O-ring (.37 x .25 Nitrile)
25	†10271	1	O-ring (.68 x .50 Nitrile)
26	†10303	1	O-ring (.87 x .75 Nitrile)
27	†10425	2	Spring (.37 OD x .75 x .03 WS)
28	†20771	2	Poppet
29	†20849	1	Spool
30	†10427	1	Plug Fitting (1/8 NPTF)
31	†23255	1	Spring Guide
32	†23256	1	Spring Guide
33	†40071	1	Pump Body
34	†10426	1	Spring (1" OD x 1.8 x .19 WS)
35	†65334	1	End Plate

Part numbers marked with an asterisk (*) are contained in Maintenance Kit No. 090203.

Part numbers marked with a dagger (†) are contained in Replacement Basic Pump Assembly No. 501052.

**See Diagram
on Reverse
Side for
Important
Ass'y.
Information**



33113 HIGH PRESSURE PUMP ASSEMBLY

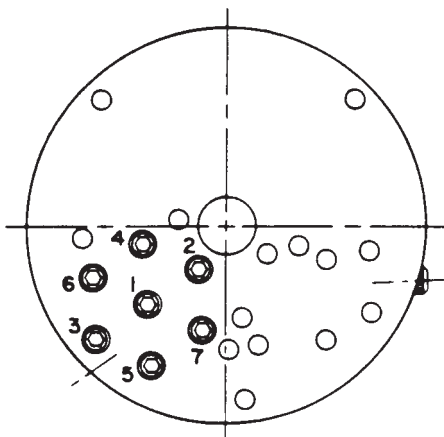
3 Pistons --- 9/32 Dia.

Item No.	Part No.	No. Req'd	Description
1	†10442	1	Copper Washer
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 (3/16 dia.)
6	†*10023	7	Soc. Hd. Cap Screw (1/4-28 UNF X 1-1/2" Lg.; Torque to 170/180 in. lbs.)
7	†*50411	1	Top Plate
8	†10519	1	Soc. Set Screw (Torque to 65/70 in. lbs.)
9	†*40630	1	Valve Head
10	†*41062	1	Pump Barrel
11	†*21628	3	Piston

Consult factory when replacing items marked with an asterisk (*).

Part numbers marked with a dagger (†) are contained in Replacement Basic Pump Assembly No. 501052.

BOLT TIGHTENING SEQUENCE



Note: Assemble in sequence shown.
Lubricate under head and on threads.
Torque to 170/180 in. lbs.

Torque nut to 5 in. lbs. max.

Torque spool to 144 in. lbs. max.

VIEW A-A

DECAL LOCATION BOX COVER

NOTE: PERMISSIBLE TO ENLARGE MOUNTING HOLE

30, 31, 32 SEE DETAIL "A"

26, 27, 28 (MTR-GRD)

29, 5

34

33

DETAIL "A"

TB3 (LOCATED IN MOTOR)

MARK NUMBERS ON TERMINAL BLOCK AS SHOWN. (HAND LETTERED PERMISSIBLE)

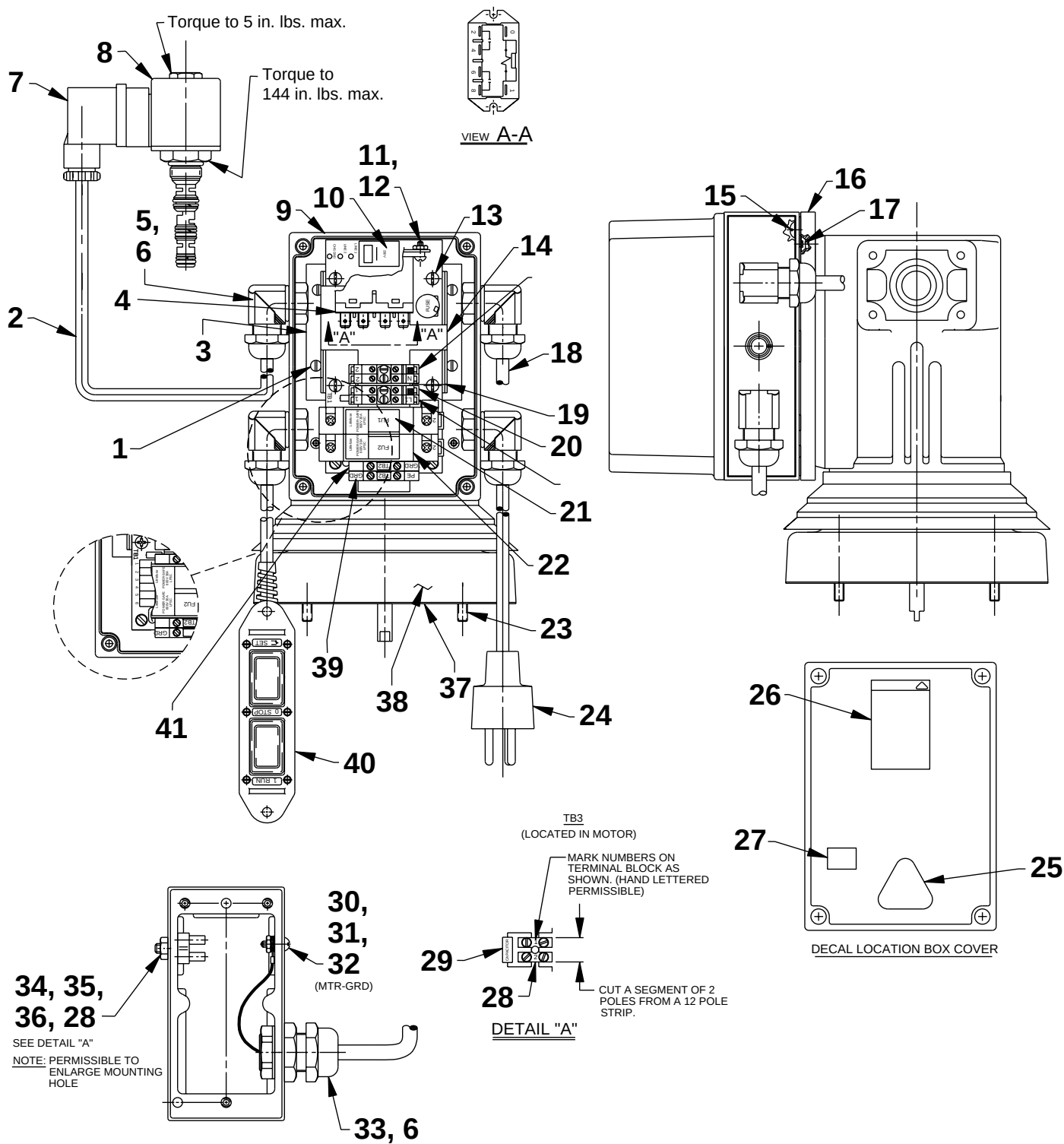
CUT A SEGMENT OF 2 POLES FROM A 12 POLE STRIP.

Parts List, Form No. 108153, Back sheet 5 of 8

Item No.	Part No.	No. Req'd	Description
1	252253	4	Pan Hd. Screw (8-32 x 3/8)
2	351588	1	Mounting Plate
3	360001	1	Relay (120 volt)
4	260068	3	Strain Relief Bushing
5	216680	4	Conduit Locknut
6	253592	2'	Electrical Cable
7	253405	1	Connector
8	351843	1	Solenoid Valve (4 way 3000 PSI)
9	59036	1	Control Box
10	421477	1	Circuit Board (NOTE: Set input voltage selector switch to 115 v. position.)
11	10447	2	Rnd. Hd. Screw (8-32 x 5/16)
12	10196	2	Hex Nut (8-32)
13	260071	4	Rnd. Hd. Screw (8-32 x 3/4)
14	12409	4	Rnd. Hd. Screw (8-32 x 5/8)
15	421857	1	Mounting Bracket
16	253140	3	Flat Hd. Screw (10-24 x 5/8)
17	251879	22"	Cable (1.5 MM/3 HAR)
18	421608WH2	1	Mounting Bracket
19	251842	1	End Barrier
20	251840	4	Terminal Block
21	351668	1	Fuse Holder
22	253135	2	Fuse (30 AMP 600V)
23	251898	1	CE Electrical Warning Decal
24	251762	1	Warning Decal
25	350988	1	CE Decal
26	12354	1	Rnd. Hd. Screw (10-24 x 5/8)
27	11108	2	External Tooth Washer (.40 x .20)
28	10197	1	Hex Nut (10-24)
29	216666	1	Strain Relief Bushing
30	16099	1	Rnd. Hd. Screw (6-32 x 3/4)
31	15906	1	External Tooth Washer (.31 x .15)
32	10195	1	Hex Nut (6-32)
33	351130	.17	Terminal Block
34	252195	1	Capacitor
35	10022	4	Soc. Hd. Screw (1/4-20 x 1-1/2)
36	*30650	1	Motor Base Gasket
37	65249GY8	1	Basic Motor (110/115 V. 50/60 Hz.; See back sheet 7 of 8)
38	251852	7	Marker Card
39	351160	1	Hand Control Assembly (See sheet 7 of 8)
40	251841	2	Grounding Terminal Block
41	253593	1	Strain Relief Bushing
42	253627	1	Conduit Locknut
43	252241	8'	Cable (4.0 MM/3 HAR)
44	351300	1	Connector Plug

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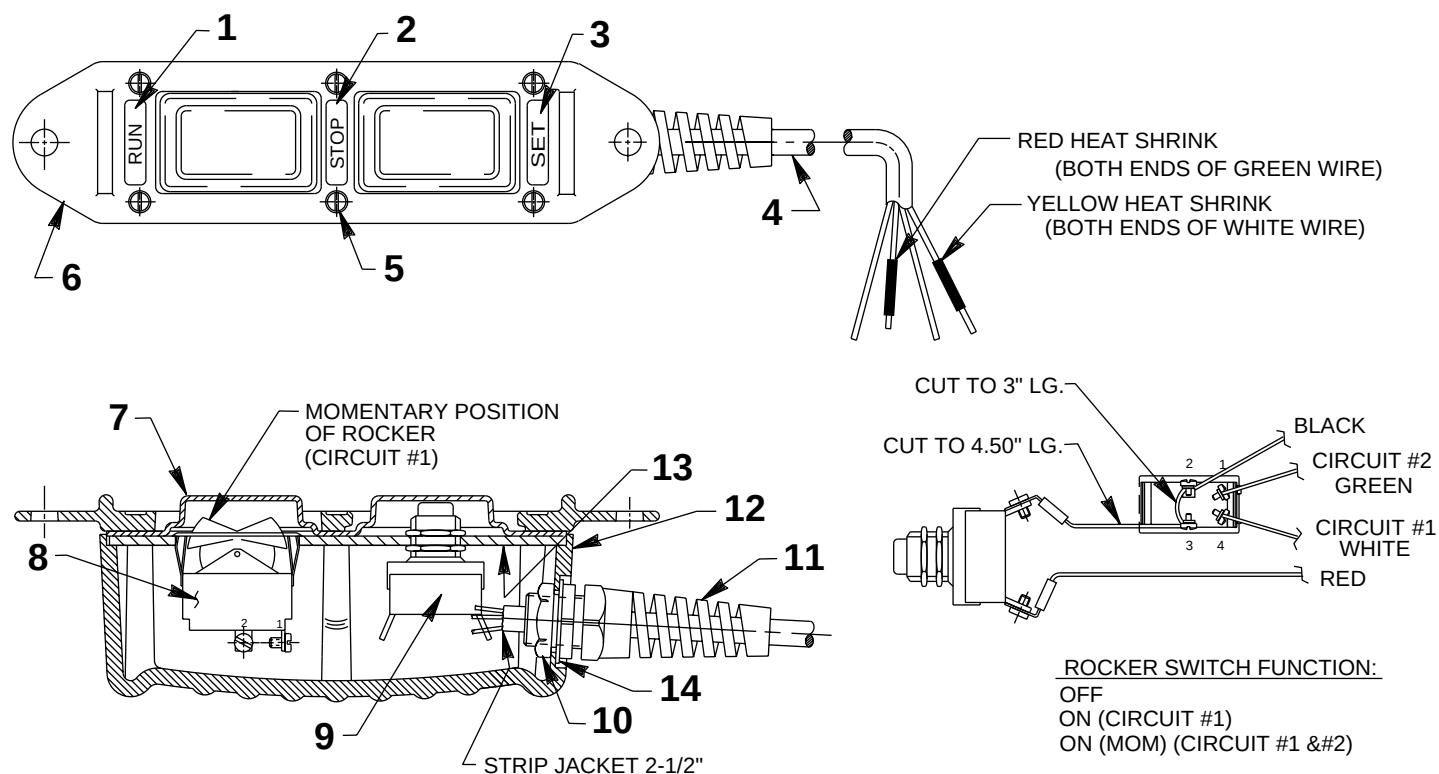
MOTOR AND CONTROL ASSEMBLY FOR HYTORCQAS-C230



Parts List, Form No. 108153, Back sheet 6 of 8

Item No.	Part No.	No. Req'd	Description
1	252253	4	Pan Hd. Screw (8-32 x 3/8)
2	253592	2'	Electrical Cable
3	351588	1	Mounting Plate
4	421663	1	Relay (240 volt)
5	260068	4	Strain Relief Bushing
6	216680	4	Conduit Locknut
7	253405	1	Connector
8	351844	1	Solenoid Valve (4 way 3000 PSI)
9	59036	1	Control Box
10	421477	1	Circuit Board (NOTE: Set input voltage selector switch to 230 v. position.)
11	10447	2	Rnd. Hd. Screw (8-32 x 5/16)
12	10196	2	Hex Nut (8-32)
13	260071	4	Rnd. Hd. Screw (8-32 x 3/4)
14	421608WH2	1	Mounting Bracket
15	12409	4	Rnd. Hd. Screw (8-32 x 5/8)
16	421857	1	Mounting Bracket
17	253140	3	Flat Hd. Screw (10-24 x 5/8)
18	251879	22"	Cable (1.5 MM/3 HAR)
19	251842	1	End Barrier
20	251840	4	Terminal Block
21	253112	2	Fuse (15 AMP 600V)
22	351668	1	Fuse Holder
23	10022	4	Soc. Hd. Screw (1/4-20 x 1-1/2)
24	251839	1	Cord (8' lg. 250VAC 1.5MM/3 HAR)
25	251898	1	CE Electrical Warning Decal
26	251762	1	Warning Decal
27	350988	1	CE Decal
28	351130	.17	Terminal Block
29	252195	1	Capacitor
30	12354	1	Rnd. Hd. Screw (10-24 x 5/8)
31	11108	2	External Tooth Washer (.40 x .20)
32	10197	1	Hex Nut (10-24)
33	216666	1	Strain Relief Bushing
34	16099	1	Rnd. Hd. Screw (6-32 x 3/4)
35	15906	1	External Tooth Washer (.31 x .15)
36	10195	1	Hex Nut (6-32)
37	*30650	1	Motor Base Gasket
38	65065GY8	1	Basic Motor (220/230 V. 50/60 Hz.; See back sheet 7 of 8)
39	251852	7	Marker Card
40	351160	1	Hand Control Assembly (See sheet 7 of 8)
41	251841	2	Grounding Terminal Block

Part numbers marked with an asterisk (*) are contained in Maintenance Kit No. 090203.

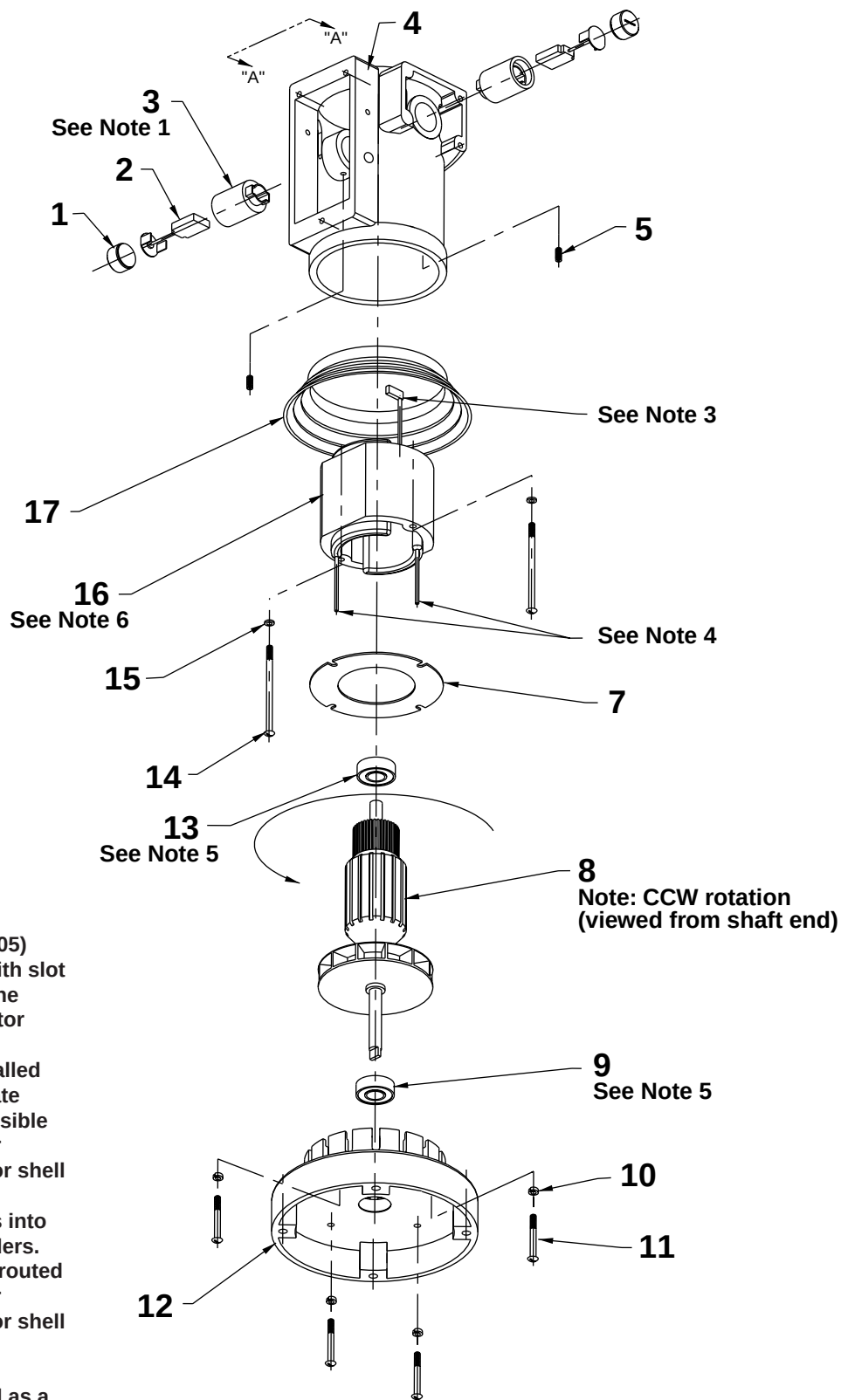
#351160 REMOTE HAND SWITCH ASSEMBLY

Item No.	Part No.	No. Req'd	Description
1	203770	1	Decal (Run)
2	203769	1	Decal (Stop)
3	252431	1	Decal (Set)
4	11391	21'	Cable (18/4 SJTO)
5	250248	6	Screw (4-24 X 3/4 Lg.)
6	251044	1	Plastic Cover
7	*420050-2	1	Gasket

Item No.	Part No.	No. Req'd	Description
8	420017	1	Rocker Switch
9	253197	1	Push Button Switch
10	251802	1	Locknut
11	251818	1	Strain Relief Bushing
12	420050-4	1	Switch Housing
13	420050-5	1	Switch Mounting Plate
14	253607	1	Gasket

Part numbers marked with an asterisk (*) are contained in
Maintenance Kit No. 090203.

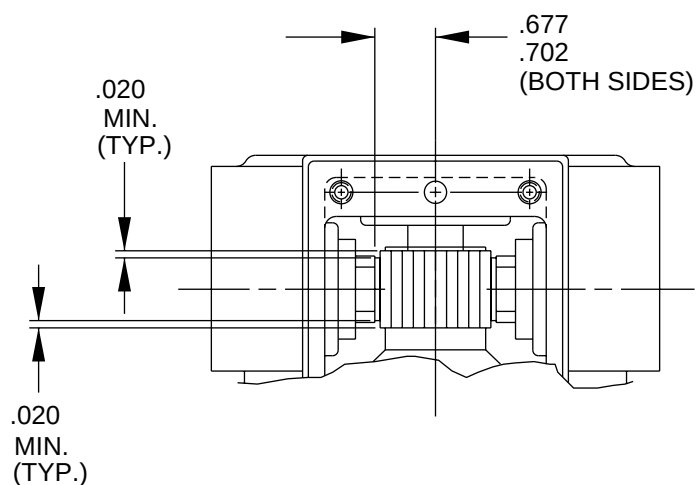
ELECTRIC MOTOR ASSEMBLY



Item No.	Part No.	No. Req'd	Description
1	10806	2	Brush Holder Cap
2	*10804	2	Brush
3	10805	2	Brush Holder
4	65064	1	Motor Shell
5	10133	2	Set Screw (#10-24 UNC X 1/4 Lg.)
7	20786	1	Baffle Plate
8	10800	1	Armature (115 volt)
	58841A	1	Armature (230 volt)
9	10438	1	Ball Bearing
10	10241	4	Lockwasher (For #10 bolt)
11	10169	4	Screw (#10-24 UNC X 2" Lg.; Torque to 20/25 in. lbs.)
12	40059GY8	1	Motor Base
13	10439	1	Ball Bearing
14	10170	2	Screw (#10-24 UNC X 3-1/4 Lg.)
15	12356	2	Washer (#10 Internal Tooth)
16	10802	1	Field (115 volt)
	58841F	1	Field (230 volt)
17	421204	1	Plastic Cover

Part numbers marked with an asterisk (*) are contained in Maintenance Kit No. 090203.

BRUSH HOLDER & ARMATURE INSTALLATION SPECIFICATION



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

**RECOMMENDED MINIMUM WIRE SIZE-AWG (mm²)
OF EXTENSION CORDS FOR
POWER TEAM ELECTRIC PUMPS**

Current At Full Load (Amps)	Cord Size AWG (mm ²) 3.2 Volt Drop			
	Length of Cord			
	0-25 feet (0-8 m)	25-50 feet (8-15 m)	50-100 feet (15-30 m)	100-150 feet (30-45 m)
6	18 (.82)	16 (1.33)	14 (2.09)	12 (3.32)
8	18 (.82)	16 (1.33)	12 (3.32)	10 (5.37)
10	18 (.82)	14 (2.09)	12 (3.32)	10 (5.37)
12	16 (1.33)	14 (2.09)	10 (5.37)	8 (8.37)
14	16 (1.33)	12 (3.32)	10 (5.37)	8 (8.37)
16	16 (1.33)	12 (3.32)	10 (5.37)	8 (8.37)
18	14 (2.09)	12 (3.32)	8 (8.37)	8 (8.37)
20	14 (2.09)	12 (3.32)	8 (8.37)	6 (13.30)
22	14 (2.09)	10 (5.37)	8 (8.37)	6 (13.30)
24	14 (2.09)	10 (5.37)	8 (8.37)	6 (13.30)
26	12 (3.32)	10 (5.37)	8. (8.37)	6 (13.30)
28	12 (3.32)	10 (5.37)	6 (13.30)	4 (21.29)
30	12 (3.32)	10 (5.37)	6 (13.30)	4 (21.29)