



Performance Under Pressure

**PARTS LIST FOR
HSP-3504-3MGH/3MGR
(AFTER SERIAL #15010743)**

ENGINE OIL GRADE:

HONDA/SUBARU: SAE10W-30

ENGINE OIL CAPACITY:

HONDA: 37 oz.
SUBARU: 40.6 oz.

PUMP OIL GRADE:

PUMP OIL CAPACITY:

BTU INPUT:

PRESSURE NOZZLE SIZE:

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

15 oz.

294,000 / 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.

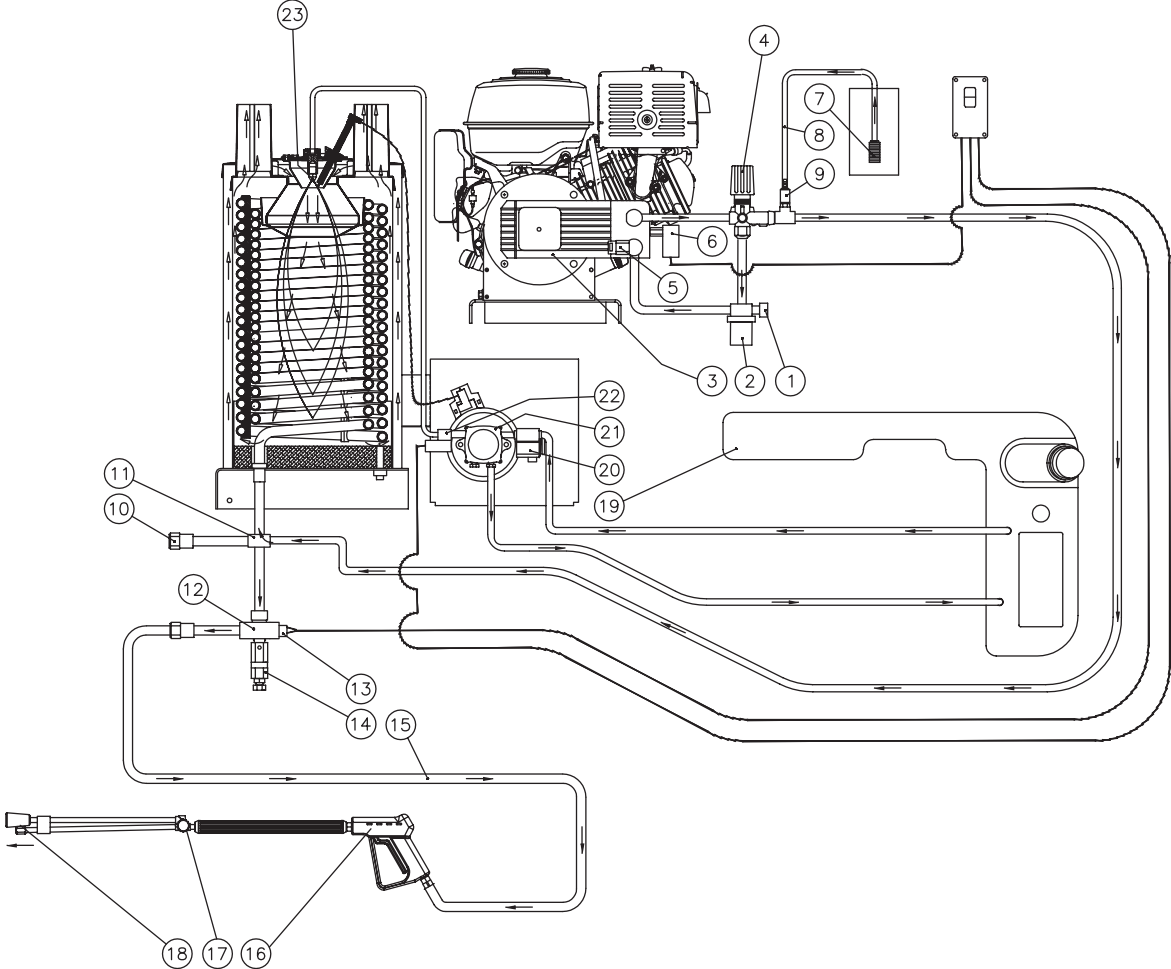
Table of Contents

SPECIFICATIONS.....	3
FLOW CHART	4
EMF SYSTEM	4
GENERAL THEORY OF OPERATION	5
DECAL PLACEMENT	6
FRAME (AFTER SERIAL #15010743)	8
ENGINE/ PUMP ASSEMBLY	10
HIGH PRESSURE PUMP (3-0194).....	12
UNLOADER/MANIFOLD ASSEMBLY.....	14
UNLOADER (850-0252).....	16
PRESSURE SWITCH (22-0171).....	18
DETERGENT INJECTOR (50-0052).....	20
COIL DRAIN PLUG (850-0218).....	21
HEAT EXCHANGER/EMF SYSTEM	22
BOILER ASSEMBLY (850-0226) AFTER SERIAL #15048210	24
ELECTRODE GAP SETTINGS.....	24
GUN ASSEMBLY (16-0001)	26
DUAL LANCE ASSEMBLY (16-0417)	28
FUEL TANK (850-0248).....	30
FUEL PUMP (3-0020) & FUEL SOLENOID (44-0100)	31
EMF SYSTEM (850-0257).....	32
ELECTRIC BOX	34
WIRING SCHEMATIC	36
WIRING DIAGRAM	37
NOTES	38

SPECIFICATIONS

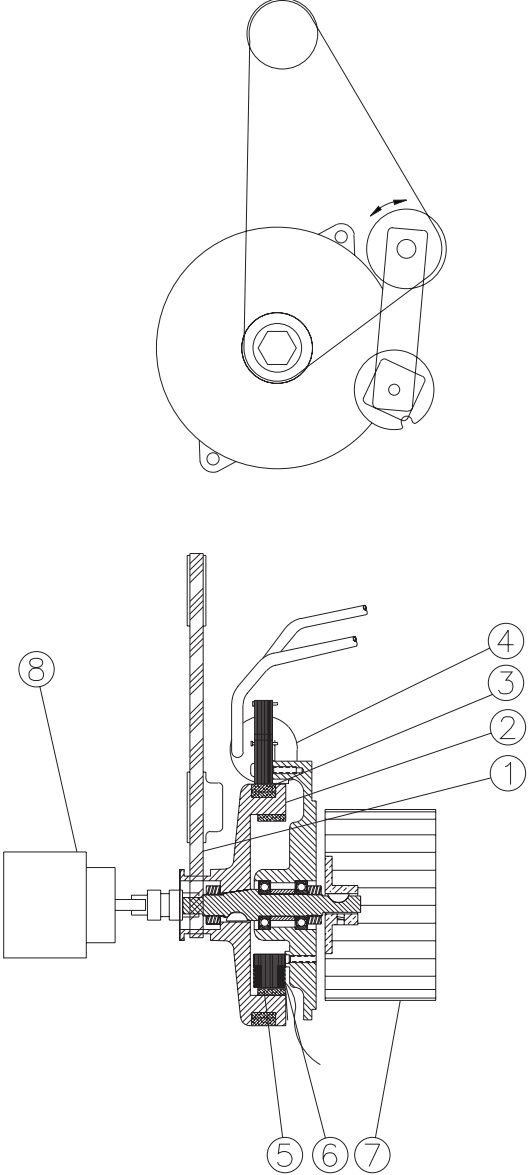
MODEL NUMBER	HSP-3504-3MGH	HSP-3504-3MGR
Operating Pressure (PSI/Bar):	3500/241 (+/- 5%)	
Water Volume (GPM/lpm):	3.3/12.5 (+/- 5%)	
Outlet Water Temperature (F/C):	140°F/78°C (+/- 20°F) rise above inlet ambient (210°F/ 99°C maximum)	
Engine:	Honda	Robin Subaru
Horsepower	13	13.5
Engine Type	Four Stroke, Overhead Valve, Single Cylinder	
Oil Type	SAE10W-30	
Oil Capacity (oz./ liter)	37/1.1	40.6/1.2
Low Oil Protection	Oil Alert™	Oil Guard™
Fuel Type	Unleaded Gasoline 86 Octane Minimum	
Fuel Capacity (gal./ liter)	1.72/6.5	1.85/7.0
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)	15/.44	
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)	5.5/21	
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	1.75 60° B Delavan	
Fuel Consumption (GPH/ LPH)	2.1 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	294,000	
Efficiency	86% with #2 Fuel Oil/ Diesel	
Smoke Density	0-3 per ASTM D2156	
Controls:		
On/ Off Switch	Industrial grade rocker 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):	428/194	430/195
Unit Shipping Weight (Lbs/kg):	551/250	553/251
Unit Net Dimension (In/cm):	43Lx 30Wx 41H/109L x 76W x 104H	
Unit Shipping Dimension (In/cm):	46.5L x 31.5W x 48.5H/118L x 80W x 123H	

FLOW CHART



OMHSP090-040705-FRZ

EMF SYSTEM



OMHSP046-072996-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 (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.

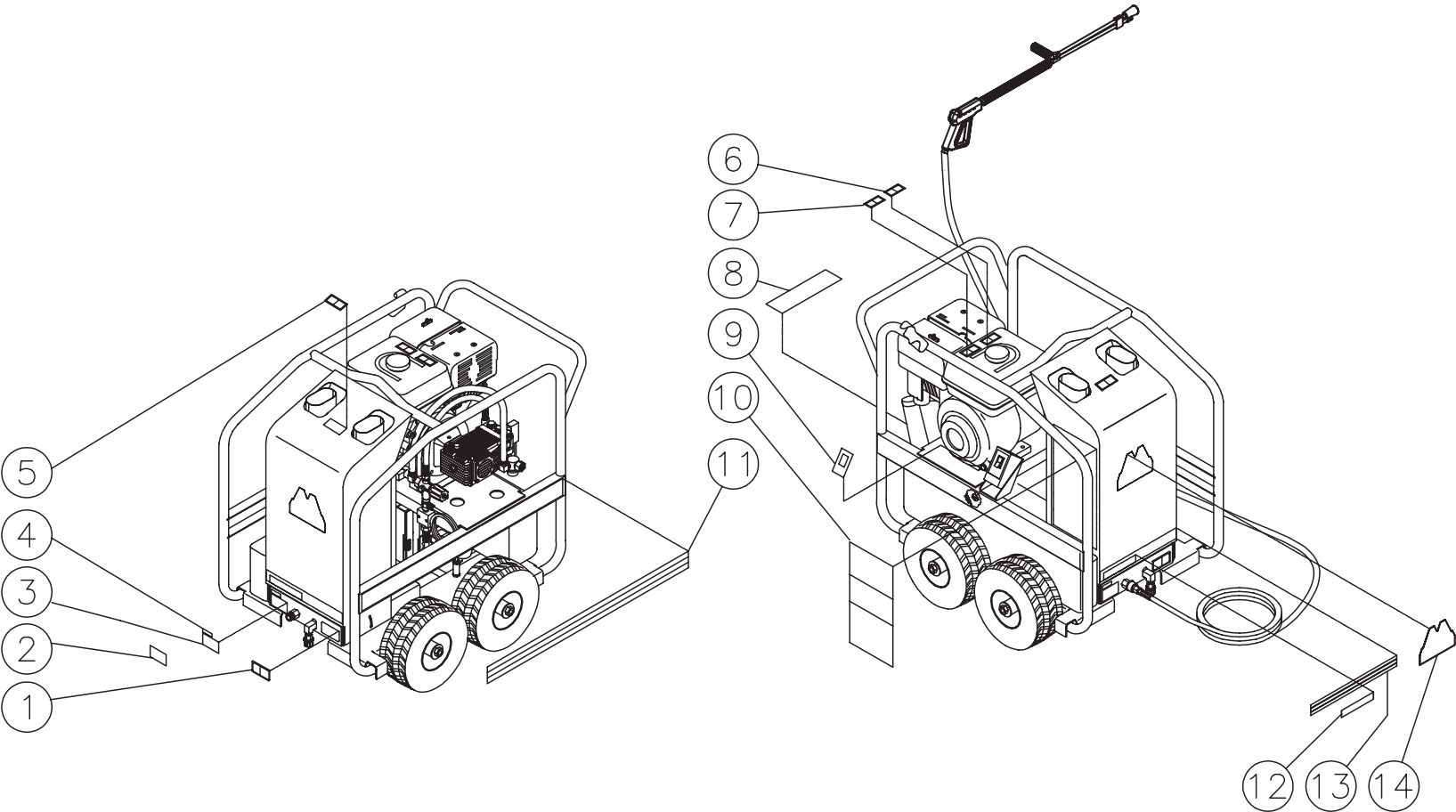
EMF SYSTEM: The patented Electro Magnetic Firing (EMF) System is an integrated system which gives all the requirements for combustion.

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

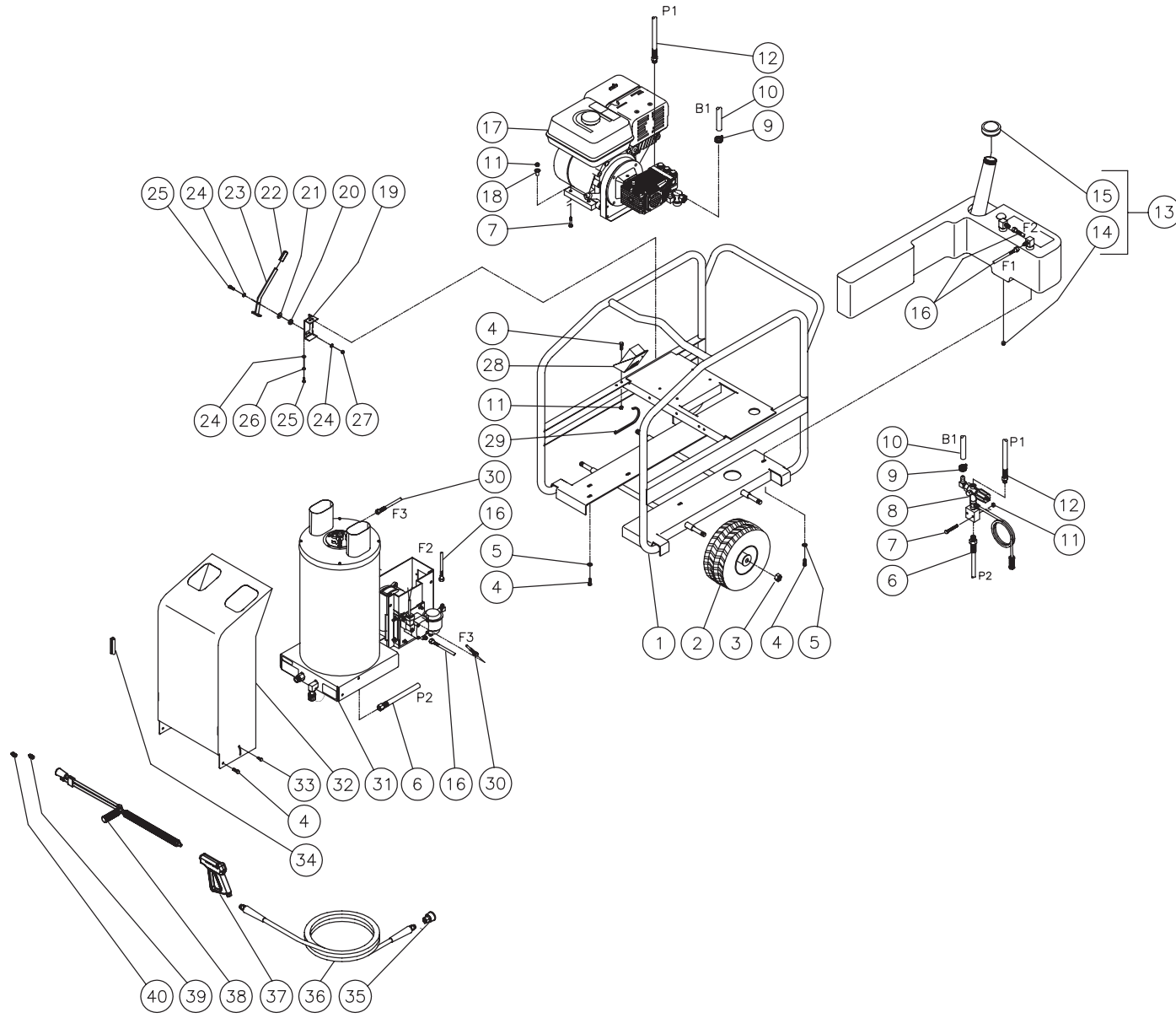


HSP-3004_3504-3MGH-061209-CAW

DECAL PLACEMENT

REF. #	DESCRIPTION	PART #	QTY.
1	Decal- Warning: Don't Modify Plumbing (E/S) (See 34-9001)	N/A Sep.	1
2	Decal- Clear Laminate	N/A	1
3	Decal- Data Plate	N/A	1
4	Decal- Serial Number	N/A	1
5	Decal- Warning: Hot Coil Exhaust (E/S) (See 34-9001)	N/A Sep.	1
6	Decal- Allow to Cool (E/S) (See 34-9001)	N/A Sep.	1
7	Decal- Hot Surface (E/S) (See 34-9001)	N/A Sep.	1
8	Decal- Risk of Fire (E/S) (See 34-9001)	N/A Sep.	1
9	Decal- Burner On/Off (E/S) (See 34-9001)	N/A Sep.	1
10	Decal- Warning/ Caution/ Operation (E/S) (See 34-9001)	N/A Sep.	1
11	Decal- Stripe Logo	34-2192	2
12	Decal-White Die Cut	34-2215	1
13	Decal-Stripe Logo	34-2187	1
14	Decal- Mi-T-M Logo	34-2170	1
	Safety Decal Kit (Includes 1, 5-10)	34-9001	

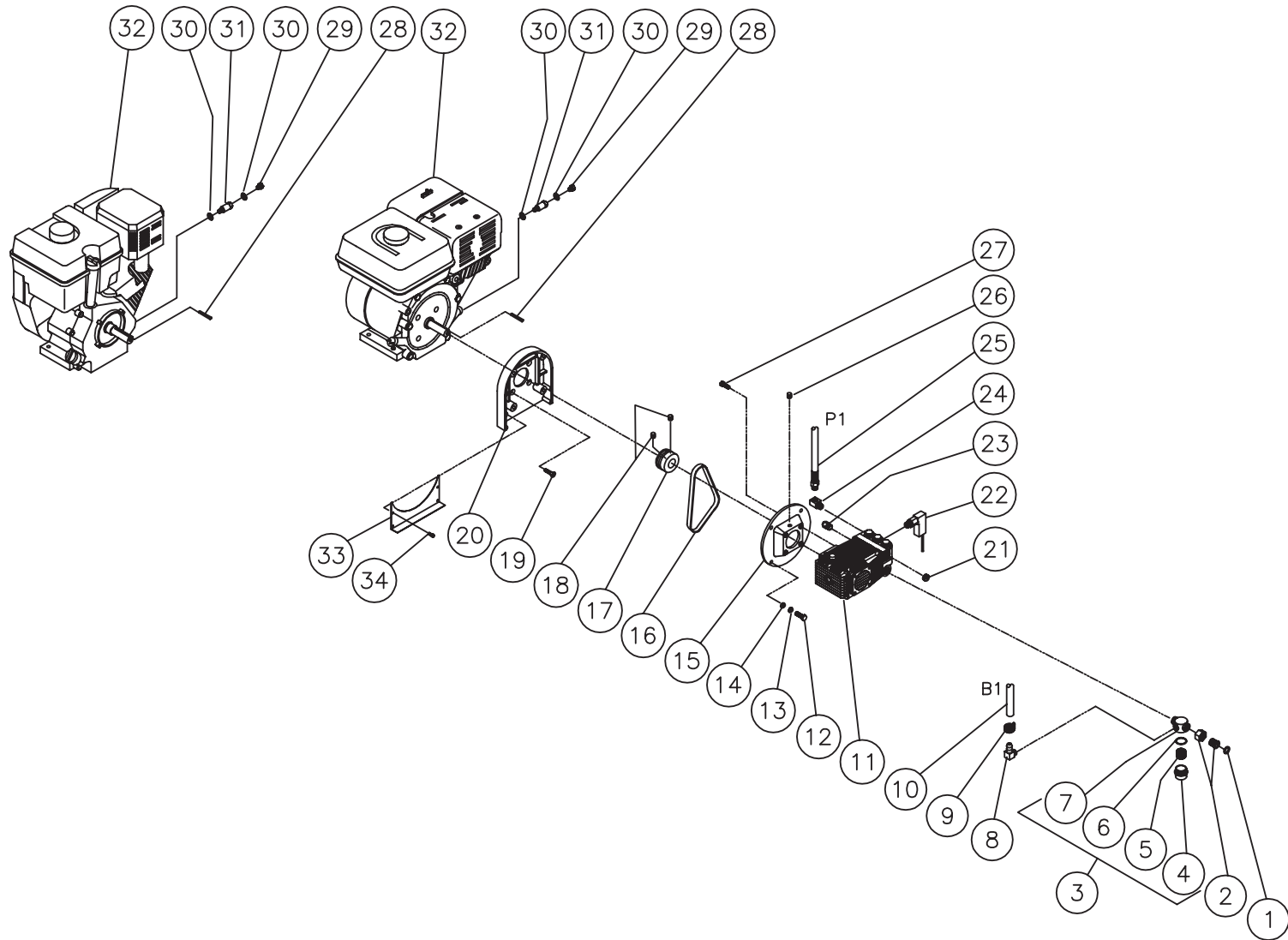
FRAME (AFTER SERIAL #15010743)



HSP099-051909-CAW

FRAME (AFTER SERIAL #15010743)							
REF. #	DESCRIPTION	PART #	QTY.	REF. #	DESCRIPTION	PART #	QTY.
1	Frame Assembly	5-0120A01	1	21	Washer	28-0057	1
2	Wheel	14-0006	4	22	Handle Grip	7-0170	1
3	Jam Nut	30-0117	4	23	Brake Handle Assembly	20-0552A01	1
4	Bolt	27-9524	12	24	Washer	28-0003	4
5	Flatwasher	28-0022	8	25	Screw	27-0068	3
6	High Pressure Hose Assembly	15-0202	1	26	Lockwasher	29-0007	2
7	Bolt	27-9529	6	27	Locknut	30-0157	1
8	Unloader/ Manifold Assembly (See Exploded Drawing)	N/A Sep.	1	28	Bracket/Electric Box Assembly (See Exploded Drawing)	N/A Sep.	1
9	Fuel Clamp	42-0011	2	29	Wire Tie	33-0022	4
10	Hose *(Two Feet Required)	15-0007	2	30	Fuel Hose Assembly	15-0165	1
11	Hex Nut	30-3023	8	31	Heat Exchanger/EMF Assembly (See Exploded Drawing)	N/A Sep.	1
12	High Pressure Hose Assembly	15-0194	1	32	Hood Assembly	850-0194	1
13	Fuel Tank Assembly (Includes 14, 15)	850-0248	1	33	Hand Knob	62-0057	1
14	Countersunk Hex Head Plug	23-0296	1	34	Trim Lock *(One Foot Required)	33-0129	1
15	Fuel Cap	12-0033	1	35	Screw Connect	17-0035	1
16	Fuel Hose	15-0147	2	36	Hose Assembly	15-0166	1
17	Engine/Pump Assembly (See Exploded Drawing)	N/A Sep.	1	37	Gun Assembly	16-0001	1
18	Shim	33-0169	4	38	Dual Lance Assembly 48"	16-0417	1
19	Bracket	20-0737A01	1	39	Nozzle- 1503.5	18-0254	1
20	Grommet	33-0366	1	40	Nozzle- 4060	18-0110	1
*Must Order in One Foot Lengths							

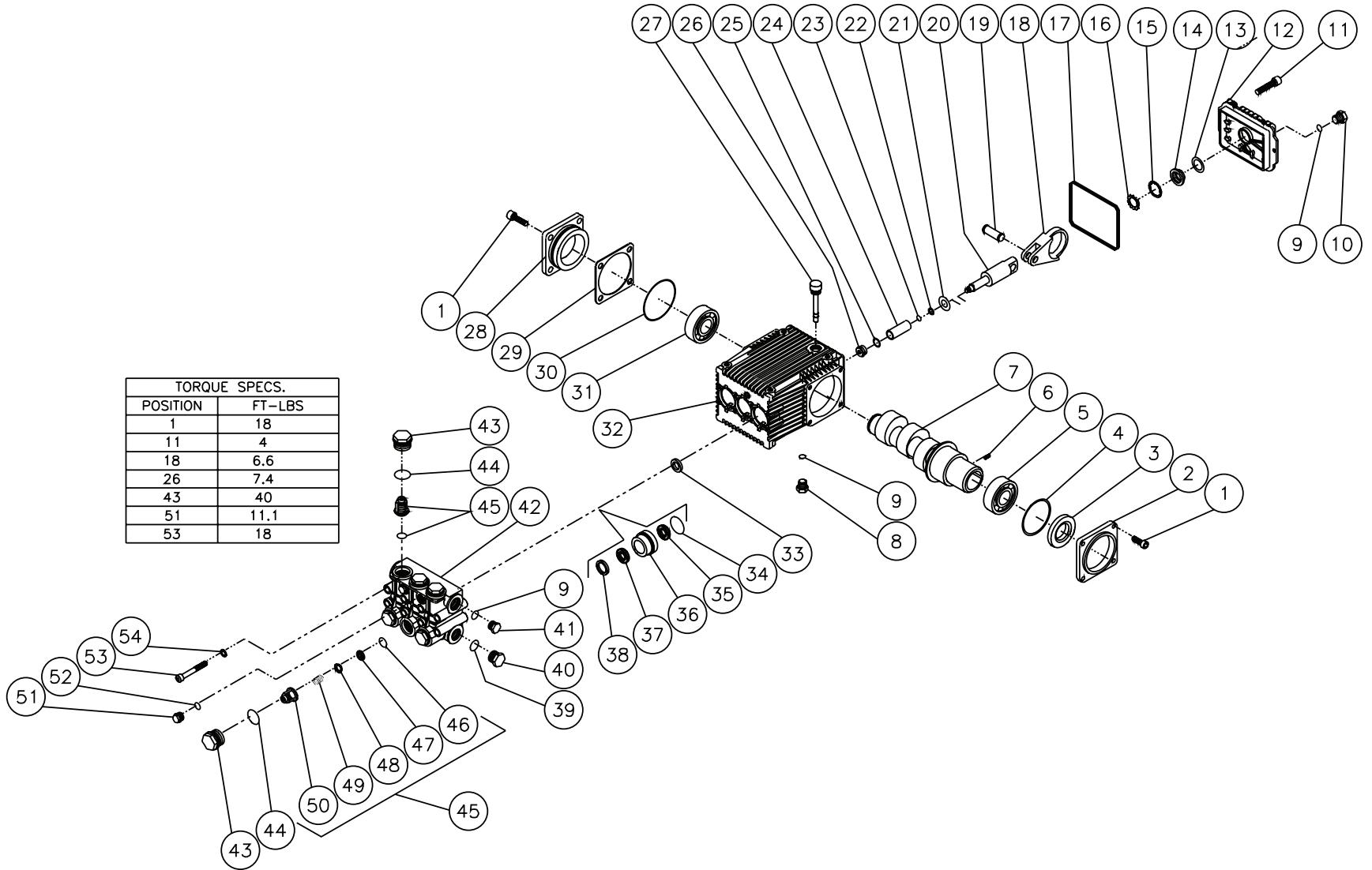
ENGINE/ PUMP ASSEMBLY



HSP100-052109-CAW

ENGINE/ PUMP ASSEMBLY							
REF. #	DESCRIPTION	PART #	QTY.	REF. #	DESCRIPTION	PART #	QTY.
1	Hose Gasket	26-0001	1	20	Adaptor Plate	38-0049	1
2	Hose Swivel	23-0095	1	21	Plug	23-0244	1
3	Strainer Complete (Includes 4-7)	19-0096	1	22	Pressure Switch	22-0171	1
4	Strainer Bowl	19-0103	1	23	Heat Dump Valve	22-0005	1
5	Screen	19-0104	1	24	Elbow	23-0034	1
6	Strainer O-ring	25-0056	1	25	High Pressure Hose	15-0194	1
7	Strainer Cap	19-0105	1	26	Set Screw	27-8886	1
8	Elbow	23-0119	1	27	Bolt	27-8434	4
9	Hose Clamp	42-0011	1	28	Key (HSP-3504-3MGH)	43-0088	1
10	Hose *(Two Feet Required)	15-0007	1	29	Oil Drain Plug	N/A	1
11	High Pressure Pump	3-0194	1	30	Washer (HSP-3504-3MGH)	28-0605	2
12	Bolt	27-0218	4	-	Washer (HSP-3504-3MGR)	28-0606	2
13	Lockwasher	29-0010	4	31	Oil Drain Port (HSP-3504-3MGH)	24-0143	1
14	Flatwasher	28-0006	4	-	Oil Drain Port (HSP-3504-3MGR)	24-0142	1
15	Flange/ Pump Adapter	38-0051	1	32	Engine- 13 H.P. Honda (HSP-3504-3MGH)	1-0086	1
16	Belt	11-0037	1	-	Engine- 13.5 H.P. Subaru (HSP-3504-3MGR)	1-0156	1
17	Sheave	10-0077	1	33	Beltguard	20-0384A01	1
18	Set Screw	27-8895	2	34	Bolt	27-9526	4
19	Bolt	27-0418	4	*Must Order in One Foot Lengths			

HIGH PRESSURE PUMP (3-0194)



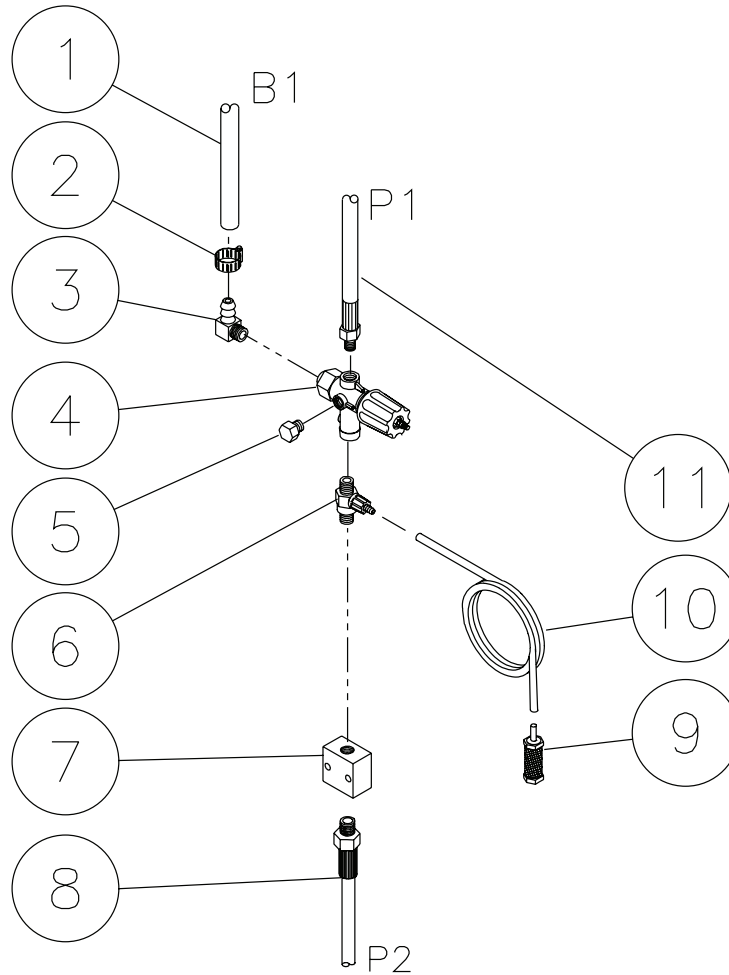
TORQUE SPECS.	
POSITION	FT-LBS
1	18
11	4
18	6.6
26	7.4
43	40
51	11.1
53	18

3-0194-030603-RD

PUMP ASSEMBLY (3-0194)

REF.	DESCRIPTION	PART #	QTY.	REF.	DESCRIPTION	PART #	QTY.	REF.	DESCRIPTION	PART #	QTY.
1	Bolt	27-8884	8	20	Plunger Rod	46-0699	3	39	O-ring	25-0372	1
2	Shaft Cover	46-0713	1	21	Slinger Washer	46-0700	3	40	Plug	39-0088	1
3	Oil Seal	26-0194	1	22	Back-up Ring	25-0404	3	41	Plug	39-0086	1
4	O-ring	25-0397	1	23	O-ring	25-0382	3	42	Manifold	46-0711	1
5	Bearing	48-0062	1	24	Piston	46-0701	3	43	Valve Cap	39-0095	6
6	Set Screw	27-8886	1	25	Washer	26-0191	3	44	O-ring	25-0160	6
7	Crankshaft (After Serial #28511)	46-0959	1	26	Nut	30-6020	3	45	Single Valve Assembly (Inc. 46-50) (See 70-0179)	N/A Sep.	6
-	Crankshaft (Before Serial #28511)	46-0734	1	27	Oil Dipstick	39-0090	1	46	O-ring (See 70-0179)	25-0386	6
8	Plug	39-0102	1	28	Bearing Cap	46-0703	1	47	Valve Seat (See 70-0179)	N/A Sep.	6
9	O-ring	25-0325	3	29	Shim- 0.1mm (Qty. Varies 1-3)	46-0704	-	48	Valve Plate (See 70-0179)	N/A Sep.	6
10	Plug	39-0086	1	-	Shim- 0.2mm (Qty. Varies 1-3)	46-0705	-	49	Valve Spring (See 70-0179)	N/A Sep.	6
11	Bolt	27-8885	6	30	O-ring	25-0380	1	50	Valve Cage (See 70-0179)	N/A Sep.	6
12	Crankcase Cover	46-0719	1	31	Bearing (After Serial #28511)	48-0072	1	51	Plug	39-0096	2
13	O-ring	25-0370	1	-	Bearing (Before Serial #28511)	48-0061	1	52	O-ring	25-0387	2
14	Oil Sight Glass	46-0670	1	32	Crankcase	46-0811	1	53	Bolt	27-8440	8
15	Reflector	46-0824	1	33	Oil Seal	46-0931	3	54	Lockwasher	29-0154	8
16	Retainer	46-0671	1	34	O-ring	25-0384	3		High Pressure Seals (Inc. 3 each 34, 35, 37)	70-0177	
17	O-ring	25-0398	1	35	Low Pressure Seal (See 70-0177)	N/A Sep.	3		Support Rings (Inc. 3 each 38)	70-0178	
18	Connecting Rod (After Serial #28511)	46-0922	3	36	Packing Retainer	46-0708	3		Valve Kit (Inc. 6 each 46-50)	70-0179	
-	Connecting Rod (Before Serial #28511)	46-0697	3	37	V-Packing (See 70-0177)	N/A Sep.	3		Oil Seals Kit (Inc. 3, 4, 17, 30, 33)	70-0337	
19	Piston Pin	46-0698	3	38	Support Ring (See 70-0178)	N/A Sep.	3		Piston Kit (Inc. 3 each 21-26)	70-0352	

UNLOADER/MANIFOLD ASSEMBLY

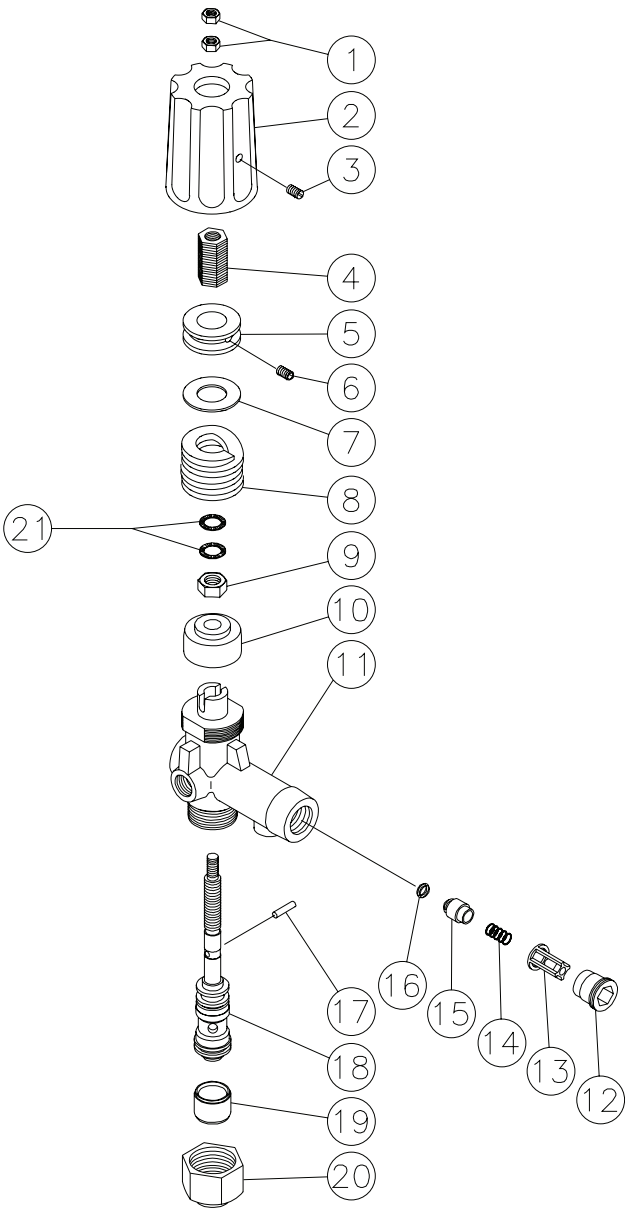


OMHSP080-120498-BAR

OMHSP080-120498-BAR

UNLOADER/MANIFOLD ASSEMBLY			
REF. #	DESCRIPTION	PART #	QTY.
1	Hose *(Two Feet Required)	15-0007	1
2	Hose Clamp	42-0011	1
3	Elbow	23-0119	1
4	Unloader Assembly	850-0252	1
5	Plug	23-0238	1
6	Detergent Injector	50-0052	1
7	Manifold Block	51-0026	1
8	High Pressure Hose Assembly	15-0202	1
9	Detergent Strainer	19-0050	1
10	Detergent Hose *(Six Feet Required)	15-0021	1
11	High Pressure Hose Assembly	15-0194	1
*Must Order in One Foot Lengths			

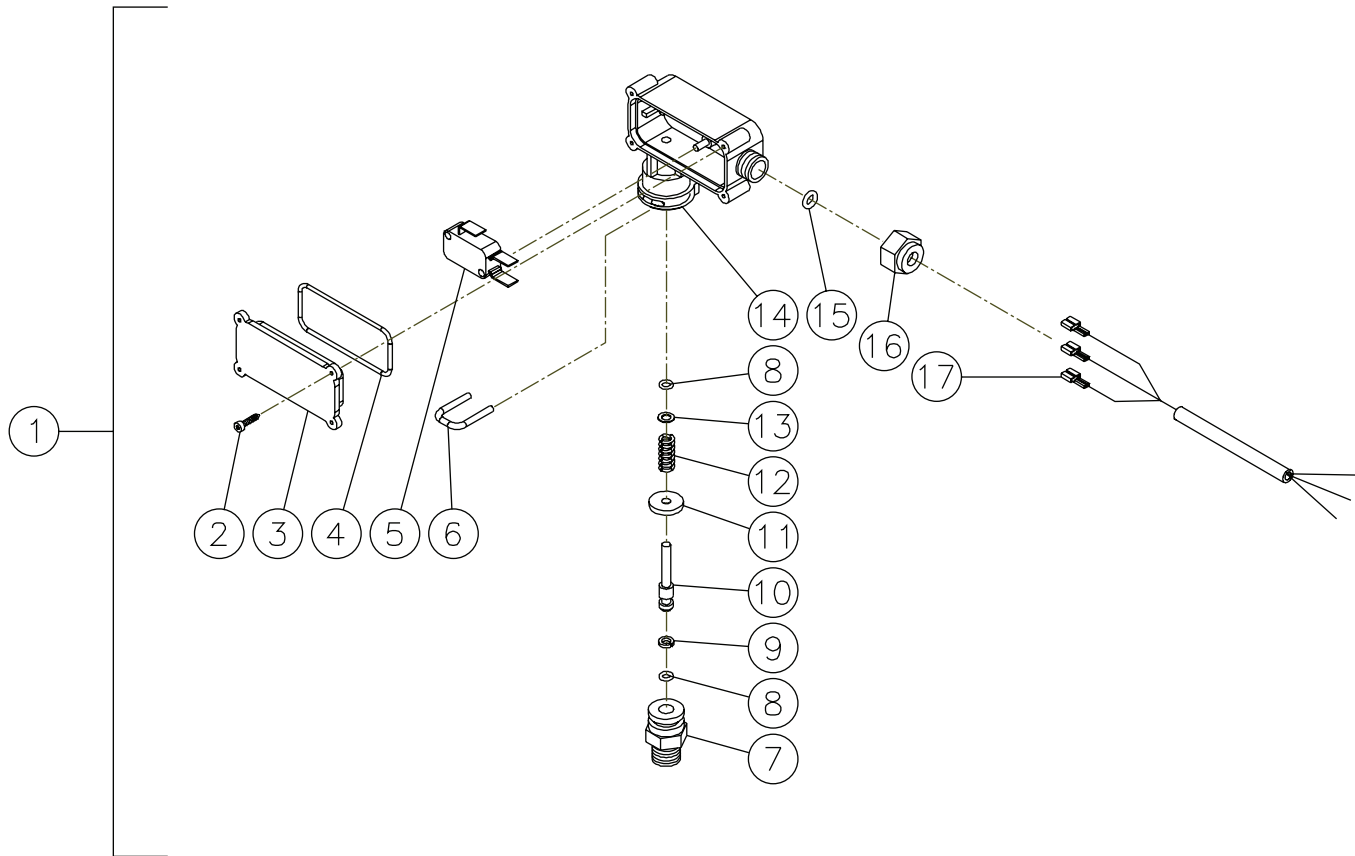
UNLOADER (850-0252)



OMGEN163-101298-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	

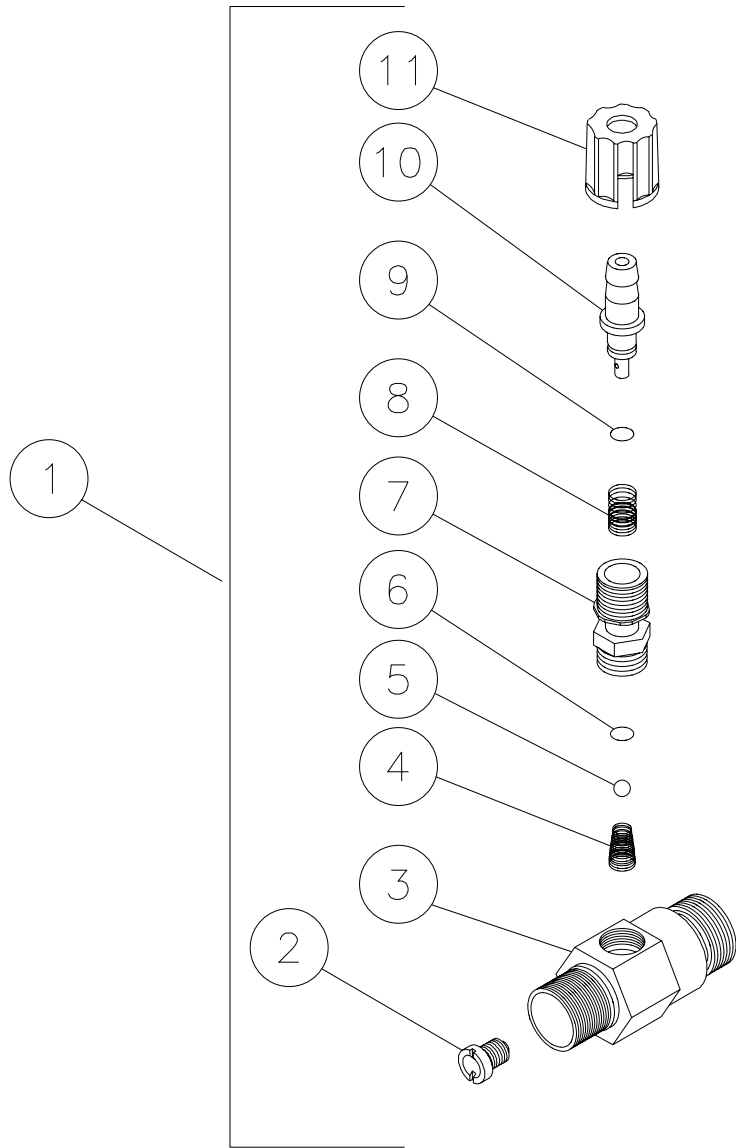
PRESSURE SWITCH (22-0171)



22-0171 & 22-0243-120799-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	

DETERGENT INJECTOR (50-0052)

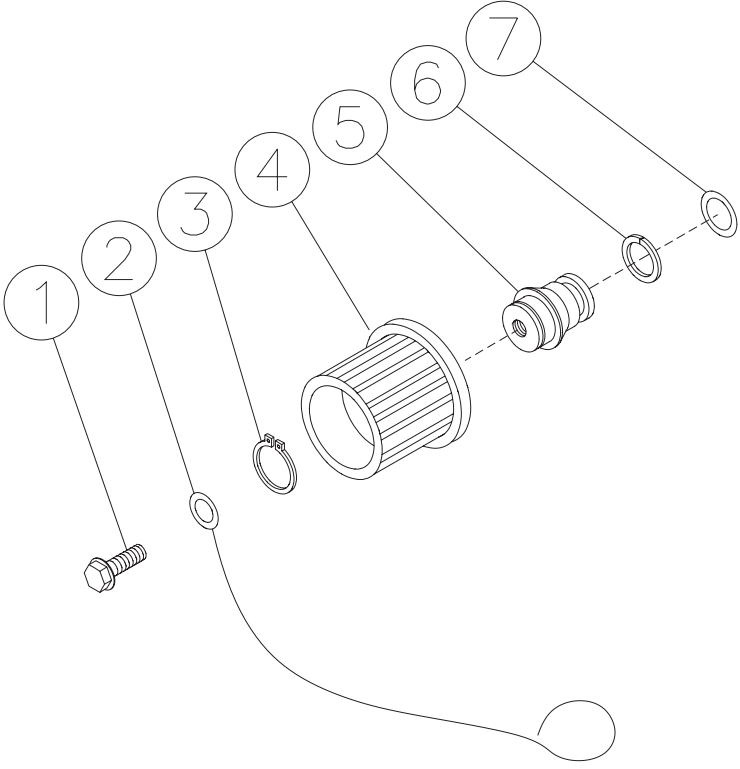


50-0052-072701-RD

DETERGENT INJECTOR (50-0052)			
REF. #	DESCRIPTION	PART #	QTY.
1	Detergent Injector (Inc. 2-11)	50-0052	1
2	Orifice (2.1mm)	50-0057	1
3	Injector Body	N/A	1
4	Spring (See 852-0056)	N/A Sep.	1
5	Ball (See 852-0056)	N/A Sep.	1
6	O-ring (See 852-0056)	N/A Sep.	1
7	Piston Retainer	50-0156	1
8	Spring	49-0056	1
9	O-ring (See 852-0056)	N/A Sep.	1
10	Adjustable Shutter Barb	50-0157	1
11	Adjustment Knob	50-0158	1
	Injector Repair Kit (Includes 4-6, 8)	852-0056	

50-0052-072701-RD

COIL DRAIN PLUG (850-0218)

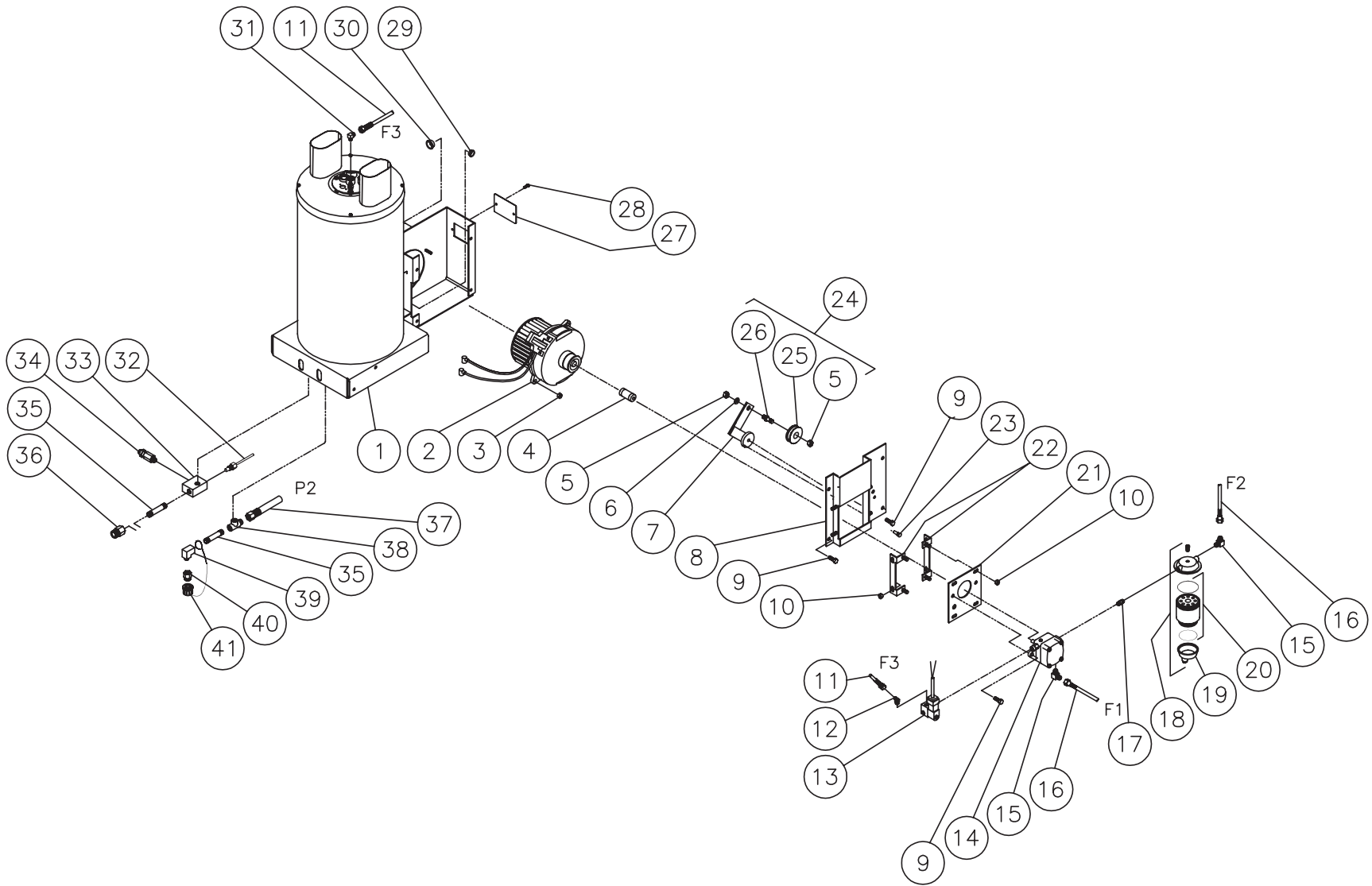


850-0218-041597-BAR

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

850-0218-041597-BAR

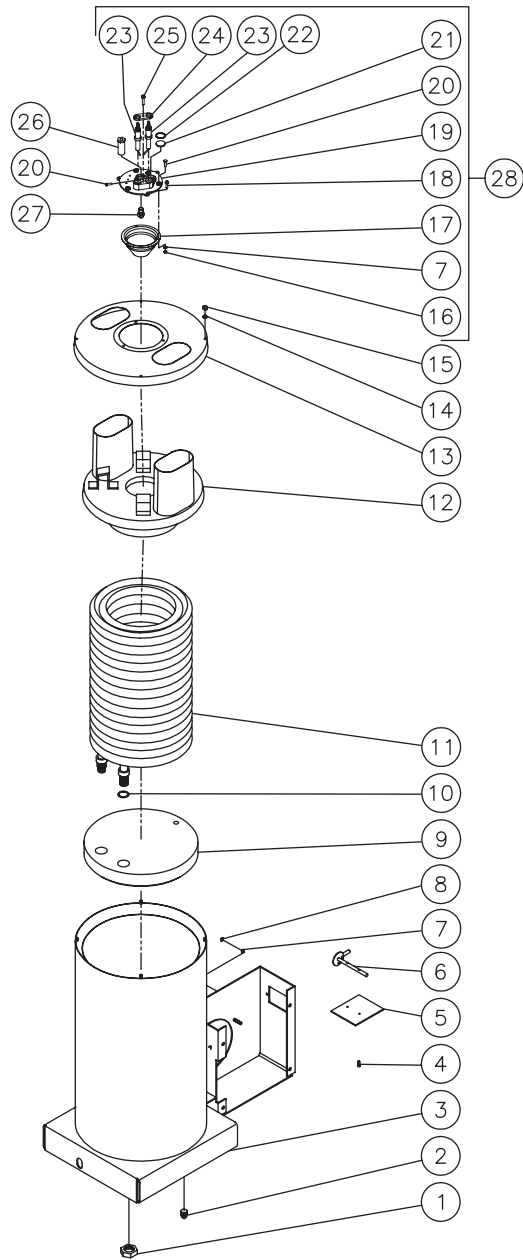
HEAT EXCHANGER/EMF SYSTEM



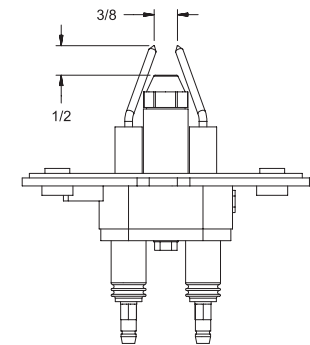
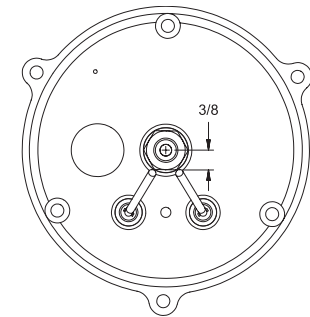
OMHSP083_850-0226 082307-CH

HEAT EXCHANGER/EMF SYSTEM							
REF. #	DESCRIPTION	PART #	QTY.	REF. #	DESCRIPTION	PART #	QTY.
1	Boiler Assembly Complete	850-0226	1	22	Bracket	20-0360A01	2
2	EMF Assembly	850-0257	1	23	Pin	33-0211	1
3	Hex Nut	30-3022	2	24	Tensioner Sheave Shaft Assembly (Inc. 5, 25, 26)	850-0166	1
4	Fuel Pump Coupler	33-0225	1	25	Sheave Assembly	850-0177	1
5	Nut	30-0159	2	26	Shaft	33-0212	1
6	Flatwasher	28-0022	1	27	Access Panel	20-0386A01	1
7	Tensioner Base	10-0071	1	28	Bolt	27-9526	2
8	Fuel Pump Bracket	20-0381A01	1	29	Grommet	32-0426	1
9	Bolt	27-9524	7	30	Grommet	32-0427	1
10	Hex Nut	30-3023	8	31	Elbow	23-0287	1
11	Fuel Hose Assembly	15-0165	1	32	High Limit Switch	32-0423	1
12	Elbow	23-0288	1	33	Outlet Connector Block	24-0138	1
13	Fuel Solenoid- 12 Volt	44-0100	1	34	Pressure Relief Valve	22-0273	1
14	Fuel Pump	3-0020	1	35	Nipple	24-0165	2
15	Elbow	23-0237	2	36	Hex Reducer	23-0197	1
16	Fuel Hose	15-0147	2	37	High Pressure Hose Assembly	15-0202	1
17	Hex Nipple	24-0145	1	38	Street Tee	23-0058	1
18	Filter Fuel Water Seperator	19-0070	1	39	Elbow	23-0034	1
19	Fuel Water Seperator Replacement Bowl	19-0071	1	40	Adapter	23-0279	1
20	Fuel Water Seperator Replacement Filter	19-0053	1	41	Drain Plug Assembly	850-0218	1
21	Plate	20-0363A01	1				

BOILER ASSEMBLY (850-0226) AFTER SERIAL #15048210



ELECTRODE GAP SETTINGS



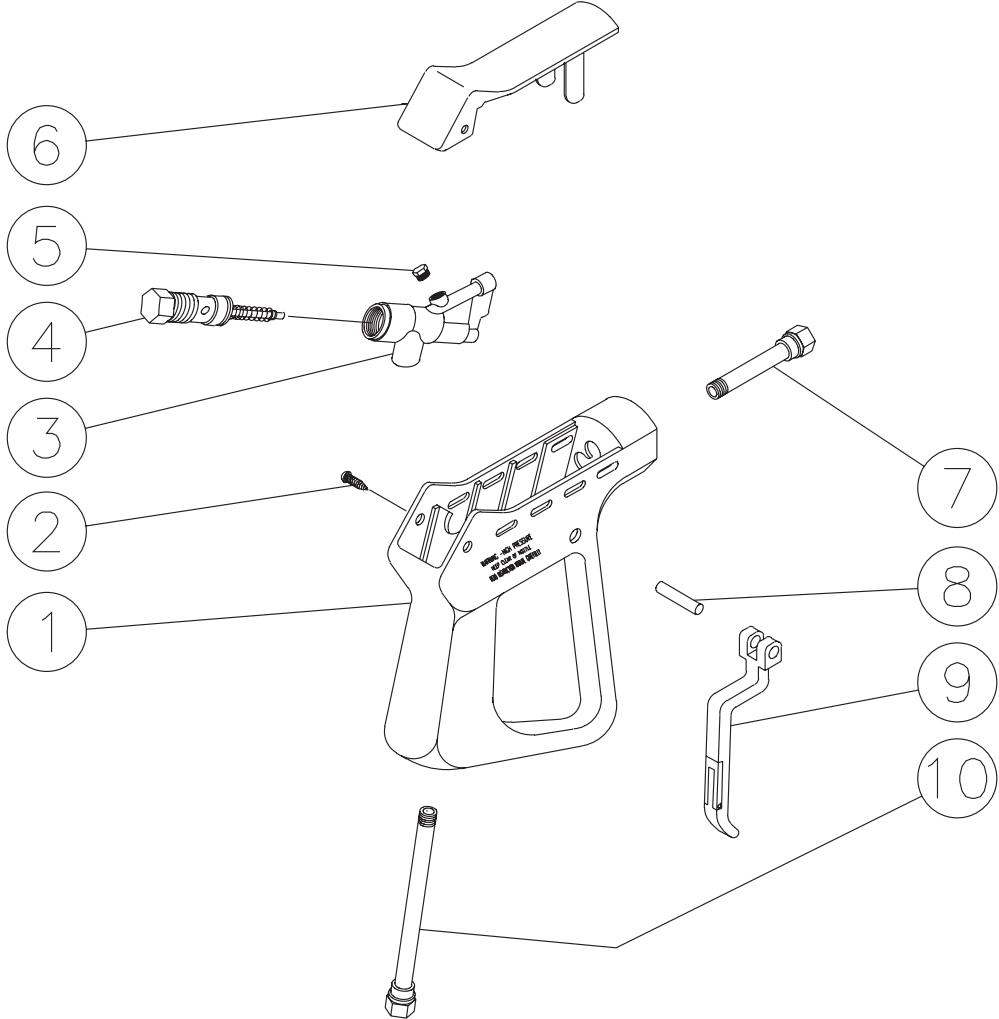
ELECTRODE PLATE ASSY 062308-CH

850-0226-100709-CH

BOILER ASSEMBLY (850-0226) (AFTER SERIAL #15048210)

REF. #	DESCRIPTION	PART #	QTY.	REF. #	DESCRIPTION	PART #	QTY.
1	Hex Nut	30-0121	2	16	Nut	30-6001	3
2	Plug	24-0034	1	17	Cone	20-0373	1
3	Heat Exchanger Outer Wrap- Black	20-0376A01	1	18	Fuel Nozzle	27-9526	3
4	Bolt	27-8879	6	19	Electrode Plate	38-0065	1
5	Air Diverter Plate- Black	20-0378A01	1	20	Bolt	27-8878	4
6	Air Diverter Stem Assembly- Black	20-0377A01	1	21	Sight Glass	33-0252	1
7	Lockwasher	28-1009	4	22	Snap Ring	33-0254	1
8	Hex Nut	30-0137	1	23	Electrode	32-0987	2
9	Bottom Insulation	33-0250	1	24	Electrode Mounting Clip- Black	20-1094A01	1
10	Washer	28-0521	2	25	Bolt	27-8807	1
11	Heat Exchanger Coil Assembly	66-0011	1	26	Nozzle Holder	23-0292	1
12	Inner Pan Assembly	20-0372	1	27	Nozzle (3004, 3504)	18-0308	1
13	Top Pan Assembly- Black	20-0371A01	1	-	Nozzle (3003)	18-0368	1
14	Lockwasher	28-1028	4	28	Electrode Assembly Kit (Inc. 7, 16-25)	850-0351	1
15	Acorn Nut	30-6002	4				

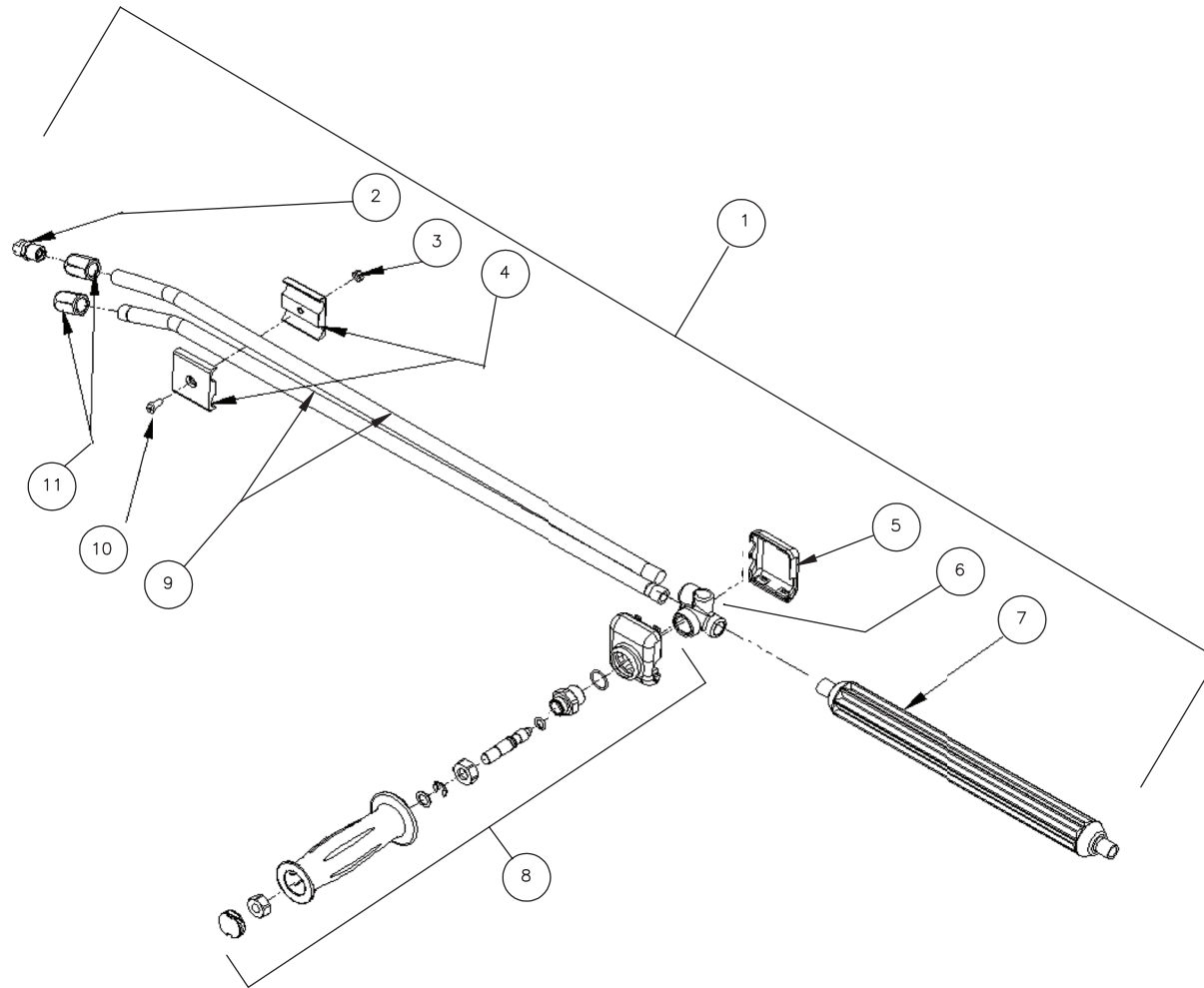
GUN ASSEMBLY (16-0001)



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

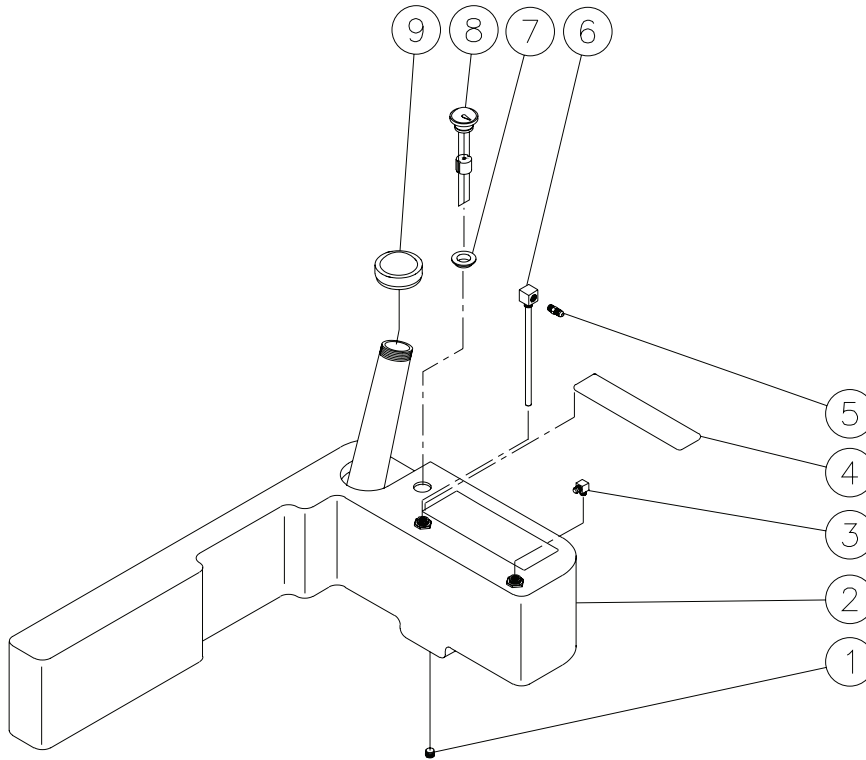
DUAL LANCE ASSEMBLY (16-0417)



16-0416_16-0417-102405-RZ

DUAL LANCE ASSEMBLY (16-0417)			
REF. #	DESCRIPTION	PART #	QTY.
1	Dual Lance Assembly - 48" (Inc. 2-11)	16-0417	1
2	Detergent Nozzle	18-0110	1
3	Nut	30-6001	1
4	Clamp	16-0420	2
5	Lower Valve Cover (See 16-0417)	N/A Sep.	1
6	Housing (See 16-0417)	N/A Sep.	1
7	Lance	16-0419	1
8	Handle Repair Kit	70-0419	1
9	Lance (See 16-0417)	N/A Sep.	2
10	Screw	27-8196	1
11	Nozzle Adapter	24-0280	2

FUEL TANK (850-0248)

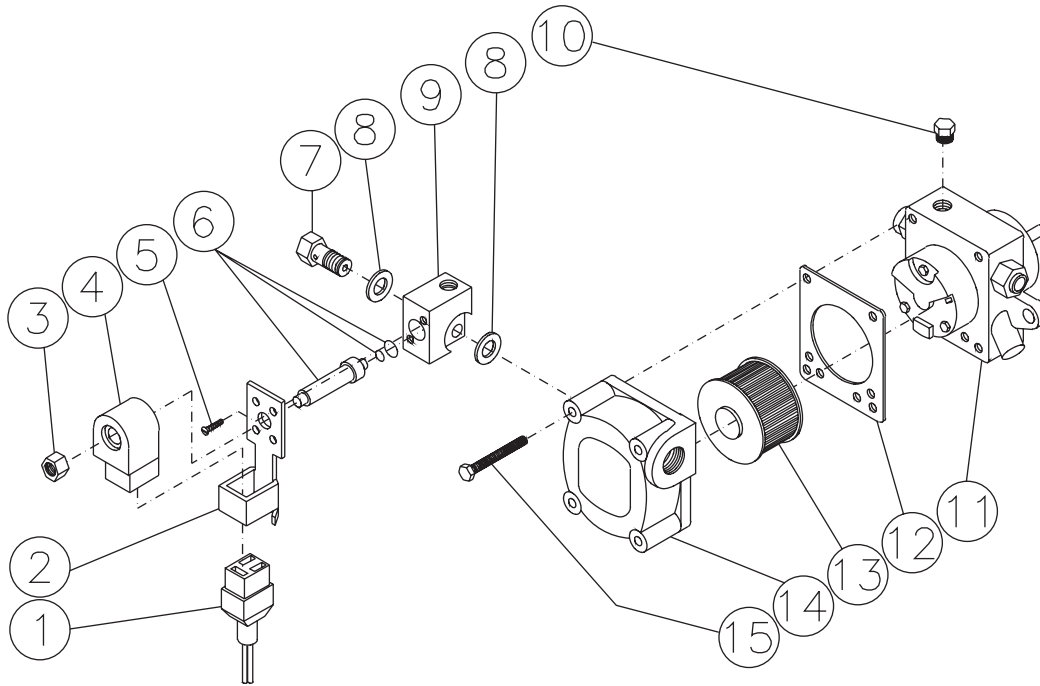


850-0193-850-0248-012098-BAR

FUEL TANK (850-0248)			
REF. #	DESCRIPTION	PART #	QTY.
1	Plug	23-0296	1
2	Fuel Tank (See 850-0248)	N/A Sep.	1
3	Elbow	23-0237	1
4	Decal-Warning: Risk of Fire (E/S) (See 34-9001)	N/A Sep.	1
5	Flare	23-0247	1
6	Fuel Pick-up Line	33-0270	1
7	Bushing	33-0255	1
8	Fuel Indicator Gauge	22-0215	1
9	Fuel Cap-Vented	12-0033	1
	Safety Decal Kit (Includes 4)	34-9001	

850-0193-012098-BAR

FUEL PUMP (3-0020) & FUEL SOLENOID (44-0100)

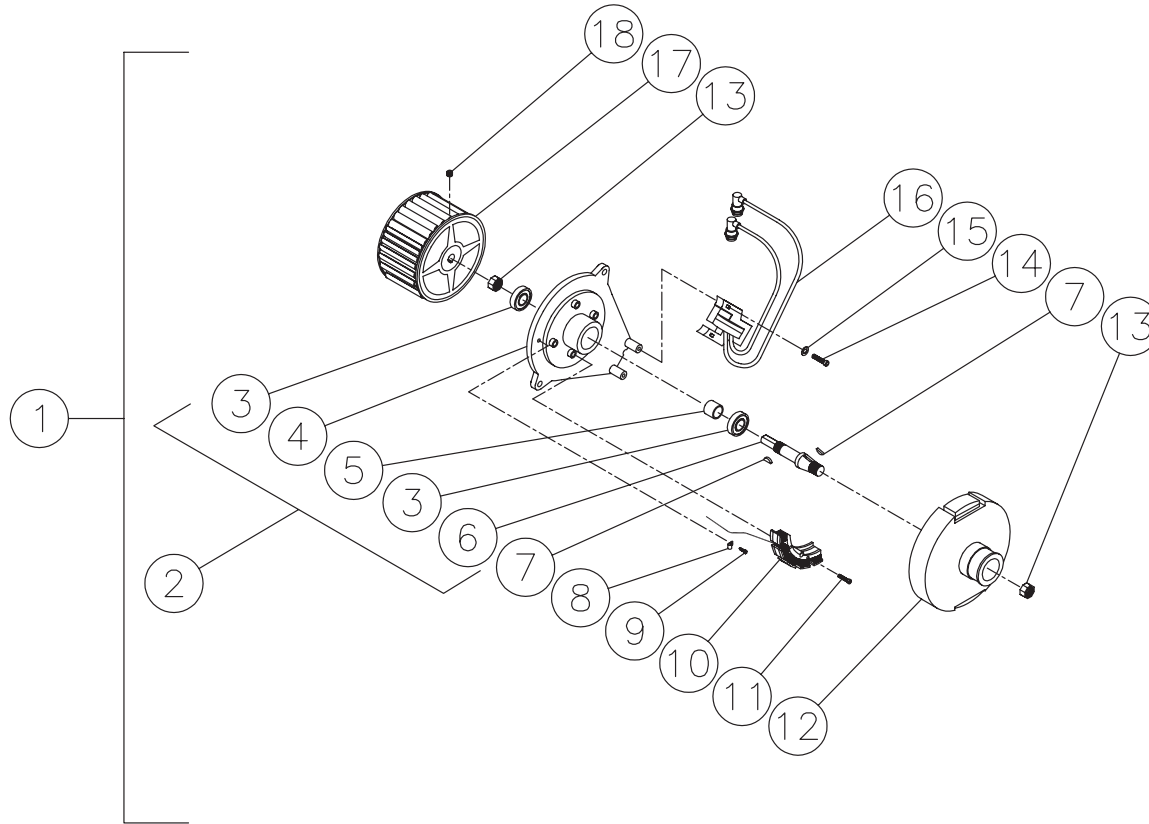


0MHSP049-080902-BAR

FUEL PUMP (3-0020) & FUEL SOLENOID (44-0100)			
REF. #	DESCRIPTION	PART #	QTY.
1	Cord-Din Connector	32-0443	1
2	Base Plate	46-1014	1
3	Nut	46-1016	1
4	Solenoid Coil- 12 Volt	46-1015	1
5	Screw	N/A	2
6	Piston	46-1012	1
7	Bolt	46-1009	1
8	Washer	26-0150	2
9	Solenoid Body	N/A	1
10	Plug	24-0082	1
11	Fuel Pump Body	N/A	1
12	Cover Gasket	26-0109	1
13	Fuel Oil Strainer	19-0034	1
14	Fuel Pump Cover	46-1005	1
15	Fuel Pump Cover Screw	46-1006	4

0MHSP049-080902-BAR

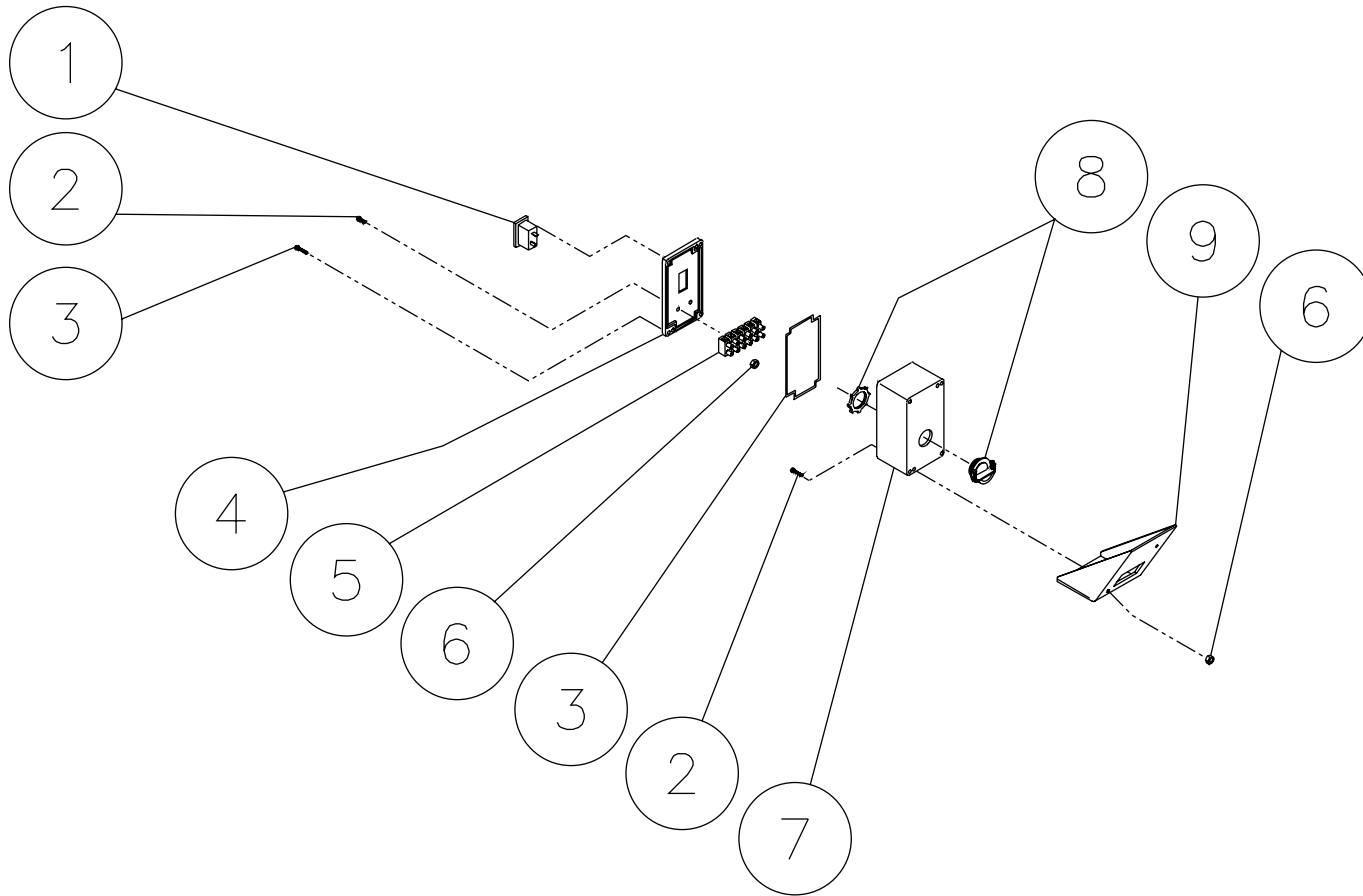
EMF SYSTEM (850-0257)



OMHSP072-052908-CH

EMF SYSTEM (850-0257)			
REF. #	DESCRIPTION	PART #	QTY.
1	EMF Assembly	850-0257	1
2	Blower Flange Assembly	850-0162	1
3	Bearing	48-0041	2
4	Flange Blower	38-0040	1
5	Spacer	33-0206	1
6	Shaft- Blower/ Electric	20-0347	1
7	Woodruff Key	43-0080	2
8	Cable Clamp	32-0403	1
9	Screw	27-2070	1
10	Stator Coil	850-0201	1
11	Screw	27-0740	2
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	850-0191	1
17	Blower Fan	44-0099	1
18	Screw Set w/ Fan	30-3021	1

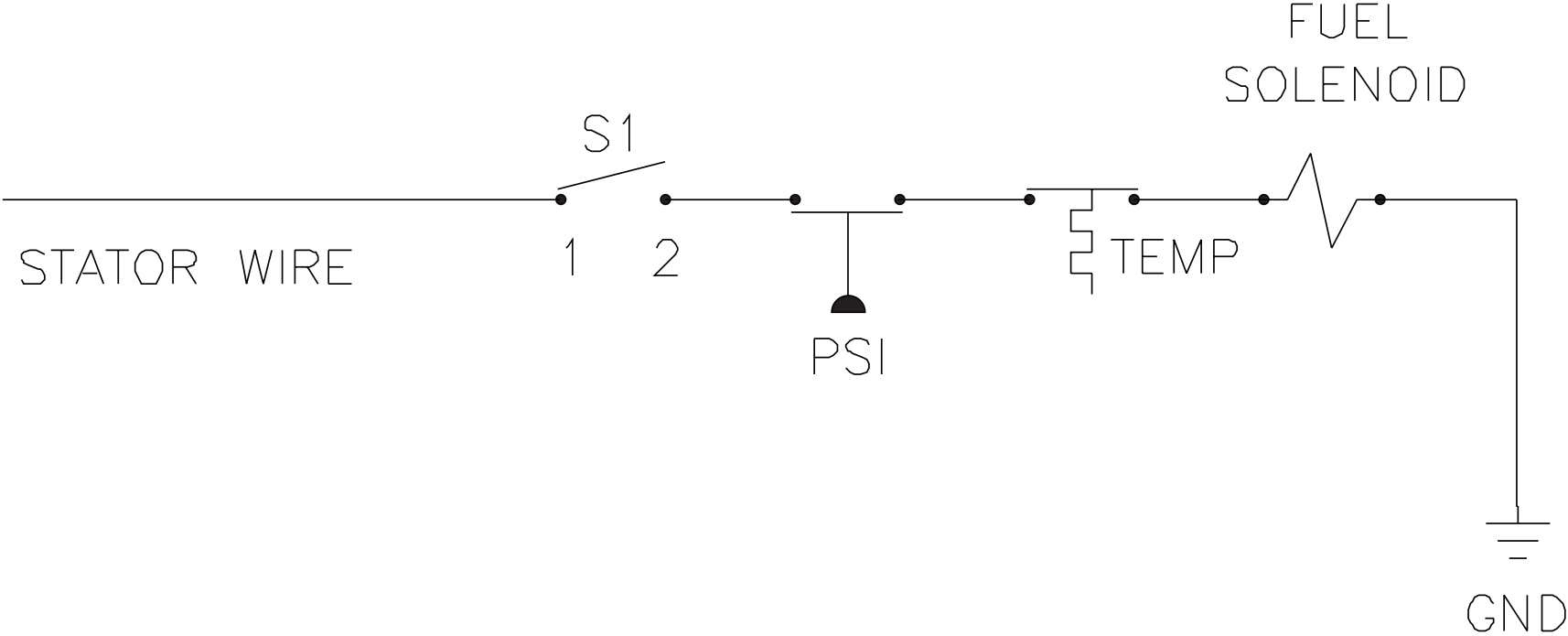
ELECTRIC BOX



OMHSP082-120498-BAR

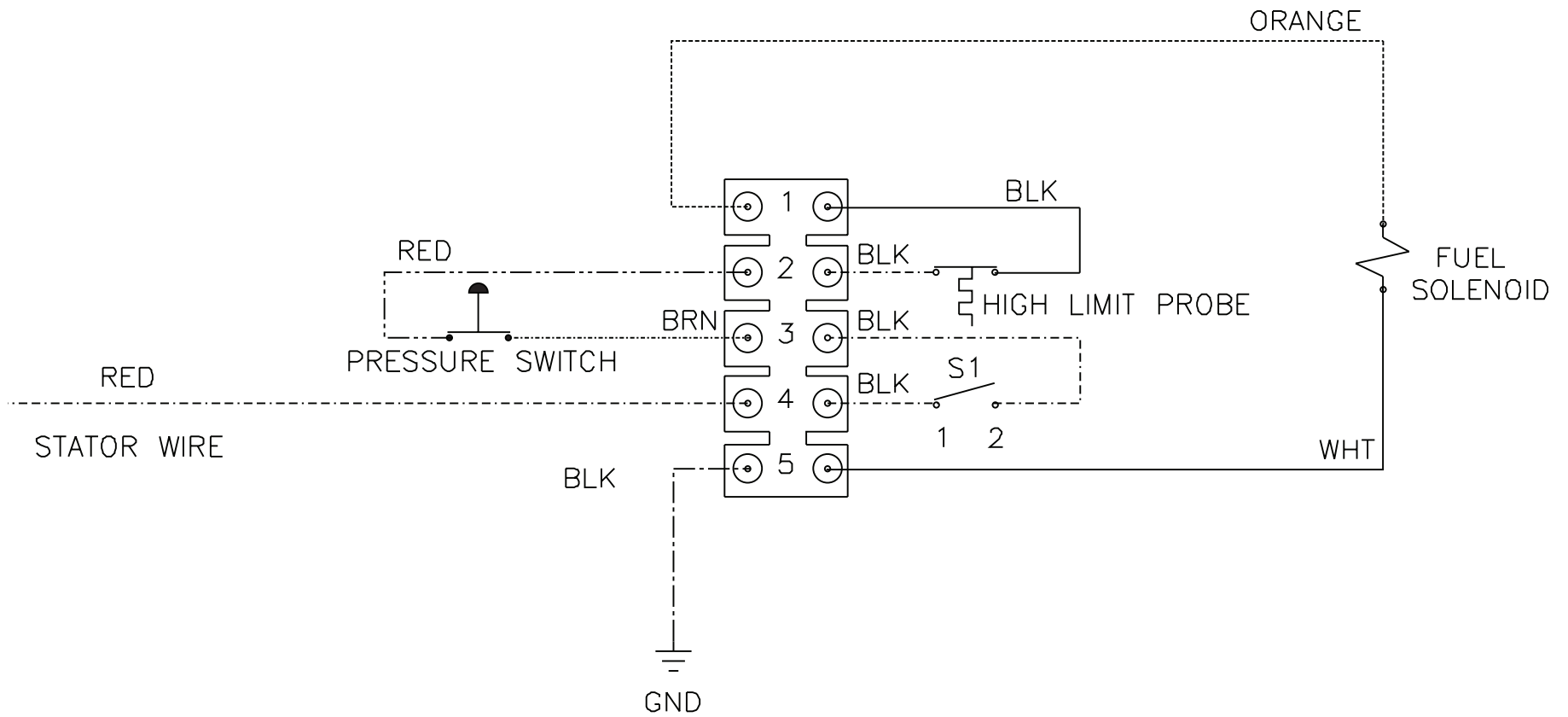
ELECTRIC BOX			
REF. #	DESCRIPTION	PART #	QTY.
1	Switch/ Rocker	32-0422	1
2	Bolt	27-8881	4
3	Bolt and Gasket Kit	70-0169	1
4	Electric Box Lid- Black	32-0430A01	1
5	Terminal Strip	32-0394	1
6	Hex Nut	30-0152	4
7	Electric Box- Black	32-0429A01	1
8	Electrical Connector	32-0085	1
9	Electric Box Bracket- Black	20-0380A01	1

WIRING SCHEMATIC



OMHSP050A-071797-BAR

WIRING DIAGRAM



OMHSP050B-071797-BAR

NOTES

NOTES

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