

Mi-T-M[®] CORPORATION

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PARTS LIST FOR ***HSP-2003-0MGGH/GV*** *(AFTER SERIAL #26203)*

ENGINE OIL GRADE:

HONDA:

VANGUARD:

SAE 10W-30

ABOVE 40°F=SAE30

BELOW 40°F=10W-30

PUMPOIL GRADE:

PUMPOIL CAPACITY:

FUEL NOZZLE:

BTU INPUT:

PRESSURE NOZZLE SIZE:

Mi-T-M PUMPOIL #AW4085-0016

6.5 OZ.

1.25 60°B DELAVAN

205,000/HOUR

4.0

ENGINE OIL CAPACITY:

HONDA:

VANGUARD:

20 OZ.

24 OZ.

This Parts Listing has been compiled for your benefit. You can be assured your hot water pressure washer was constructed and designed with quality and performance in mind using over 25 years experience in the pressure washer business. Each component has been rigorously tested to insure the highest level of acceptance.

The contents of this Parts Listing are based on the latest product information available at the time of publication. Mi-T-M reserves the right to make changes in price, color, materials, equipment, specifications or models at any time without notice.

WARNING

THIS IS A PROFESSIONAL HIGH PRESSURE, HOT WATER PRESSURE WASHER. CAUTION SHOULD BE OBSERVED WHEN USING OR REPAIRING THIS UNIT! READ AND FOLLOW THE SAFETY WARNINGS LISTED BELOW BEFORE ATTEMPTING ANY REPAIRS ON THIS PRESSURE WASHER!

SAFETY WARNINGS

1. NEVER alter or modify the equipment. Be sure any accessory items and system components being used will withstand the pressure developed. Use only genuine Mi-T-M parts for repair of your pressure washer. Failure to do so can cause hazardous operating conditions and will VOID warranty.
2. NEVER make adjustments on machinery while the unit is connected to the engine without first removing the ignition cable from the spark plug. Turning over the machinery by hand during adjustment or cleaning might start the engine and machinery with it, causing serious injury to the operator.
3. Know how to stop and bleed pressures quickly. Be thoroughly familiar with controls.
4. Before servicing the unit, turn unit off, relieve the water pressure and allow the unit to cool down. Do not make repairs while the unit is running. Service in a clean, dry, flat area. Block the wheels to prevent the unit from moving. Be especially careful to properly dispose of any flammable

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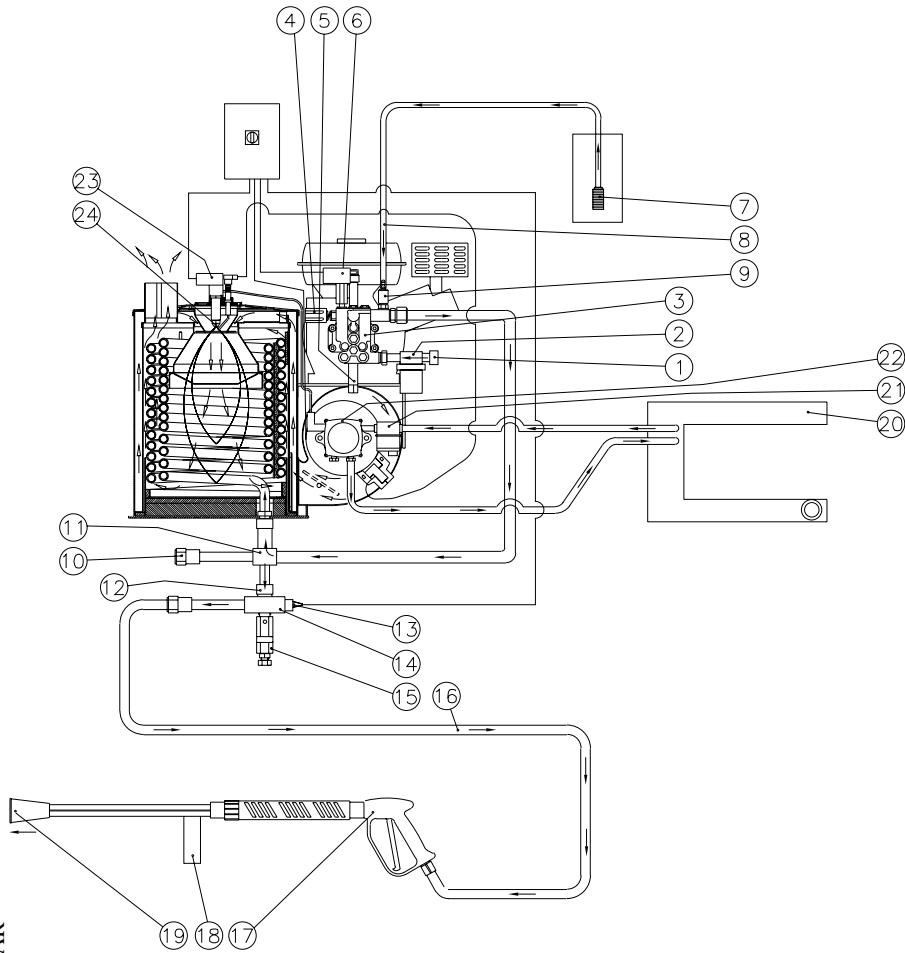
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SPECIFICATIONS

HSP-2003-0MGH/GV

| MODEL NUMBER | HSP-2003-0MGH | HSP-2003-0MGV |
|--|--|---|
| Operating Pressure (PSI/Bar): | 2000/ 137.90 (+/- 5%) | |
| Water Volume (GPM/lpm): | 2.7/10.22 (+/- 5%) | |
| Outlet Water Temperature (F/C): | 130 F/ 54 C (+/- 20 F) rise above inlet ambient (210 F/ 99 C maximum) | |
| Engine: | Honda | Briggs & Stratton Vanguard |
| Horsepower | 5.5 | |
| Engine Type | Four Stroke, Overhead Valve, Single Cylinder | |
| Oil Type | SAE10 W30 | Above 40 F=SAE30/ Below 40 F=SAE 10W-30 |
| Oil Capacity (oz./liter) | 20/6 | 24/7 |
| Low Oil Protection | Oil Alert™ | Oil Guard™ |
| Fuel Type | Unleaded Gasoline 86 Octane Minimum | |
| Fuel Capacity (gal./liter) | .95/ 3.6 | 1.05/3.97 |
| Starting | Recoil Rope | |
| Maximum No Load RPM | 3600 (+/- 100) | |
| High Pressure Pump: | Direct Driven, Oil Bath, Triplex Piston | |
| Oil Type | Mi-T-M Pump Oil #AW-4085-0016 | |
| Oil Capacity (oz./liters) | 6.5/19 | |
| Plungers | Ceramic | |
| Manifold | Forged Brass | |
| Valves | Stainless Steel | |
| Unloader | Adjustable | |
| Inlet Water Strainer | Removable Clear Bowl for inspection and cleaning of Stainless Steel Screen | |
| Heat Dump Valve | Relieves heated water during unloader bypass stage | |
| Pressure Gauge | Glycerine filled indicating pressure gauge | |
| Detergent Injector: | Adjustable Low Pressure downstream from pump | |
| Burner Fuel System: | | |
| Fuel Type | No.1 or No.2 Fuel Oil, Diesel or Kerosene | |
| Fuel Capacity (gal./liters) | 4.0/15.14 | |
| Fuel Filter/ Water Separator | Spin on (10 micron) filter/ E-Z water drain | |
| Fuel Pump | Two Line, Single Stage | |
| Fuel Pressure (PSI/ BAR) | 140/ 9.65 | |
| Fuel Nozzle | 1.25 60 B Delavan | |
| Fuel Consumption (GPH/ LPH) | 1.48 GPH Continuous Burning | |
| Electro Magnetic Firing (EMF) System: | Belt Driven (Patent Pending) | |
| Ignition | Transistorized Magneto | |
| Control Voltage | 12 Volt DC | |
| Blower | Forced Air | |
| Heat Exchanger: | Vertical, Top fired, Dual Spiral Coil | |
| BTU Input | 205,000 | |
| Efficiency | 80-83% with #2 Fuel Oil/ Diesel | |
| Smoke Density | 0-3 per ASTM D2156 | |
| Controls: | | |
| On/ Off Switch | Industrial grade rotary switch | |
| Pressure Switch | Shuts off burner fuel supply upon trigger release | |
| High Limit Switch | Shuts off burner fuel supply when outlet water temp. exceeds 210 F/ 99 C | |
| Fuel Solenoid: | 12 Volt | |
| Safety Relief: | Relieves excess system pressure | |
| Unit Net Weight (Lbs/kg): | 266/121 | 271/123 |
| Unit Shipping Weight (Lbs/kg): | 383/174 | 388/176 |
| Unit Net Dimension (In/cm): | 37.5L x 29.5W x 37.5H/95L x 75W x 95H | |
| Unit Shipping Dimension (In/cm): | 46.5L x 31.5W x 48.5H/118L x80W x123H | |

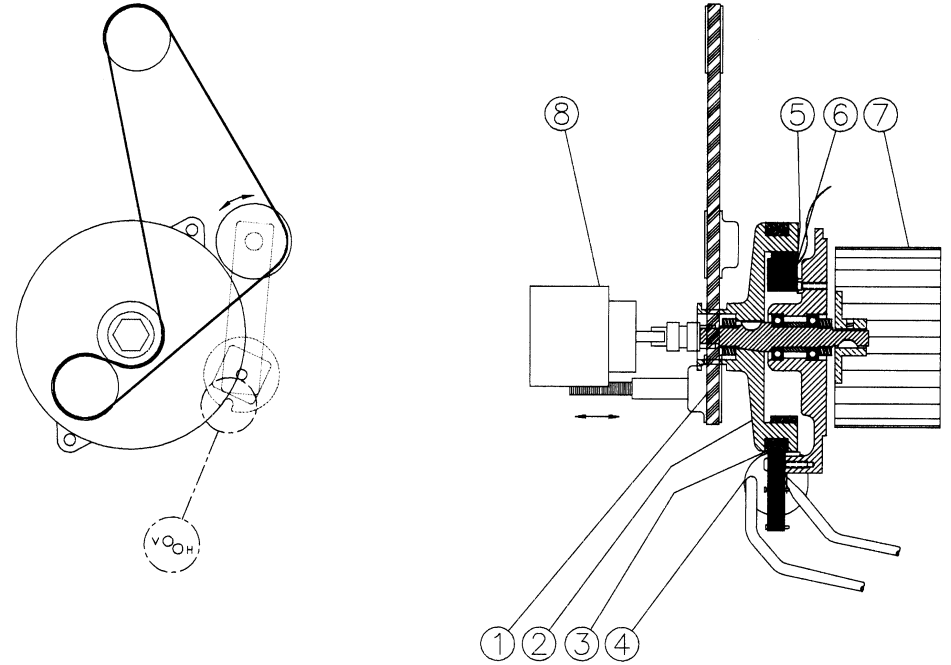
FLOW CHART



OMHSP002-110298-BAR

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EMF SYSTEM



OMHSP008-012494-BAR

GENERAL THEORY OF OPERATION

WATER FLOW: Connect a pressurized water source to the INLET GARDEN HOSE CONNECTION (1) and turn on the water supply. The water will flow through a WATER STRAINER (2) which has a clear inspection bowl.

The water then travels into the TRIPLEX HIGH PRESSURE PUMP (3) which has an UNLOADER (4) that bypasses the water when the trigger gun is closed. To protect the pump from heated water during this bypass stage, a HEAT DUMP VALVE (5) will open at 140°F/ 60°C allowing the heated water to escape. The Heat Dump Valve automatically resets when the water cools. The PRESSURE SWITCH (6) controls the fuel supply to the burner.

When using detergents, the solution passes through the DETERGENT STRAINER (7) located on the DETERGENT HOSE (8). The detergent solution then travels into the ADJUSTABLE LOW PRESSURE DETERGENT INJECTOR (9).

From there, the water may be allowed to flow out of the DRAIN PLUG (10) or through the HEAT EXCHANGER INLET (11) where it is heated when the burner is on. As the water exits the HEAT EXCHANGER OUTLET (12), it enters a safety system which protects the operator from danger. The safety system contains a HIGH TEMPERATURE LIMIT SWITCH (13) which senses the water temperature and shuts off the fuel supply to the burner if it gets too hot. If the unloader fails to by pass the water or the burner remains on when the trigger gun is closed, the SAFETY RELIEF (15) will relieve and allow water to exit safely.

The heated water then flows through the HIGH PRESSURE HOSE (16) and to the TRIGGER GUN ASSEMBLY (17) which allows the operator to control the water spray. When the trigger gun is open, the water flows through the ADJUSTABLE PRESSURE DUAL LANCE (18) and exits the NOZZLE (19).

FUEL FLOW: The Fuel Pump draws fuel from the FUEL TANK (20) through a replaceable FUEL FILTER/WATER SEPARATOR (21) and into the FUEL PUMP (22). Fuel exits the fuel pump, into a FUEL SOLENOID VALVE (23) which controls fuel flow to the FUEL NOZZLE (24) where it ignites and burns in the heat exchanger.

EMF SYSTEM: The patent pending Electro Magnetic Firing (EMF) System is an integrated system which gives all the requirements for combustion.

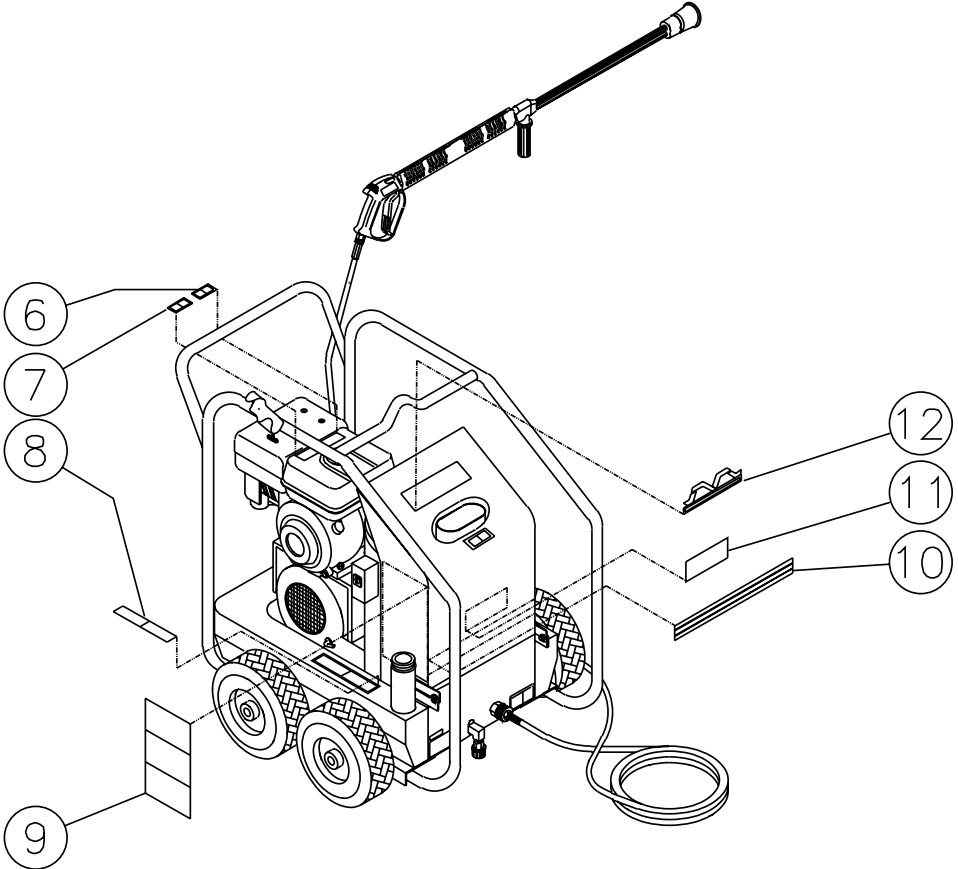
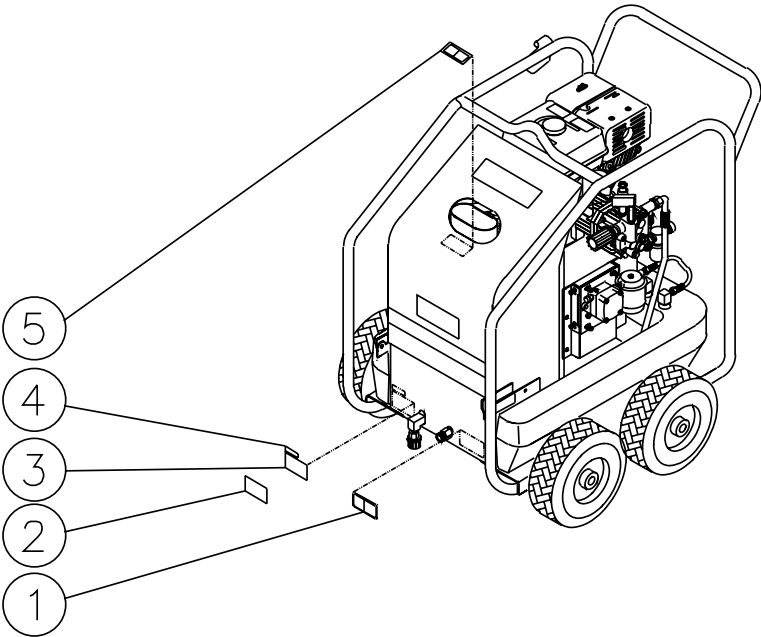
The BELT (1) from the power source turns the HUB (2) which has two EXTERIOR MAGNETS (3) attached. As these magnets spin past the IGNITION MODULE (4), a magnetic flux is created from which the ignition module produces a high voltage. This voltage arcs across the electrodes giving the spark that is needed for ignition.

This hub has an INTERNALLY MOUNTED MAGNET (5) which spins past a STATOR (6) that produces the voltage that controls the fuel supply to the heat exchanger. In addition to this, the hub also spins the BLOWER FAN (7) that forces the air into and through the heat exchanger.

The FUEL PUMP (8) is also connected the hub by means of a flexible coupler.

DECAL PLACEMENT

HSP-2003-0M/GH/GV-030899-BAR

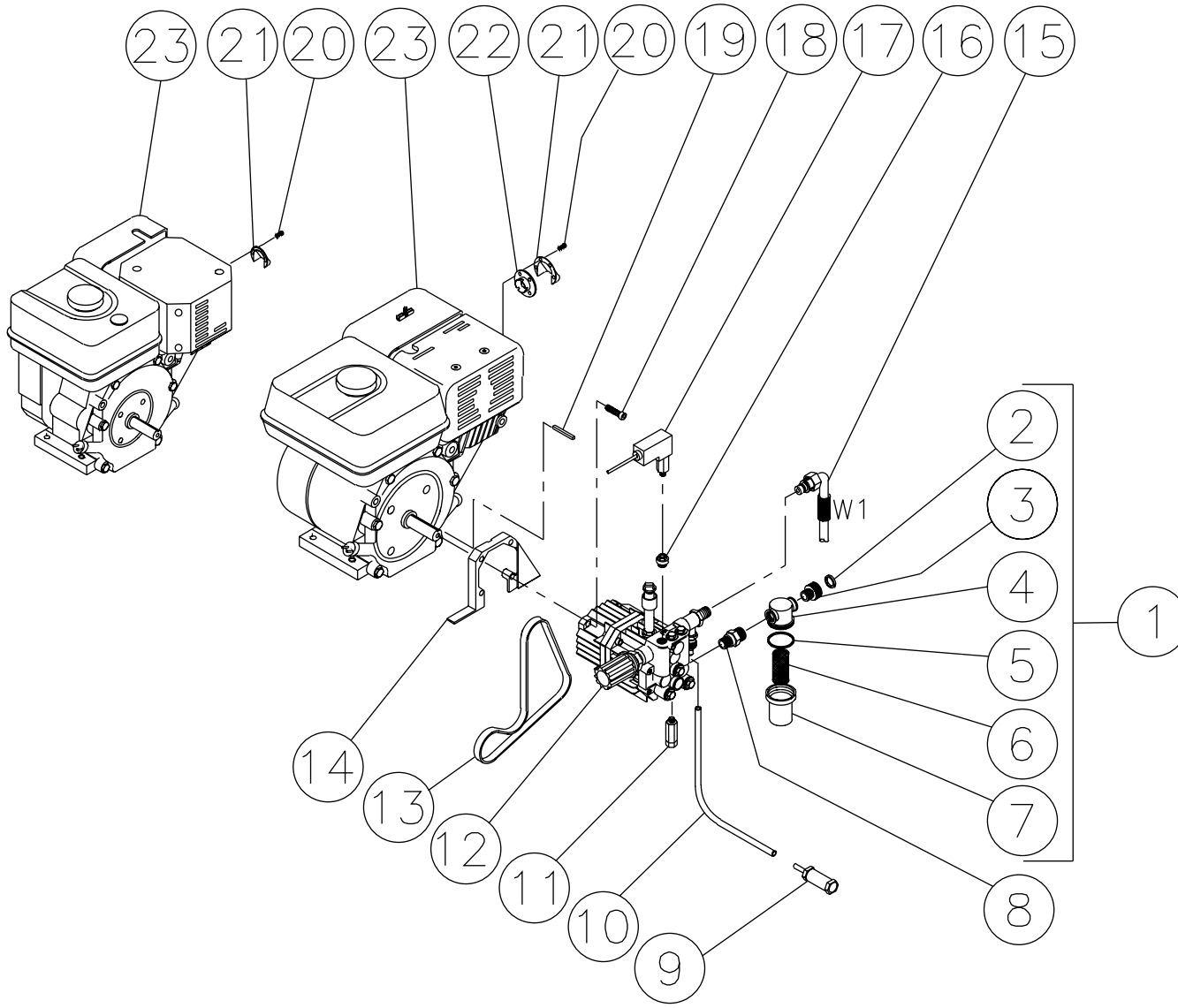


HSP-2003-0MGH/GV-030899-BAR

| DECAL PLACEMENT | | | |
|------------------------|---|---------------|-------------|
| REF. # | DESCRIPTION | PART # | QTY. |
| 1 | Decal- Warning: Don't Modify Plumbing (E/S) | 34-0852 | 1 |
| 2 | Decal- Clear Laminate | N/A | 1 |
| 3 | Decal- Data Plate | N/A | 1 |
| 4 | Serial Number | N/A | 1 |
| 5 | Decal- Warning: Hot Coil Exhaust (E/S) | 34-0808 | 1 |
| 6 | Decal- Allow to Cool (E/S) | 34-0599 | 1 |
| 7 | Decal- Hot Surface (E/S) | 34-0598 | 1 |
| 8 | Decal- Risk of Fire (E/S) | 34-0806 | 1 |
| 9 | Decal- Warning/ Caution/ Operation (E/S) | 34-0847 | 1 |
| 10 | Decal- Stripe | 34-0560 | 1 |
| 11 | Decal-White Die Cut | 34-0551 | 1 |
| 12 | Plastic Mi-T-M Logo | 62-0087 | 1 |

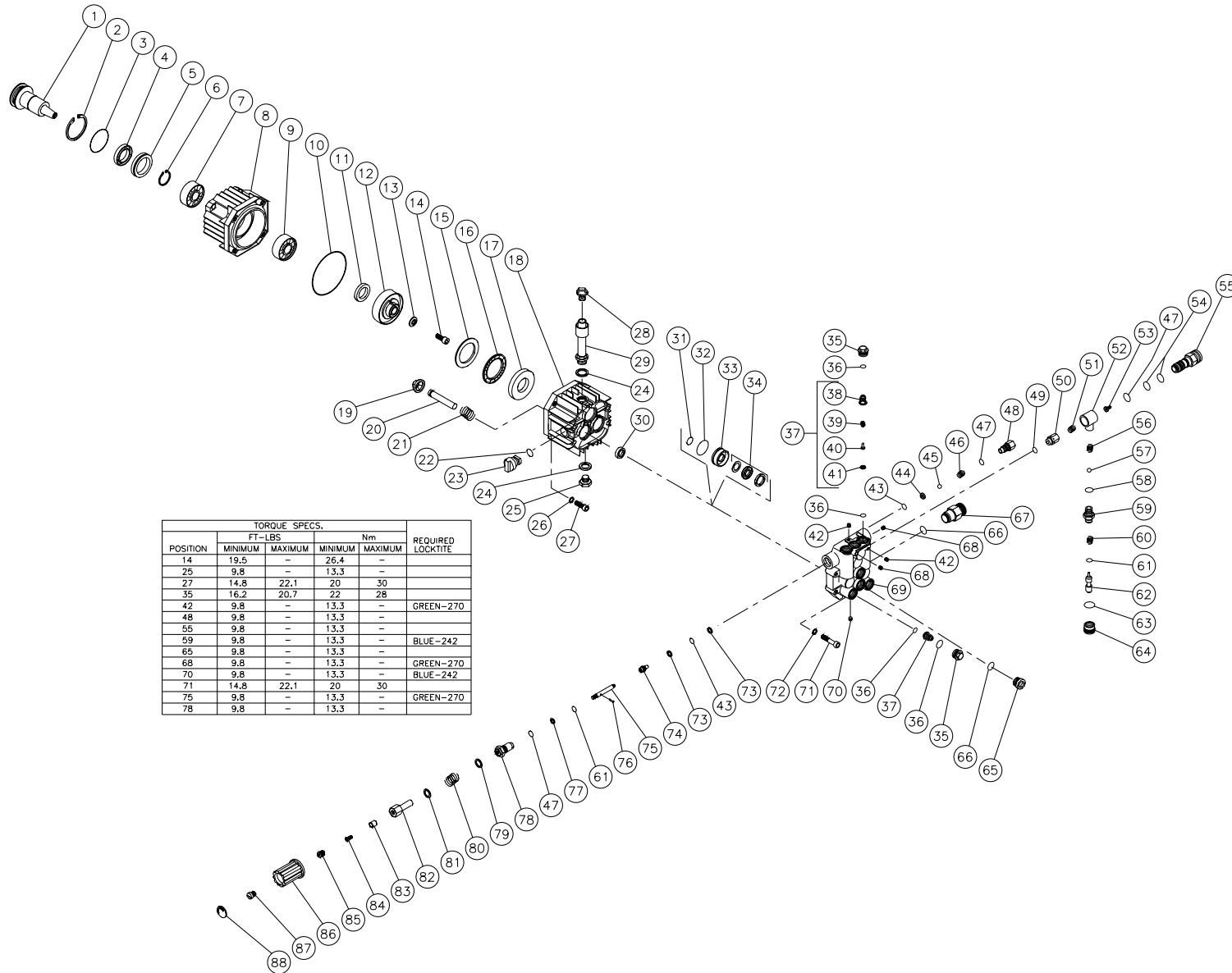
| FRAME ASSEMBLY | | | | | | | |
|----------------|--|-----------|------|--------|--|----------|------|
| REF. # | DESCRIPTION | PART # | QTY. | REF. # | DESCRIPTION | PART # | QTY. |
| 1 | Frame Assembly | 5-9002A01 | 1 | 13 | Hex Nut | 30-3023 | 6 |
| 2 | Wheel | 14-0017 | 4 | 14 | Engine/ Pump Assembly (See Exploded Drawing) | N/A Sep. | 1 |
| 3 | Jam Nut | 30-0117 | 4 | 15 | Fuel Line | 33-0217 | 1 |
| 4 | Bolt | 27-9524 | 12 | 16 | Hood Assembly | 850-0164 | 1 |
| 5 | Flatwasher | 28-0022 | 10 | 17 | Screw Cover | 62-0057 | 1 |
| 6 | Fuel Tank Assembly (Inc. 7, 8) | 850-0214 | 1 | 18 | Screw Connect | 17-0035 | 1 |
| 7 | Fuel Cap | 12-0033 | 1 | 19 | Hose Assembly | 15-0146 | 1 |
| 8 | Plug | 23-0296 | 1 | 20 | Gun/ Lance Assembly | 850-0179 | 1 |
| 9 | Fuel Hose | 15-0147 | 2 | 21 | Dual Lance Assembly- 36" | 850-0185 | 1 |
| 10 | Heat Exchanger/ EMF System Assembly (See Exploded Drawing) | N/A Sep. | 1 | 22 | Nozzle- 1503.5 | 18-0254 | 1 |
| 11 | High Pressure Hose Assembly | 15-0144 | 1 | 23 | Nozzle- 4060 | 18-0110 | 1 |
| 12 | Bolt | 27-9525 | 4 | | | | |

ENGINE/PUMP ASSEMBLY



| ENGINE/PUMP ASSEMBLY | | | | | | | | | |
|----------------------|-------------------------------------|---------|-------------|-------------|---------------------------------|-----------------------------|---------|-------------|-------------|
| REF # | DESCRIPTION | PART # | QTY OMGH | QTY OMGV | REF # | DESCRIPTION | PART # | QTY OMGH | QTY OMGV |
| 1 | Strainer Complete (Includes 2-7) | 19-0057 | 1 | 1 | 15 | Pressure Hose | 15-0144 | 1 | 1 |
| 2 | Hose Gasket | 26-0001 | 1 | 1 | 16 | Valve Plug | 39-0081 | 1 | 1 |
| 3 | Hose Swivel | 23-0095 | 1 | 1 | 17 | Pressure Switch | 22-0243 | 1 | 1 |
| 4 | Strainer Cap | 19-0058 | 1 | 1 | 18 | Cap Screw | 27-0849 | 4 | 4 |
| 5 | Strainer Gasket | 26-0160 | 1 | 1 | 19 | Keystock | 43-0073 | 1 | 1 |
| 6 | Stainless Steel Screen | 19-0059 | 1 | 1 | 20 | Screw- Honda | 27-3093 | 2 | - |
| 7 | Strainer Bowl | 19-0060 | 1 | 1 | - | Screw- Vanguard | 27-3094 | - | 2 |
| 8 | Hex Adapter | 23-0241 | 1 | 1 | 21 | Muffler Deflector- Honda | 45-0051 | 1 | - |
| 9 | Detergent Strainer | 19-0050 | 1 | 1 | - | Muffler Deflector- Vanguard | 45-0050 | - | 1 |
| 10 | Detergent Hose *(Six Feet Required) | 15-0021 | 1 | 1 | 22 | Muffler Guide- Honda | 45-0052 | 1 | - |
| 11 | Thermo Valve | 22-0208 | 1 | 1 | 23 | Engine- 5.5 H.P. Honda | 1-0013 | 1 | - |
| 12 | Pump Axial Piston | 3-0105 | 1 | 1 | - | Engine- 6.0 H.P. Vanguard | 1-0069 | - | 1 |
| 13 | Belt | 11-0037 | 1 | 1 | *Must Order in One Foot Lengths | | | | |
| 14 | Flange/Guard | 38-0039 | 1 | 1 | | | | | |

HIGH PRESSURE PUMP (3-0105)

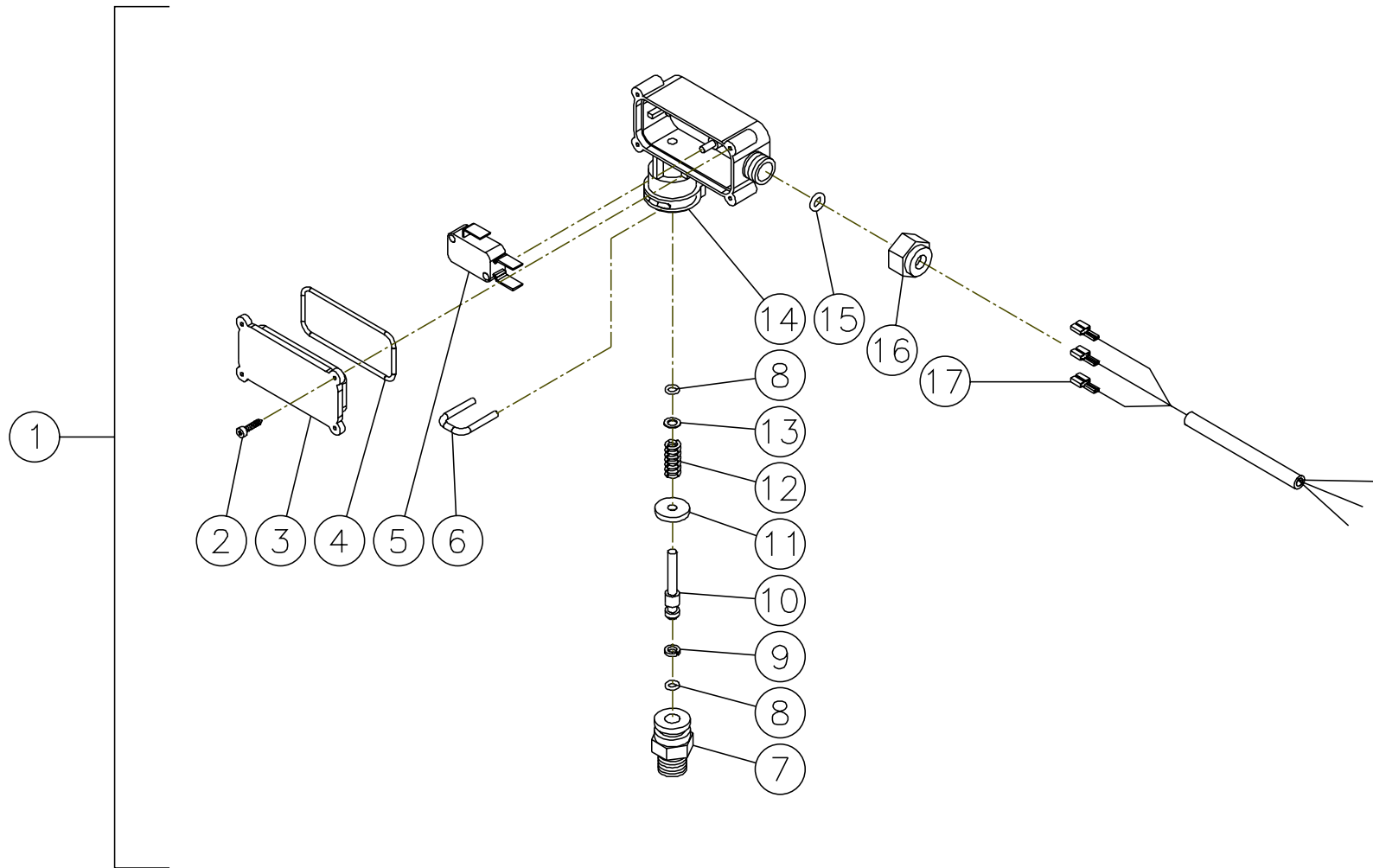


| POSITION | TORQUE SPECS. | | Nm | | REQUIRED LOCKTITE |
|----------|---------------|---------|---------|---------|-------------------|
| | MINIMUM | MAXIMUM | MINIMUM | MAXIMUM | |
| 14 | 19.5 | - | 26.4 | - | |
| 25 | 9.8 | - | 13.3 | - | |
| 27 | 14.8 | 22.1 | 20 | 30 | |
| 35 | 16.2 | 20.7 | 22 | 28 | |
| 42 | 9.8 | - | 13.3 | - | GREEN-270 |
| 48 | 9.8 | - | 13.3 | - | |
| 55 | 9.8 | - | 13.3 | - | |
| 59 | 9.8 | - | 13.3 | - | BLUE-242 |
| 65 | 9.8 | - | 13.3 | - | |
| 68 | 9.8 | - | 13.3 | - | GREEN-270 |
| 70 | 9.8 | - | 13.3 | - | BLUE-242 |
| 71 | 14.8 | 22.1 | 20 | 30 | |
| 75 | 9.8 | - | 13.3 | - | GREEN-270 |
| 78 | 9.8 | - | 13.3 | - | |

3-0105-022001-BAR

| HIGH PRESSURE PUMP (3-0105) | | | | | | | | | | | |
|-----------------------------|------------------------|----------|------|--------|---|----------|------|--------|--|----------|------|
| REF. # | DESCRIPTION | PART # | QTY. | REF. # | DESCRIPTION | PART # | QTY. | REF. # | DESCRIPTION | PART # | QTY. |
| 1 | Pump Shaft | N/A | 1 | 34 | V-Packing (See 70-0237) | N/A Sep. | 3 | 67 | Hex Adapter | 23-0241 | 1 |
| 2 | Circle Clip | 46-0405 | 1 | 35 | Valve Plug | 46-0628 | 6 | 68 | Screw | 27-8822 | 2 |
| 3 | O-ring | 25-0272 | 1 | 36 | O-ring | 25-0335 | 12 | 69 | Manifold | 46-0629 | 1 |
| 4 | Oil Seal | 46-0425 | 1 | 37 | Valve Complete (Inc. 38-41) (See 70-0237) | N/A Sep. | 6 | 70 | Screw | 27-8198 | 1 |
| 5 | Spacer | 46-0407 | 1 | 38 | Valve Cage (See 70-0237) | N/A Sep. | 6 | 71 | Bolt | 27-8479 | 4 |
| 6 | Circle Clip | 46-0406 | 1 | 39 | Valve Spring (See 70-0237) | N/A Sep. | 6 | 72 | Lockwasher | 29-0055 | 4 |
| 7 | Rear Bearing | 48-0036 | 1 | 40 | Valve Plate (See 70-0237) | N/A Sep. | 6 | 73 | Back-up Ring | 25-0247 | 2 |
| 8 | Flange | 52-0028 | 1 | 41 | Valve Seat (See 70-0237) | N/A Sep. | 6 | 74 | Piston By-Pass | 46-0423 | 1 |
| 9 | Front Bearing | 48-0037 | 1 | 42 | Screw | 27-8821 | 2 | 75 | Pressure Regulator (See 70-0120) | N/A Sep. | 1 |
| 10 | O-ring | 25-0243 | 1 | 43 | O-ring | 25-0230 | 2 | 76 | Roll Pin | 46-0421 | 1 |
| 11 | Washer | 46-0468 | 1 | 44 | Valve Seat | 46-0409 | 1 | 77 | Back-up Ring | 25-0246 | 1 |
| 12 | Wobble Plate | 46-0616 | 1 | 45 | Ball | 46-0394 | 1 | 78 | Plug (See 70-0120) | N/A Sep. | 1 |
| 13 | Washer | 28-0133 | 1 | 46 | Valve Spring | 46-0411 | 1 | 79 | Washer | 46-0624 | 1 |
| 14 | Bolt | 27-8432 | 1 | 47 | O-ring | 25-0255 | 3 | 80 | Pressure Regulation Spring | 49-0109 | 1 |
| 15 | Rear Bearing Disc | 48-0047 | 1 | 48 | Plug | 46-0412 | 1 | 81 | Washer | 46-0648 | 1 |
| 16 | Bearing | 48-0048 | 1 | 49 | O-ring | 25-0334 | 1 | 82 | Pressure Regulation Screw | 46-0623 | 1 |
| 17 | Front Bearing Disc | 48-0049 | 1 | 50 | No Return Valve | 46-0626 | 1 | 83 | Screw Support | 27-8853 | 1 |
| 18 | Pump Housing | 46-0806 | 1 | 51 | Spring | 49-0110 | 1 | 84 | Bolt | 27-8810 | 1 |
| 19 | Piston Spring Retainer | 46-0362 | 3 | 52 | Injector Body | 46-0620 | 1 | 85 | Internal Screw | 27-8852 | 1 |
| 20 | Ceramic Piston | 46-0578 | 3 | 53 | Injector Nozzle | 46-0415 | 1 | 86 | Pressure Regulation Knob | 7-0091 | 1 |
| 21 | Piston Spring | 49-0081 | 3 | 54 | O-ring | 25-0263 | 2 | 87 | Screw | 27-8086 | 1 |
| 22 | O-ring | 25-0255 | 1 | 55 | Pressure Outlet | 46-0828 | 1 | 88 | Cap | 7-0088 | 1 |
| 23 | Sight Glass | 46-0735 | 1 | 56 | Spring (See 852-0056) | N/A Sep. | 1 | | Oil Drain Plug Kit (Inc. 24, 25) | 70-0083 | 1 |
| 24 | Gasket | 26-0168 | 2 | 57 | Ball (See 852-0056) | N/A Sep. | 1 | | Oil Seal Kit (Inc. 3 each 30) | 70-0001 | 1 |
| 25 | Oil Drain Plug | 39-0065 | 1 | 58 | O-ring (See 852-0056) | N/A Sep. | 1 | | V-Packing Assy (Inc. 3 each 31-34) | 70-0234 | 1 |
| 26 | Lockwasher | 29-0154 | 8 | 59 | Injector Nipple | 46-0417 | 1 | | V-Packing Kit (Inc. 3 each 31, 32, 34) | 70-0231 | 1 |
| 27 | Bolt | 27-8194 | 4 | 60 | Injector Spring | 49-0088 | 1 | | Valve Kit (Inc. 6 each 36, 37) | 70-0235 | 1 |
| 28 | Oil Cap | 39-0066 | 1 | 61 | O-ring (See 852-0056) | N/A Sep. | 2 | | Unloader Seat Kit (Inc. 43-48) | 70-0110 | 1 |
| 29 | Oil Tube Extension | 46-0351 | 1 | 62 | Injector Piston | 46-0418 | 1 | | Unloader Stem Kit (Inc. 43, 47, 61, 73-88) | 70-0120 | 1 |
| 30 | Oil Seal (See 70-0237) | N/A Sep. | 3 | 63 | Flexible Ring | 25-0277 | 1 | | Manifold Assembly (Inc. 31-70, 73-88) | 70-0237 | 1 |
| 31 | O-ring (See 70-0237) | N/A Sep. | 3 | 64 | Injector Regulating Knob | 46-0469 | 1 | | Injector Assembly (Inc. 47, 49-64) | 70-0005 | 1 |
| 32 | O-ring (See 70-0237) | N/A Sep. | 3 | 65 | Manifold Plug | 39-0072 | 1 | | Injector Repair Kit (Inc. 56-58, 61) | 852-0056 | 1 |
| 33 | V-packing Retainer | 46-0807 | 3 | 66 | O-ring | 25-0273 | 2 | | | | |

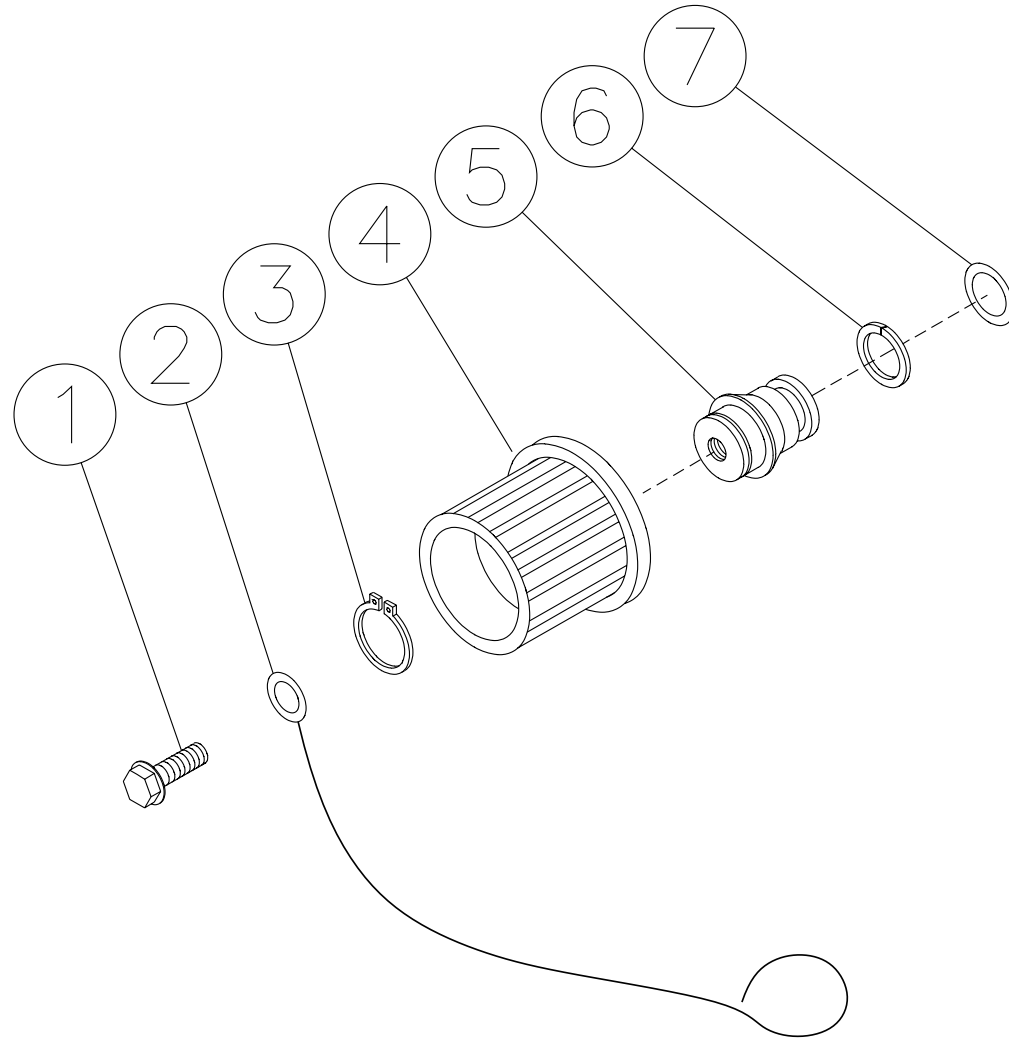
PRESSURE SWITCH (22-0243)



22-0243-120799-BAR

| PRESSURE SWITCH (22-0243) | | | |
|----------------------------------|--------------------------------------|---------------|-------------|
| REF. # | DESCRIPTION | PART # | QTY. |
| 1 | Pressure Switch | 22-0243 | 1 |
| 2 | Screw | N/A | 4 |
| 3 | Cover | N/A | 1 |
| 4 | O-ring (See 70-0306) | N/A Sep. | 1 |
| 5 | Micro Switch | N/A | 1 |
| 6 | Retainer Clip | N/A | 1 |
| 7 | Body | N/A | 1 |
| 8 | O-ring (See 70-0306) | N/A Sep. | 2 |
| 9 | Back-up Ring (See 70-0306) | N/A Sep. | 1 |
| 10 | Piston | N/A | 1 |
| 11 | Washer | N/A | 1 |
| 12 | Sprng | 49-0145 | 1 |
| 13 | Washer | N/A | 1 |
| 14 | Plastic Housing | N/A | 1 |
| 15 | O-ring (See 70-0306) | N/A Sep. | 1 |
| 16 | Nut | N/A | 1 |
| 17 | Wire Assembly | N/A | 1 |
| | O-ring Repair Kit (Inc. 4, 8, 9, 15) | 70-0306 | |

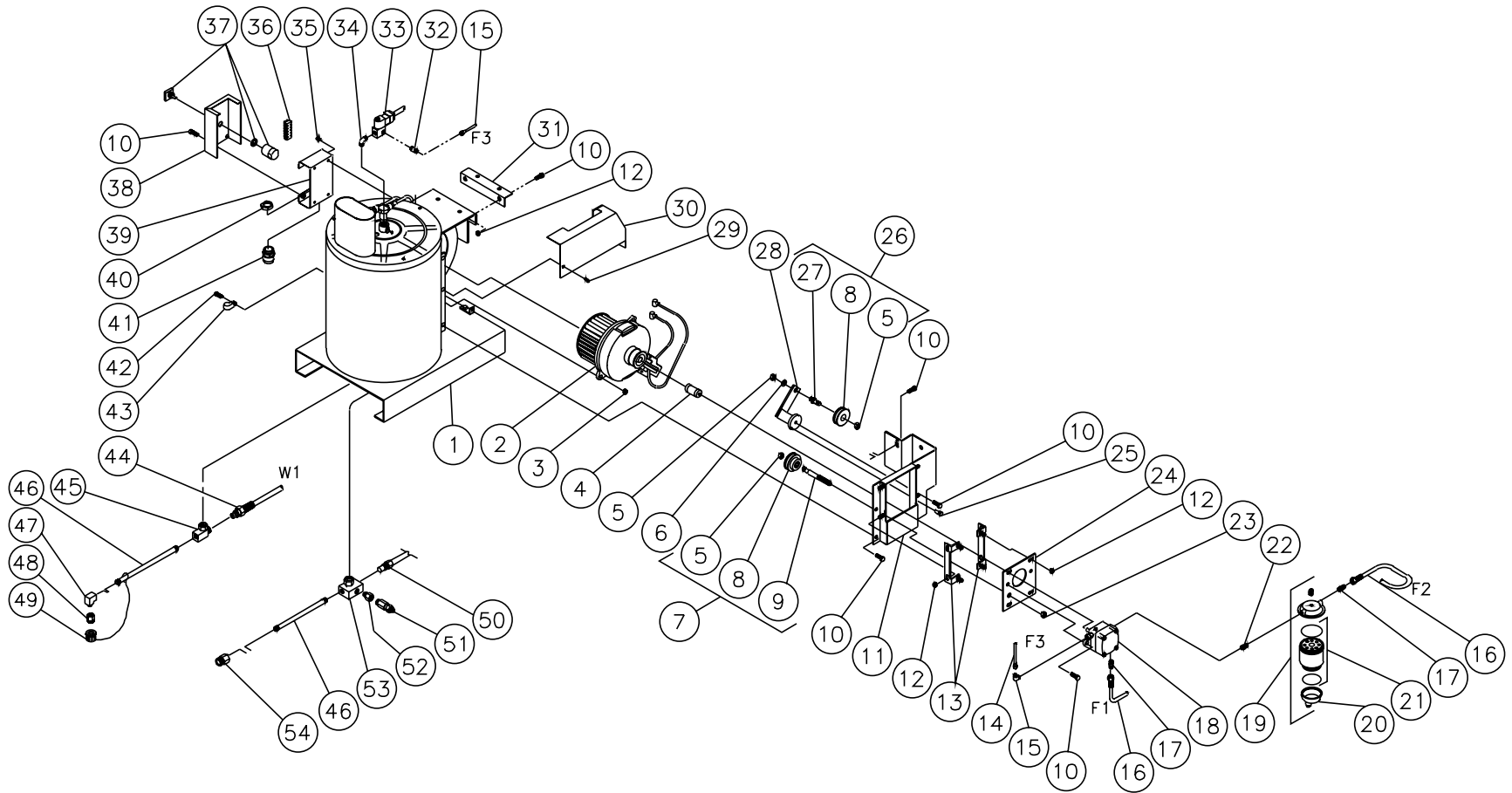
COIL DRAIN PLUG (850-0218)



850-0218-041597-BAR

| COIL DRAIN PLUG (850-0218) | | | |
|-----------------------------------|--------------------|---------------|-------------|
| REF. # | DESCRIPTION | PART # | QTY. |
| 1 | Bolt | 27-9526 | 1 |
| 2 | Retaining Cable | 33-0260 | 1 |
| 3 | Snap Ring | 33-0261 | 1 |
| 4 | Hand Wheel | 16-0239 | 1 |
| 5 | Plug | 24-0147 | 1 |
| 6 | Back-up Ring | 25-0424 | 1 |
| 7 | O-ring | 25-0423 | 1 |

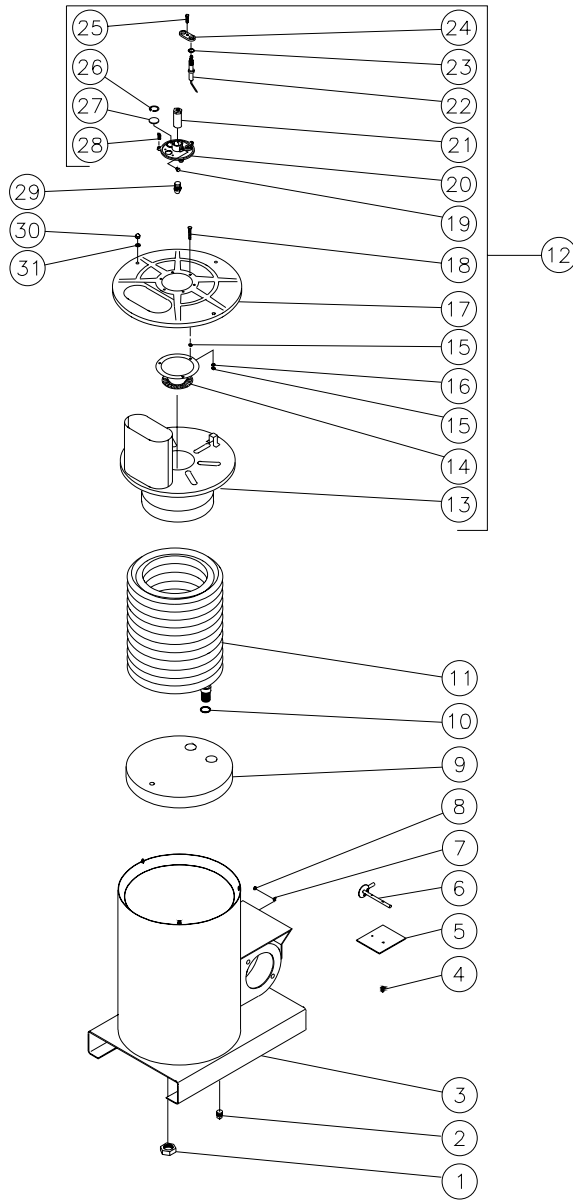
HEAT EXCHANGER/EMF SYSTEM



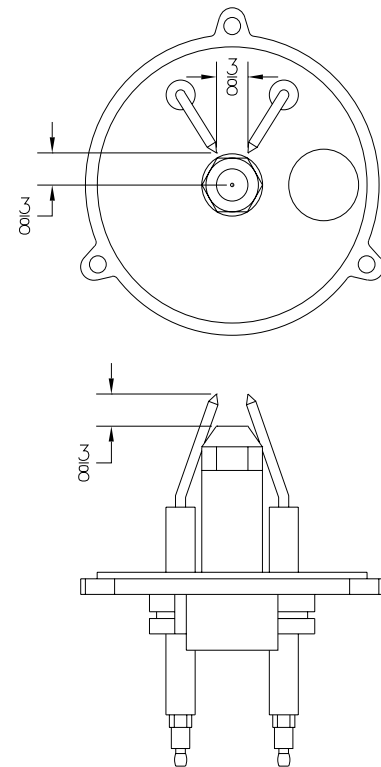
HSP098-022299-BAR

| HEAT EXCHANGER/ EMF SYSTEM | | | | | | | | | |
|----------------------------|---|------------|--------------|--------------|---------------------------------|--------------------------------------|------------|--------------|--------------|
| REF. # | DESCRIPTION | PART # | QTY. 3MGH | QTY. 3MGV | REF. # | DESCRIPTION | PART # | QTY. 3MGH | QTY. 3MGV |
| 1 | Boiler Assembly Complete | 850-0224 | 1 | 1 | 29 | Bolt | 27-9526 | 2 | 2 |
| 2 | EMF Assembly | 850-0239 | 1 | 1 | 30 | Beltguard- Honda | 20-0362A01 | 1 | - |
| 3 | Hex Nut | 30-3022 | 2 | 2 | - | Beltguard- Vanguard | 20-0355A01 | - | 1 |
| 4 | Fuel Pump Coupler | 33-0225 | 1 | 1 | 31 | Bracket | 20-0354A01 | - | 1 |
| 5 | Nut | 30-0159 | 3 | 3 | 32 | Connector | 23-0291 | 1 | 1 |
| 6 | Flatwasher | 28-0022 | 1 | 1 | 33 | Solenoid- 12 Volt | 44-0098 | 1 | 1 |
| 7 | Adjustable Sheave Shaft Assembly (Inc. 5, 8, 9) | 850-0167 | 1 | 1 | 34 | Elbow | 23-0249 | 1 | 1 |
| 8 | Sheave Assembly | 850-0177 | 2 | 2 | 35 | Bolt | 27-9528 | 4 | 4 |
| 9 | Pulley | 33-0221 | 1 | 1 | 36 | Terminal Stripe *(One Foot Required) | 32-0394 | 1 | 1 |
| 10 | Bolt | 27-9524 | 11 | 13 | 37 | Switch Cam | 32-0399 | 1 | 1 |
| 11 | Fuel Pump Bracket | 20-0353A01 | 1 | 1 | 38 | Electric Box Cover | 20-0357A01 | 1 | 1 |
| 12 | Hex Nut | 30-3023 | 8 | 10 | 39 | Electric Box Backplate | 20-0356A01 | 1 | 1 |
| 13 | Bracket | 20-0360A01 | 2 | 2 | 40 | Electrical Locknut | 32-0292 | 1 | 1 |
| 14 | Fuel Line | 33-0217 | 1 | 1 | 41 | Strain Relief | 9-0046 | 1 | 1 |
| 15 | Elbow | 23-0248 | 1 | 1 | 42 | Screw | 27-3062 | 1 | 1 |
| 16 | Fuel Hose | 15-0147 | 2 | 2 | 43 | Cable Clamp | 32-0428 | 1 | 1 |
| 17 | Connector | 23-0247 | 2 | 2 | 44 | High Pressure Hose Assembly | 15-0199 | 1 | 1 |
| 18 | Fuel Pump | 3-0129 | 1 | 1 | 45 | Coil Inlet Connector Assembly | 850-0225 | 1 | 1 |
| 19 | Filter Fuel Water Seperator | 19-0070 | 1 | 1 | 46 | Nipple | 24-0122 | 2 | 2 |
| 20 | Fuel Water Seperator Replacement Bowl | 19-0071 | 1 | 1 | 47 | Elbow | 23-0306 | 1 | 1 |
| 21 | Fuel Water Seperator Replacement Filter | 19-0053 | 1 | 1 | 48 | Adapter | 23-0279 | 1 | 1 |
| 22 | Hex Nipple | 23-0250 | 1 | 1 | 49 | Drain Plug Assembly | 850-0218 | 1 | 1 |
| 23 | Hex Nut | 30-0010 | 1 | 1 | 50 | High Limit Switch Probe | 32-0421 | 1 | 1 |
| 24 | Plate | 20-0363A01 | 1 | 1 | 51 | Pressure Relief Valve | 22-0272 | 1 | 1 |
| 25 | Pin | 33-0211 | 1 | 1 | 52 | Adapter Coil Outlet | 23-0369 | 1 | 1 |
| 26 | Tensioner Sheave Shaft Assembly (Inc. 5, 8, 27) | 850-0166 | 1 | 1 | 53 | Coil Outlet Assembly | 850-0251 | 1 | 1 |
| 27 | Shaft | 33-0212 | 1 | 1 | 54 | Hex Reducer | 23-0197 | 1 | 1 |
| 28 | Tensioner Base | 10-0071 | 1 | 1 | *Must Order in One Foot Lengths | | | | |

BOILER ASSEMBLY (850-0224)

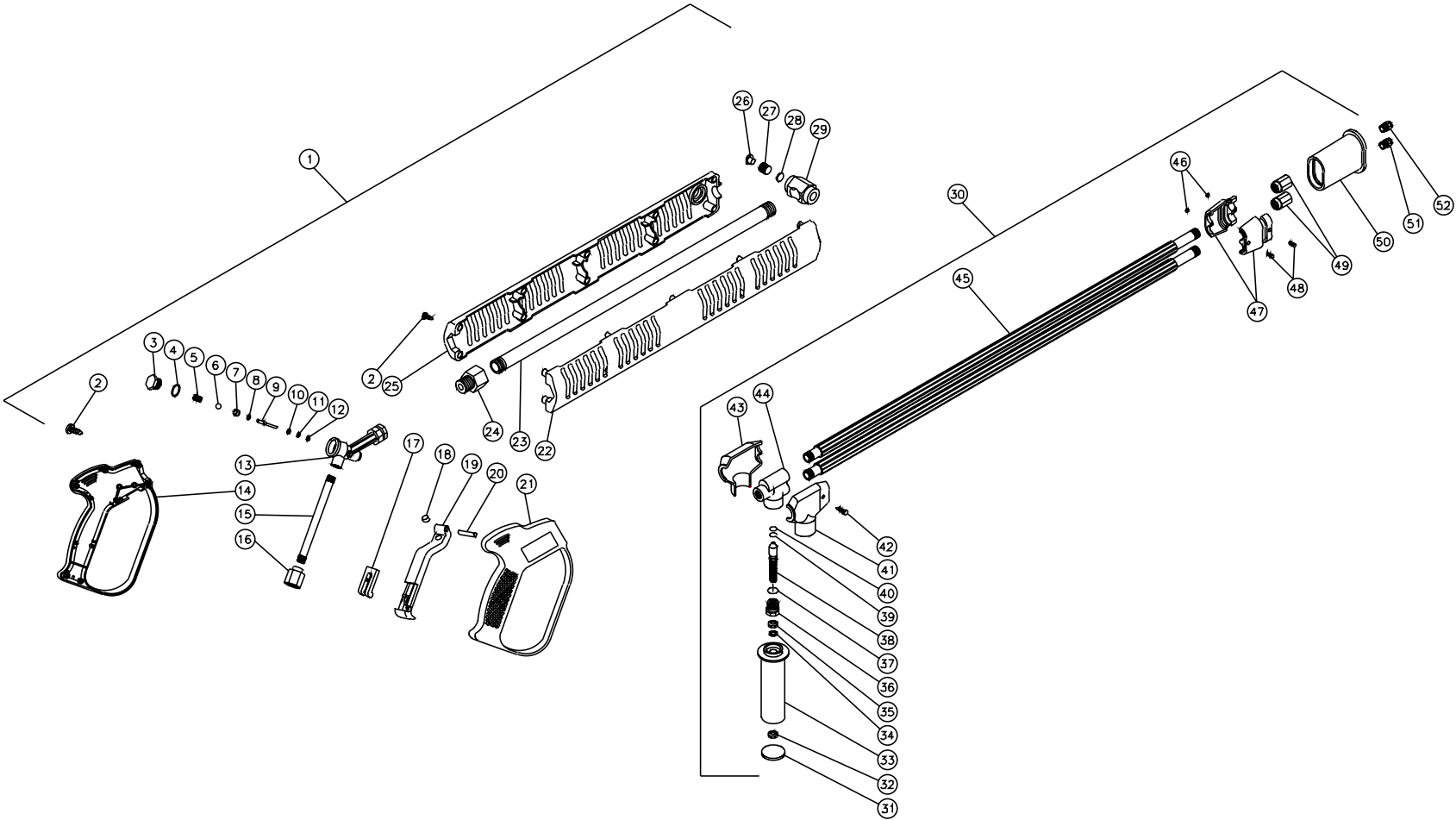


ELECTRODE GAP SETTINGS



| BOILER ASSEMBLY (850-0224) | | | | | | | |
|----------------------------|-------------------------------|------------|------|--------|--|----------|------|
| REF. # | DESCRIPTION | PART # | QTY. | REF. # | DESCRIPTION | PART # | QTY. |
| 1 | Hex Nut | 30-6004 | 2 | 17 | Top Pan | 20-0323 | 1 |
| 2 | Plug | 24-0034 | 1 | 18 | Bolt | 27-8806 | 3 |
| 3 | Heat Exchanger Assembly | 20-0348A01 | 1 | 19 | Bolt | 27-8805 | 1 |
| 4 | Bolt Hex Head | 27-8879 | 2 | 20 | Support Plate | 33-0183 | 1 |
| 5 | Air Diverter Plate | 20-0454A01 | 1 | 21 | Nozzle Holder | 33-0182 | 1 |
| 6 | Air Diverter Stem Assembly | 20-0377A01 | 1 | 22 | Electrode | 32-0377 | 2 |
| 7 | Lockwasher | 28-1009 | 1 | 23 | Washer | 28-1007 | 2 |
| 8 | Nut | 30-6001 | 1 | 24 | Electrode Mounting Plate | 33-0180 | 1 |
| 9 | Insulation | 33-0267 | 1 | 25 | Bolt | 27-8807 | 1 |
| 10 | Washer | 28-0521 | 2 | 26 | Snap Ring | 25-0290 | 1 |
| 11 | Heat Exchanger Coil Assembly | 66-0010 | 1 | 27 | Sight Glass | 33-0179 | 1 |
| 12 | Pan Assembly (Includes 13-28) | 70-0184 | 1 | 28 | Bolt | 27-8803 | 3 |
| 13 | Exhaust Pan | 20-0324 | 1 | 29 | Fuel Nozzle | 18-0310 | 1 |
| 14 | Heat Deflector | 20-0325 | 1 | 30 | Nut | 30-6002 | 3 |
| 15 | Nut | 30-6001 | 6 | 31 | Washer | 28-1028 | 3 |
| 16 | Lockwasher | 28-1009 | 3 | | Boiler Assembly Complete (Inc. 1-28, 30, 31) | 850-0224 | 1 |

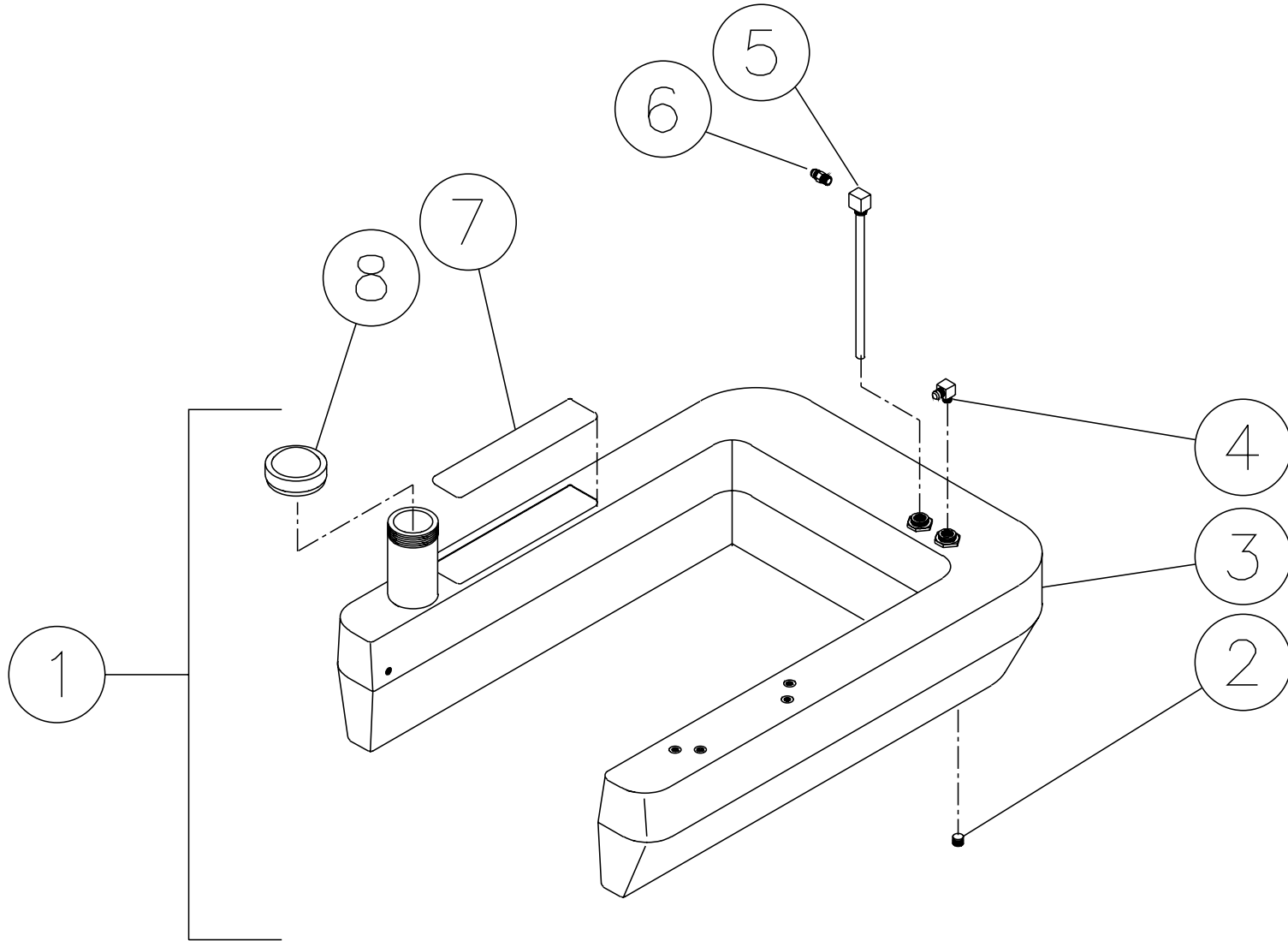
GUN/WAND (850-0179) & ADJUSTABLE PRESSURE DUAL LANCE (850-0185)



OMGEN256-101700-RD

| GUN/WAND (850-0179) & ADJUSTABLE PRESSURE DUAL LANCE (850- 0185) | | | | | | | |
|--|--|----------|------|--------|---|----------|------|
| REF. # | DESCRIPTION | PART # | QTY. | REF. # | DESCRIPTION | PART # | QTY. |
| 1 | Gun w/Lance Assembly (2-29) | 850-0179 | 1 | 29 | Lance Holder (See 850-0179) | N/A Sep. | 1 |
| 2 | Screw | 27-8382 | 13 | 30 | Adjustable Dual Lance Assembly (Includes 31-51) | 850-0185 | 1 |
| 3 | Plug (See 70-0057) | N/A Sep. | 1 | 31 | Handle Plug | 16-0312 | 1 |
| 4 | O-ring (See 70-0057) | N/A Sep. | 1 | 32 | Hex Nut | 30-3002 | 1 |
| 5 | Spring (See 70-0057) | N/A Sep. | 1 | 33 | Handle | 16-0313 | 1 |
| 6 | Ball (See 70-0057) | N/A Sep. | 1 | 34 | Washer | 28-1021 | 1 |
| 7 | Seat (See 70-0057) | N/A Sep. | 1 | 35 | Hex Nut | 30-3010 | 1 |
| 8 | O-ring (See 70-0057) | N/A Sep. | 1 | 36 | Hex Adapter | 23-0271 | 1 |
| 9 | Pin (See 70-0057) | N/A Sep. | 1 | 37 | O-ring | 25-0351 | 1 |
| 10 | Washer (See 70-0057) | N/A Sep. | 1 | 38 | Piston Stem | 16-0314 | 1 |
| 11 | O-ring (See 70-0057) | N/A Sep. | 1 | 39 | Back-up Ring | 25-0352 | 1 |
| 12 | Back-up Ring (See 70-0057) | N/A Sep. | 1 | 40 | O-ring | 25-0353 | 1 |
| 13 | Housing | 23-0295 | 1 | 41 | Upper Protector | 16-0315 | 1 |
| 14 | Plastic Housing (Left Side) | 16-0336 | 1 | 42 | Lower Protector | 16-0316 | 1 |
| 15 | Pipe | 21-0095 | 1 | 43 | Body | 23-0272 | 1 |
| 16 | Nipple | 23-0174 | 1 | 44 | Screw | 27-8862 | 1 |
| 17 | Trigger Safety Lock | 16-0332 | 1 | 45 | Lance w/Protective Cover | 16-0328 | 2 |
| 18 | Trigger Rest | 16-0333 | 1 | 46 | Hex Nut | 30-3060 | 2 |
| 19 | Trigger | 16-0335 | 1 | 47 | Pipe Clamp | 16-0318 | 2 |
| 20 | Trigger Pin | 43-0069 | 1 | 48 | Screw | 27-8861 | 2 |
| 21 | Plastic Housing (Right Side) | 16-0334 | 1 | 49 | Nipple | 24-0127 | 2 |
| 22 | Guard Lance (Right Side) (See 70-0324) | N/A Sep. | 1 | 50 | Nozzle Protector | 16-0319 | 1 |
| 23 | Pipe | 16-0277 | 1 | 51 | Nozzle-4060 | 18-0110 | 1 |
| 24 | Adapter | 16-0283 | 1 | 52 | Nozzle-1503 | 18-0053 | 1 |
| 25 | Guard Lance (Left Side) (See 70-0324) | N/A Sep. | 1 | | Gun Repair Kit (Includes 3-12) | 70-0057 | |
| 26 | Plug | 39-0076 | 1 | | O-ring Kit (Includes 37, 39, 40) | 70-0143 | |
| 27 | Screw | 49-0103 | 1 | | Plastic Housing Kit (Includes 2, 22, 25, 26) | 70-0324 | |
| 28 | Spacer | 16-0282 | 1 | | | | |

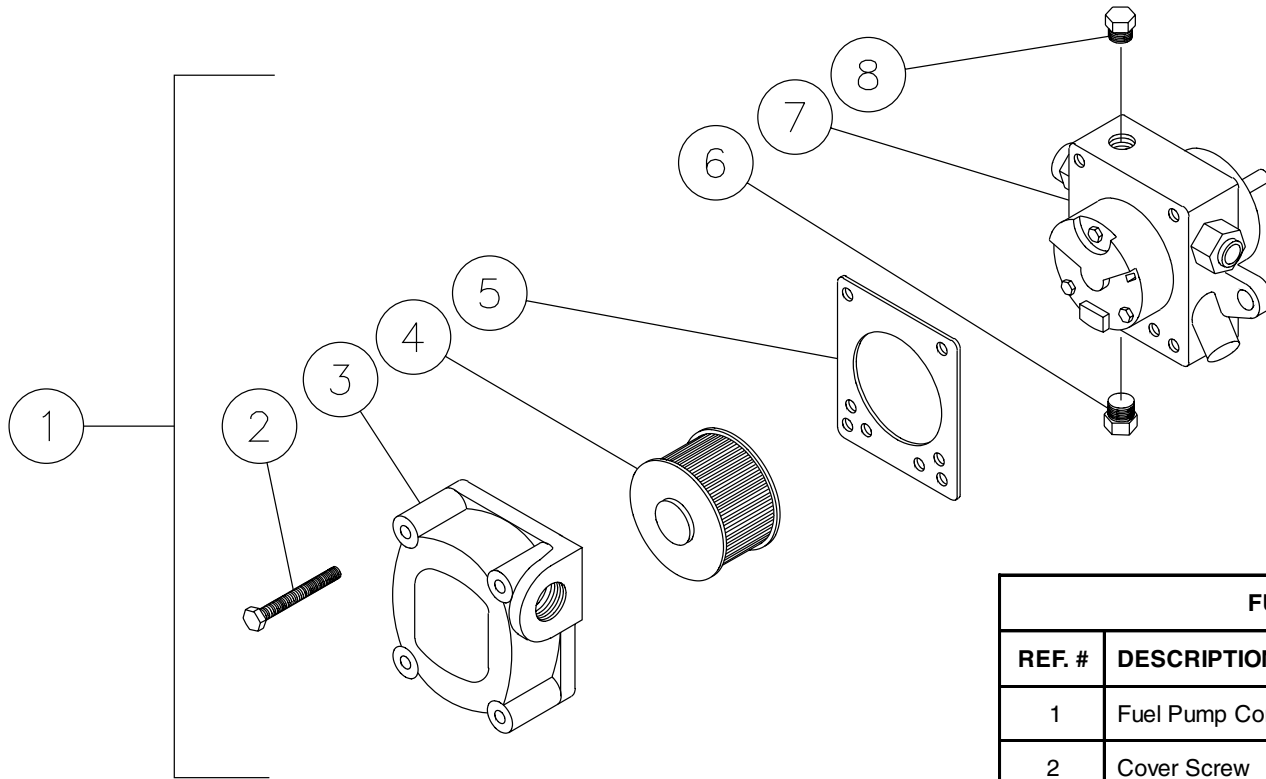
FUEL TANK (850-0214)



850-0214-121797-BAR

| FUEL TANK (850-0214) | | | |
|-----------------------------|----------------------------------|---------------|-------------|
| REF. # | DESCRIPTION | PART # | QTY. |
| 1 | Fuel Tank Assembly (Inc. 2-8) | 850-0214 | 1 |
| 2 | Plug | 23-0296 | 1 |
| 3 | Fuel Tank (See 850-0214) | N/A Sep. | 1 |
| 4 | Elbow | 23-0237 | 1 |
| 5 | Fuel Pick-up Line | 33-0270 | 1 |
| 6 | Flare | 23-0247 | 1 |
| 7 | Decal-Warning-Risk of Fire (E/S) | 34-0806 | 1 |
| 8 | Vented Fuel Cap | 12-0033 | 1 |

FUEL PUMP (3-0129)

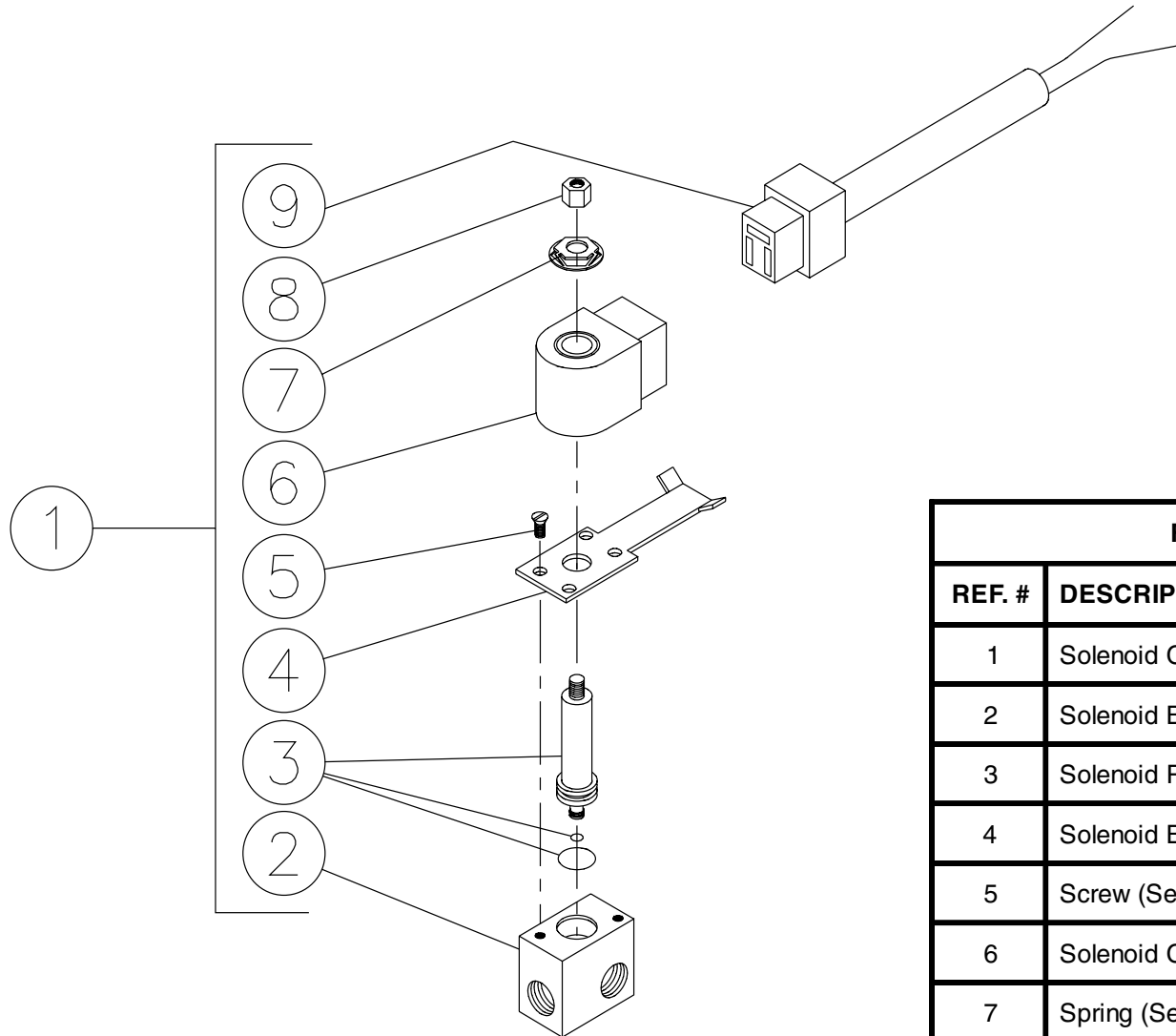


OMHSP018-041597-BAR

| FUEL PUMP (3-0129) | | | |
|--------------------|-----------------------------------|---------|------|
| REF. # | DESCRIPTION | PART # | QTY. |
| 1 | Fuel Pump Complete (Includes 2-8) | 3-0129 | 1 |
| 2 | Cover Screw | 46-1006 | 4 |
| 3 | Cover-Left Hand | 46-1018 | 1 |
| 4 | Strainer | 19-0034 | 1 |
| 5 | Cover Gasket | 26-0109 | 1 |
| 6 | Plug | 24-0044 | 3 |
| 7 | Body | N/A | 1 |
| 8 | Plug | 24-0082 | 1 |

OMHSP018-041597-BAR

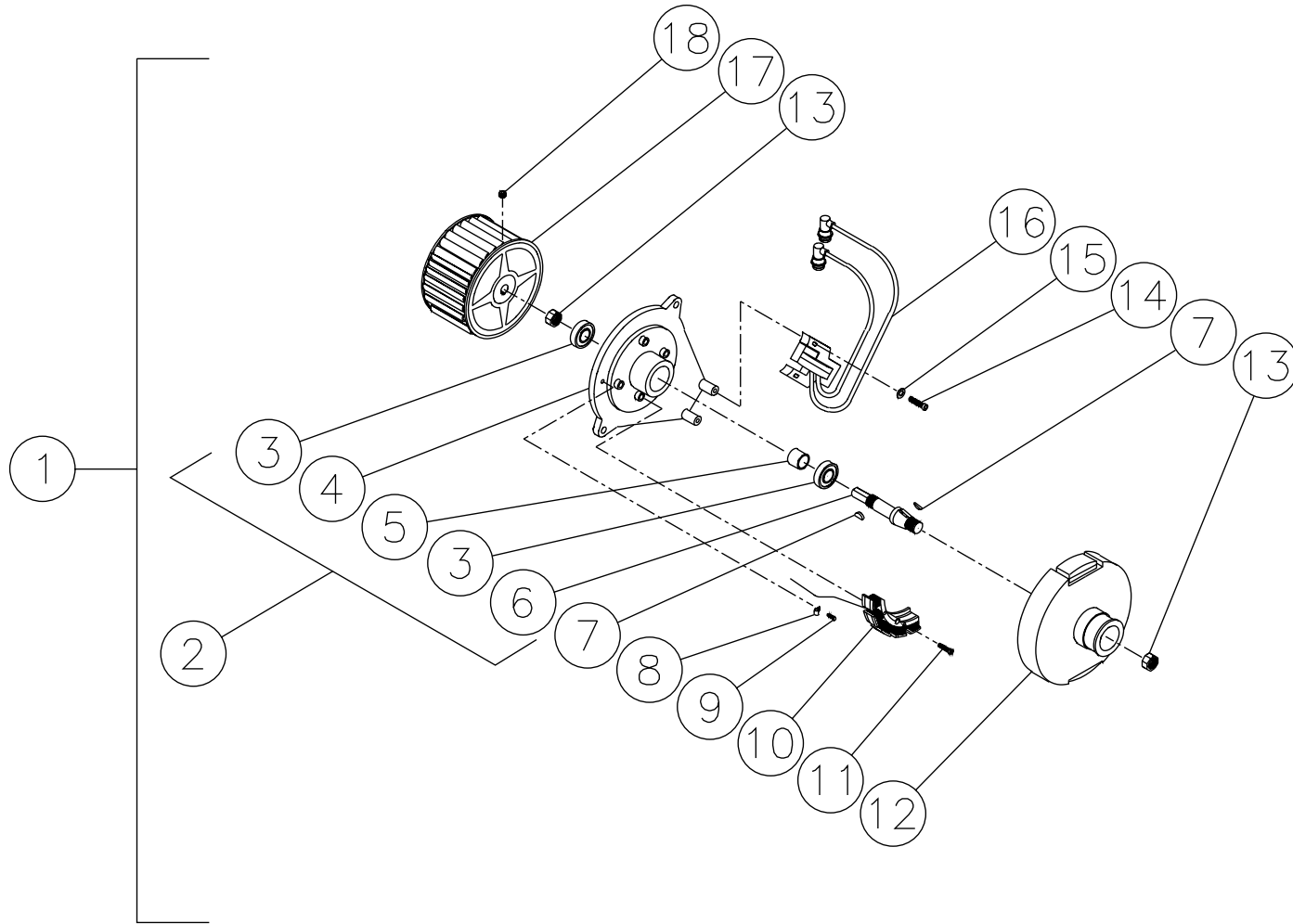
FUEL SOLENOID (44-0098)



0MHSP013-44-0098-121698-BAR

| FUEL SOLENOID (44-0098) | | | |
|-------------------------|-----------------------|----------|------|
| REF. # | DESCRIPTION | PART # | QTY. |
| 1 | Solenoid Complete-12V | 44-0098 | 1 |
| 2 | Solenoid Body | 46-1013 | 1 |
| 3 | Solenoid Piston | 46-1012 | 1 |
| 4 | Solenoid Base | 46-1014 | 1 |
| 5 | Screw (See 44-0098) | N/A Sep. | 2 |
| 6 | Solenoid Coil-120V | 46-1015 | 1 |
| 7 | Spring (See 44-0098) | N/A Sep. | 1 |
| 8 | Piston Nut | 46-1016 | 1 |
| 9 | Din Connector Cord | 32-0443 | 1 |

EMF SYSTEM (850-0239)

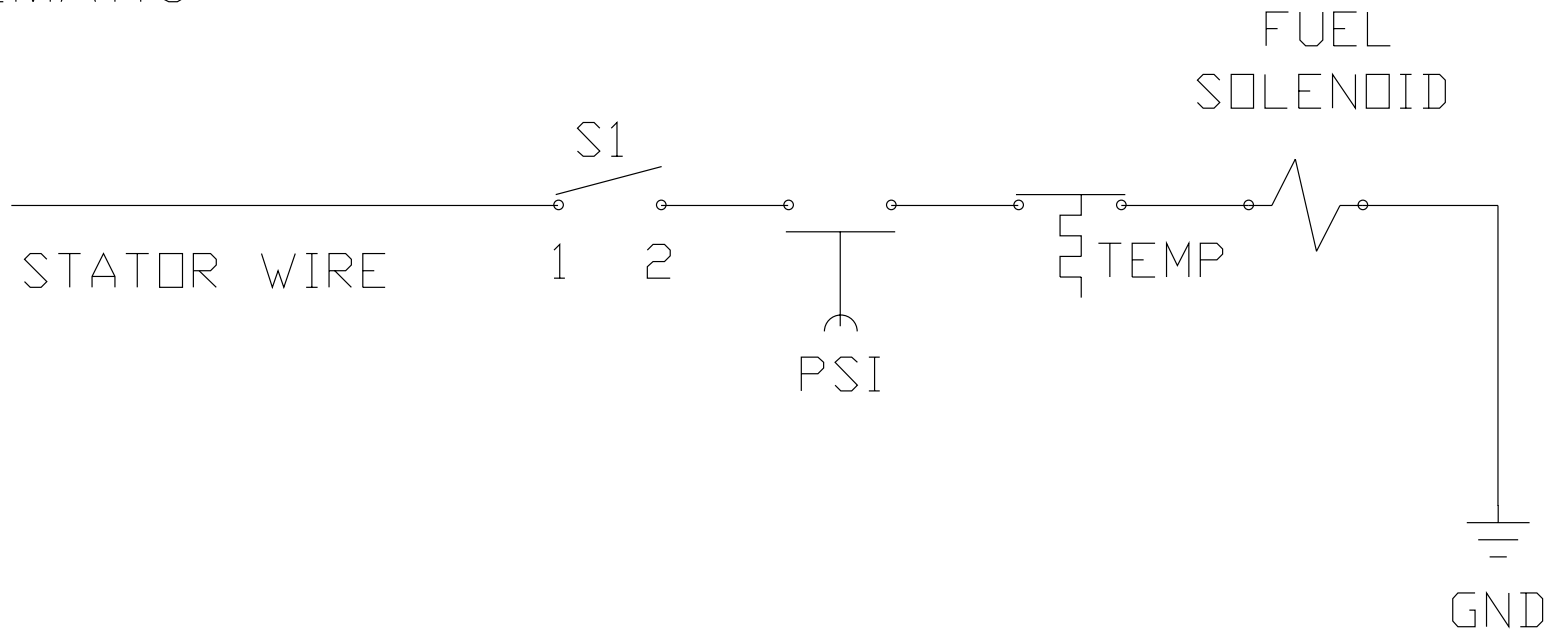


850-0239-113099-BAR

| EMF SYSTEM (850-0239) | | | |
|------------------------------|-----------------------------------|---------------|-------------|
| REF. # | DESCRIPTION | PART # | QTY. |
| 1 | EMF Assembly Complete (Inc. 2-17) | 850-0239 | 1 |
| 2 | Blower Flange Assembly (Inc. 3-6) | 850-0162 | 1 |
| 3 | Sealed Bearing | 48-0041 | 2 |
| 4 | Blower Flange | 38-0040 | 1 |
| 5 | Spacer | 33-0206 | 1 |
| 6 | Blower Shaft | 20-0347 | 1 |
| 7 | Woodruff Key | 43-0080 | 2 |
| 8 | Cable Clamp | 32-0403 | 1 |
| 9 | Screw | 27-2070 | 1 |
| 10 | Stator Coil | 850-0189 | 1 |
| 11 | Screw | 27-0740 | 4 |
| 12 | Flange Magnet Hub | 38-0041 | 1 |
| 13 | Hex Nut | 30-0177 | 2 |
| 14 | Bolt | 27-8898 | 2 |
| 15 | Flatwasher | 28-0002 | 2 |
| 16 | Ignition Coil Assembly | 850-0161 | 1 |
| 17 | Blower Fan | 44-0105 | 1 |
| 18 | Set Screw | 30-3021 | 1 |

WIRING SCHEMATIC

SCHEMATIC



WIRING DIAGRAM

WIRE DIAGRAM

- BLACK -----
- BROWN -----
- GREEN -----
- ORANGE -----
- RED -----
- WHITE -----

