



HYTORC®

DIVISION UNEX CORPORATION

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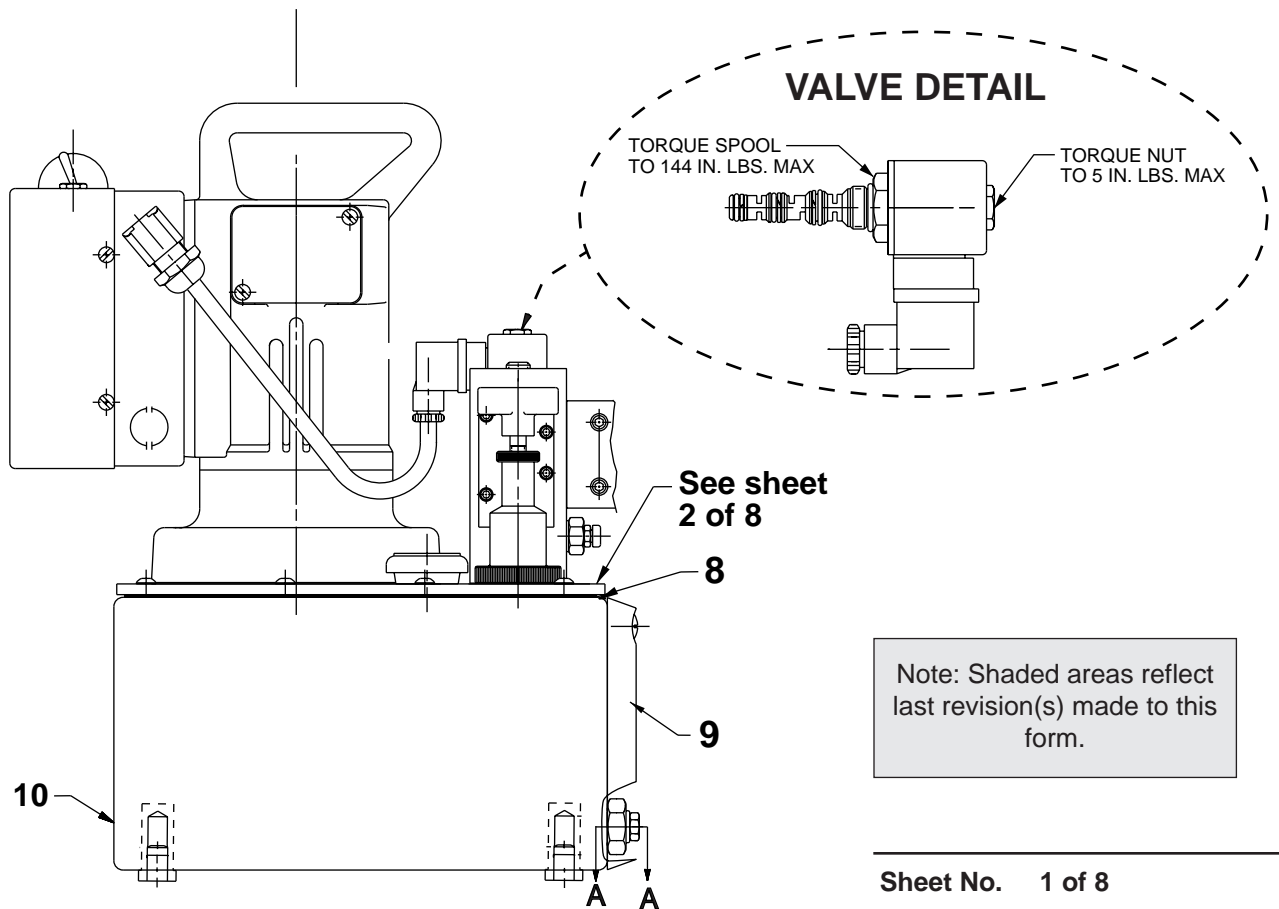
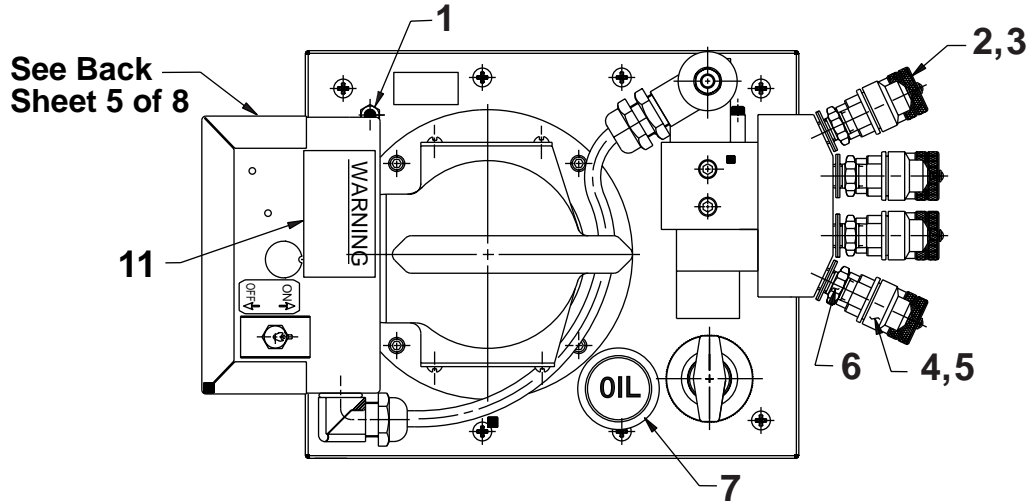
Fax: (201) 512-9615

Form No. 105548

Parts List for:

HYTORC-115
HYTORC-230
HYTORC-230-2

MODEL D
ELECTRIC HYDRAULIC PUMP
Maximum Capacity: 10,000 PSI



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

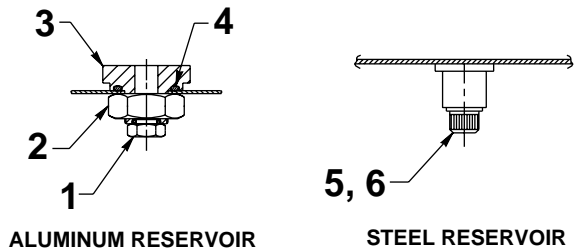
Sheet No. 1 of 8

Rev. 13 Date: 12 Feb. 2001

| Item No. | Part No. | No. Req'd | Description |
|----------|----------|-----------|---|
| 1 | 251599 | 1 | Breather Filter Vent |
| 2 | 251797 | 4 | Coupler |
| 3 | 252068 | 4 | Dust Cap |
| 4 | 251798 | 4 | Coupler |
| 5 | 252069 | 4 | Dust Cap |
| 6 | 251799 | 4 | Fitting |
| 7 | *350925 | 1 | Filler Cap |
| 8 | *40164 | 1 | Gasket |
| 9 | 350431 | 1 | Sight Gauge |
| 10 | 65599BK2 | 1 | Reservoir (For HYTORC-115) |
| | 64364BK2 | 1 | Reservoir (2 gal. steel; For HYTORC-230 & HYTORC-230-2) |
| 11 | 250447 | 1 | Warning Decal |

Part numbers marked with an asterisk are contained in Maintenance Kit No. 090200.

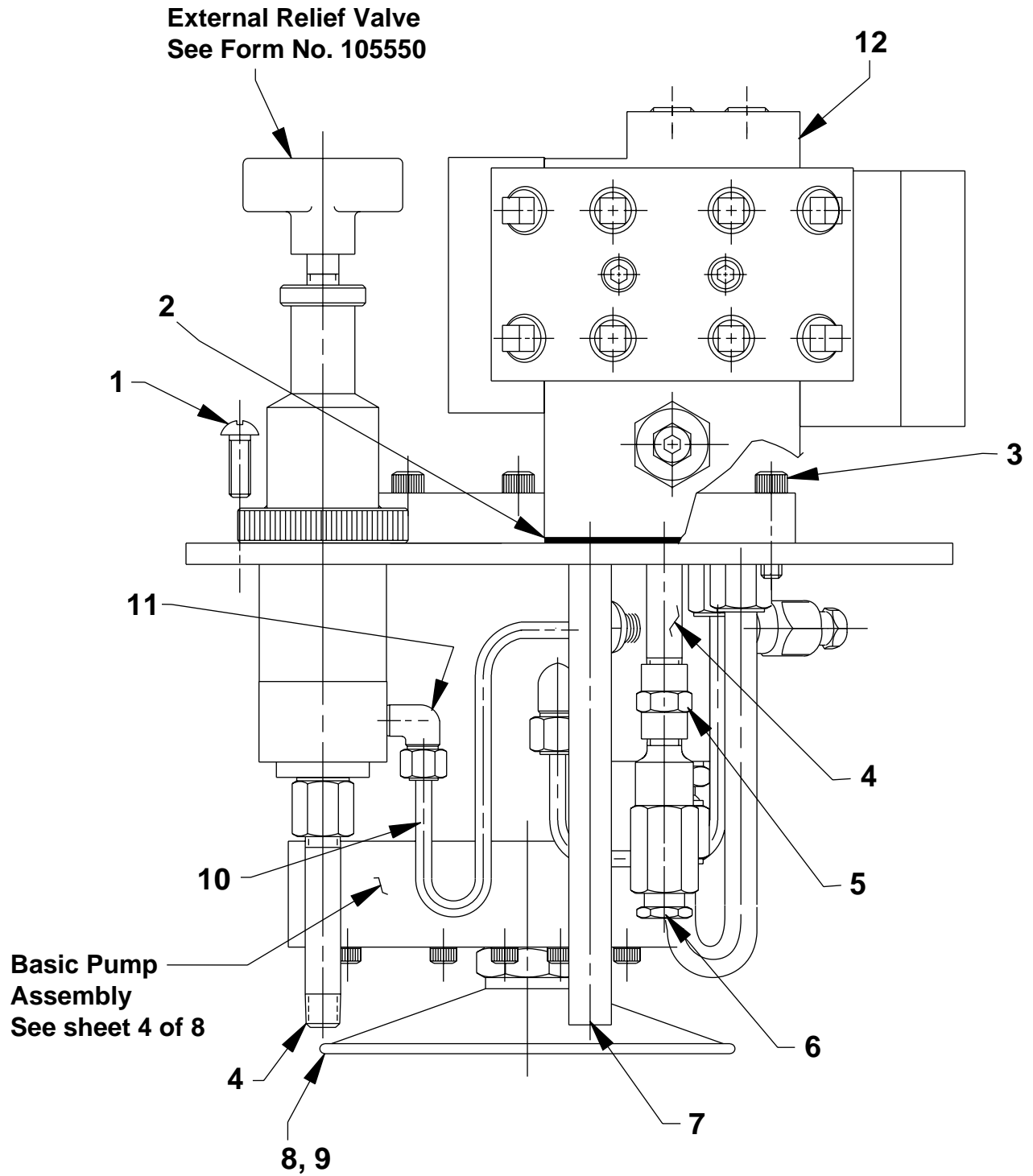
SECTION A-A



| Item No. | Part No. | No. Req'd | Description |
|----------|----------|-----------|----------------------------------|
| 1 | 17147 | 1 | Plug Fitting |
| 2 | 10396 | 1 | Hex Jam Nut (3/4-16 UNF) |
| 3 | 351000 | 1 | Drain |
| 4 | 14725 | 1 | O-ring (1-1/8 x 15/16 x 3/32) |
| 5 | 10412 | 1 | Cap Screw (3/8-16 UNC x 1/2 Lg.) |
| 6 | 19779 | 1 | Washer |

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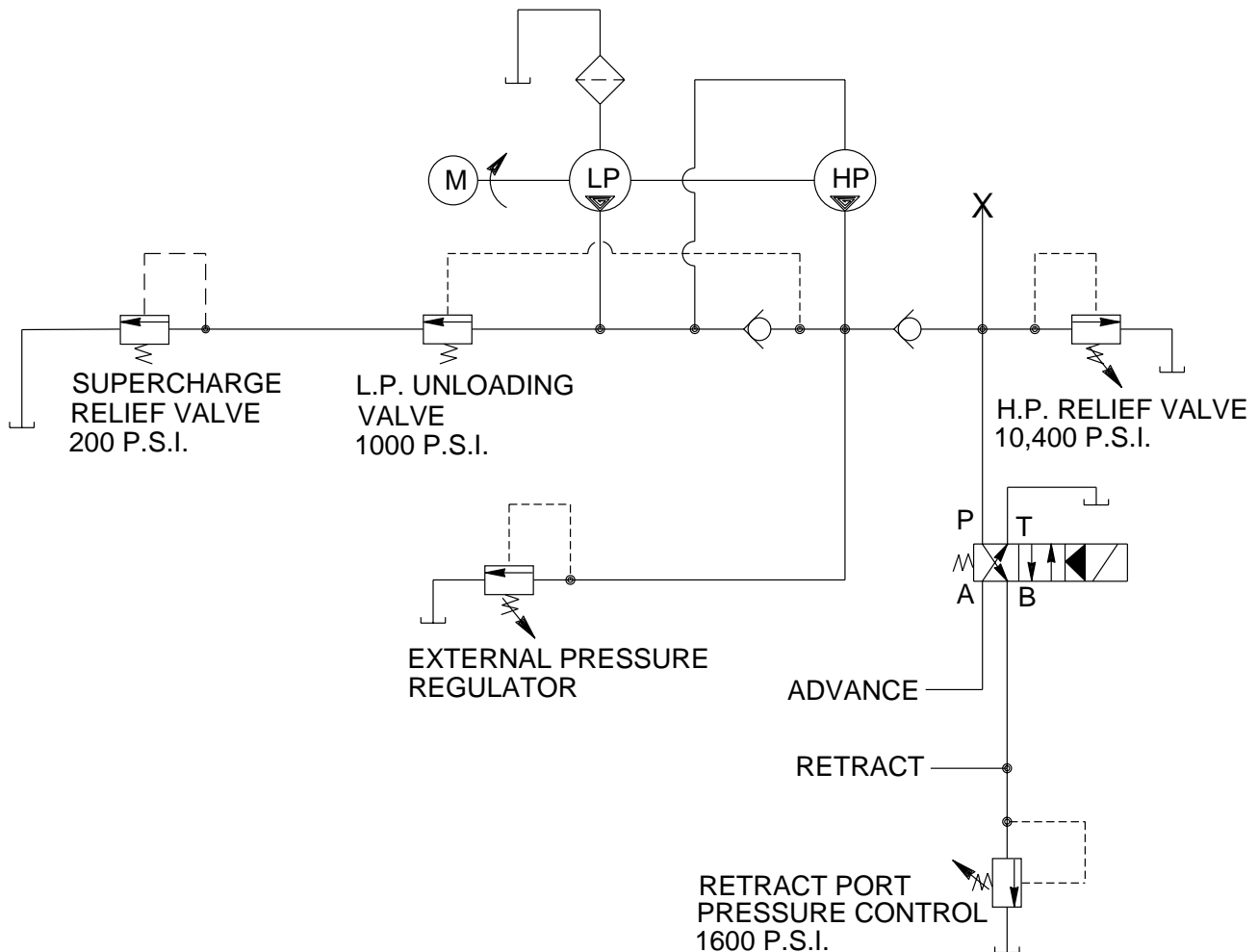
BASIC PUMP ASSEMBLY SIDE VIEW



| Item No. | Part No. | No. Req'd | Description |
|----------|-----------|-----------|---|
| 1 | 10177 | 10 | Machine Screw (1/4-20 UNC X 3/4 Lg.) |
| 2 | 351095 | 1 | Gasket |
| 3 | 10015 | 2 | Cap Screw (1/4-28 UNF X 1" Lg.; Torque to 130/180 in. lbs.) |
| 4 | 15456 | 2 | Straight Fitting |
| 5 | 18841 | 1 | Pipe Connector |
| 6 | *21278-15 | 1 | Relief Valve Assembly (Set at 1,500/1,700 PSI) |
| 7 | 200609 | 1 | Drain Tube |
| 8 | *21344 | 1 | Filter Adapter (Includes o-ring [Item #9]) |
| 9 | 10300 | 1 | O-ring (5/8 x 15/32 x 5/64) |
| 10 | 252056 | 1 | Oil Line Tube |
| 11 | 16177 | 2 | Tube Elbow |
| 12 | 421860 | 1 | Directional Valve Assembly (For HYTORC-115 & HYTORC-230; See Form No. 105549) |
| | 421293 | 1 | Directional Valve Assembly (For HYTORC-230-2; See Form No. 105549) |

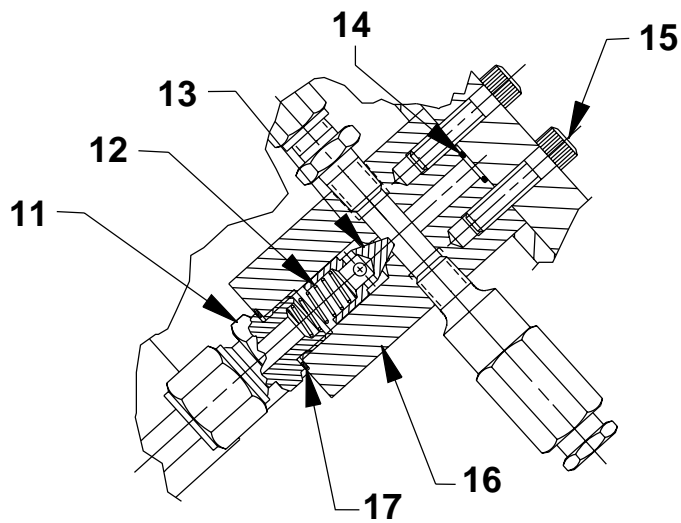
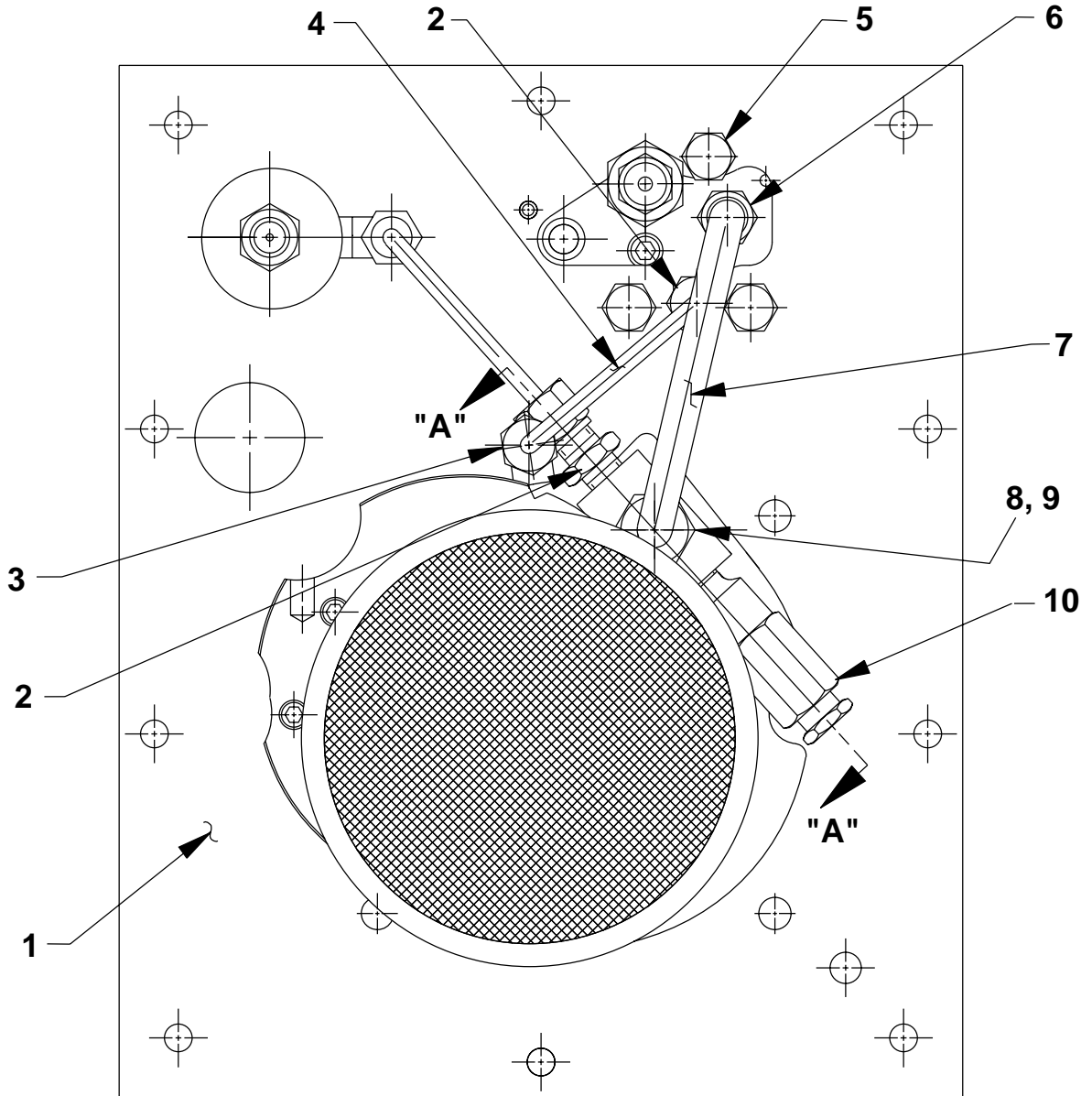
Part numbers marked with an asterisk (*) are contained in Maintenance Kit No. 090200.

HYDRAULIC SCHEMATIC



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

BASIC PUMP ASSEMBLY - BOTTOM VIEW



SECTION "A-A"

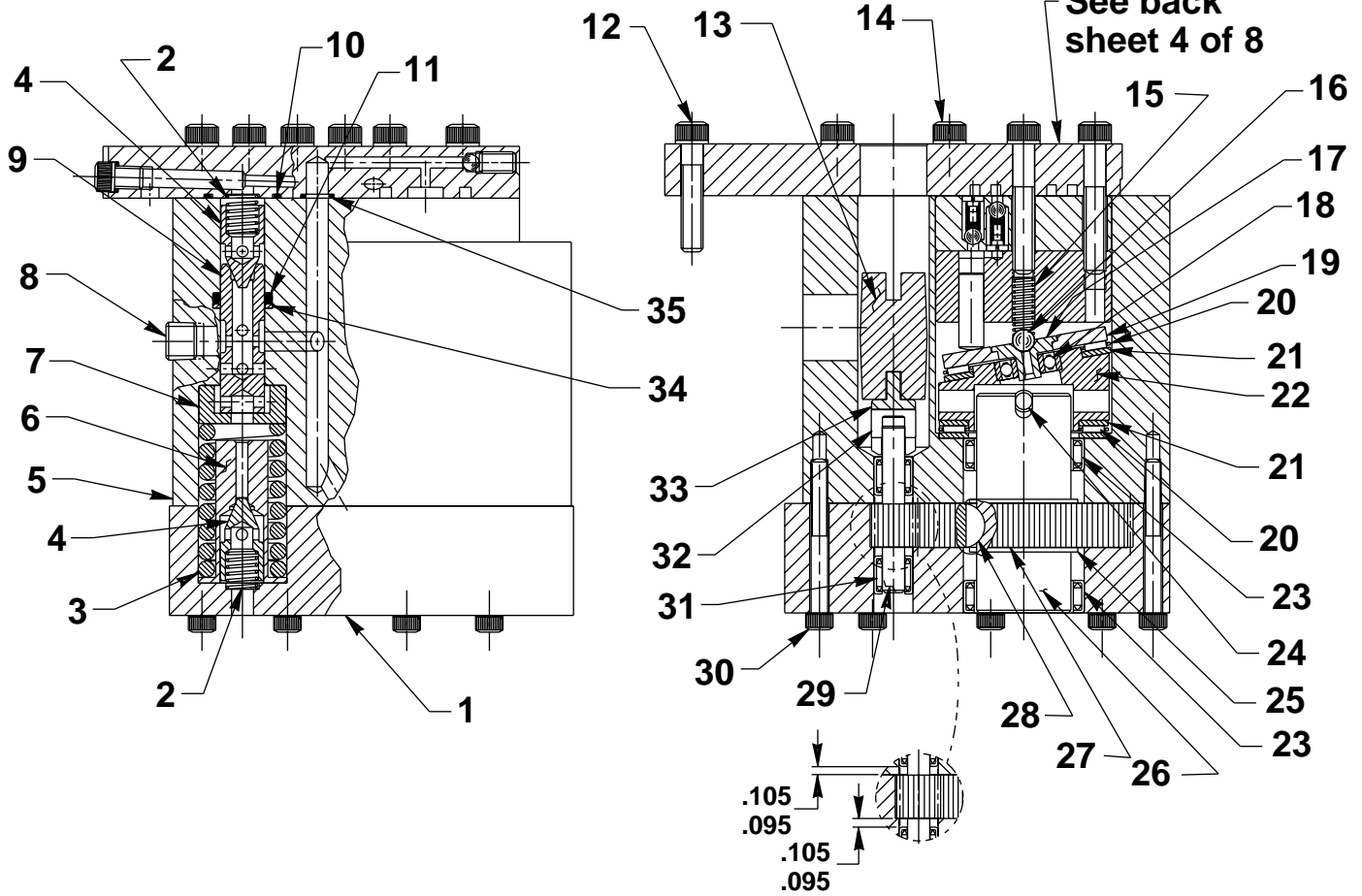
Parts List, Form No. 105548, Back sheet 3 of 8

| Item No. | Part No. | No. Req'd | Description |
|-----------------|-----------------|------------------|---|
| 1 | 65043GY8 | 1 | Cover Plate |
| 2 | 14844 | 2 | Connector |
| 3 | 16177 | 2 | Tube Elbow |
| 4 | 252055 | 1 | Oil Line Tube |
| 5 | 12825 | 3 | Cap Screw (1/4-20 UNC X 5/8 Lg.) |
| 6 | 10661 | 1 | Connector |
| 7 | 351203 | 1 | Oil Line Tube |
| 8 | 10430 | 1 | Tube Sleeve |
| 9 | 10431 | 1 | Tube Nut |
| 10 | *21278 | 1 | Relief Valve (Set at 10,100/10,700 PSI) |
| 11 | 20770 | 1 | Connector |
| 12 | 10425 | 3 | Compression Spring (3/8 O.D. X 3/4 Lg.) |
| 13 | 20771 | 3 | Poppet |
| 14 | 10266 | 3 | O-ring (3/8 X 1/4 X 1/16) |
| 15 | 10015 | 2 | Cap Screw (1/4-28 UNF X 1" Lg.) |
| 16 | 20776 | 1 | Valve Body |
| 17 | 10261 | 1 | Copper Washer (3/4 X 19/32 X 1/32) |

Part numbers marked with an asterisk (*) are contained in Maintenance Kit No. 090200.

BASIC PUMP ASSEMBLY

**High Pressure
Pump Ass'y
See back
sheet 4 of 8**



| Item No. | Part No. | No. Req'd | Description |
|----------|----------|-----------|---|
| 1 | 40072 | 1 | End Plate |
| 2 | 10425 | 2 | Compression Spring (3/8 O.D. X 3/4 Lg.) |
| 3 | 10426 | 1 | Compression Spring (1" O.D. X 1-13/16" Lg.) |
| 4 | 20771 | 2 | Poppet |
| 5 | 40071 | 1 | Body |
| 6 | 23256 | 1 | Spring Guide |
| 7 | 23255 | 1 | Spring Guide |
| 8 | 10427 | 1 | Pressure Plug (1/8 NPTF) |
| 9 | 20849 | 1 | Spool |
| 10 | 10303 | 1 | O-ring (7/8 X 3/4 X 1/16) |
| 11 | 10271 | 1 | O-ring (11/16 X 1/2 X 3/32) |
| 12 | 10016 | 3 | Cap Screw (1/4-20 UNC X 1" Lg.) |
| 13 | *21091 | 1 | Coupling |
| 14 | 10020 | 9 | Cap Screw (1/4-20 UNC X 1-1/4 Lg.; Torque to 170/180 in. lbs.) |
| 15 | 10361 | 1 | Compression Spring (1/4 O.D. X 1" Lg.) |
| 16 | 10375 | 1 | Steel Ball (1/4 Dia.) |
| 17 | 23547 | 1 | Bearing Top Plate |

| Item No. | Part No. | No. Req'd | Description |
|----------|----------|-----------|--|
| 18 | 11814 | 1 | Ball Bearing |
| 19 | 23548 | 1 | Top Plate |
| 20 | 11228 | 2 | Thrust Bearing |
| 21 | 11813 | 3 | Bearing Race |
| 22 | 23549 | 1 | Angle Plate |
| 23 | 11064 | 2 | Needle Bearing |
| 24 | 11955 | 1 | Pin |
| 25 | 11261 | 2 | Retaining Ring |
| 26 | 23556 | 1 | Shaft |
| 27 | 23574 | 1 | Gear |
| 28 | 11821 | 1 | Woodruff Key |
| 29 | 20774 | 1 | Drive Gear |
| 30 | 10001 | 13 | Cap Screw (#10-32 UNF X 1-3/4" Lg.; Torque to 50/60 in. lbs.) |
| 31 | 11198 | 2 | Needle Bearing |
| 32 | 21093 | 1 | Key |
| 33 | 21092 | 1 | Adapter |
| 34 | 12389 | 1 | Backup Washer (11/16 x 1/2 X 1/16) |
| 35 | 10266 | 1 | O-ring (3/8 X 1/4 X 1/16) |

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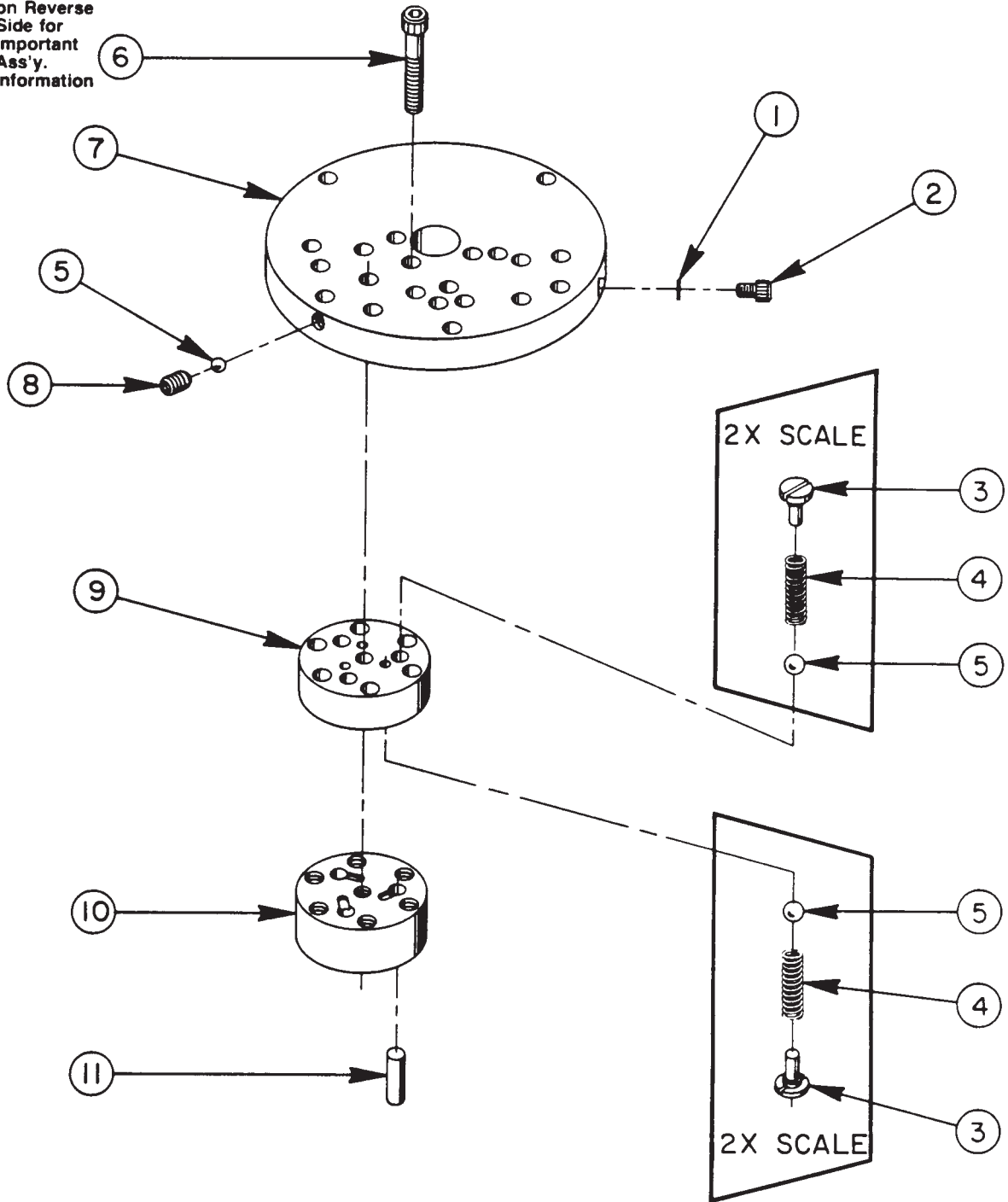
Sheet No. 4 of 8

Rev. 13

Date: 12 Feb. 2001

HIGH PRESSURE PUMP ASSEMBLY

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



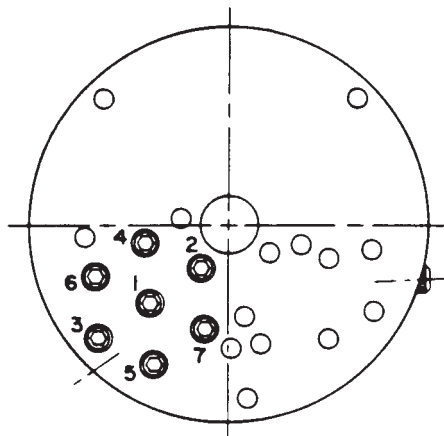
33113 HIGH PRESSURE PUMP ASSEMBLY

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 |

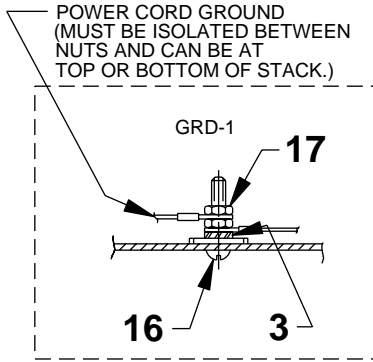
Consult factory when replacing items marked with an asterisk (*).

BOLT TIGHTENING SEQUENCE

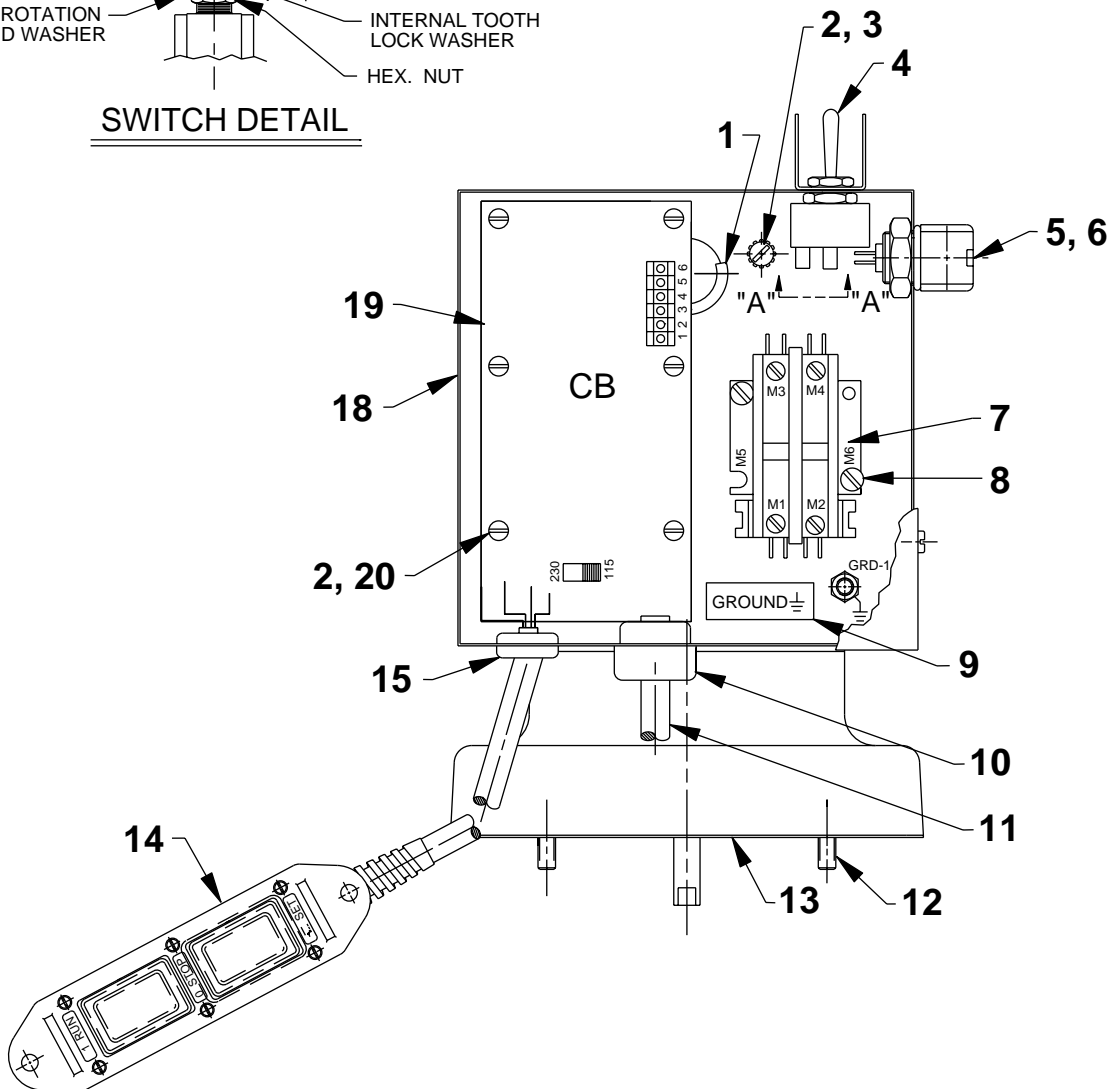
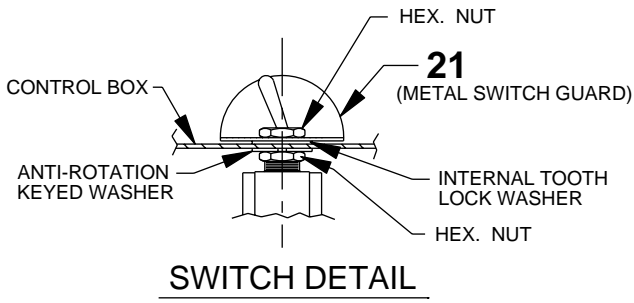
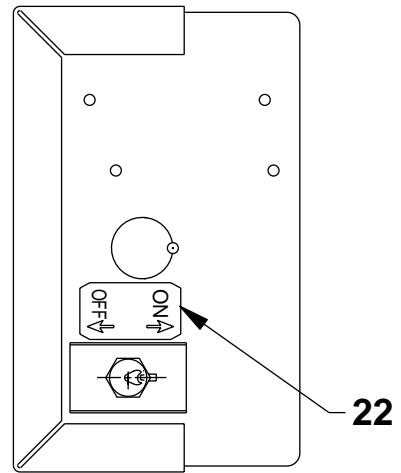
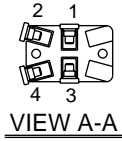


Note: Assemble in sequence shown.
Lubricate under head and on threads.
Torque to 170/180 in. lbs.

MOTOR CONTROL ASSEMBLY



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

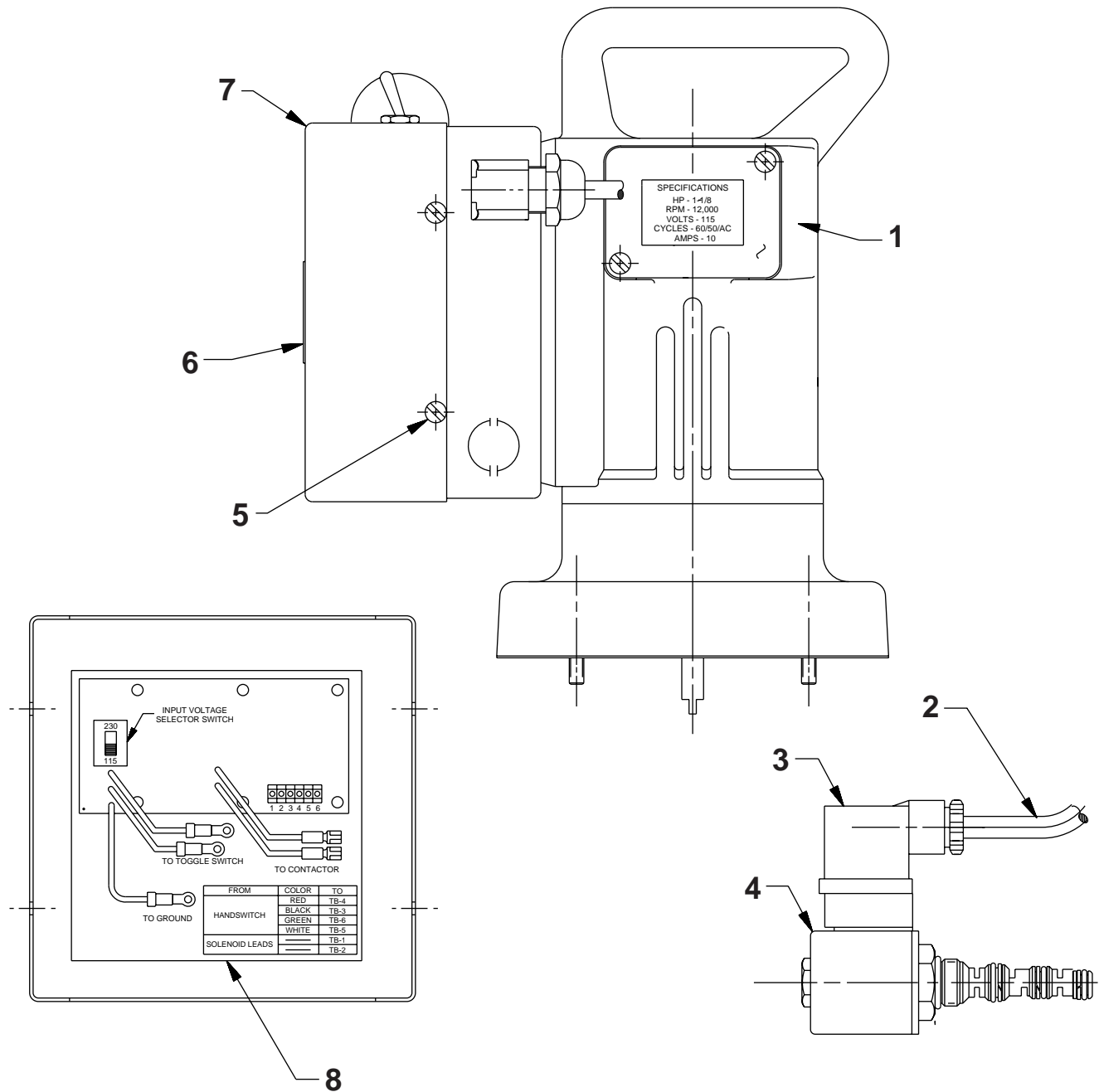


| Item No. | Part No. | No. Req'd | Description |
|-----------------|-----------------|------------------|--|
| 1 | 15497 | 1 | Grommet (Trim off upper 1/3 as shown.) |
| 2 | 10162 | 4 | Machine Screw (#10-24 UNC X 1" Lg.) |
| 3 | 11108 | 4 | Lockwasher (#10 External Tooth) |
| 4 | 12958 | 1 | Toggle Switch |
| 5 | 216667 | 1 | Bushing |
| 6 | 216680 | 1 | Locknut |
| 7 | 420718-1 | 1 | Contactor (For 115 v.) |
| | 420718-2 | 1 | Contactor (For 230 v.) |
| 8 | 11539 | 2 | Machine Screw (#10-24 UNC X 1/2 Lg.) |
| 9 | 205189 | 1 | Ground Decal |
| 10 | 210112 | 1 | Strain Relief Bushing |
| 11 | 307440 | 1 | Cord Set (For 115 V.) |
| | 308752 | 8 ft. | Electrical Cable (14/3 SJTO; For 230 V.) |
| 12 | 10022 | 4 | Screw (1/4-20 UNC X 1-1/2 Lg.) |
| 13 | *30650 | 1 | Gasket |
| 14 | 351160 | 1 | Hand Switch Assembly (See sheet 7 of 8) |
| 15 | 15993 | 1 | Strain Relief Bushing |
| 16 | 11856 | 1 | Machine Screw (#10-24 X 1" Lg.) |
| 17 | 10197 | 2 | Nut (#10-24 UNC) |
| 18 | 51218GY8 | 1 | Electric Control Box |
| 19 | 421477 | 1 | Circuit Board (Note: Set input voltage selector switch to appropriate position.) |
| 20 | 10196 | 4 | Hex Nut (8-32) |
| 21 | 352061 | 1 | Metal Switch Guard |
| 22 | 205409 | 1 | On/Off Label Decal |

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MOTOR & CONTROL BOX ASSEMBLY

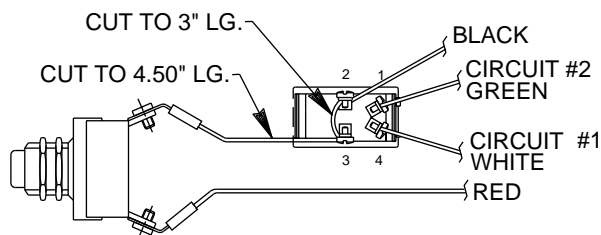
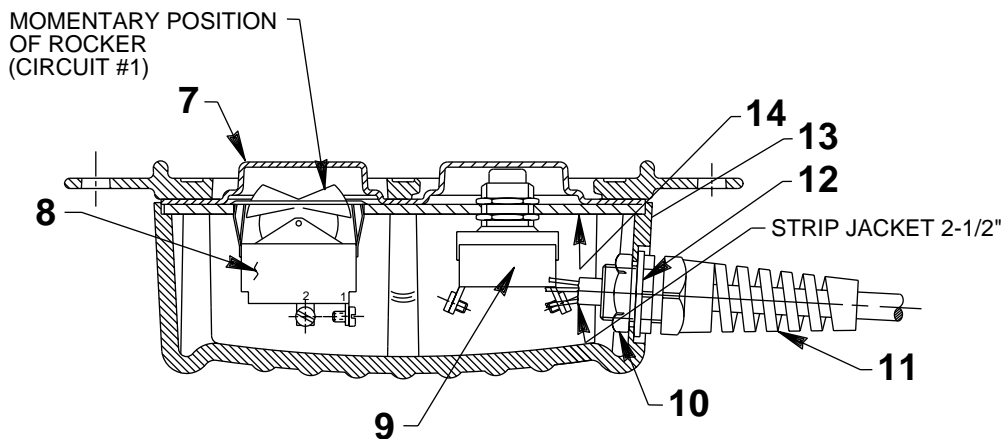
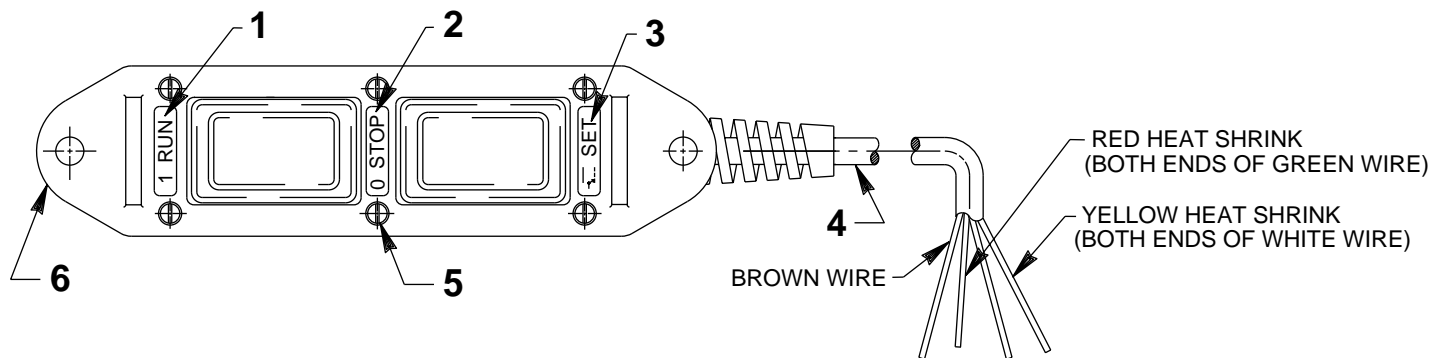


| Item No. | Part No. | No. Req'd | Description |
|----------|-----------------|-----------|-------------------------|
| 1 | 53338GY8 | 1 | Electric Motor (115 v.) |
| | 53337GY8 | 1 | Electric Motor (230 v.) |
| 2 | 11423 | 21" | Electrical Cable (18/2) |
| 3 | 253405 | 1 | Connector |
| 4 | 351843 | 1 | Solenoid Valve (115 v.) |
| | 351844 | 1 | Solenoid Valve (230 v.) |

| Item No. | Part No. | No. Req'd | Description |
|----------|-----------------|-----------|------------------------------|
| 5 | 14812 | 4 | Tap Screw (#8-18 x 3/8 Lg.) |
| 6 | 200188 | 1 | Warning Decal |
| 7 | 43126GY8 | 1 | Electrical Control Box Cover |
| 8 | 351513 | 1 | Decal |

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REMOTE HAND SWITCH ASSEMBLY



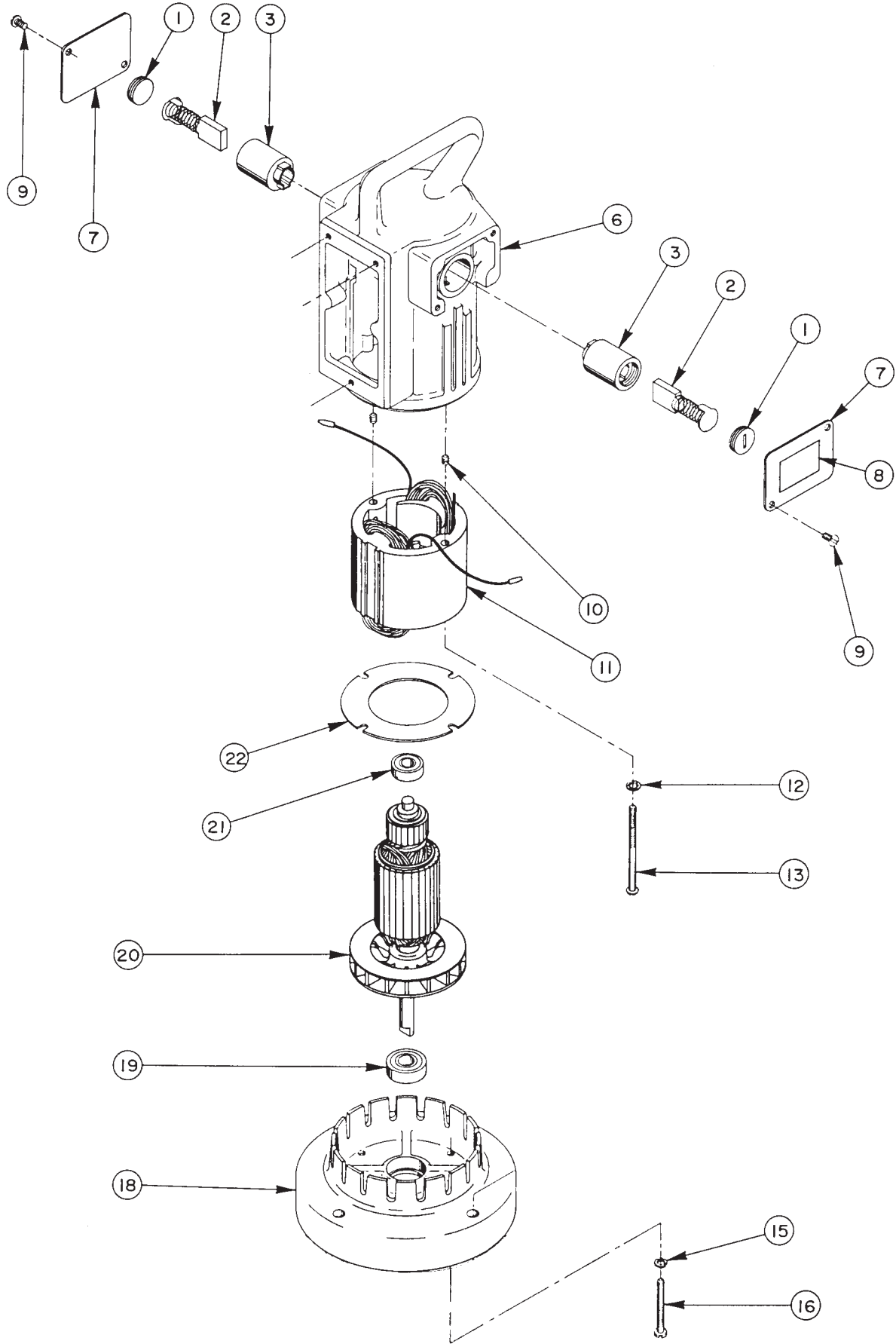
ROCKER SWITCH FUNCTION:
 OFF
 ON (CIRCUIT #1)
 ON (MOM) (CIRCUIT #1 & #2)

| Item No. | Part No. | No. Req'd | Description |
|----------|-----------|-----------|------------------------|
| 1 | 253105 | 1 | Decal (Run) |
| 2 | 253106 | 1 | Decal (Stop) |
| 3 | 253107 | 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 | 253607 | 1 | Gasket |
| 13 | 420050-4 | 1 | Switch Housing |
| 14 | 420050-5 | 1 | Switch Mounting Plate |

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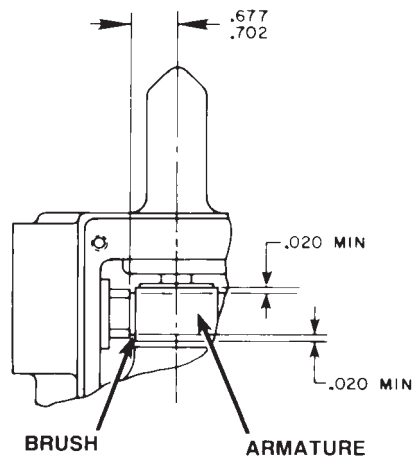
MOTOR ASSEMBLY



| Item No. | Part No. | No. Req'd | Description |
|----------|----------|-----------|---|
| 1 | 10806 | 2 | Brush Holder Cap |
| 2 | *10804 | 2 | Brush Assembly |
| 3 | 10805 | 2 | Brush Holder (See note below) |
| 6 | 61901WH2 | 1 | Motor Shell |
| 7 | 21008 | 2 | Cover |
| 8 | 215164 | 1 | Spec. Decal (For 115 v) |
| | 215163 | 1 | Spec. Decal (For 230 v.) |
| 9 | 11539 | 2 | Mach. Screw (#10-24 X 1/4 Lg.) |
| 10 | 10133 | 2 | Set Screw |
| 11 | 10802 | 1 | Field (For 115 v.) |
| | 10803 | 1 | Field (For 230 v.) |
| 12 | 12356 | 2 | Lockwasher |
| 13 | 10170 | 2 | Mach. Screw |
| 15 | 10241 | 4 | Lockwasher |
| 16 | 10169 | 4 | Mach. Screw (#10-24 X 2" Lg.; Torque to 20/25 in lbs.) |
| 18 | 40059WH2 | 1 | Motor Base |
| 19 | 10439 | 1 | Ball Bearing |
| 20 | 10800 | 1 | Armature (For 115 v.; See note below) |
| | 10801 | 1 | Armature (For 230 v.; See note below) |
| 21 | 10438 | 1 | Ball Bearing |
| 22 | 20786 | 1 | Baffle Plate |

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BRUSH HOLDER & ARMATURE INSTALLATION SPECIFICATIONS



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) |