



Performance Under Pressure

PARTS LIST FOR
HSP-2003-3MGH/3MGV
(AFTER SERIAL #15010743)

ENGINE OIL GRADE:

HONDA: SAE 10W-30
VANGUARD: ABOVE 40°F=SAE30
BELOW 40°F=SAE10W-30

ENGINE OIL CAPACITY:

HONDA: 20 oz.
VANGUARD: 24 oz.

PUMP OIL GRADE:

PUMP OIL CAPACITY:

FUEL NOZZLE:

BTU INPUT:

PRESSURE NOZZLE SIZE:

Mi-T-M PUMP OIL AW-4085-0016

14 oz.

1.25 60°B DELAVAN

205,000 / HOUR

3.5

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. Each component has been rigorously tested to insure the highest level of quality.

The contents of this Parts Listing are based on the latest product information available at the time of publication. The manufacturer 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 manufacturer 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 materials.
5. After testing the machine, DO NOT leave the pressurized unit unattended. Shut off the unit and release trapped pressure before leaving.

Table of Contents

SPECIFICATIONS.....3

FLOW CHART4

EMF SYSTEM4

GENERAL THEORY OF OPERATION5

DECAL PLACEMENT6

FRAME ASSEMBLY (AFTER SERIAL #15010743)8

ENGINE/PUMP ASSEMBLY10

HIGH PRESSURE PUMP (3-0193).....12

UNLOADER/MANIFOLD ASSEMBLY.....14

UNLOADER (850-0252).....16

PRESSURE SWITCH (22-0171).....18

DETERGENT INJECTOR (50-0052).....19

COIL DRAIN PLUG (850-0218).....19

HEAT EXCHANGER/ EMF SYSTEM20

BOILER ASSEMBLY (850-0361).....22

GUN ASSEMBLY (16-0001)24

DUAL LANCE ASSEMBLY (16-0416)26

FUEL TANK (850-0214).....28

FUEL PUMP (3-0129)30

FUEL SOLENOID (44-0098).....31

EMF SYSTEM (850-0239).....32

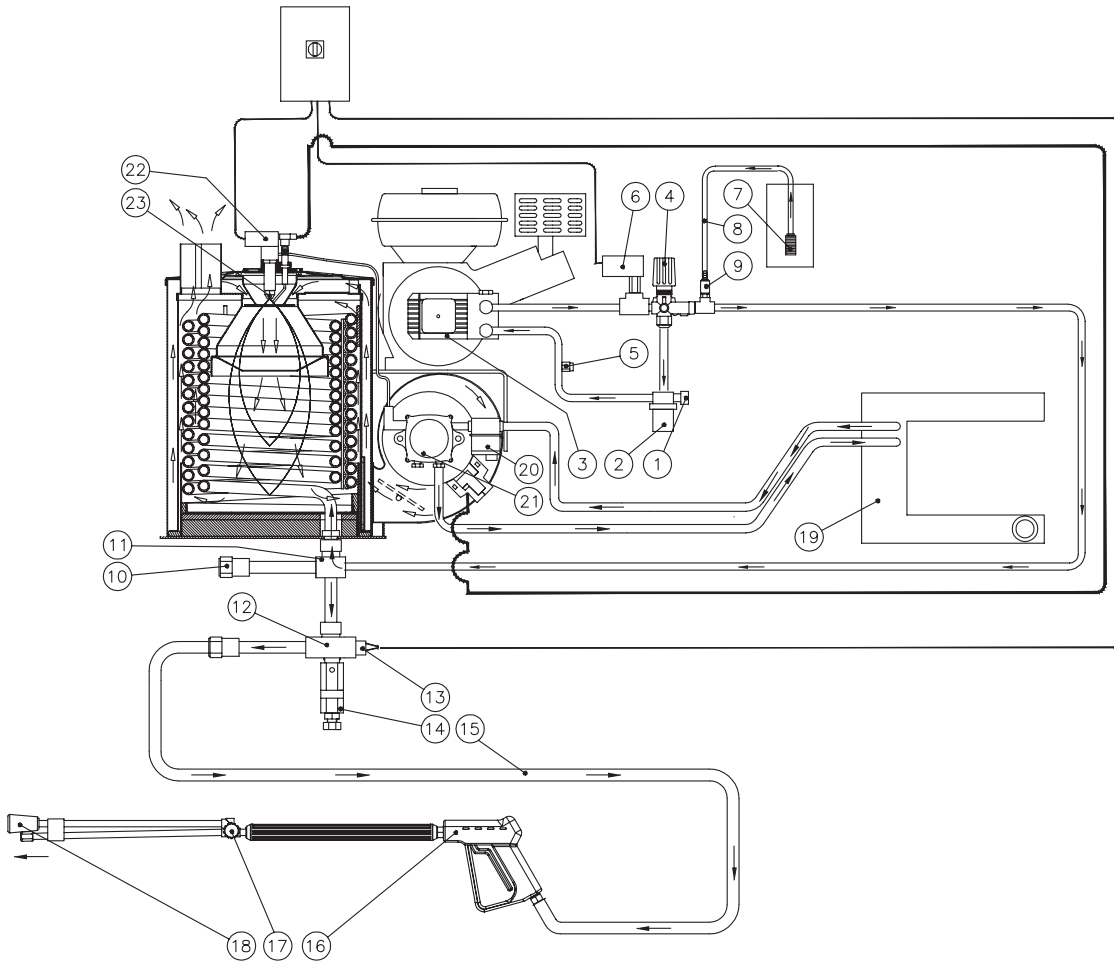
WIRING SCHEMATIC34

WIRING DIAGRAM35

SPECIFICATIONS

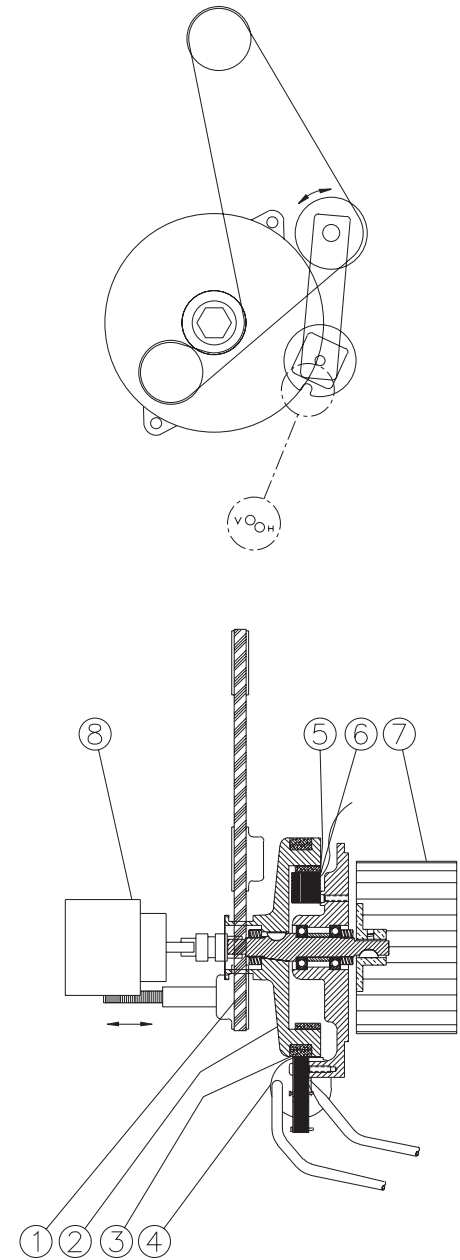
MODEL NUMBER	HSP-2003-3MGH	HSP-2003-3MGV
Operating Pressure (PSI/Bar):	2000/ 138 (+/- 5%)	
Water Volume (GPM/lpm):	2.5/9.5 (+/- 5%)	
Outlet Water Temperature (F/C):	130°F/ 54°C (+/- 20°F) rise above inlet ambient (210°F/ 99°C maximum)	
Engine:	Honda	Briggs & Stratton Vanguard
Horsepower	5.5	6.0
Engine Type	Four Stroke, Overhead Valve, Single Cylinder	
Oil Type	SAE 10W-30	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)	14/ .41	
Plungers	Ceramic	
Manifold	Forged Brass	
Valves	Stainless Steel	
Unloader	Preset	
Inlet Water Strainer	Removable Clear Bowl for inspection and cleaning of Stainless Steel Screen	
Heat Dump Valve	Relieves heated water during unloader bypass stage	
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)	4/15	
Fuel Filter/ Water Separator	Spin on (10 micron) filter/ E-Z water drain	
Fuel Pump	Two Line, Single Stage	
Fuel Pressure (PSI/ BAR)	145/ 10	
Fuel Nozzle	1.25 60° B Delavan	
Fuel Consumption (GPH/ LPH)	1.48 GPH Continuous Burning	
Electro Magnetic Firing (EMF) System:	Belt Driven (Patent # 5,954,494)	
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 cam 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):	265/120	270/123
Unit Shipping Weight (Lbs/kg):	381/173	386/175
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 x 80W x 123H	

FLOW CHART



OMHSP091-042805-RZ

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 bypass the water or the burner remains on when the trigger gun is closed, the SAFETY RELIEF (14) will relieve and allow water to exit safely.

The heated water then flows through the HIGH PRESSURE HOSE (15) and to the TRIGGER GUN ASSEMBLY (16) which allows the operator to control the water spray. When the trigger gun is open, the water flows through the ADJUSTABLE PRESSURE DUAL LANCE (17) and exits the NOZZLE (18).

FUEL FLOW: The Fuel Pump draws fuel from the FUEL TANK (19) through a replaceable FUEL FILTER/WATER SEPARATOR (20) and into the FUEL PUMP (21). Fuel exits the fuel pump, into a FUEL SOLENOID VALVE (22) which controls fuel flow to the FUEL NOZZLE (23) where it ignites and burns in the heat exchanger.

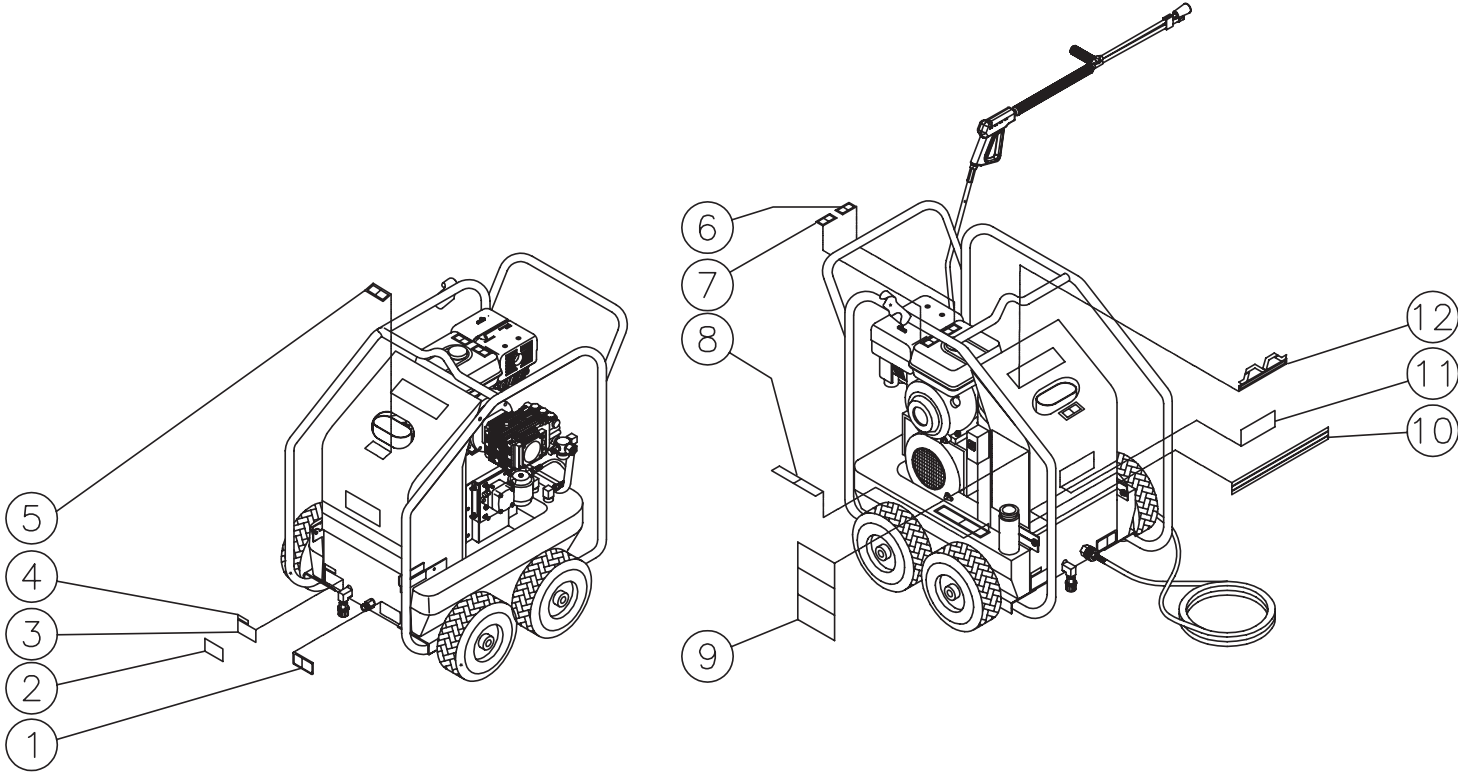
EMF SYSTEM: The patented Electro Magnetic Firing (EMF) System is an integrated system which gives all the requirements for combustion.

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.

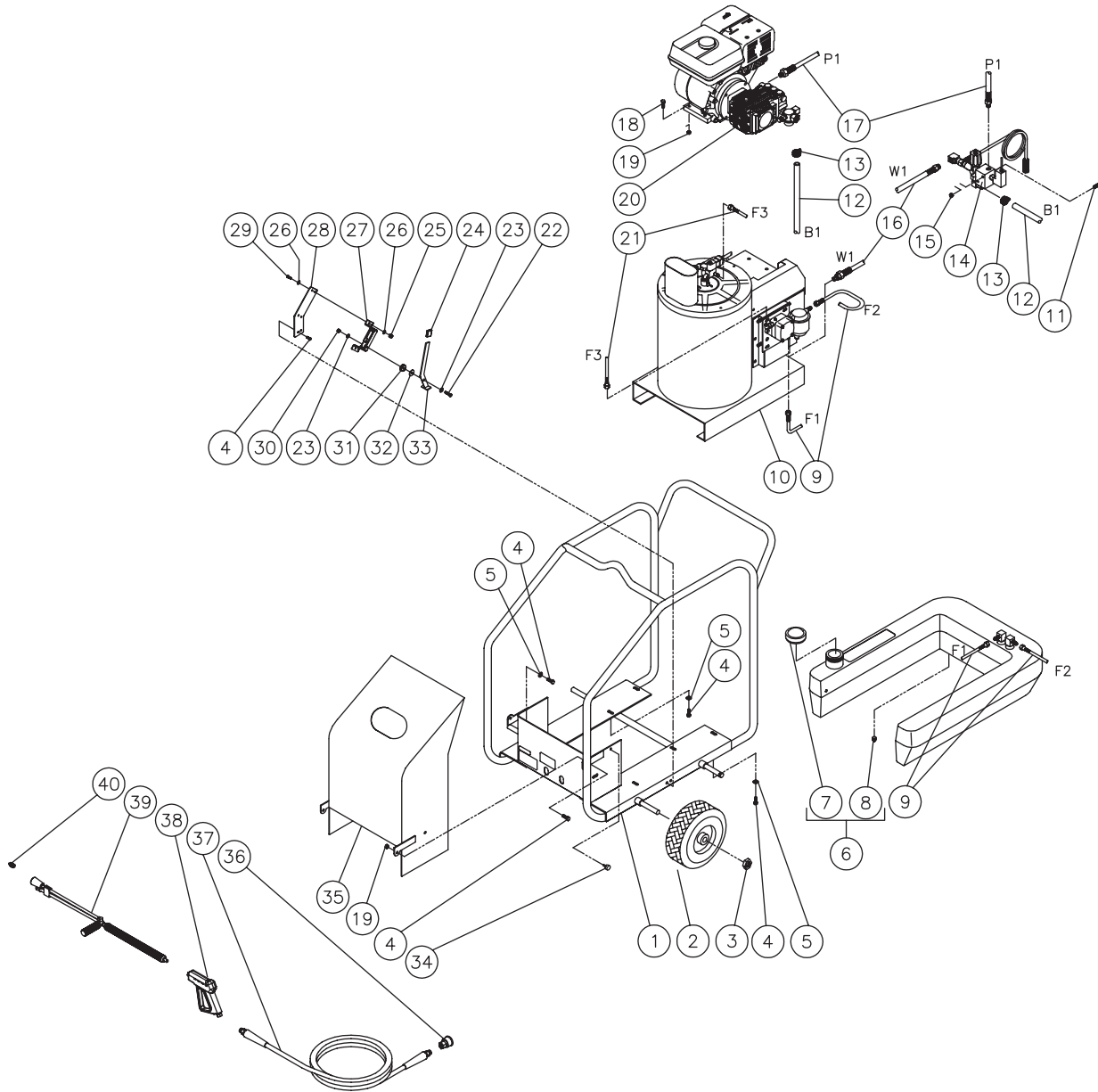
DECAL PLACEMENT



HSP-2003-3MGH/GV-033005-RZ

DECAL PLACEMENT			
REF. #	DESCRIPTION	PART #	QTY.
1	Decal- Warning: Don't Modify Plumbing (See 34-9001)	N/A Sep.	1
2	Decal- Data Plate	N/A	1
3	Decal- Warning: Hot Coil Exhaust (See 34-9001)	N/A Sep.	1
4	Decal- Allow to Cool (See 34-9001)	N/A Sep.	1
5	Decal- Hot Surface (See 34-9001)	N/A Sep.	1
6	Decal- Risk of Fire (See 34-9001)	N/A Sep.	1
7	Decal- Warning/ Caution/ Operation (See 34-9001)	N/A Sep.	1
8	Decal- Stripe	34-0560	1
9	Decal-White Die Cut	34-0551	1
10	Plastic Mi-T-M Logo	62-0087	1
	Decal Kit (Inc. 1, 3-7)	34-9001	

FRAME ASSEMBLY (AFTER SERIAL #15010743)

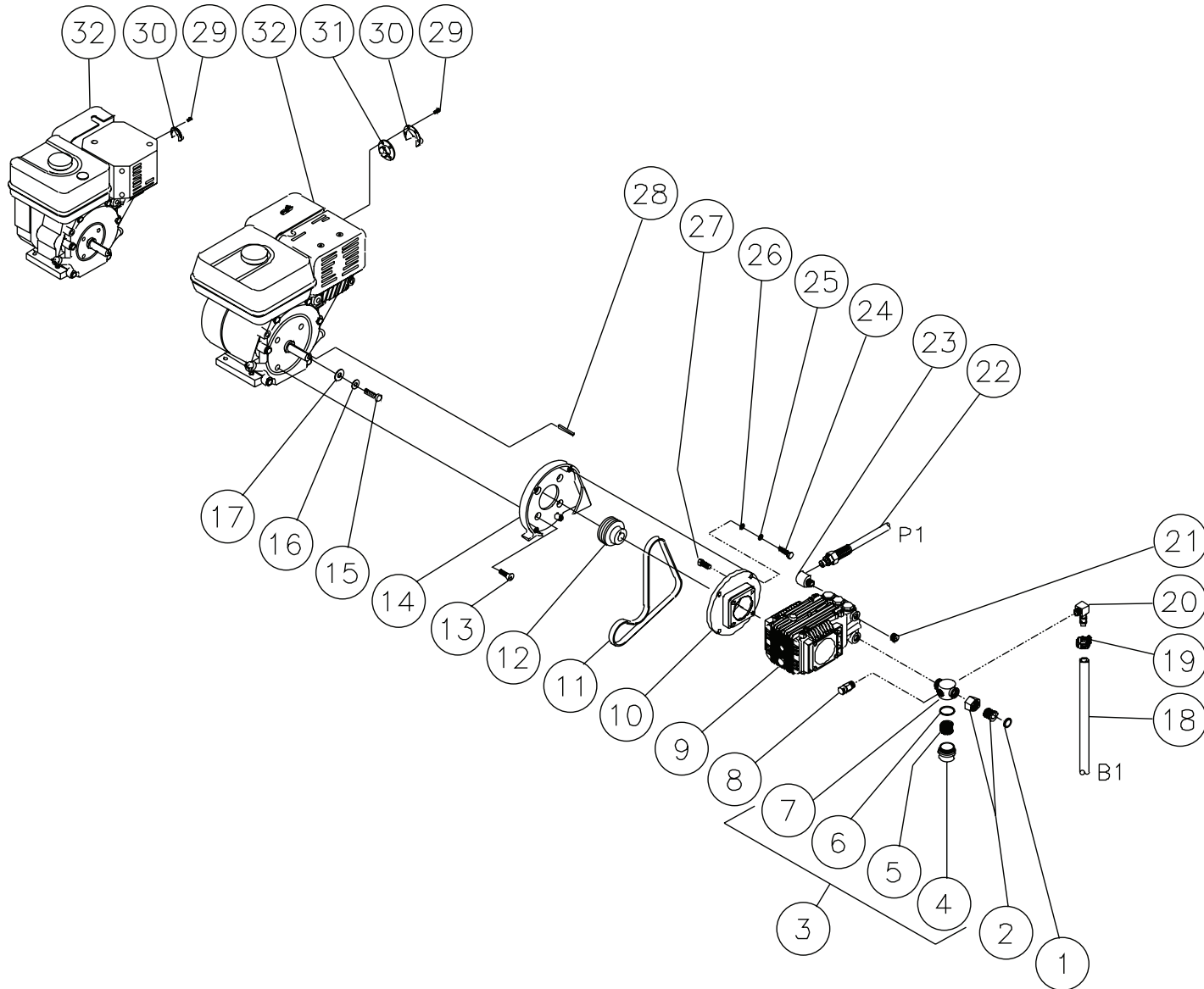


HSP096-033005-RZ

FRAME ASSEMBLY (AFTER SERIAL #15010743)

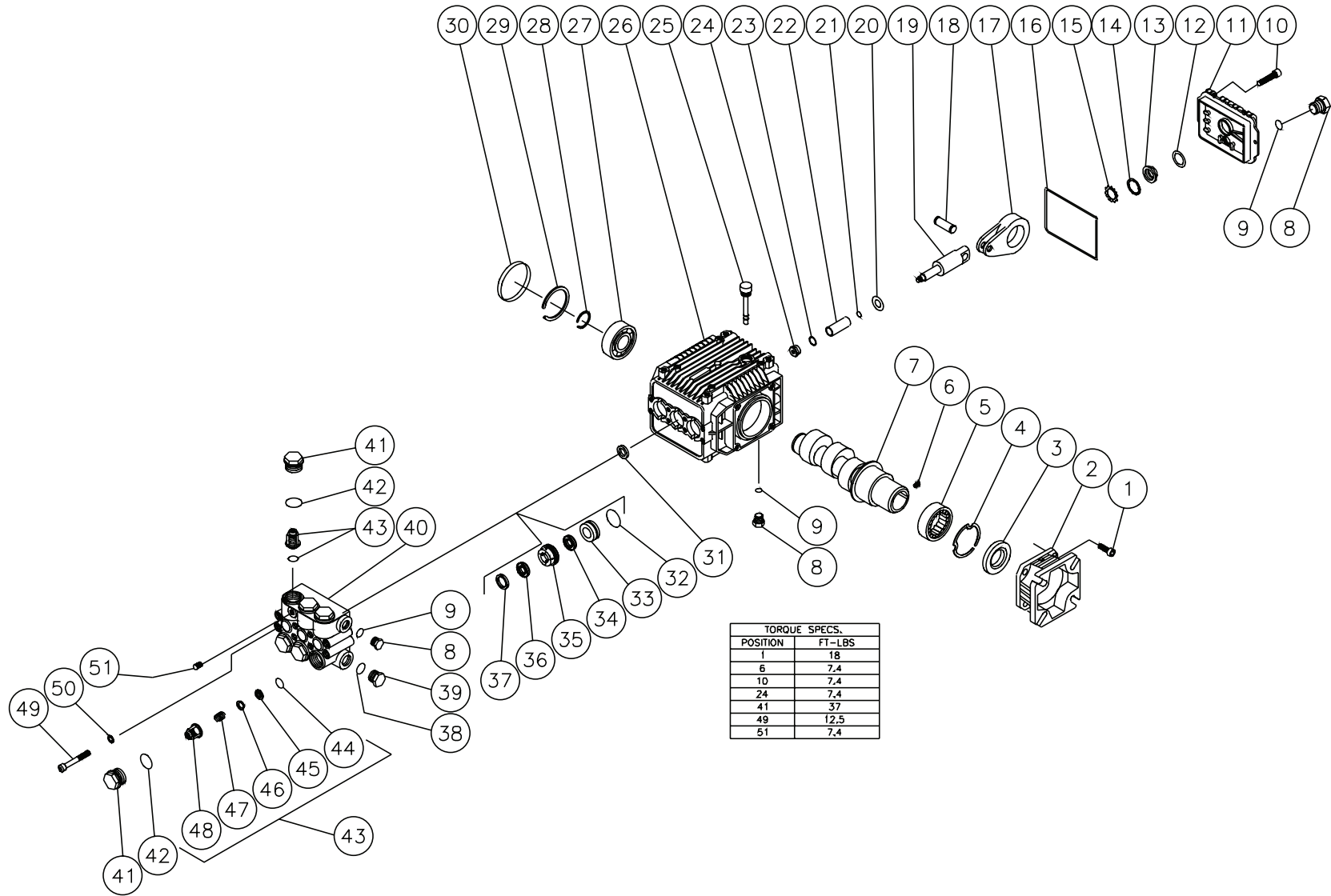
REF. #	DESCRIPTION	PART #	QTY.	REF. #	DESCRIPTION	PART #	QTY.
1	Frame Assembly	5-9002A01	1	22	Screw	27-0068	1
2	Wheel	14-0017	4	23	Washer	28-0003	2
3	Jam Nut	30-0117	4	24	Handle Grip	7-0170	1
4	Bolt	27-9524	14	25	Locknut	30-0155	3
5	Flatwasher	28-0022	10	26	Washer	28-0002	6
6	Fuel Tank Assembly (Includes 7, 8)	850-0214	1	27	Bracket	20-0546A01	1
7	Fuel Cap	12-0033	1	28	Brake Plate	20-0580A01	1
8	Plug	23-0296	1	29	Screw	27-0015	3
9	Fuel Hose	15-0147	2	30	Locknut	30-0157	1
10	Heat Exchanger/ EMF System Assembly (See Exploded Drawing)	N/A Sep.	1	31	Grommet	33-0366	1
11	Bolt	27-0526	2	32	Washer	28-0057	1
12	Hose *(Two Feet Required)	15-0007	1	33	Brake Handle Assembly	20-0552A01	1
13	Hose Clamp	42-0011	2	34	Screw Cover	62-0057	1
14	Unloader/ Manifold Assembly (See Exploded Drawing)	N/A Sep.	1	35	Hood Assembly	850-0164	1
15	Hex Nut	30-0157	2	36	Screw Connect	17-0035	1
16	High Pressure Hose Assembly	15-0199	1	37	Hose Assembly	15-0146	1
17	High Pressure Hose Assembly	15-0194	1	38	Gun	16-0001	1
18	Bolt	27-9525	4	39	Dual Lance Assembly	16-0416	1
19	Hex Nut	30-3023	6	40	Nozzle- 1503.5 (HSP-2003)	18-0254	1
20	Engine/ Pump Assembly (See Exploded Drawing)	N/A Sep.	1	-	Nozzle- 1503 (HSP-2403)	18-0053	1
21	Fuel Line	33-0217	1	*Must Order in One Foot Lengths			

ENGINE/PUMP ASSEMBLY



ENGINE/ PUMP ASSEMBLY									
REF. #	DESCRIPTION	PART #	QTY. 3MGH	QTY. 3MGV	REF. #	DESCRIPTION	PART #	QTY. 3MGH	QTY. 3MGV
1	Hose Gasket	26-0001	1	1	19	Hose Clamp	42-0011	1	1
2	Hose Swivel	23-0095	1	1	20	Elbow	23-0119	1	1
3	Strainer Complete (Includes 4-7)	19-0096	1	1	21	Plug	23-0244	1	1
4	Strainer Bowl	19-0103	1	1	22	High Pressure Hose	15-0194	1	1
5	Stainless Steel Screen	19-0104	1	1	23	Elbow	23-0034	1	1
6	Strainer Gasket	25-0056	1	1	24	Bolt	27-0118	4	4
7	Strainer Body	19-0105	1	1	25	Lockwasher	29-0008	4	4
8	Heat Dump Valve	22-0208	1	1	26	Flatwasher	28-0023	4	4
9	High Pressure Pump	3-0193	1	1	27	Bolt	27-8432	4	4
10	Flange/ Pump Adapter	38-0054	1	1	28	Key	43-0073	1	1
11	Belt	11-0037	1	1	29	Screw- Honda	27-3093	2	-
12	Sheave	10-0076	1	1	-	Screw- Vanguard	27-3094	-	2
13	Bolt	27-0418	4	4	30	Muffler Deflector- Honda	45-0051	1	-
14	Adapter Plate	38-0044	1	1	-	Muffler Deflector- Vanguard	45-0050	-	1
15	Bolt	27-0091	1	1	31	Muffler Guide- Honda	45-0052	1	-
16	Lockwasher	29-0007	1	1	32	Engine- 5.5 H.P. Honda	1-0013	1	-
17	Flatwasher	28-0003	1	1	-	Engine- 6.0 H.P. Vanguard	1-0069	-	1
18	Hose *(Two Feet Required)	15-0007	1	1	*Must Order in One Foot Lengths				

HIGH PRESSURE PUMP (3-0193)

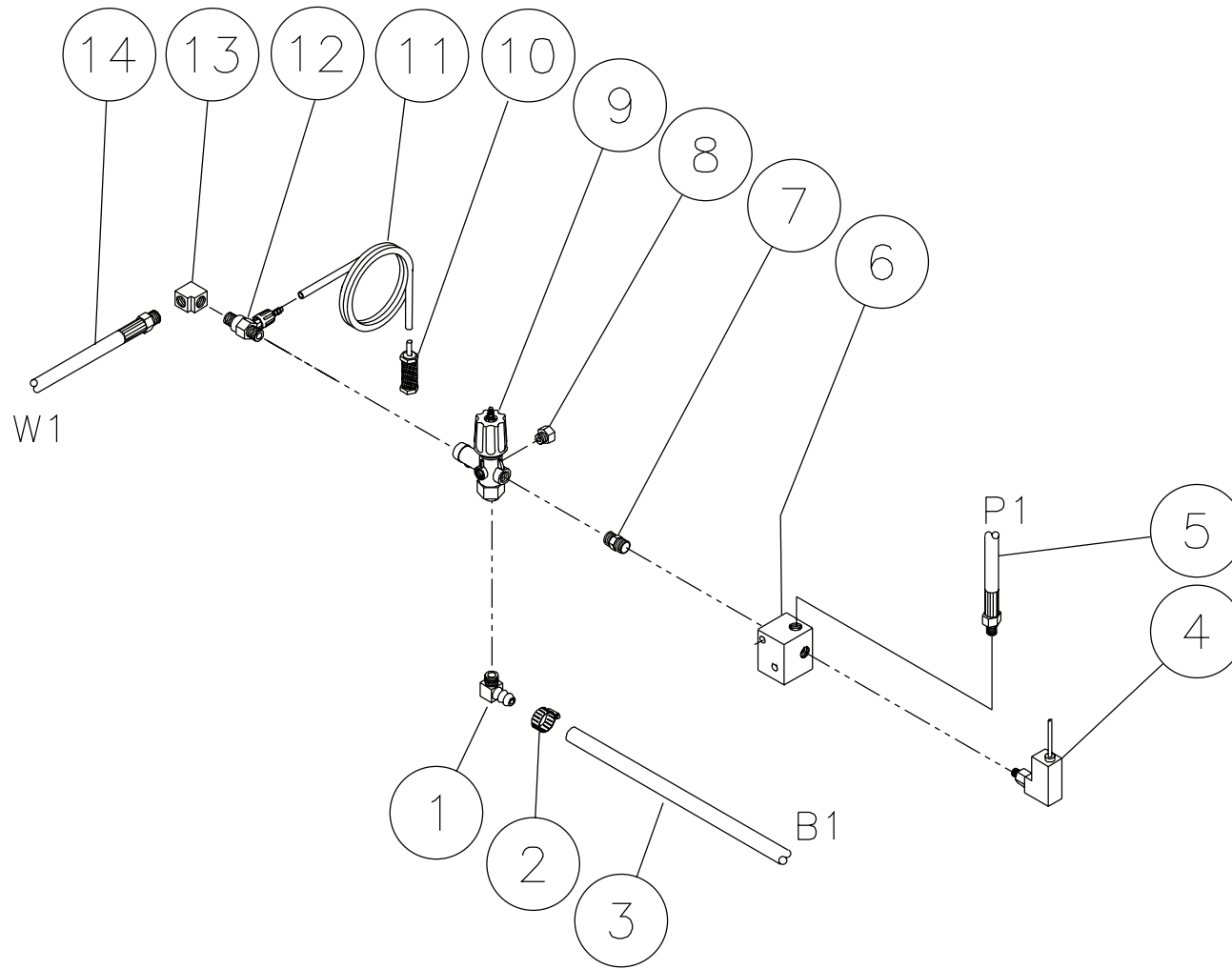


3-0193-030703-RD

HIGH PRESSURE PUMP (3-0193)

REF.	DESCRIPTION	PART #	QTY.	REF.	DESCRIPTION	PART #	QTY.	REF.	DESCRIPTION	PART #	QTY.
1	Bolt	27-8432	4	19	Plunger Rod	46-0722	3	37	Support Ring (See 70-0182)	N/A Sep.	3
2	Flange	46-0715	1	20	Washer	28-1027	3	38	O-ring	25-0372	1
3	Oil Seal	26-0192	1	21	O-ring	25-0371	3	39	Plug	39-0088	1
4	Retaining Ring	46-0667	1	22	Piston	46-0723	3	40	Manifold	46-0730	1
5	Bearing	48-0059	1	23	Washer	26-0187	3	41	Valve Cap	39-0087	6
6	Set Screw	27-8886	1	24	Nut	30-6016	3	42	O-ring	25-0160	6
7	Crankshaft	46-0718	1	25	Oil Dipstick	39-0090	1	43	Single Valve Assembly (Inc. 44-48) (See 70-0161)	N/A Sep.	6
8	Plug	39-0086	1	26	Crankcase	46-0724	1	44	O-ring (See 70-0161)	N/A Sep.	6
9	O-ring	25-0325	3	27	Bearing	48-0063	1	45	Valve Seat (See 70-0161)	N/A Sep.	6
10	Bolt	27-8888	6	28	Retaining Ring	46-0732	1	46	Valve Plate (See 70-0161)	N/A Sep.	6
11	Crankcase Cover	46-0719	1	29	Retaining Ring	46-0676	1	47	Valve Spring (See 70-0161)	N/A Sep.	6
12	O-ring	25-0370	1	30	Bearing Cap	46-0725	1	48	Valve Cage (See 70-0161)	N/A Sep.	6
13	O-ring Sight Glass	46-0670	1	31	Oil Seal	26-0193	3	49	Bolt	27-8875	8
14	Reflector	46-0824	1	32	O-ring	25-0399	3	50	Lockwasher	29-0153	8
15	Retainer	46-0671	1	33	Retainer	46-0726	3	51	Plug	39-0097	1
16	O-ring	25-0398	1	34	Low Pressure Seal (See 70-0181)	N/A Sep.	3		Seal Kit (3 each 32, 34, 36)	70-0181	
17	Connecting Rod	46-0720	3	35	Packing Retainer	46-0728	3		Support Rings (3 each 37)	70-0182	
18	Piston Pin	46-0721	3	36	V-Packing (See 70-0181)	N/A Sep.	3		Valve Kit (6 each 44-48)	70-0161	

UNLOADER/MANIFOLD ASSEMBLY

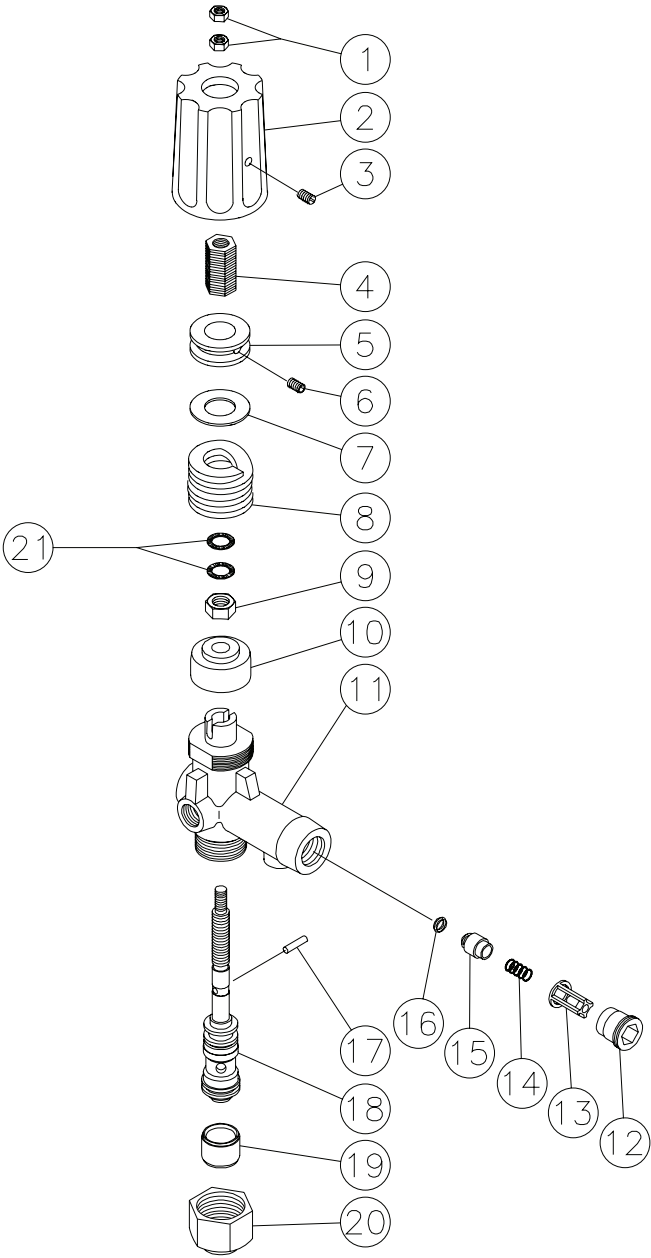


OMHSP088-032900-BAR

HSP088-3MDL-032900-BAR

UNLOADER/ MANIFOLD ASSEMBLY			
REF. #	DESCRIPTION	PART #	QTY.
1	Elbow	23-0119	1
2	Hose Clamp	42-0011	1
3	Hose *(Two Feet Required)	15-0007	1
4	Pressure Switch	22-0171	1
5	High Pressure Hose Assembly	15-0194	1
6	Manifold Block	51-0025	1
7	Hex Nipple	24-0010	1
8	Plug	23-0238	1
9	Unloader Assembly	850-0252	1
10	Detergent Stainer	19-0050	1
11	Detergent Hose *(Six Feet Required)	15-0021	1
12	Detergent Injector	50-0052	1
13	Elbow	23-0307	1
14	High Pressure Hose Assembly	15-0199	1
*Must Order in One Foot Lengths			

UNLOADER (850-0252)

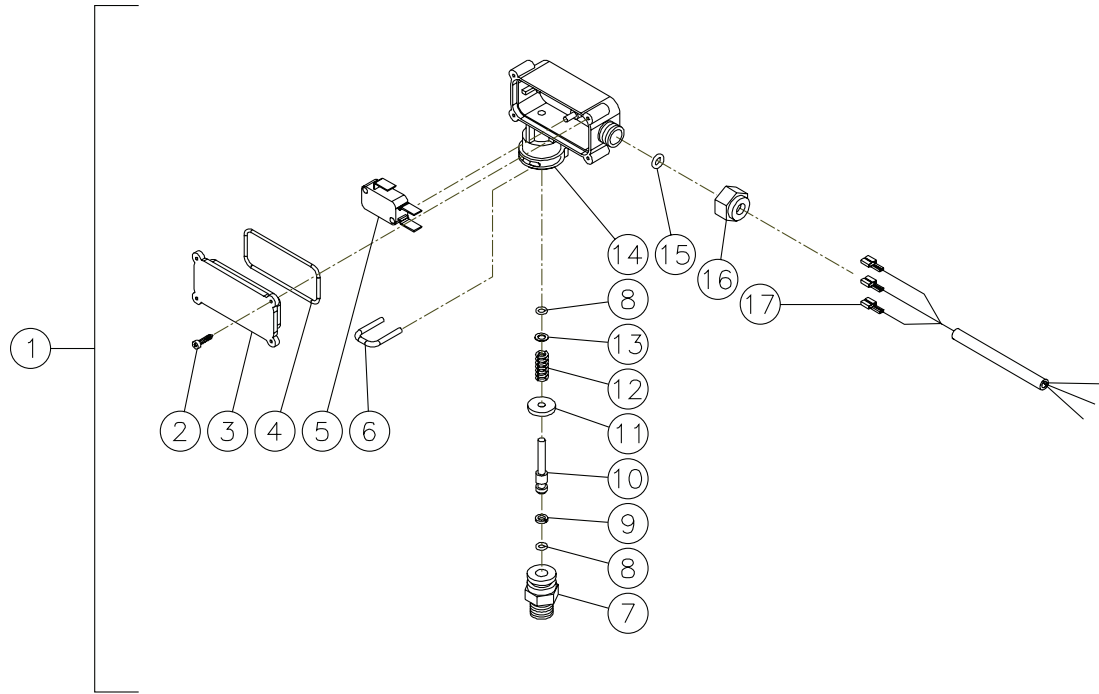


OMGENI63-101298-BAR

UNLOADER (850-0252)			
REF. #	DESCRIPTION	PART #	QTY.
1	Hex Nut	8-0362	2
2	Cover	7-0098	1
3	Set Screw	27-4280	1
4	Adjusting Insert- Brass	8-0363	1
5	Adjustment Nut	8-0364	1
6	Set Screw	8-0365	1
7	Glide Ring	8-0366	1
8	Spring	49-0104	1
9	Hex Nut	8-0367	1
10	Bushing	8-0368	1
11	Unloader Body	8-0369	1
12	Retainer	8-0269	1
13	Valve Housing	8-0104	1
14	Spring	49-0023	1
15	Valve	8-0105	1
16	O-ring	25-0036	1
17	Cylinder Pin	8-0372	1
18	Piston Repair Kit	70-0243	1
19	Spacer	8-0371	1
20	Stop Nut	8-0157	1
21	Washer	29-0154	2
	Check Valve Repair Kit (Includes 13-16)	70-0244	
	Unloader Complete	850-0252	

PRESSURE SWITCH (22-0171)

22-0171-120799-BAR

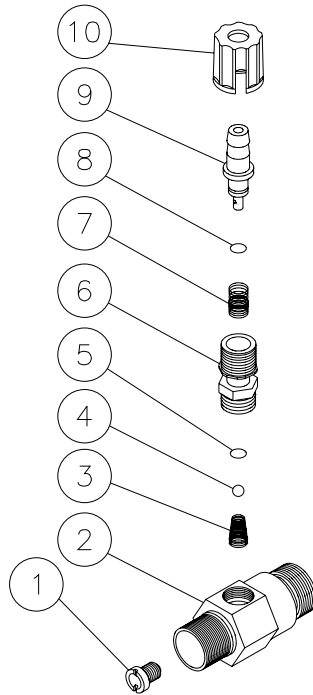


PRESSURE SWITCH (22-0171)			
REF. #	DESCRIPTION	PART #	QTY.
1	Pressure Switch	22-0171	1
2	Screw	N/A	4
3	Cover	N/A	1
4	O-ring (See 70-0306)	N/A Sep.	1
5	Micro Switch	N/A	1
6	Retainer Clip	N/A	1
7	Body	N/A	1
8	O-ring (See 70-0306)	N/A Sep.	2
9	Back-up Ring (See 70-0306)	N/A Sep.	1
10	Piston	N/A	1
11	Washer	N/A	1
12	Spring	49-0144	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	

22-0171-120799-BAR

DETERGENT INJECTOR (50-0052)

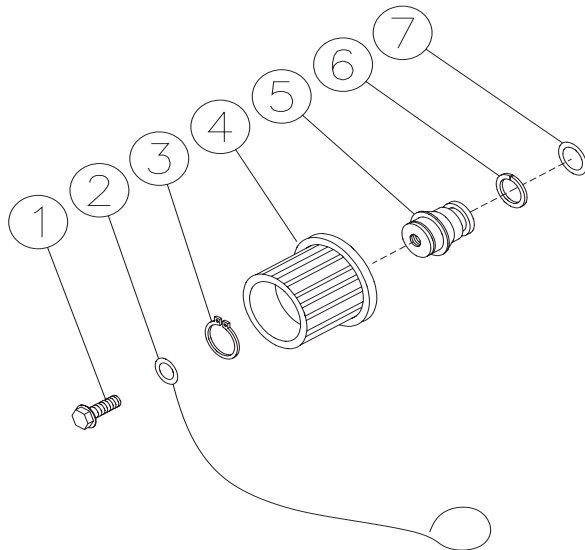
OMGEN284-052898-DCE



DETERGENT INJECTOR (50-0052)			
REF. #	DESCRIPTION	PART #	QTY.
1	Orifice (2.1mm)	50-0057	1
2	Injector Body	N/A	1
3	Spring (See 852-0056)	N/A Sep.	1
4	Ball (See 852-0056)	N/A Sep.	1
5	O-ring (See 852-0056)	N/A Sep.	1
6	Piston Retainer	50-0156	1
7	Spring	49-0056	1
8	O-ring (See 852-0056)	N/A Sep.	1
9	Adjustable Shutter Barb	50-0157	1
10	Adjustment Knob	50-0158	1
	Injector Repair Kit (Includes 3-5, 8)	852-0056	

COIL DRAIN PLUG (850-0218)

850-0218-041597-BAR

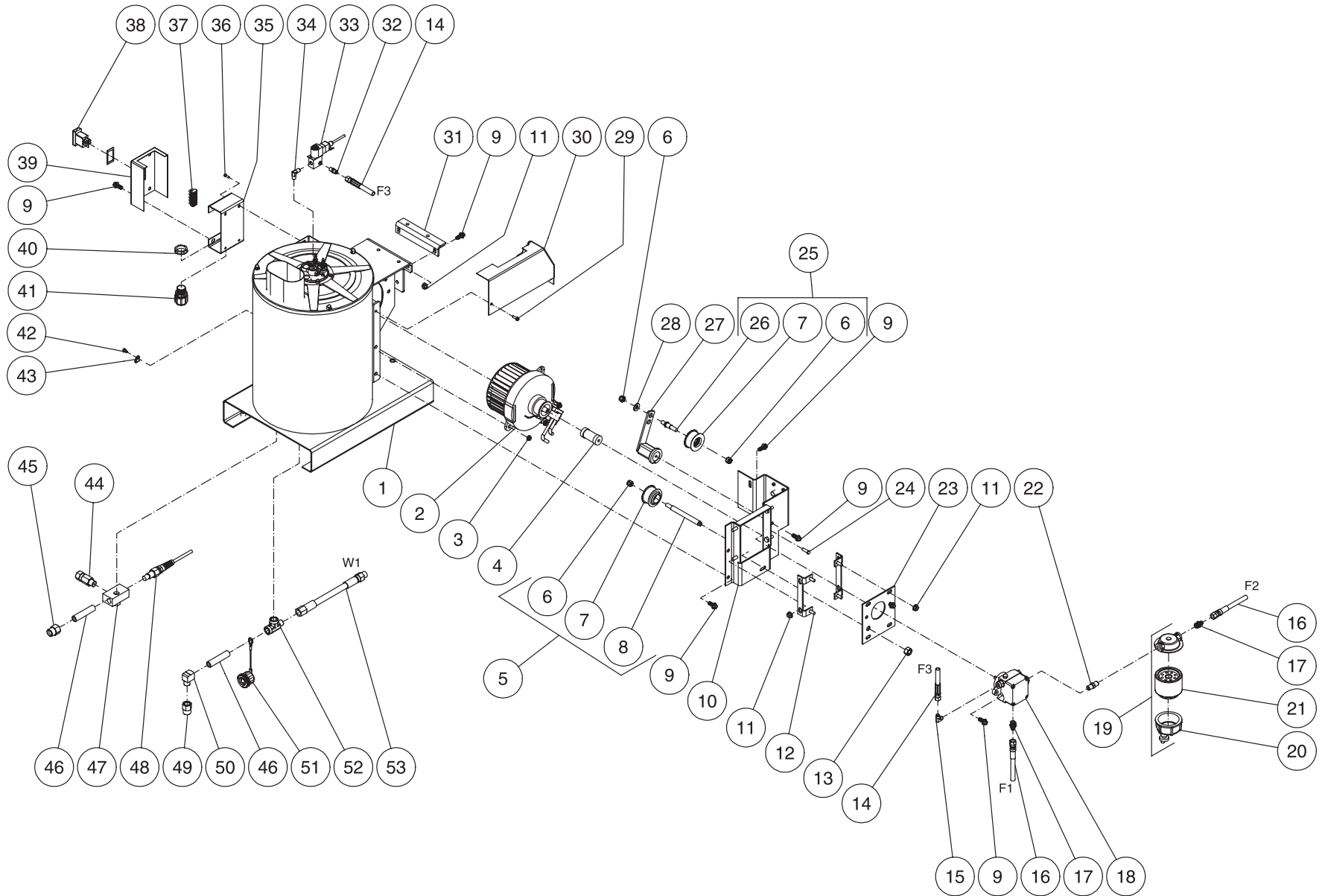


COIL DRAIN PLUG (850-0218)			
REF. #	DESCRIPTION	PART #	QTY.
1	Bolt	27-9526	1
2	Retaining Cable	33-0260	1
3	Snap Ring	33-0261	1
4	Hand Wheel	16-0239	1
5	Plug	24-0147	1
6	Back-up Ring	25-0424	1
7	O-ring	25-0423	1

OMGEN284-052898-DCE

850-0218-041597-BAR

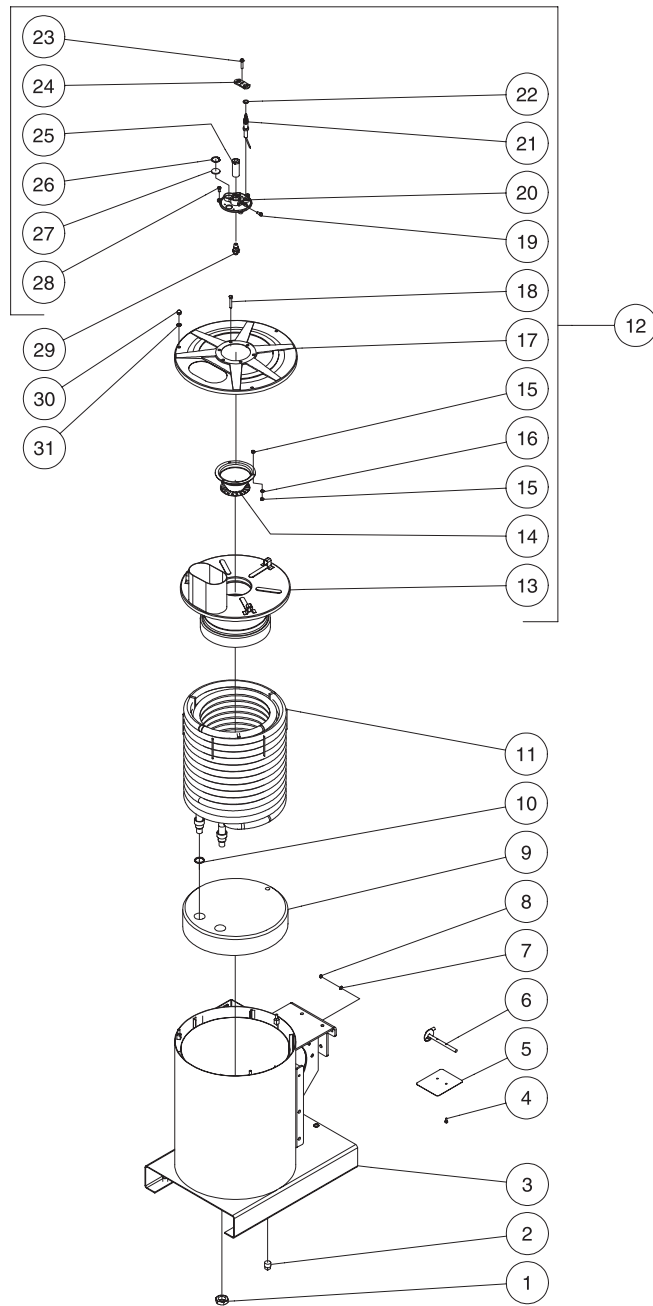
HEAT EXCHANGER/ EMF SYSTEM



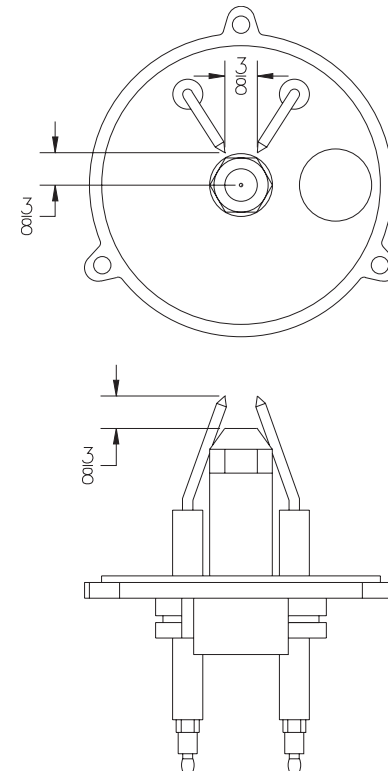
HSP098-042607-RZ

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	23-0448	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	Rocker Switch	32-0626	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	15-0253	1	1	41	Strain Relief	9-0046	1	1
15	Elbow	23-0287	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 (850-0361)



ELECTRODE GAP SETTINGS

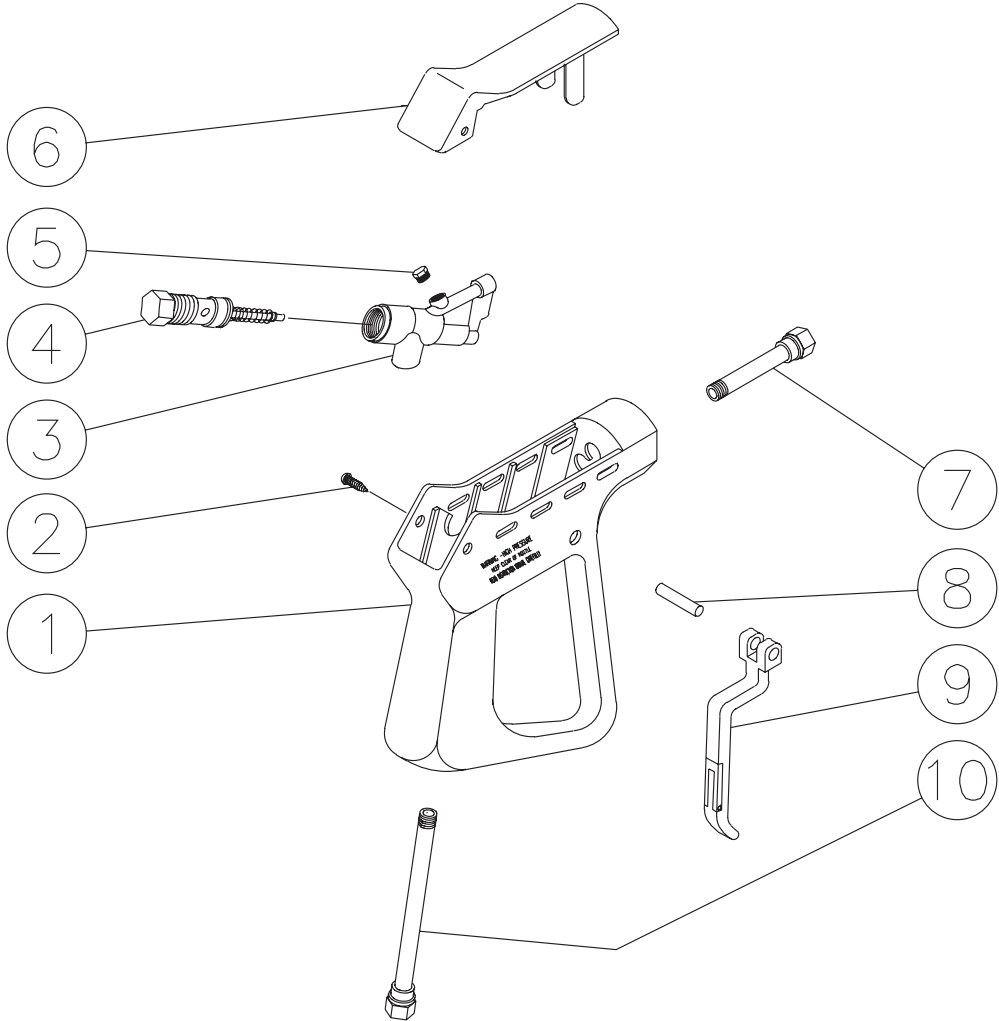


850-0361-101807-PJH

BOILER ASSEMBLY (850-0361)

REF. #	DESCRIPTION	PART #	QTY.	REF. #	DESCRIPTION	PART #	QTY.
1	Hex Nut	30-0121	2	17	Top Pan	20-0323	1
2	Plug	24-0034	1	18	Bolt	27-8806	3
3	Outer Wrap 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	Electrode	32-0377	2
6	Air Diverter Stem Assembly	20-0377A01	1	22	Washer	28-1007	2
7	Lockwasher	28-1009	1	23	Bolt	27-8807	1
8	Nut	30-6001	1	24	Electrode Mounting Plate	33-0180	1
9	Insulation	33-0267	1	25	Nozzle Holder	33-0182	1
10	Washer	28-0521	2	26	Snap Ring	25-0290	1
11	Heat Exchanger Coil Assembly	66-0012	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				

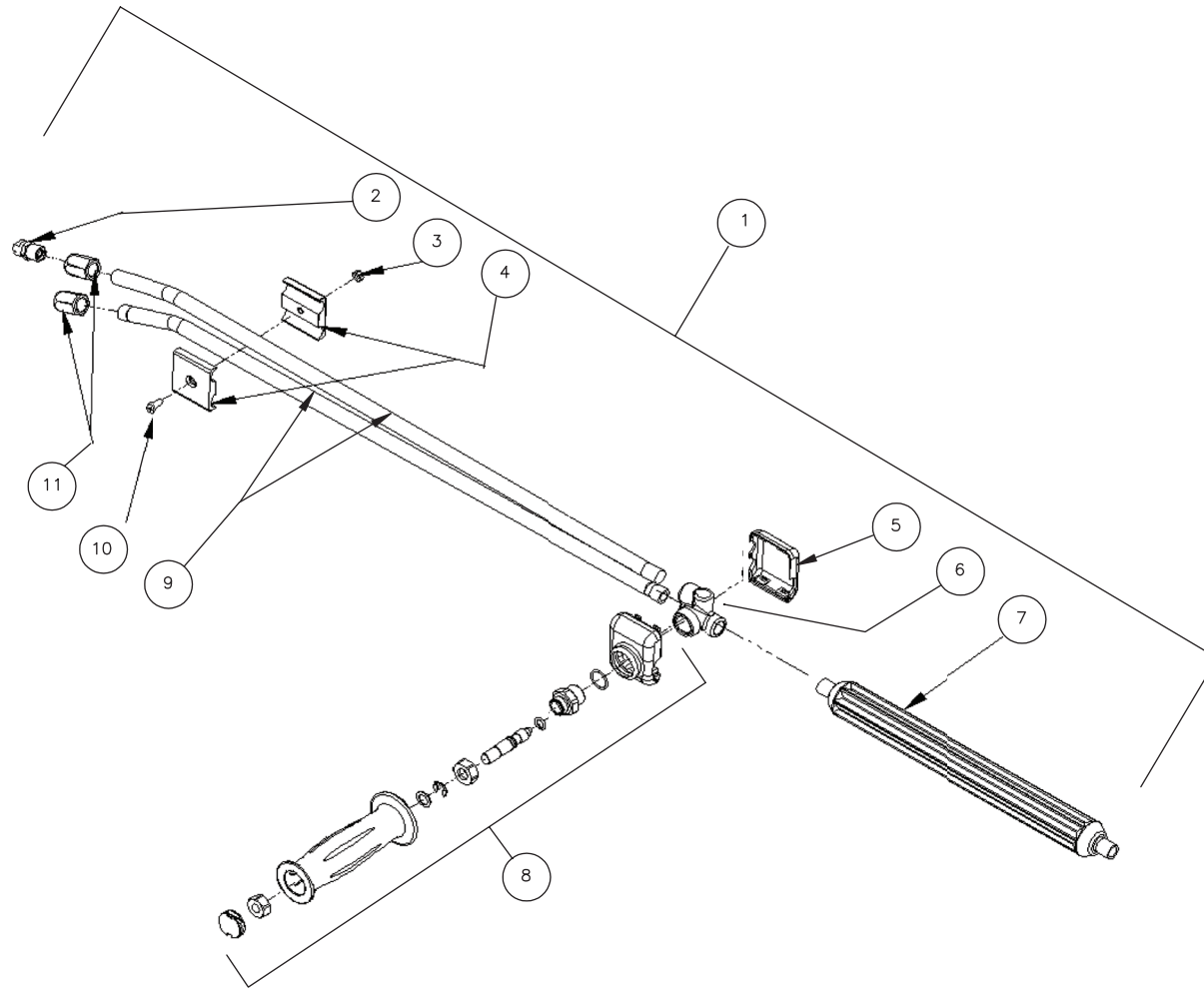
GUN ASSEMBLY (16-0001)



16-0001-110399-RD

GUN ASSEMBLY (16-0001)			
REF. #	DESCRIPTION	PART #	QTY.
1	Plastic Housing	16-0008	1
2	Screw	27-3230	2
3	Brass Housing	16-0012	1
4	Gun Repair Kit	70-0055	1
5	Brass Plug	39-0024	1
6	Plastic Cover	16-0009	1
7	Pipe Assembly	16-0013	1
8	Trigger Pin	16-0063	1
9	Trigger/Safety Lock-off	16-0010	1
10	Pipe Assembly- Inlet	16-0016	1
	Complete Gun Assembly	16-0001	1

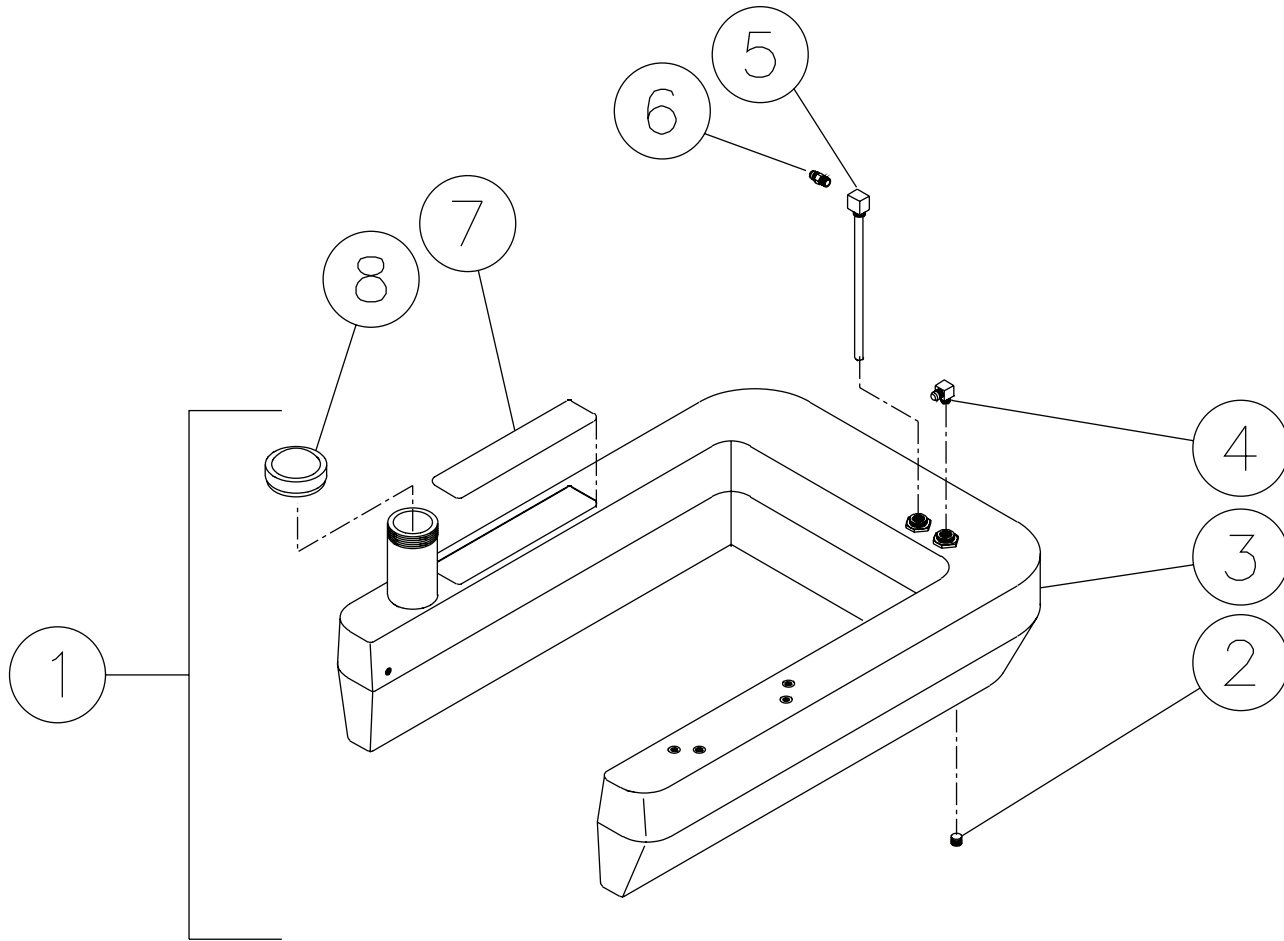
DUAL LANCE ASSEMBLY (16-0416)



16-0416_16-0417-102405-RZ

DUAL LANCE ASSEMBLY (16-0416)			
REF. #	DESCRIPTION	PART #	QTY.
1	Dual Lance Assembly - 36" (Inc. 2-11)	16-0416	1
2	Detergent Nozzle	18-0110	1
3	Nut	30-6001	1
4	Clamp	16-0420	2
5	Lower Valve Cover (See 16-0416)	N/A Sep.	1
6	Housing (See 16-0416)	N/A Sep.	1
7	Lance	16-0419	1
8	Handle Repair Kit	70-0419	1
9	Lance (See 16-0416)	N/A Sep.	2
10	Screw	27-8196	1
11	Nozzle Adapter	24-0280	2

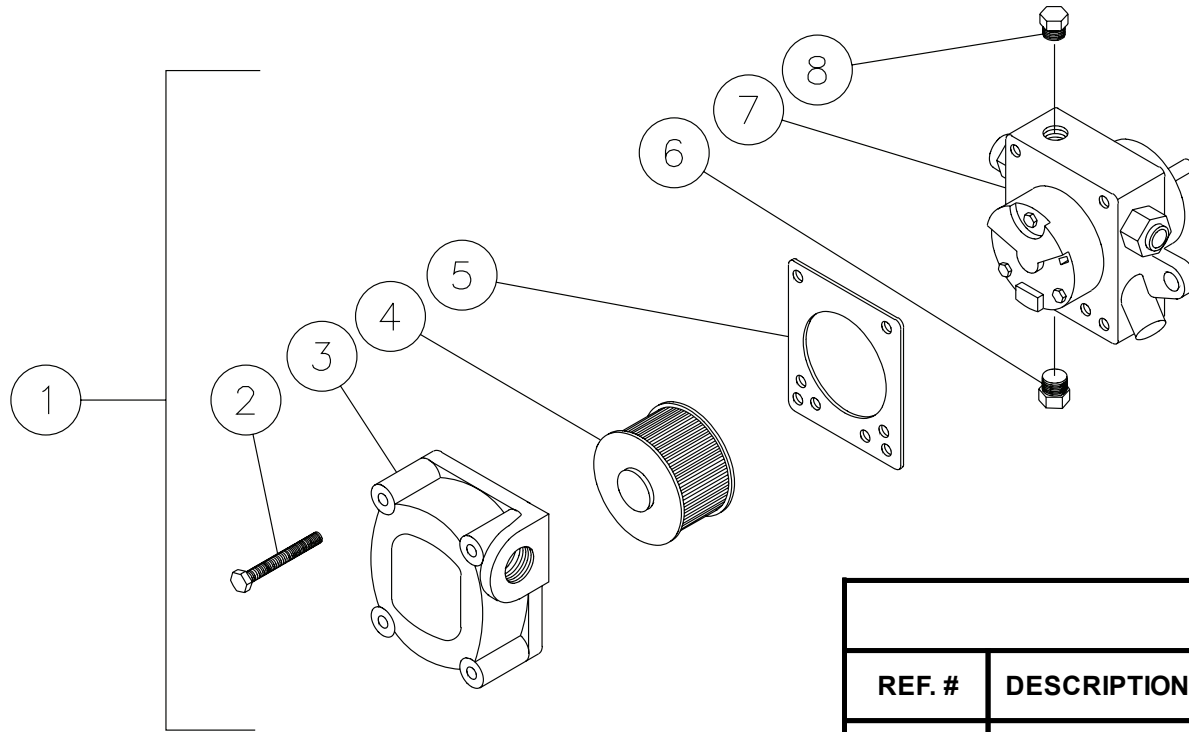
FUEL TANK (850-0214)



850-0214-34-9001-121797-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) (See 34-9001)	N/A Sep.	1
8	Vented Fuel Cap	12-0033	1
	Safety Decal Kit (Includes 7)	34-9001	

FUEL PUMP (3-0129)

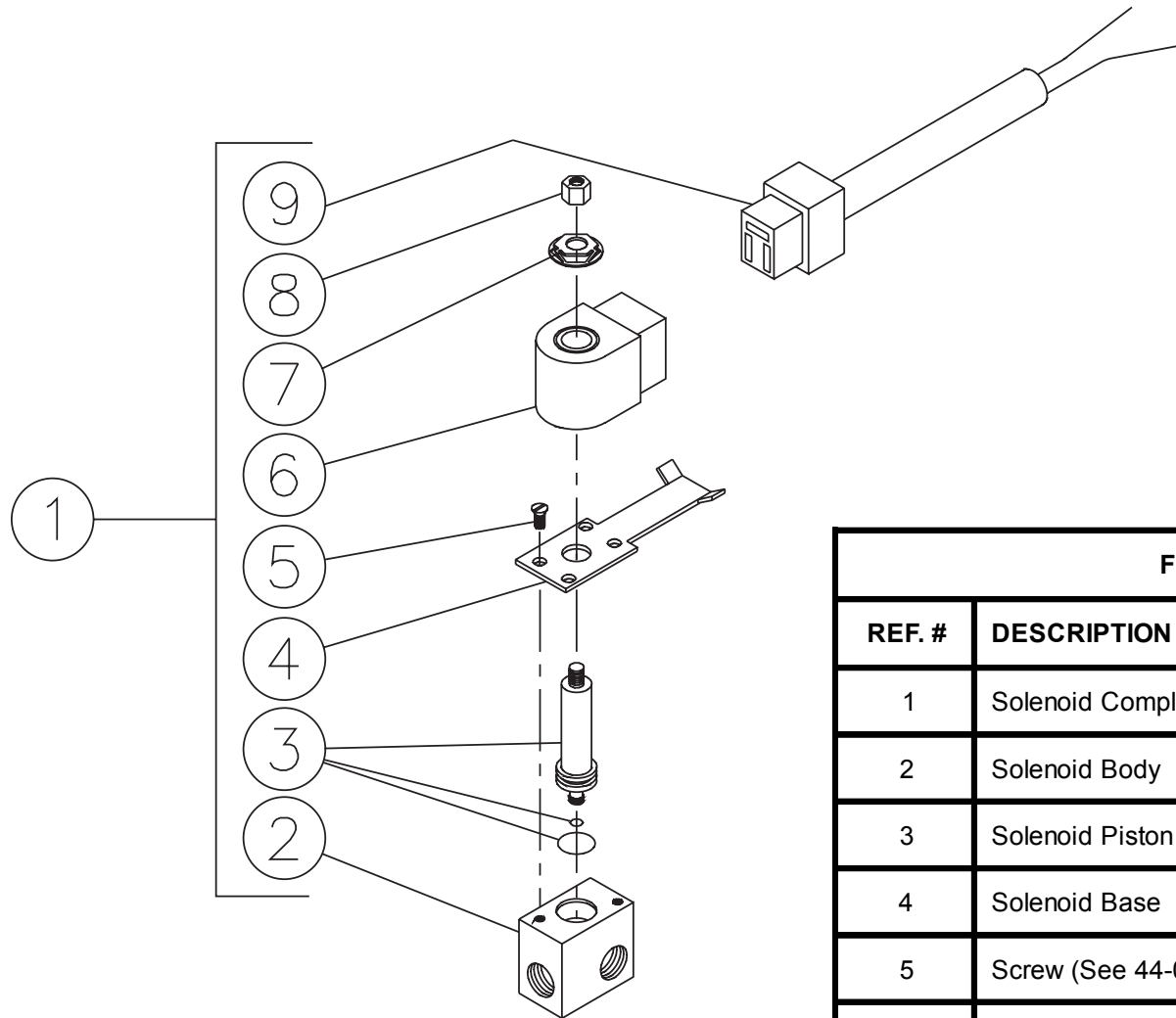


HSP018-3-0129-041597-BAR

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

OMHSP018-040694-BAR

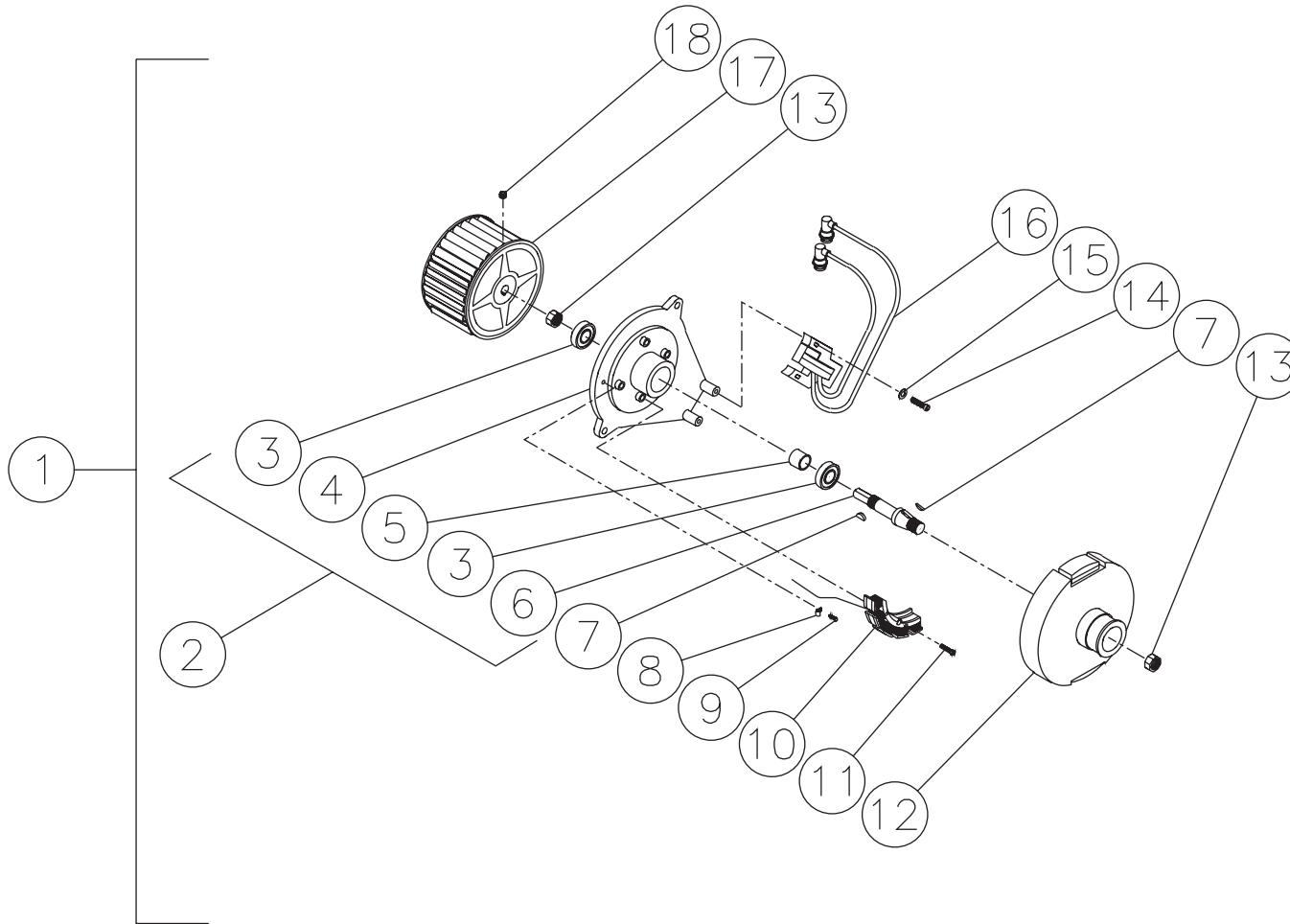
FUEL SOLENOID (44-0098)



HSP013-44-0098-121698-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-12V	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

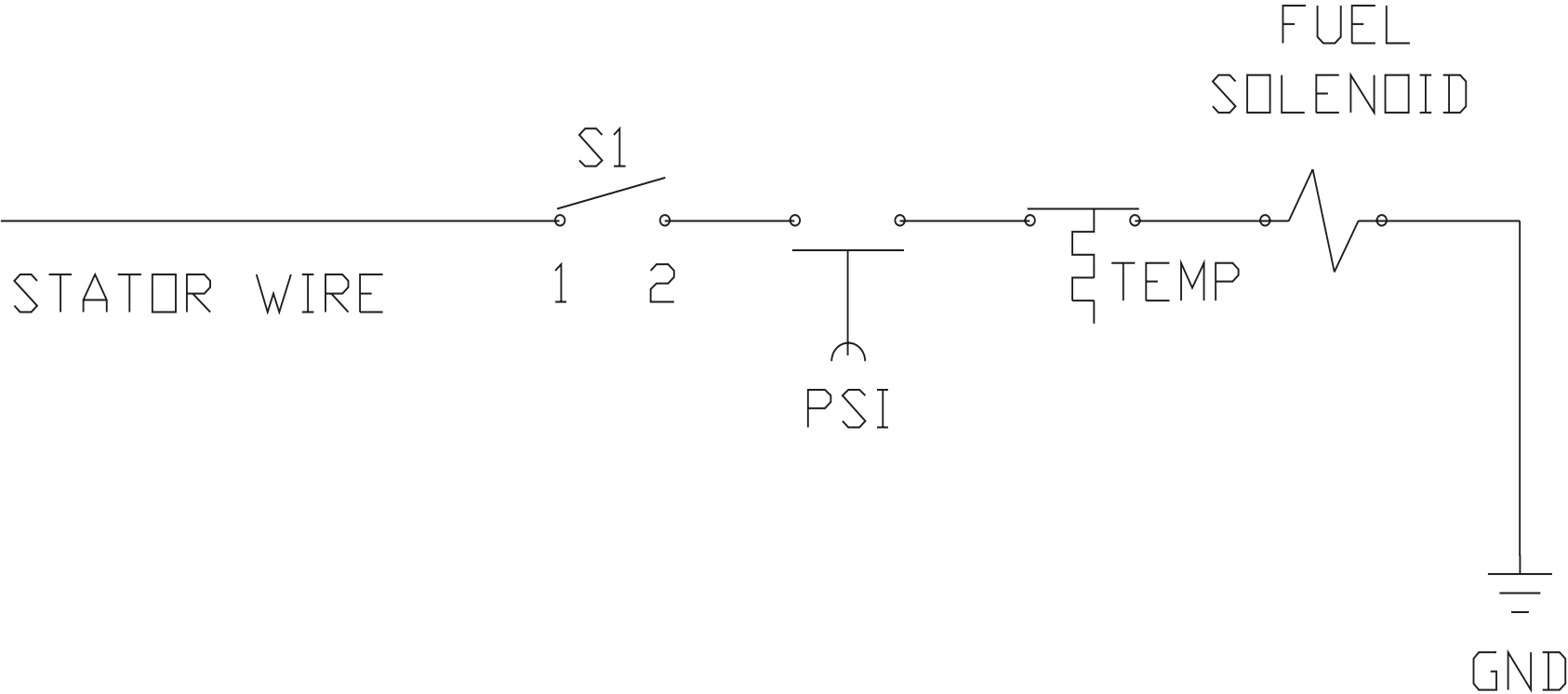
EMF SYSTEM (850-0239)



850-0239-113099-BAR

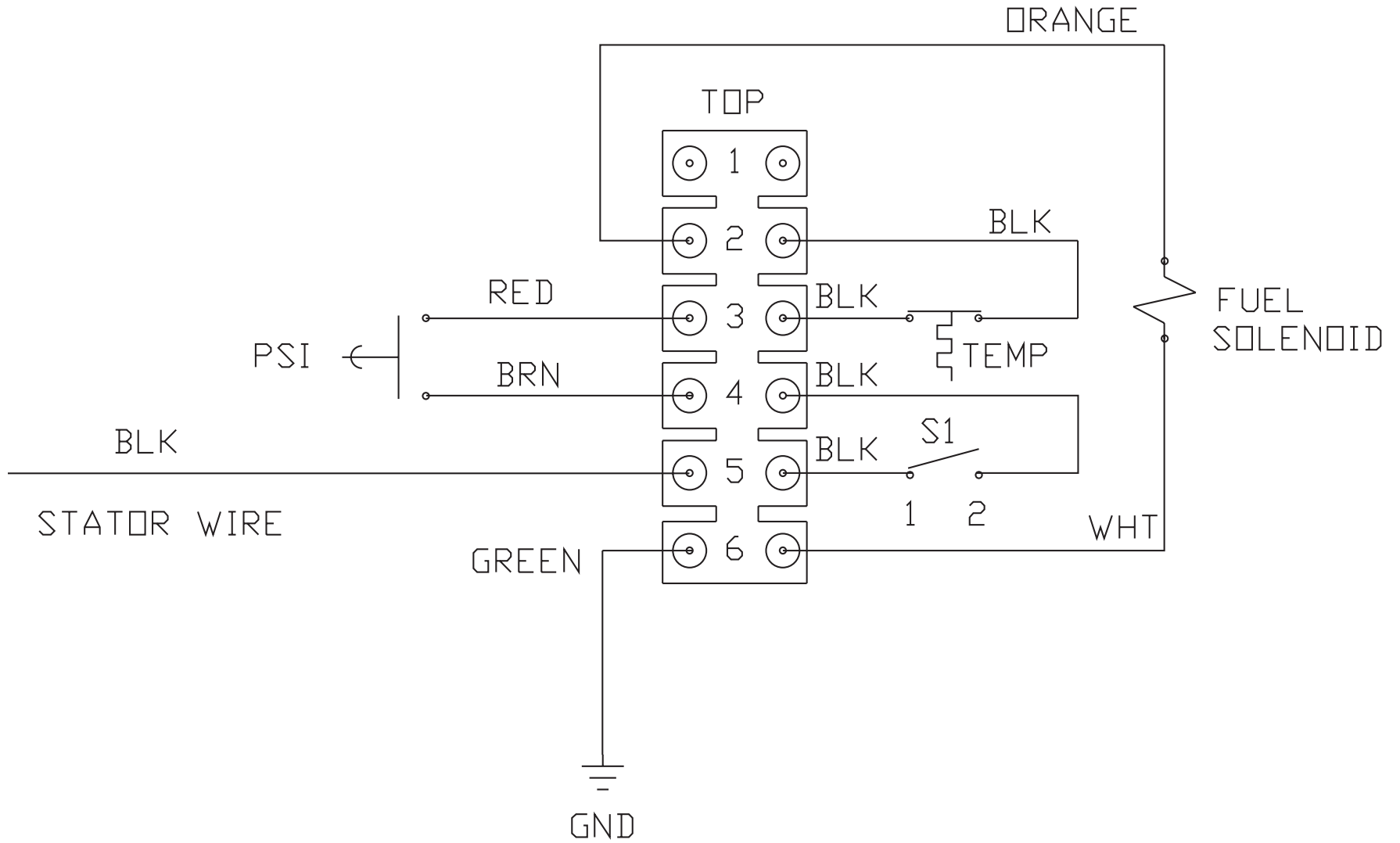
EMF SYSTEM (850-0239)			
REF. #	DESCRIPTION	PART #	QTY.
1	EMF Assembly Complete (Inc. 2-17)	850-0239	1
2	Blower Flange Assembly (Inc. 3-6)	850-0162	1
3	Sealed Bearing	48-0041	2
4	Blower Flange	38-0040	1
5	Spacer	33-0206	1
6	Blower Shaft	20-0347	1
7	Woodruff Key	43-0080	2
8	Cable Clamp	32-0403	1
9	Screw	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



HSP014A-072996-JTR

WIRING DIAGRAM



Manufactured by Mi-T-M
8650 Enterprise Drive, Peosta IA 52068
563-556-7484/ Fax 563-556-1235