

PARTS LIST FOR  
***HDB-3004-OH6G***  
***HDB-3004-OK7G***

**ENGINE OIL GRADE:**

HONDA:

SAE10W-30

KOHLER:

SAE20W-40

**PUMP OIL GRADE:**

SAE 20 or 30 Non-Detergent

**PUMP OIL CAPACITY:**

41 oz. / 1.2 L

**FUEL NOZZLE:**

2.25 80° B Delavan

**BTU INPUT:**

343,000

**PRESSURE NOZZLE SIZE:**

4.5

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 operating the machine, DO NOT leave the pressurized unit unattended. Shut off the unit and release trapped pressure before leaving.

**TABLE OF CONTENTS**

SPECIFICATIONS FOR HDB-3004-0H6G\_0K7G .....3

FLOW CHART FOR HDB-3004.....4

GENERAL THEORY OF OPERATION FOR HDB-3004 .....5

SAFETY DECAL PLACEMENT HDB-3004.....6

UNIT ASSEMBLY FOR HDB-3004 .....8

ISOLATION PLATE FOR HDB-3004 .....10

HDB PUMP PLUMBING .....12

PUMP ASSEMBLY (3-0203) (AFTER SERIAL #15045000).....14

BURNER FUEL TANK .....16

CONTROL PANEL ASSEMBLY .....18

HDB HEAT EXCHANGER ASSEMBLY .....20

BURNER ASSEMBLY (4-0021) .....22

UNLOADER ASSEMBLY (850-0304) .....24

PRESSURE SWITCH (22-0243) .....26

GUN/WAND/HOSE ASSEMBLY .....28

DUAL LANCE ASSEMBLY (16-0417) .....30

WIRING SCHEMATIC .....32

WIRING DIAGRAM .....33

3-WAY BALL VALVE OPTION (HX-0226) .....34

TRAPPING UNLOADER OPTION (HX-0225) .....36

CONTROL PANEL (HX-0156/0220/0221/0222/0224) .....37

FLOAT TANK OPTION (HX-0220/0221).....38

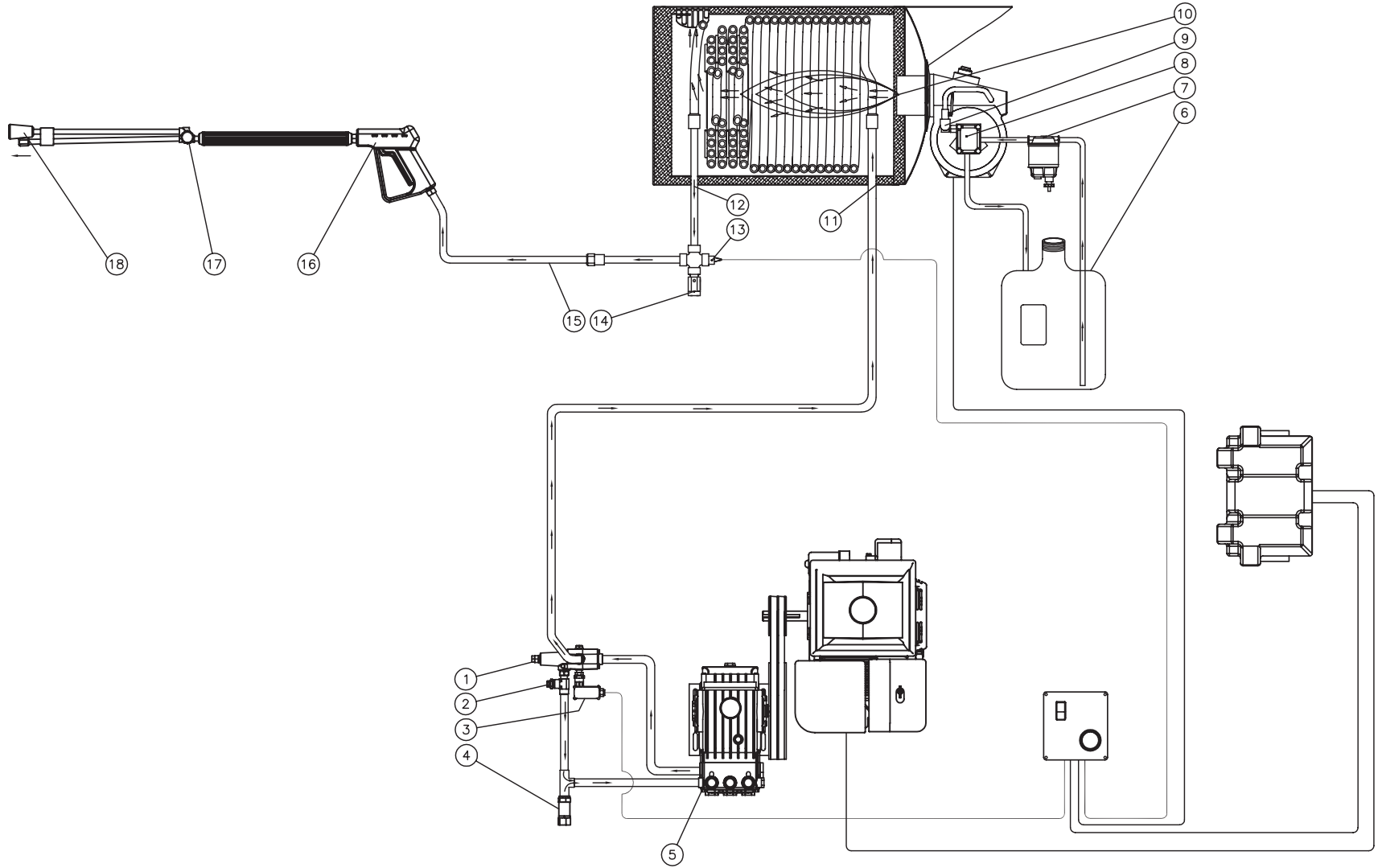
FLOAT TANK ASSEMBLY .....40

STEAM OPTION PLUMBING (HX-0224) .....41

## SPECIFICATIONS FOR HDB-3004-0H6G\_0K7G

MODEL NUMBER	HDB-3004-0H6G	HDB-3004-0K7G
Operating Pressure (PSI/Bar):	3000 / 206.8 (+/-5%)	
Water Volume (GPM/lpm):	3.9 / 14.8 (+/-5%)	
Outlet Water Temperature (F/C)	130°F / 54°C (+/- 10°F) rise above inlet ambient (210°F / 99°C maximum)	
High Pressure Nozzle	4.5	
Engine:	Honda	Kohler
Model	GX390	KD440
Engine Type	Air-Cooled, Vertical Single Cylinders, 4-Stroke Diesel	
Oil Type	SAE 10W-30	SAE 20W-40
Oil Capacity (oz. / liter)	37 / 1.1	50 / 1.5
Low Oil Protection	Oil Alert™	Safety Shutdown for Low Oil Pressure
Fuel Type	Unleaded Gasoline 86 Octane Minimum	Diesel
Fuel Capacity (Gal. / liter)	1.7 / 6.5	1.3 / 0.5
Starting	12 Volt Electric	
Battery	BCI Group 24DC, RV / Marine Dual Purpose Deep Cycle / Cranking Battery	
Maximum No Load RPM	3600 (+/- 100)	
High Pressure Pump:	Belt Driven, Oil Bath, Triplex Piston	
Oil Type	SAE20 or 30 Non-Detergent	
Oil Capacity (oz. / liter)	41 / 1.2	
Plungers	Ceramic	
Manifold	Forged Brass	
Valves	Stainless Steel	
Unloader	Flow Sensitive - Pre-set at the factory	
Heat Dump Valve	Relieves heated water during unloader bypass stage	
Water System:		
Inlet Water Strainer	Removable thimble for inspection and cleaning of stainless steel screen	
Heat Dump Valve	Protects pump against damaging heat in recirculated and inlet water	
Burner Fuel System		
Fuel Type	No 1 or No 2 Fuel Oil, Diesel or Kerosene	
Fuel Capacity (Gal. / liter)	10 / 37.8	
Fuel Filter/ Water Separator	Spin on (10 micron) filter / E-Z water drain	
Fuel Pump	Two Line, Single Stage	
Fuel Pressure (PSI / BAR)	150 / 10.4	
Fuel Nozzle	2.25 80° B Delavan	
Fuel Consumption (GPH / LPH)	2.76 / 10.45 Cont. Burning	
Burner Electrical System		
Voltage	12	
Amps	16.0	
Heat Exchanger	Horizontal, Side Fired, Pancake Coil	
BTU Input	343,000	
Efficiency	75% with #2 Fuel Oil / Diesel	
Smoke Density	0-3 Per ASTM D2156	
Safety System		
Pressure Switch	Shuts off burner fuel supply upon trigger release	
Fuel Solenoid	12 Volt, controls fuel supply to burner	
Safety Relief	Relieves excess system pressure	
Unit Net Weight (Lbs/kg)	563 / 255	621 / 282
Unit Shipping Weight (Lbs/kg)	682 / 309	740 / 336
Unit Net Dimensions (In/cm)	53.5L x 28.75W x 42H / 135.9L x 70W x 106.7H	
Unit Shipping Dimensions (In/cm)	57.5L x 35.5W x 59.5H / 146.1L x 90.2W x 151.1H	

# FLOW CHART FOR HDB-3004



HDB 3004 FLOW DIAGRAM 082410

## GENERAL THEORY OF OPERATION FOR HDB-3004

**WATER FLOW:** Connect a pressurized water source to the INLET GARDEN HOSE CONNECTION (4) and turn on the water supply.

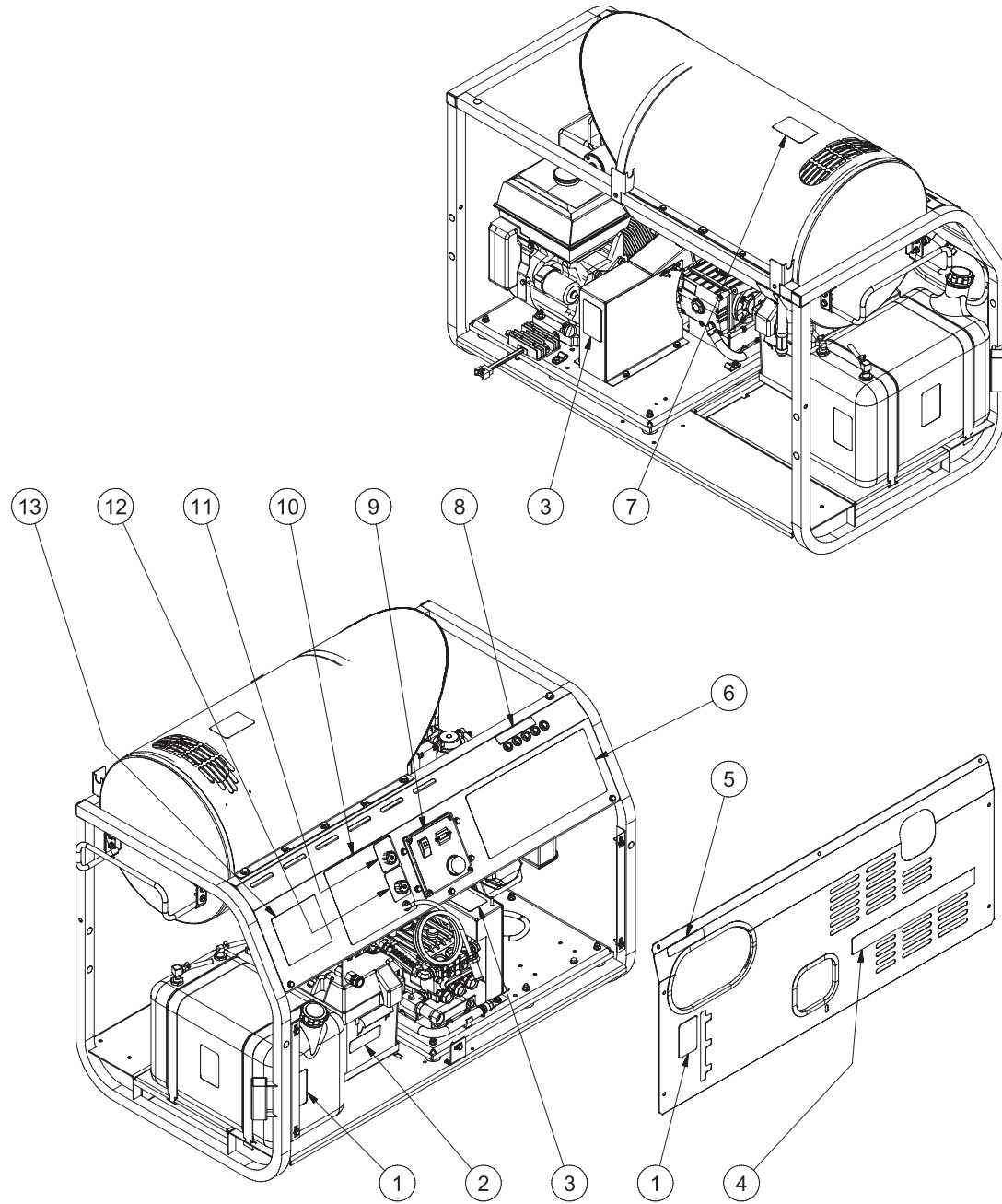
Water is fed through a filter on the INLET GARDEN HOSE CONNECTION (4) and into a TRIPLEX HIGH PRESSURE PUMP (5) which has an UNLOADER (1) that bypasses the water when the trigger gun is closed. To protect the pump from heated water during bypass stage, a HEAT DUMP VALVE (2) will open at 140 F/60 C allowing the heated water to escape. The Heat Dump Valve automatically resets when the water cools. The BURNER CONTROL PRESSURE SWITCH (3) controls the fuel supply to the burner.

From there, the water flows through 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 system also contains an ADJUSTABLE THERMOSTAT (13) which senses the water temperature and shuts off the fuel supply to the burner if the water gets too hot. If the unloader fails to bypass 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 flow through the ADJUSTABLE PRESSURE DUAL LANCE (17) and exits the NOZZLE (18).

**FUEL FLOW:** The Fuel Pump draws fuel from the FUEL TANK (6) through a replaceable FUEL FILTER/WATER SEPARATOR (7) and into the FUEL PUMP (8). Fuel exits the fuel pump, into a FUEL SOLENOID VALVE (9) which controls fuel flow to the FUEL NOZZLE (10) where it ignites and burns in the heat exchanger.

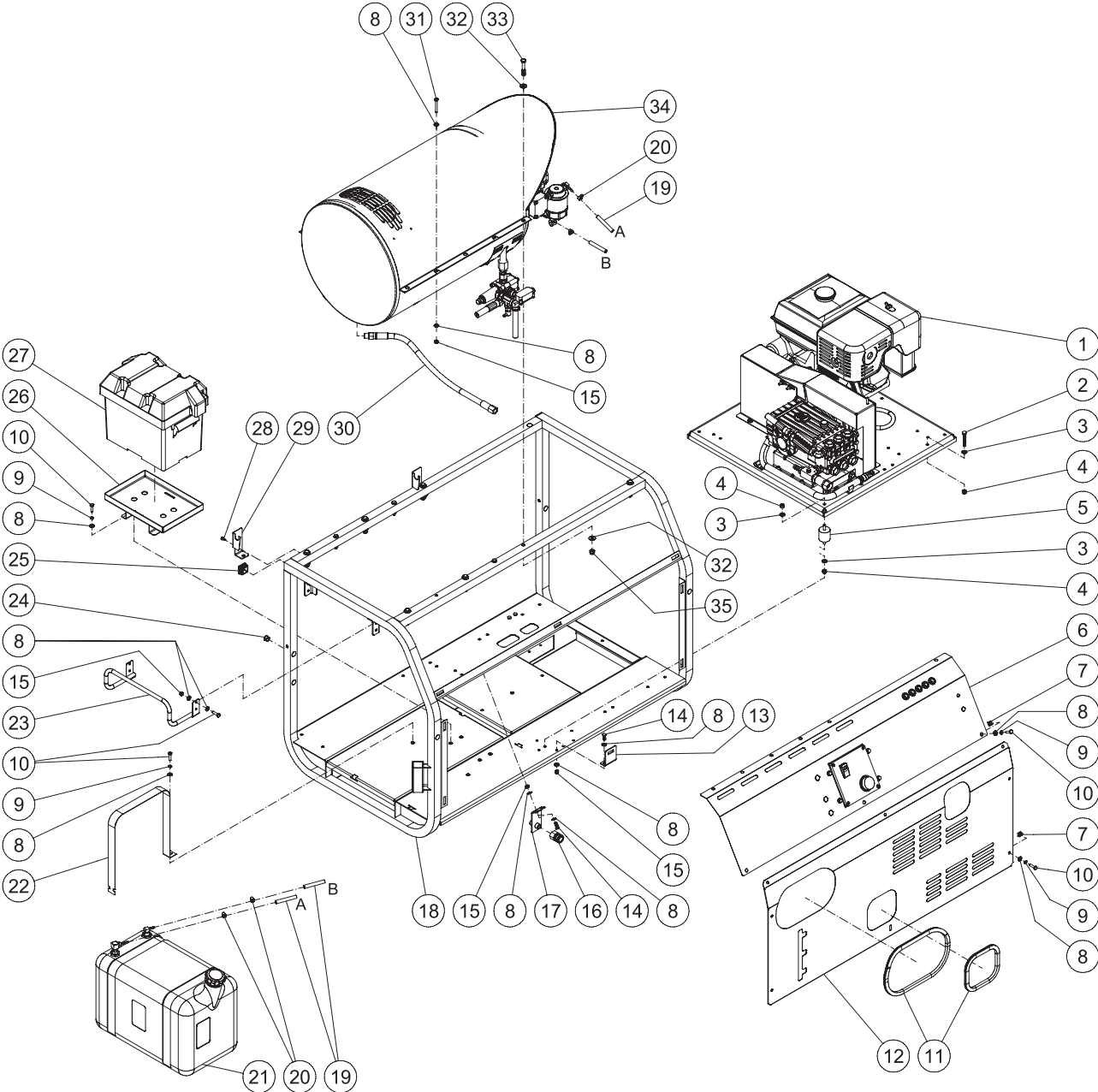
# SAFETY DECAL PLACEMENT HDB-3004



HDB-3004 DECAL PLACEMENT 022013-JDK

HDB-3004 DECAL PLACEMENT			
ITEM	DESCRIPTION	Mi-T-M #	QTY
1	DECAL-CAUTION RISK OF FIRE	N/A	2
2	DECAL - CAUTION RISK OF INJURY (E/S)	N/A	1
3	DECAL - WARNING; RISK OF INJURY	N/A	2
4	DECAL- 17" STRIPE	-	1
5	DECAL - DIESEL ONLY	N/A	1
6	DECAL - WARNINGS	N/A	1
7	DECAL - WARNING HOT SURFACES	N/A	1
8	DECAL - NOZZLES	N/A	1
9	DECAL - CONTROLS	N/A	1
-	DECAL - CONTROLS W/ HOUR METER (HX-0156)	N/A	1
10	DECAL - OPERATION	N/A	1
11	DECAL - STEAM VALVE (HX-0224)	N/A	1
12	DECAL - DETERGENT VALVE (HX-0220, HX-0221)	34-1297	1
13	LARGE LOGO	-	1
-	DECAL SET - HDB	71-0030	1

# UNIT ASSEMBLY FOR HDB-3004



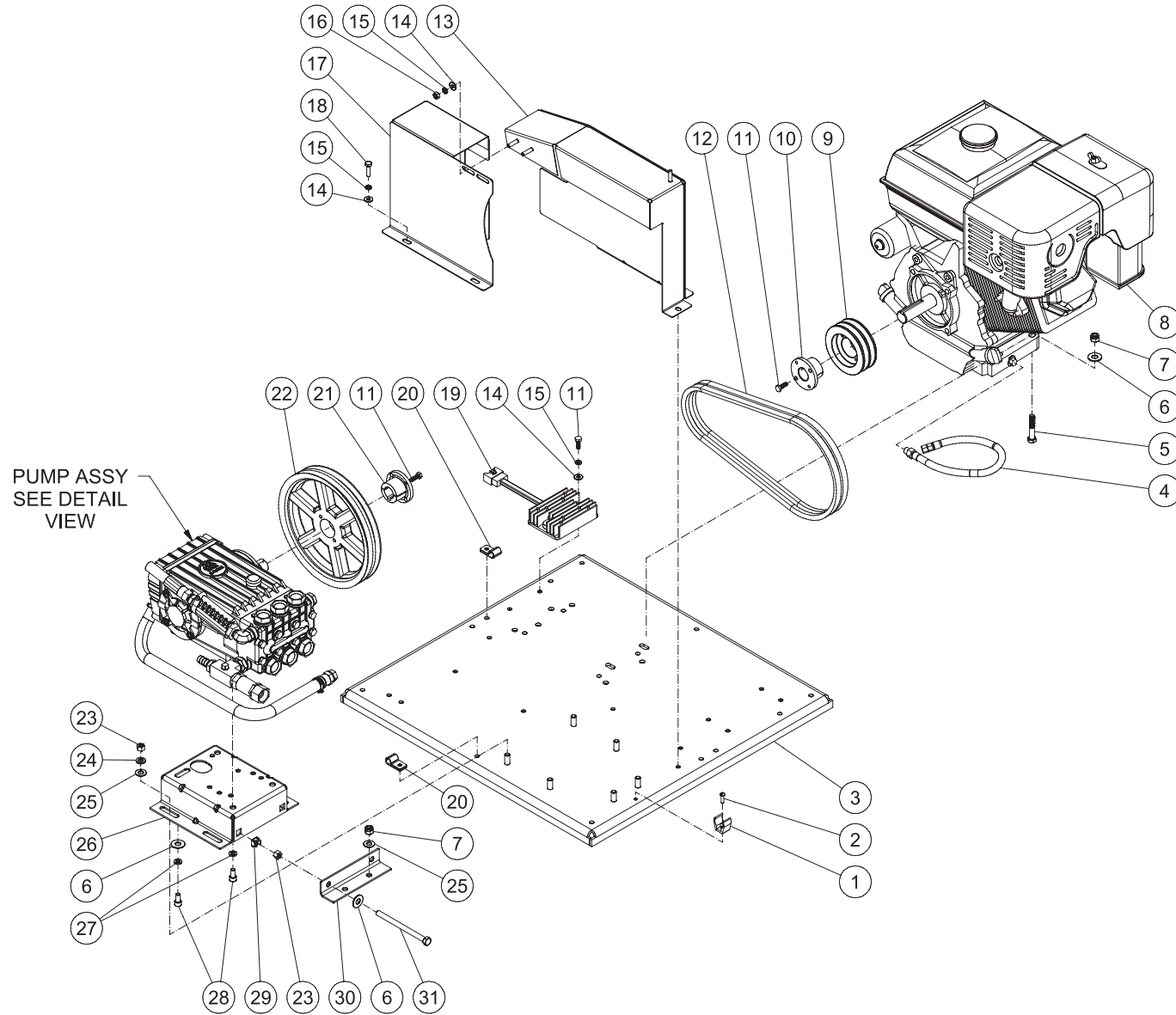
HDB-3004 UNIT ASSEMBLY-022113-JDK



HDB-3004 UNIT ASSEMBLY 022113 JDK			
UNIT ASSEMBLY			
ITEM	DESCRIPTION	Mi-T-M #	QTY
1	ISOLATION PLATE ASSEMBLY	N/A	1
2	BOLT	27-0071	2
3	WASHER	28-0003	18
4	LOCKNUT	30-0157	18
5	ISOLATOR	14-0110	8
6	CONTROL PANEL ASSEMBLY	N/A	1
7	CLIP NUT	30-6027	8
8	WASHER	28-0002	38
9	LOCKWASHER	29-0006	14
10	BOLT	27-0016	18
11	EDGING *(FIVE FEET REQUIRED)	33-0020	1
12	FRONT PANEL	21-0302	1
-	FRONT PANEL - DUAL TANK	21-0292	1
13	BRACKET	20-1182A18	1
14	BOLT	27-0015	4
15	LOCKNUT	30-0155	12
16	QC SOCKET	17-0004	1
17	WATER OUTLET BRACKET	20-1168A18	1
18	FRAME	5-0294A18	1
19	FUEL HOSE *(TEN FEET REQUIRED)	15-0008	1
20	CLAMP WORM	42-0004	4
21	BURNER FUEL TANK ASSEMBLY	N/A	1
22	FUEL TANK STRAP	20-1164A18	2
23	HOSE HANGER	20-1165A18	1
24	PLUG	39-0234	13
25	PLUG	39-0238	2
26	BATTERY TRAY	20-1135A18	1
27	BATTERY BOX	33-0093	1
28	BOLT	27-3062	2
29	GUN/ WAND HOLDER	20-1166A18	2
30	HIGH PRESSURE HOSE	15-0202	1
31	BOLT	27-0020	4
32	WASHER	28-0022	14
33	BOLT	27-0122	7
34	HEAT EXCHANGER ASSEMBLY	N/A	1
35	LOCKNUT	30-0159	7

\*MUST ORDER IN ONE FOOT LENGTHS

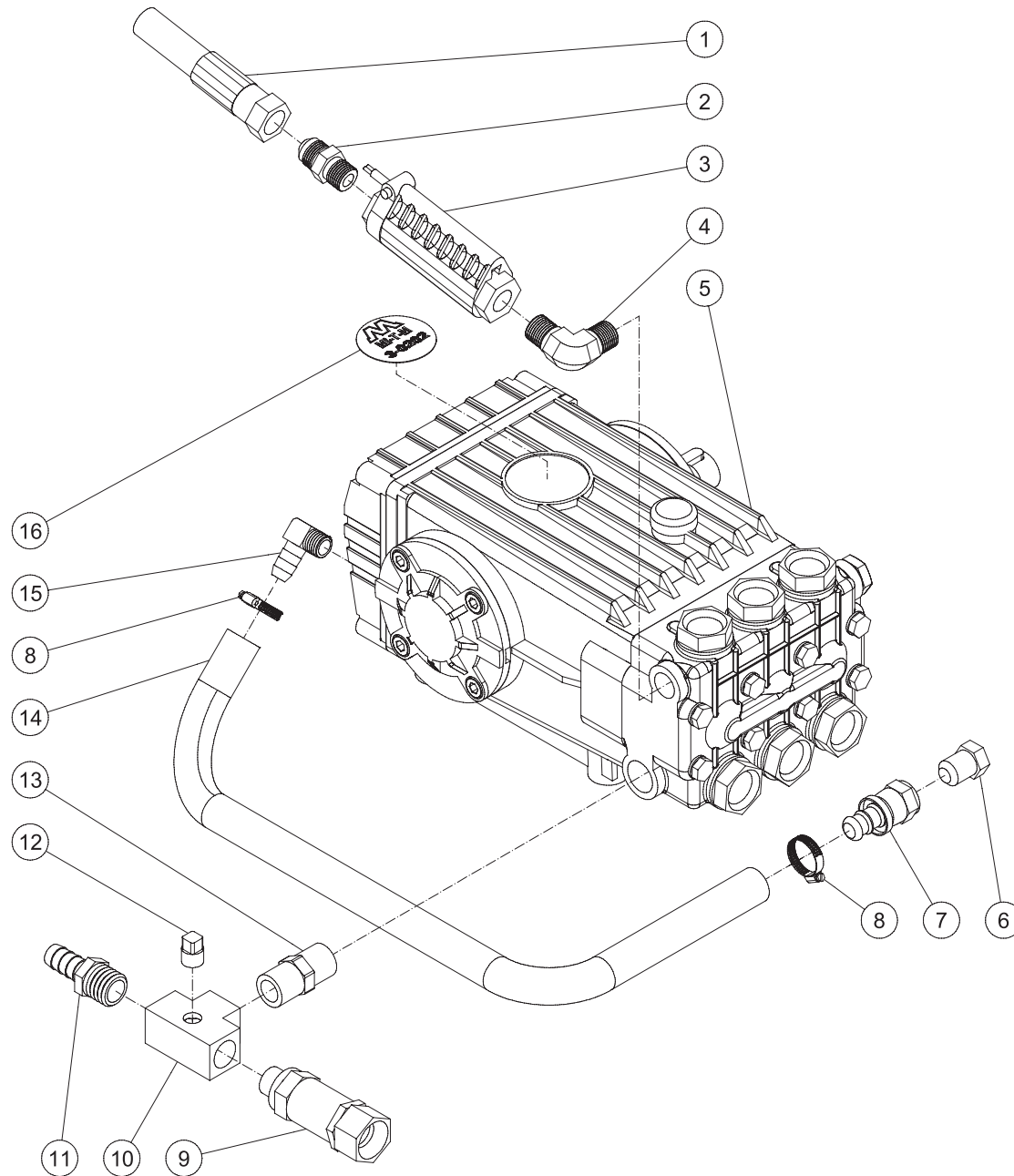
# ISOLATION PLATE FOR HDB-3004



HDB-3004 ISOLATION PLATE 081615 MLK

HDB-3004 ISOLATION PLATE 081915 MLK			
ISOLATION PLATE			
ITEM	DESCRIPTION	PART #	QTY
1	HOSE CLIP	62-0209	1
2	SCREW	27-2811	1
3	ISOLATION PLATE	5-0296A18	1
4	OIL DRAIN HOSE (0H6G)	70-0358	1
-	OIL DRAIN HOSE (0K7G)	70-0380	1
5	BOLT (0H6G)	27-0121	4
-	BOLT (0K7G)	27-0120	4
6	WASHER	28-0023	7
7	LOCKNUT	30-0159	6
8	ENGINE (0H6G)	1-0191	1
-	ENGINE (0K7G)	1-0217	1
9	SHEAVE (0K7G)	10-0067	1
-	SHEAVE (0H6G)	10-0025	1
10	BUSHING	9-0005	1
11	BOLT	27-0015	6
12	BELT (0H6G)	11-0004	2
-	BELT (0K7G)	11-0003	2
13	PUMP BELTGUARD	6-0092A18	1
14	WASHER	28-0002	10
15	LOCKWASHER	29-0006	10
16	NUT	30-0002	2
17	ENGINE BELTGUARD	6-0147A18	1
18	BOLT	27-0016	6
19	RECTIFIER (0H6G)	W/ ENGINE	1
20	CLIP	43-0003	2
21	BUSHING	9-0017	1
22	SHEAVE	10-0038	1
23	NUT	30-0006	6
24	LOCKWASHER	29-0008	4
25	WASHER	28-0004	6
26	PUMP HAT	5-0153A18	1
27	LOCKWASHER	29-0054	4
28	BOLT	27-8884	4
29	CLIP NUT	30-6025	2
30	TENSION BRACKET	20-0584A18	1
31	BOLT	27-0133	2

# HDB PUMP PLUMBING

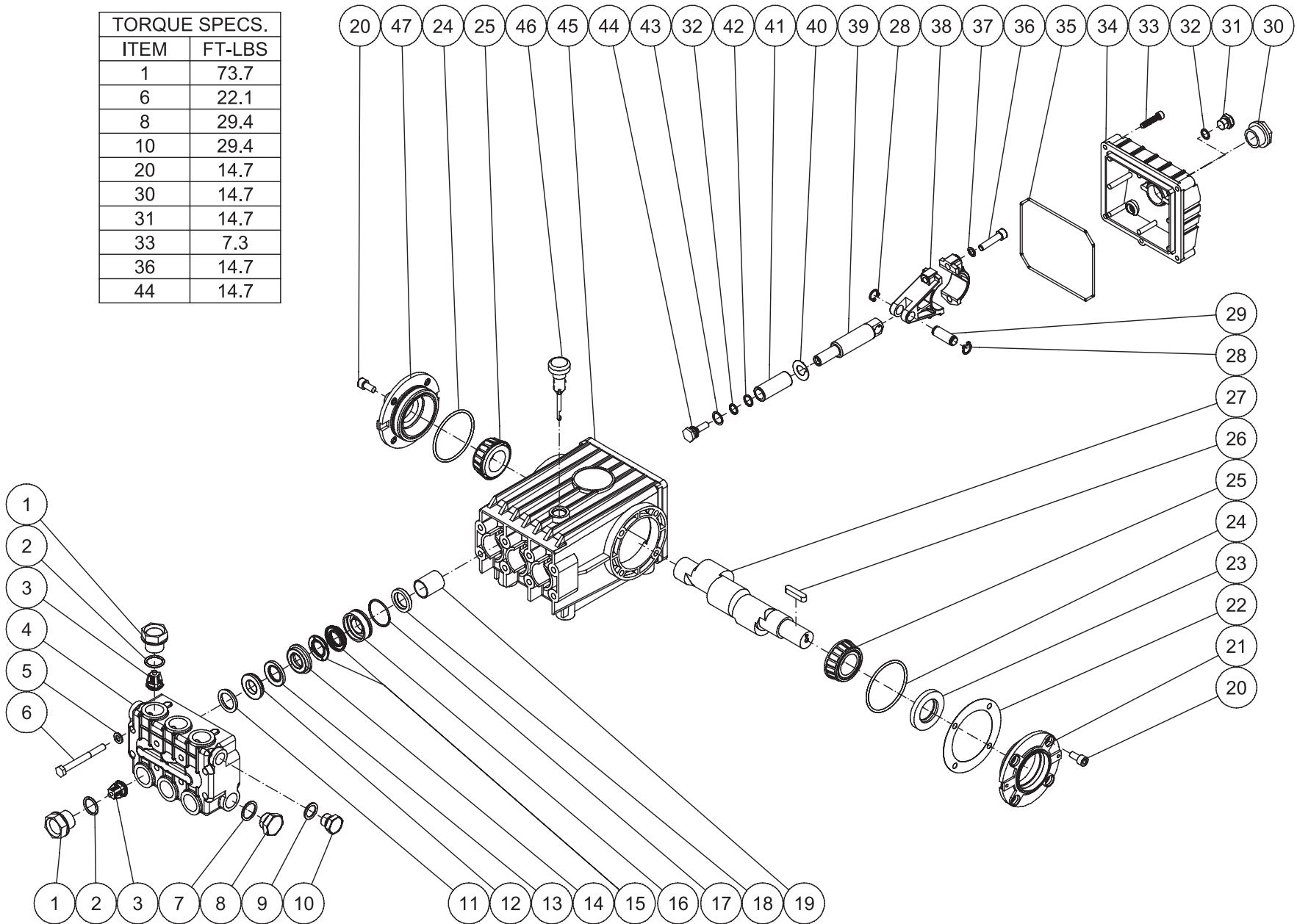


HDB PUMP PLUMBING 022013-JDK

HDB-3004 PUMP PLUMBING 022013 JDK			
HDB PUMP PLUMBING			
ITEM	DESCRIPTION	Mi-T-M #	QTY
1	HIGH PRESSURE HOSE ASSEMBLY	15-0221	1
2	NIPPLE	24-0002	1
3	FLOW SWITCH	22-0428	1
4	ELBOW	24-0131	1
5	PUMP	3-0203	1
6	PLUG	23-0411	1
7	HOSE BARB	23-0360	1
8	HOSE CLAMP	42-0011	2
9	FILTER	19-0206	1
10	TEE	23-0496	1
11	BARB	23-0045	1
12	PLUG	23-0238	1
13	NIPPLE	23-0012	1
14	HOSE *(TWO FEET REQUIRED)	15-0305	1
15	ELBOW	23-0119	1
16	DECAL - PUMP	34-2290	1
*MUST ORDER IN ONE FOOT LENGTHS			

# PUMP ASSEMBLY (3-0203) (AFTER SERIAL #15045000)

TORQUE SPECS.	
ITEM	FT-LBS
1	73.7
6	22.1
8	29.4
10	29.4
20	14.7
30	14.7
31	14.7
33	7.3
36	14.7
44	14.7

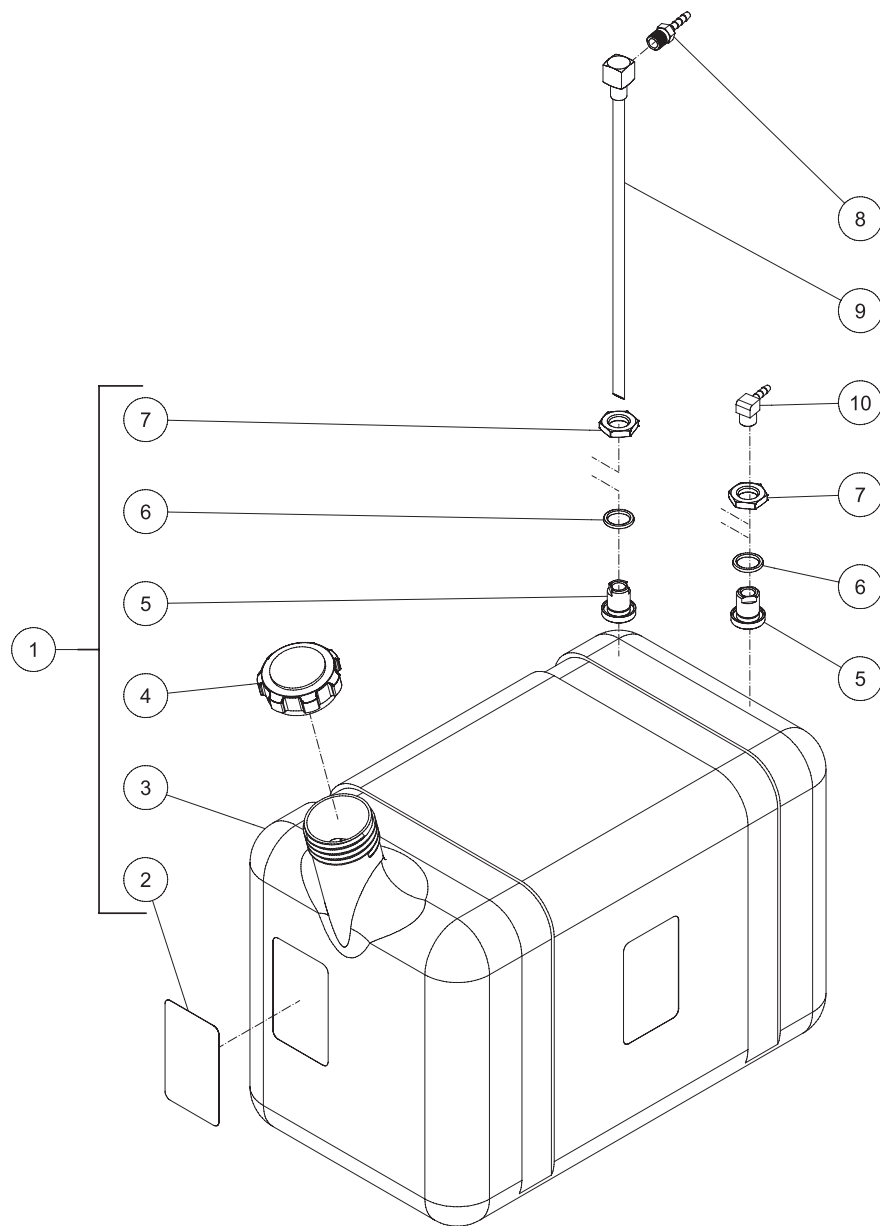


3-0202\_3-0203 042914 CH

PUMP ASSEMBLY							
ITEM	DESCRIPTION	PART #	QTY	ITEM	DESCRIPTION	PART #	QTY
1	VALVE CAP	46-0889	6	25	BEARING	48-0012	2
2	O-RING	25-0012	6	26	KEY	43-0048	1
3	VALVE (SEE KIT 70-0009)	22-0056	6	27	CRANKSHAFT	46-0050	1
4	MANIFOLD	46-0890	1	28	RETAINING RING	46-0103	6
5	WASHER	28-1039	8	29	CONNECTING ROD PIN	43-0032	3
6	BOLT	27-8185	8	30	OIL LEVEL INDICATOR	46-0114	1
7	WASHER	28-1038	2	31	PLUG	39-0017	1
8	PLUG	39-0019	2	32	O-RING	25-0014	4
9	WASHER	28-1002	2	33	BOLT	27-8404	5
10	PLUG	39-0018	2	34	CRANKCASE OPEN COVER	46-0295	1
11	HEAD RING (SEE KIT 70-0030 AND 852-0122)	70-0030	3	35	O-RING	25-0339	1
12	V-PACKING SUPPORT (SEE KIT 70-0147 AND 852-0122)	26-0098	3	36	BOLT	27-8435	6
13	O-RING (SEE KIT 70-0147 AND 70-0148 AND 852-0122)	25-0207	3	37	LOCKWASHER	29-0154	6
14	HIGH PRESSURE INTERMEDIATE SEAL RETAINER (SEE KIT 70-0148)	46-0659	3	38	CONNECTING ROD	46-0051	3
15	PRESSURE SEAL (SEE KIT 70-0147 AND 852-0122)	26-0197	3	39	PISTON ROD	46-0056	3
16	LOW PRESSURE SEAL RETAINER	46-0057	3	40	SLINGER WASHER	46-0146	3
17	O-RING (SEE KIT 852-0122)	25-0015	3	41	PLUNGER	46-0052	3
18	OIL SEAL	26-0047	3	42	BACK-UP RING	46-0109	3
19	BUSHING	9-0029	3	43	WASHER	28-0400	3
20	BOLT	27-8431	8	44	NUT / PISTON	46-0069	3
21	CRANKCASE COVER	46-0296	1	45	CRANKCASE	46-0047	1
22	SHIM	46-0113	1	46	OIL DIP STICK	46-0144	1
23	OIL SEAL	26-0049	1	47	CRANKCASE COVER	46-0336	1
24	O-RING	25-0013	2				

REPLACEMENT KITS				
KIT#	DESCRIPTION	ITEMS	# OF ASSEMBLIES	# OF CYLINDERS
70-0009	VALVES	3	6	3
70-0030	HEAD RING	11	3	3
70-0147	V-PACKING	12, 13, 15	3	3
70-0148	INTERMEDIATE RETAINER	13, 14	3	3
852-0122	V-PACKING ASSY	11-13, 15, 17	3	3

# BURNER FUEL TANK

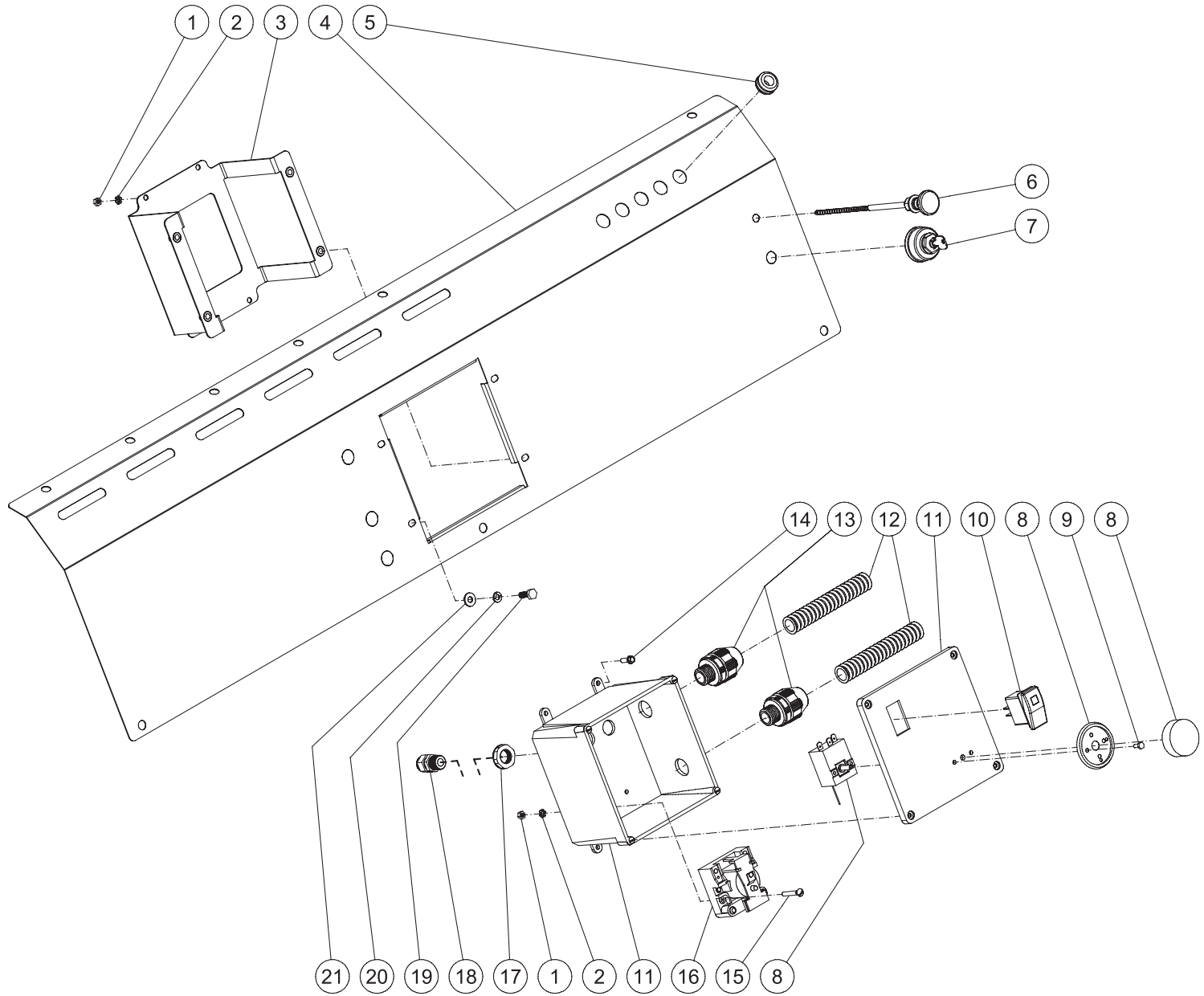


BURNER FUEL TANK ASSY-021313 KMD



HDB BURNER FUEL TANK ASSY-021313-KMD			
BURNER FUEL TANK			
REF. #	DESCRIPTION	PART #	QTY.
1	FUEL TANK ASSEMBLY (INC. 2-3, 5-7)	850-0307	1
2	DECAL- CAUTION: RISK OF FIRE (SEE 71-0030)	N/A SEP.	1
3	FUEL TANK (SEE 850-0307)	N/A SEP.	1
4	FUEL CAP	12-0033	1
5	BULKHEAD FITTING	23-0408	2
6	O-RING	25-0427	2
7	NUT	23-0409	2
8	HOSE BARB	23-0051	1
9	FUEL PICKUP	33-0352	1
10	ELBOW	23-0054	1
	SAFETY DECAL KIT (INCLUDES 2)	71-0030	

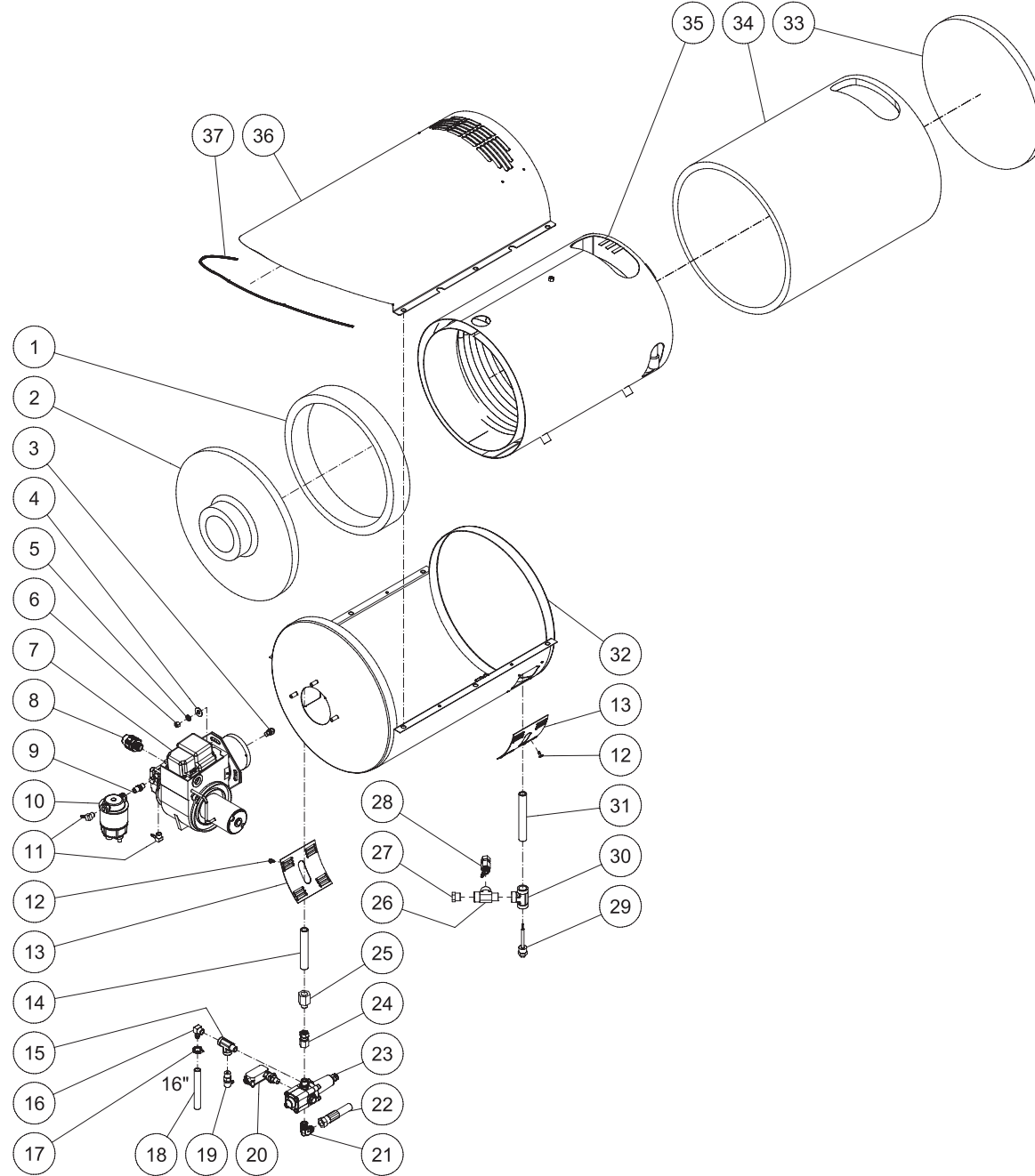
# CONTROL PANEL ASSEMBLY



HDB\_HDD CONTROL PANEL-121809-CH

HDB_HDD CONTROL PANEL ASSY 121809-CH			
CONTOL PANEL ASSEMBLY			
ITEM	DESCRIPTION	Mi-T-M #	QTY
1	NUT	30-6001	6
2	STAR WASHER	28-1009	6
3	E-BOX BRACKET	20-1162A18	1
4	CONTROL PANEL	21-0291	1
5	GROMMET	33-0001	5
6	CHOKE CABLE (HDB-3005-0K6G)	33-0081	1
7	KEY SWITCH (HDB-3005-0K6G)	32-0699	1
8	ADJUSTABLE THERMOSTAT	32-0962	1
9	BOLT	27-8879	2
10	ROCKER SWITCH W/LAMP	32-0969	1
11	ELECTRICAL BOX	32-1064	1
12	CONDUIT FLEX *(SIX FEET REQUIRED)	32-0253	1
13	CONDUIT FITTING	32-0255	2
14	BOLT	27-9526	4
15	SCREW	27-8912	2
16	RELAY CONTROL	32-0791	1
17	ELECTRICAL LOCKNUT	32-0587	3
18	STRAIN RELIEF	32-0586	3
19	BOLT	27-0015	4
20	LOCKWASHER	29-0006	4
21	WASHER	28-0002	4
*MUST ORDER IN ONE FOOT LENGTHS			

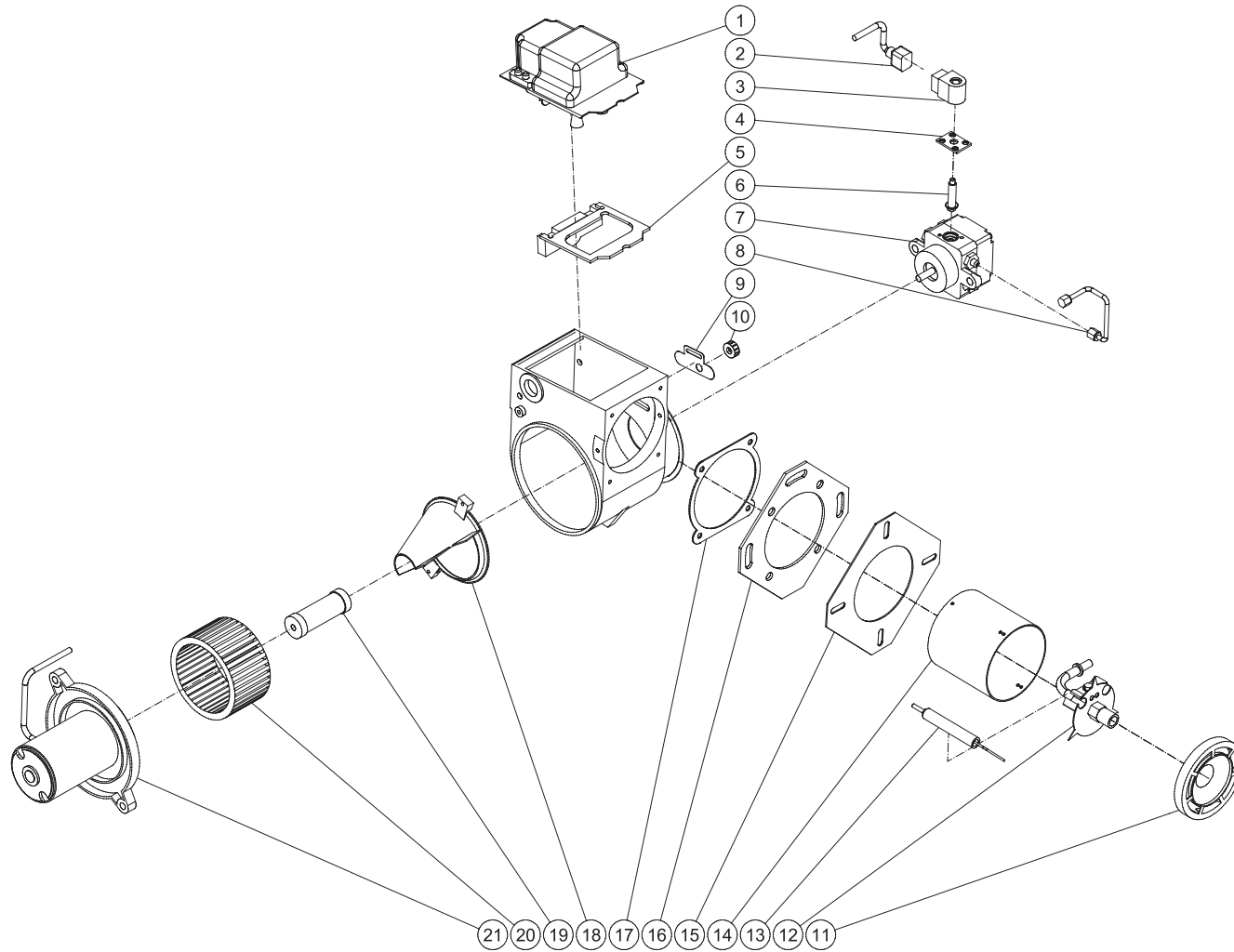
# HDB HEAT EXCHANGER ASSEMBLY



HDB HEAT EXCHANGER 022113 JDK

HDB HEAT EXCHANGER ASSY 022113 JDK			
HEAT EXCHANGER			
ITEM	DESCRIPTION	PART #	QTY
1	INSULATION BLANKET	850-0314	1
2	INSULATION DRUM HEAD	33-0345	1
3	FUEL NOZZLE	18-0090	1
4	WASHER	28-0023	3
5	LOCKWASHER	29-0008	3
6	NUT	30-0006	3
7	BURNER	4-0021	1
8	CONDUIT FITTING	32-0255	1
9	NIPPLE	24-0145	1
10	FUEL FILTER / WATER SEPERATOR	19-0070	1
11	ELBOW	23-0054	2
12	BOLT	27-3062	8
13	PATCH PLATE	20-0537A18	2
14	PIPE NIPPLE	24-0246	1
15	STREET TEE	23-0058	1
16	ELBOW	23-0050	1
17	HOSE CLAMP	42-0011	1
18	HOSE *(TWO FEET REQUIRED)	15-0007	1
19	HEAT DUMP VALVE	22-0432	1
20	PRESSURE SWITCH	22-0243	1
21	ELBOW	24-0092	1
22	HIGH PRESSURE HOSE ASSEMBLY	15-0221	1
23	UNLOADER (HDB-3005)	8-0013	1
-	UNLOADER (HDB-3004)	8-0012	1
24	SWIVEL	24-0016	1
25	ADAPTER	24-0052	1
26	STREET TEE	24-0242	1
27	REDUCER BUSHING	23-0016	1
28	SAFETY RELIEF VALVE	22-0309	1
29	ADJUSTABLE THERMOSTAT	32-0962	1
30	TEE	24-0055	1
31	PIPE NIPPLE	24-0254	1
32	BOTTOM WRAP	20-0527A18	1
33	INSULATION DISC	33-0346	1
34	INSULATION BLANKET	850-0279	1
35	COIL	66-0014	1
36	TOP WRAP	21-0129	1
37	EDGING *(THREE FEET REQUIRED)	33-0020	1
*MUST ORDER IN ONE FOOT LENGTHS			

# BURNER ASSEMBLY (4-0021)



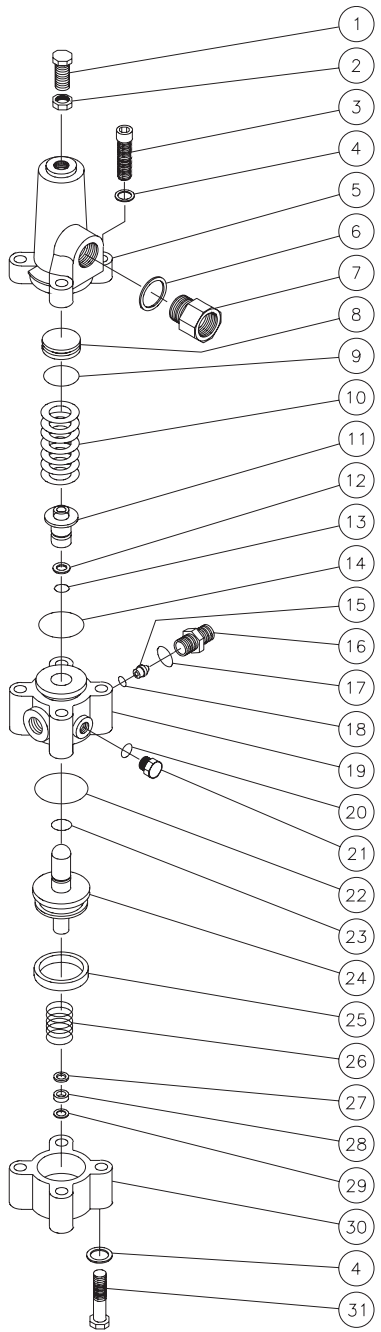
4-0021 032816 RJA

4-0021 032816 RJA

## BURNER ASSEMBLY

ITEM	DESCRIPTION	PART #	QTY
1	IGNITER ASSY W/ BASEPLATE	44-0125	1
2	CORD SET	44-0122	1
3	COIL	46-1015	1
4	TUBE BASE PLATE	46-1004	1
5	IGNITER GASKET KIT	70-0369	1
6	SOLENOID PISTON	46-1012	
7	FUEL PUMP	3-0434	1
8	TUBING	44-0025	1
9	PLATE	44-0031	1
10	NUT	44-0022	1
11	COMBUSTION HEAD	44-0011	1
12	ELECTRODE KIT	44-0111	1
13	ELECTRODE	44-0114	1
14	AIR TUBE	44-0110	1
15	FLANGE MOUNTING GASKET	44-0108	1
16	FLANGE	44-0109	1
17	GASKET FLANGE	26-0138	1
18	AIR GUIDE	44-0123	1
19	COUPLING	44-0127	1
20	BLOWER WHEEL	44-0124	1
21	MOTOR	2-0139	1

UNLOADER ASSEMBLY (850-0304)



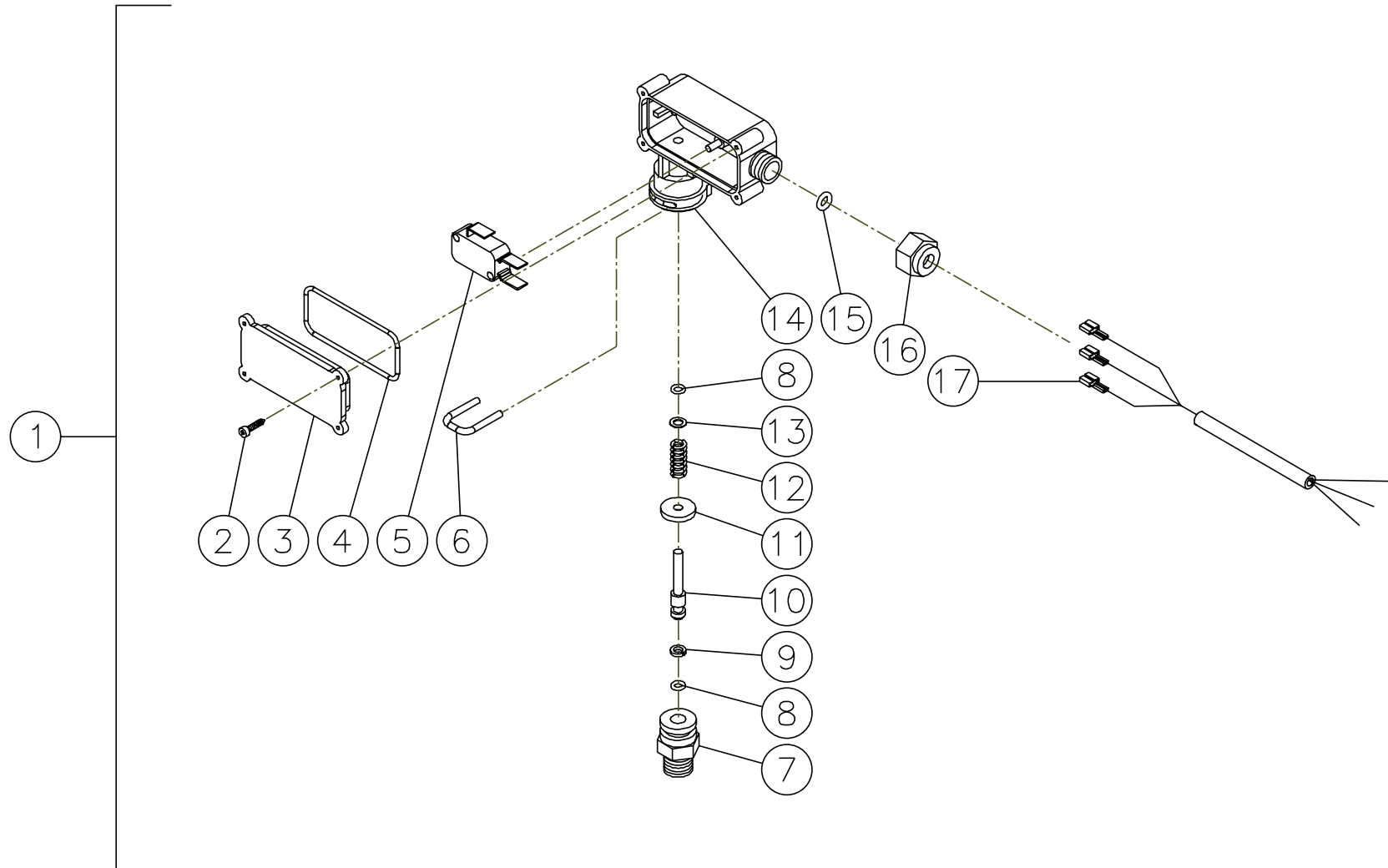
OM/GEN066-081303



## UNLOADER ASSEMBLY (850-0304)

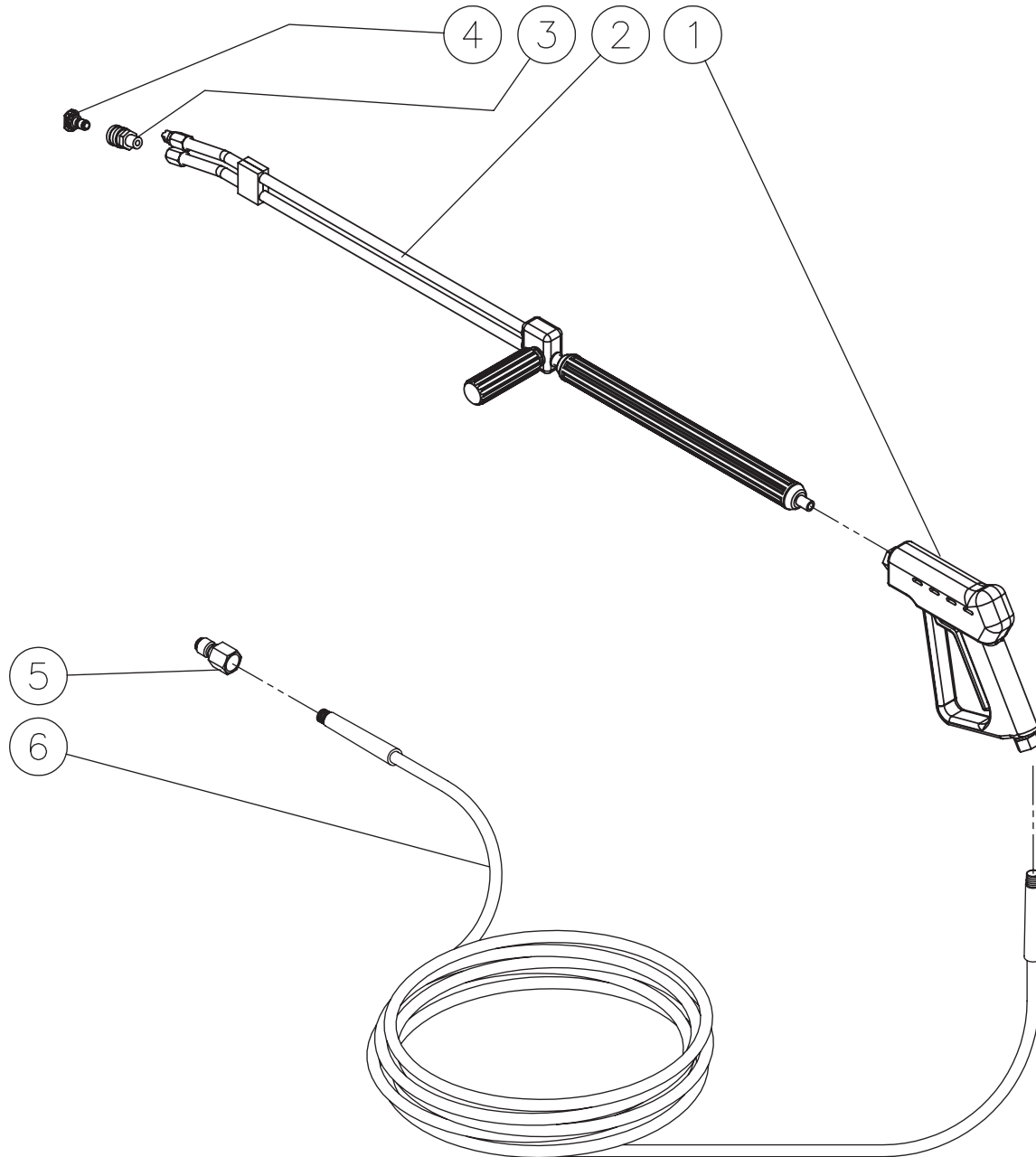
REF. #	DESCRIPTION	PART #	QTY.	REF. #	DESCRIPTION	PART #	QTY.
1	Bolt	27-8077	1	19	Middle Body	8-0137	1
2	Hex Nut	30-3010	1	20	O-ring	25-0114	2
3	Bolt	27-8434	4	21	Hex Plug	39-0017	2
4	Lockwasher	29-0154	8	22	O-ring	25-0056	1
5	Upper Body	8-0138	1	23	O-ring	25-0120	1
6	Washer	8-0277	1	24	Piston Assembly	8-0136	1
7	By-Pass Restrictor	8-0125	1	25	Seal	26-0104	1
8	Spring Guide	8-0135	1	26	Spring	49-0027	1
9	O-ring	25-0118	1	27	Washer	8-0139	1
10	Spring	49-0026	1	28	Seal	26-0105	1
11	Valve Seat	8-0145	1	29	Back-up Ring	8-0140	1
12	Back-up Ring	8-0141	1	30	Lower Body	8-0134	1
13	O-ring	25-0121	1	31	Bolt	27-8037	4
14	O-ring	25-0117	1		Unloader Repair Kit (Inc. 9, 11, 13, 14, 17, 18, 20, 22-26, 28, 29)	70-0013	
15	Flow Balancer (8-0012)	8-0126	1		Unloader Orfice Kit (Inc. 1 each of 7, 15, 16)	852-0014	
16	Nipple	8-0130	1		Unloader Orfice Kit (Inc. 1 each of 7, 15, 16)	852-0015	
17	O-ring	25-0052	1		Unloader Orfice Kit (Inc. 1 each of 7, 15, 16)	852-0017	
18	O-ring	25-0119	1		Unloader Orifice Kit (Inc. 1 each of 7, 15, 16)	852-0157	

# PRESSURE SWITCH (22-0243)



PRESSURE SWITCH							
REF. #	DESCRIPTION	PART #	QTY.	REF. #	DESCRIPTION	PART #	QTY.
1	Pressure Switch- 15 BAR	22-0171	1	11	Washer	N/A	1
-	Pressure Switch- 25 BAR	22-0243	1	12	Spring- 15 BAR	49-0144	1
2	Screw	N/A	4	-	Spring- 25 BAR	49-0145	1
3	Cover	N/A	1	13	Washer	N/A	1
4	O-ring (See 70-0306)	N/A Sep.	1	14	Plastic Housing	N/A	1
5	Micro Switch	N/A	1	15	O-ring (See 70-0306)	N/A Sep.	1
6	Retainer Clip	N/A	1	16	Nut- 15 BAR	N/A	1
7	Body	N/A	1	-	Nut- 25 BAR	N/A	1
8	O-ring (See 70-0306)	N/A Sep.	2	17	Wire Assembly	N/A	1
9	Back-up Ring (See 70-0306)	N/A Sep.	1		O-ring Repair Kit (Inc. 4, 8-9, 15)	70-0306	
10	Piston	N/A	1				

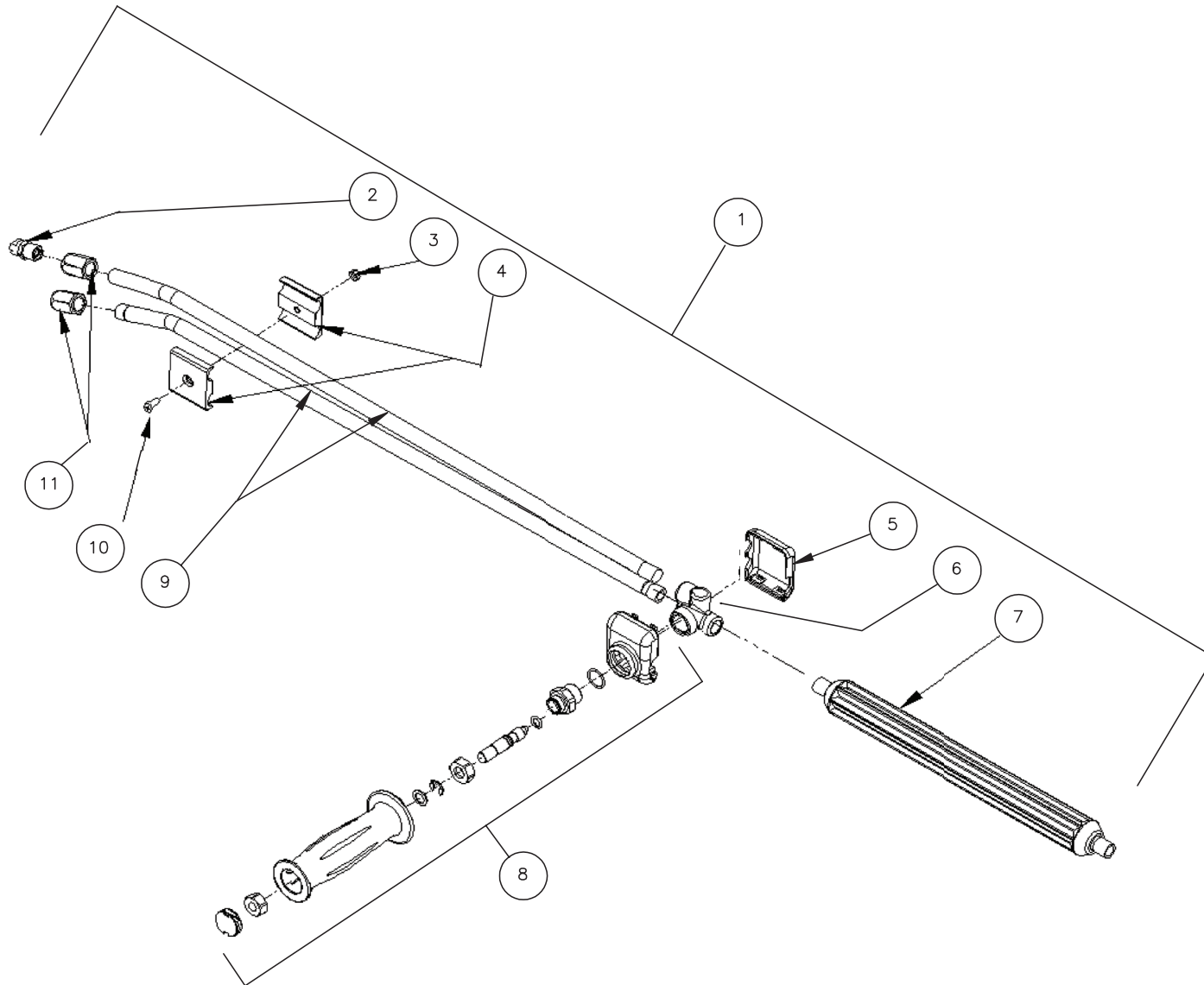
# GUN/WAND/HOSE ASSEMBLY



HDB\_HDD GUN WAND HOSE ASSEMBLY 071712-CH

HDB-3004 GUN/WAND/HOSE ASSY-071712-CH			
GUN/WAND/HOSE ASSEMBLY			
REF. #	DESCRIPTION	PART #	QTY.
1	Gun Assembly	16-0446	1
2	Dual Lance	16-0417	1
3	Quick Connect Socket	17-0028	1
4	Nozzle- 00045	18-0402	1
-	Nozzle- 15045	18-0403	1
-	Nozzle- 25045	18-0404	1
-	Nozzle- 40045	18-0405	1
5	Quick Connect Plug	17-0006	1
6	High Pressure Hose Assembly	15-0166	1

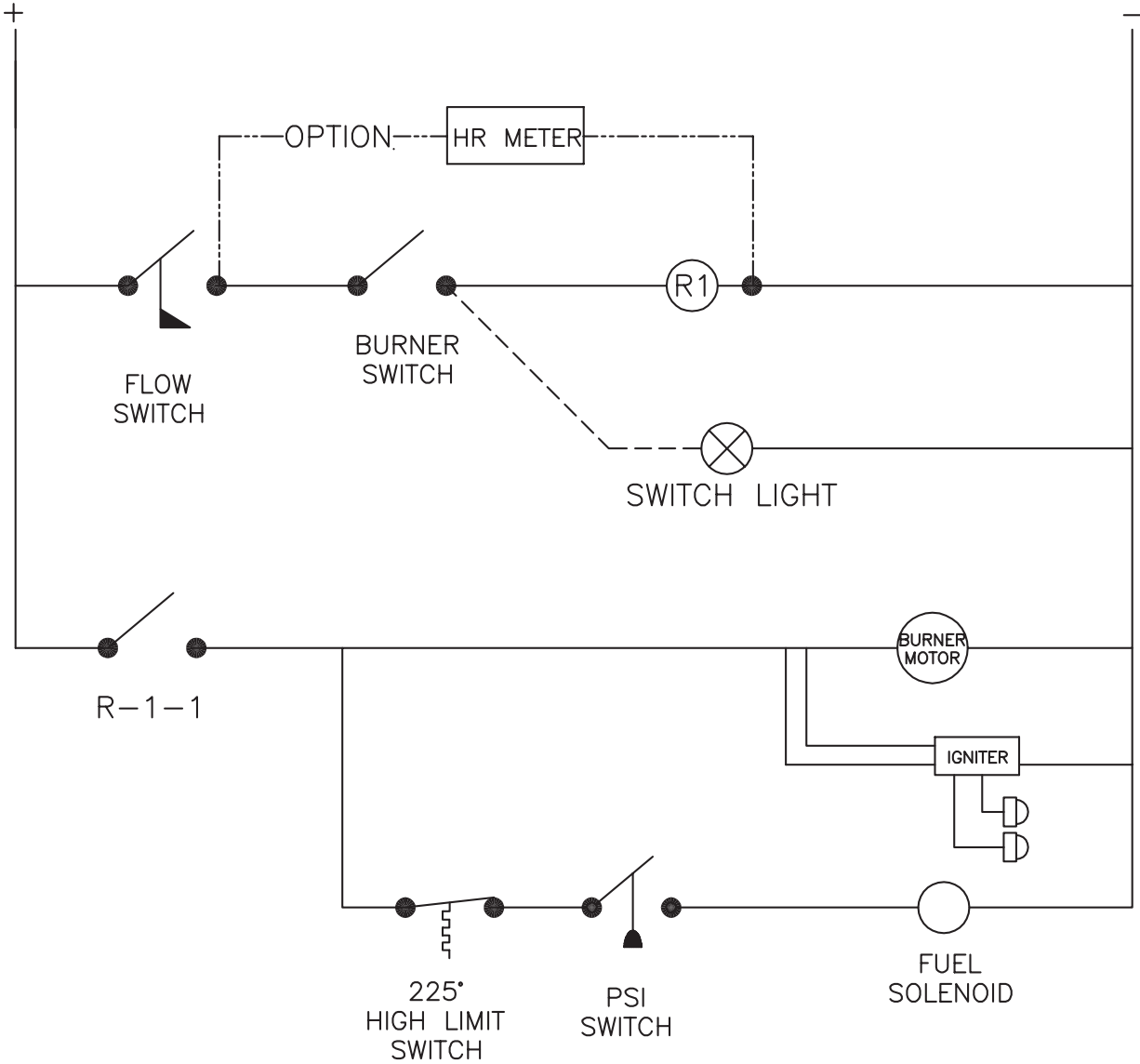
# DUAL LANCE ASSEMBLY (16-0417)



16-0416\_16-0417-102405-RZ

<b>DUAL LANCE ASSEMBLY (16-0416 &amp; 16-0417)</b>			
<b>REF. #</b>	<b>DESCRIPTION</b>	<b>PART #</b>	<b>QTY.</b>
1	Dual Lance Assembly - 36" (Inc. 2-11)	16-0416	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 16-0416 or 16-0417)	N/A Sep.	1
6	Housing (See 16-0416 or 16-0417)	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
-	Lance (See 16-0417)	N/A Sep.	2
10	Screw	27-8196	1
11	Nozzle Adapter	24-0280	2

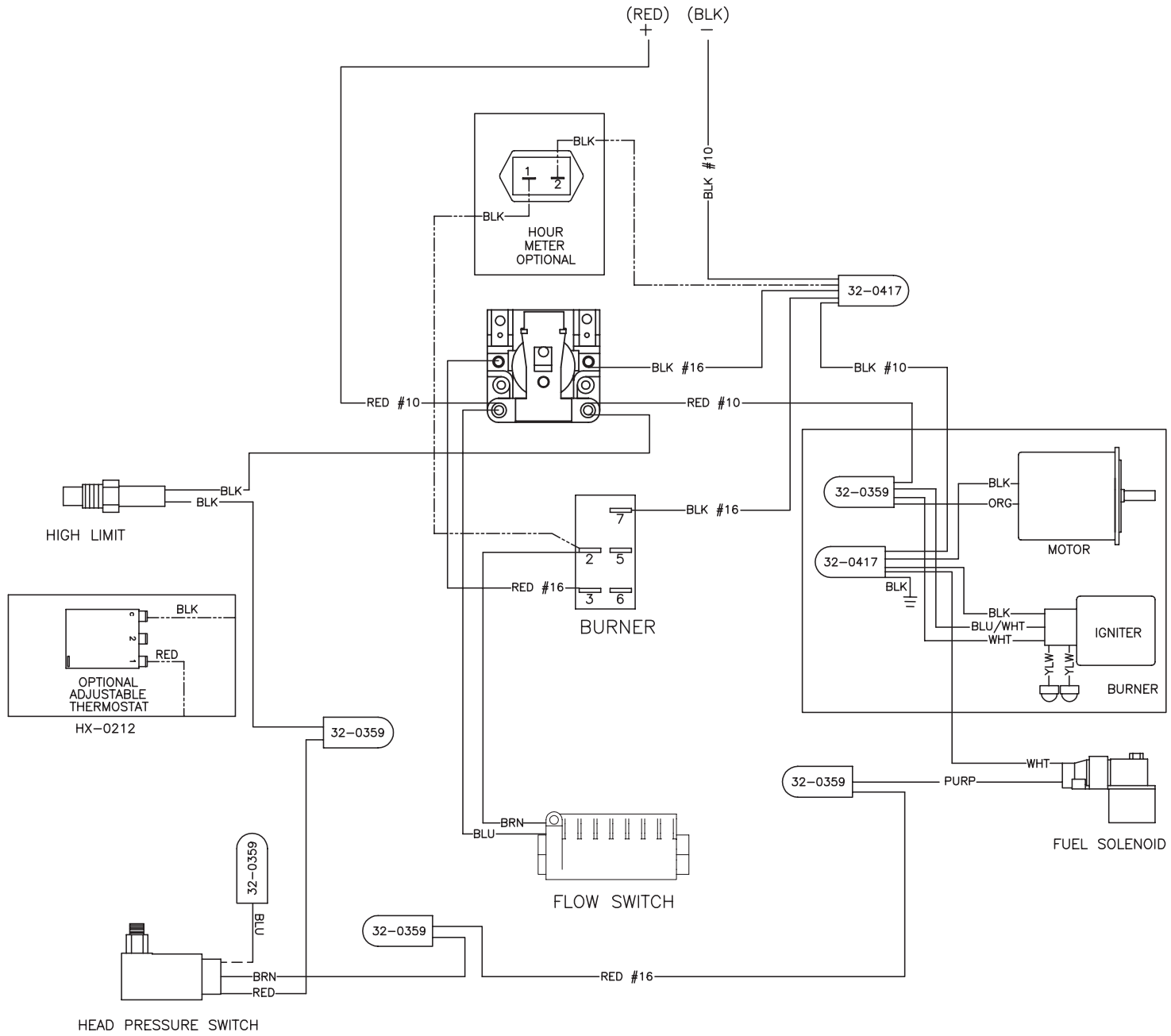
# WIRING SCHEMATIC



HDC WIRE SCHEMATIC 031813 MLK

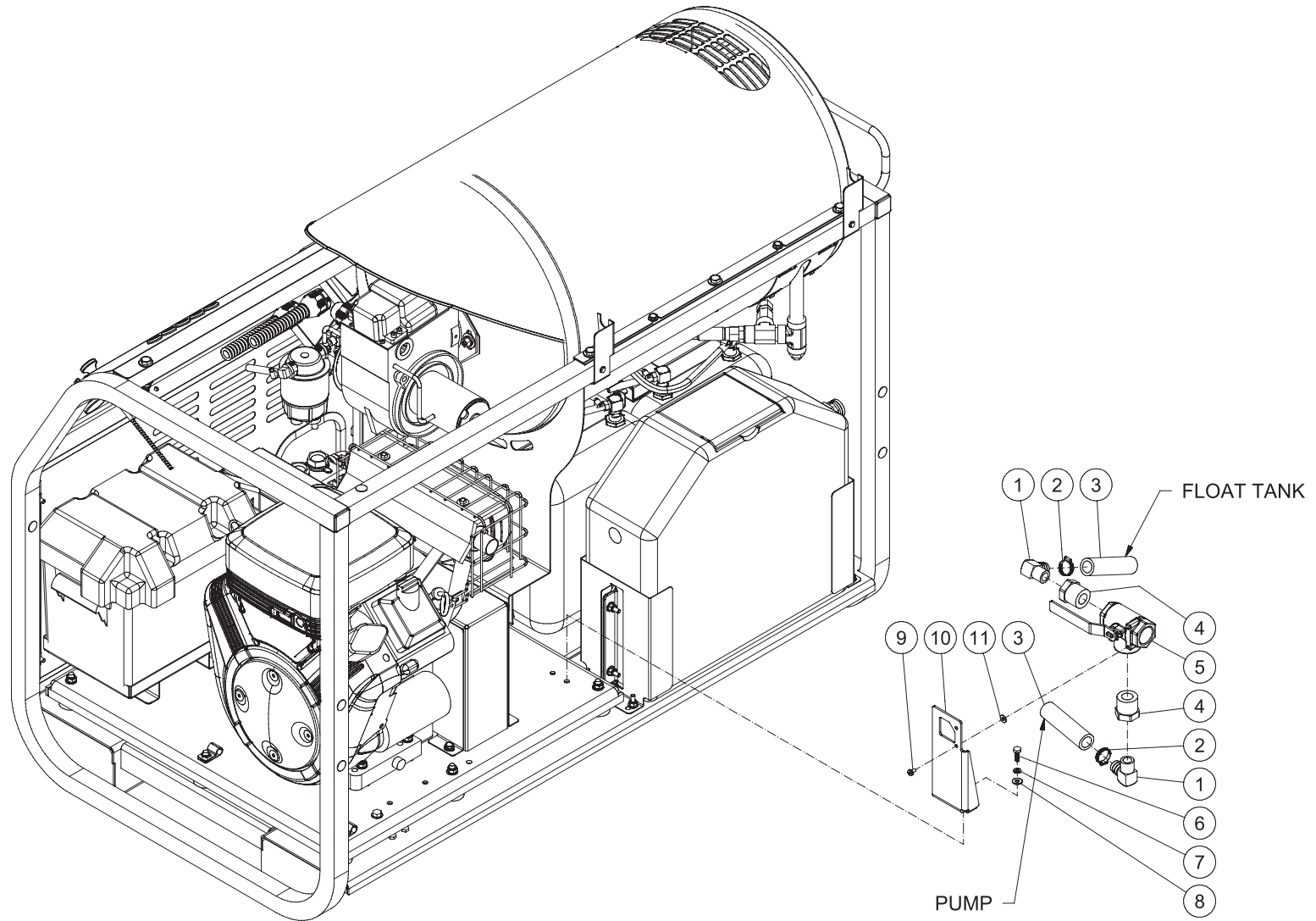


# WIRING DIAGRAM



HDC WIRE DIAGRAM 031813 MLK

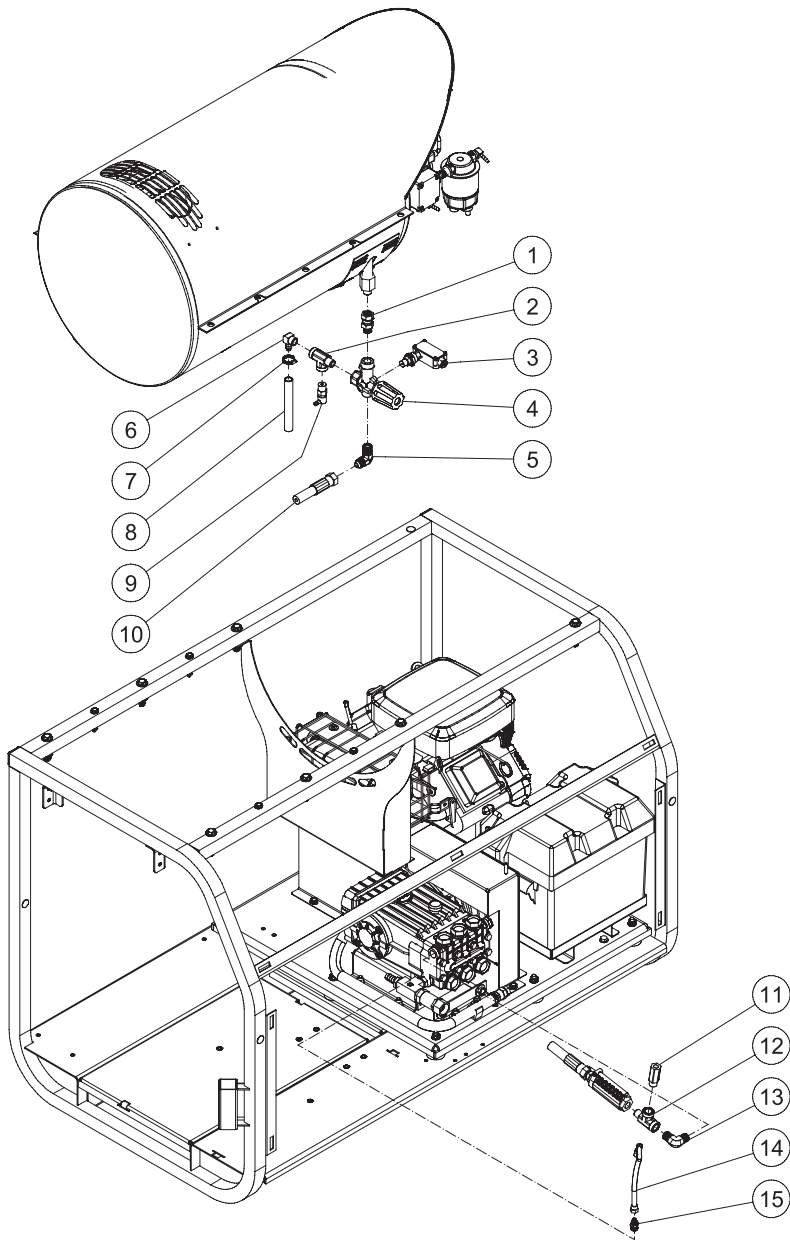
### 3-WAY BALL VALVE OPTION (HX-0226)



HX-0226 3-WAY BALL VALVE OPTION 092910 CH

HX-0226 3-WAY BALL VALVE OPTION 092910 CH			
3 WAY BALL VALVE OPTION			
ITEM	DESCRIPTION	Mi-T-M #	QTY
1	ELBOW	23-0037	2
2	HOSE CLAMP	42-0003	2
3	HOSE *(THREE FEET REQUIRED)	15-0033	1
4	REDUCER	23-0226	2
5	BALL VALVE	22-0321	1
6	BOLT	27-0015	2
7	LOCKWASHER	29-0006	2
8	WASHER	28-0002	2
9	SCREW	27-9533	2
10	BRACKET	20-0560A01	1
11	WASHER	28-0001	2
*MUST ORDER IN ONE FOOT LENGTHS			

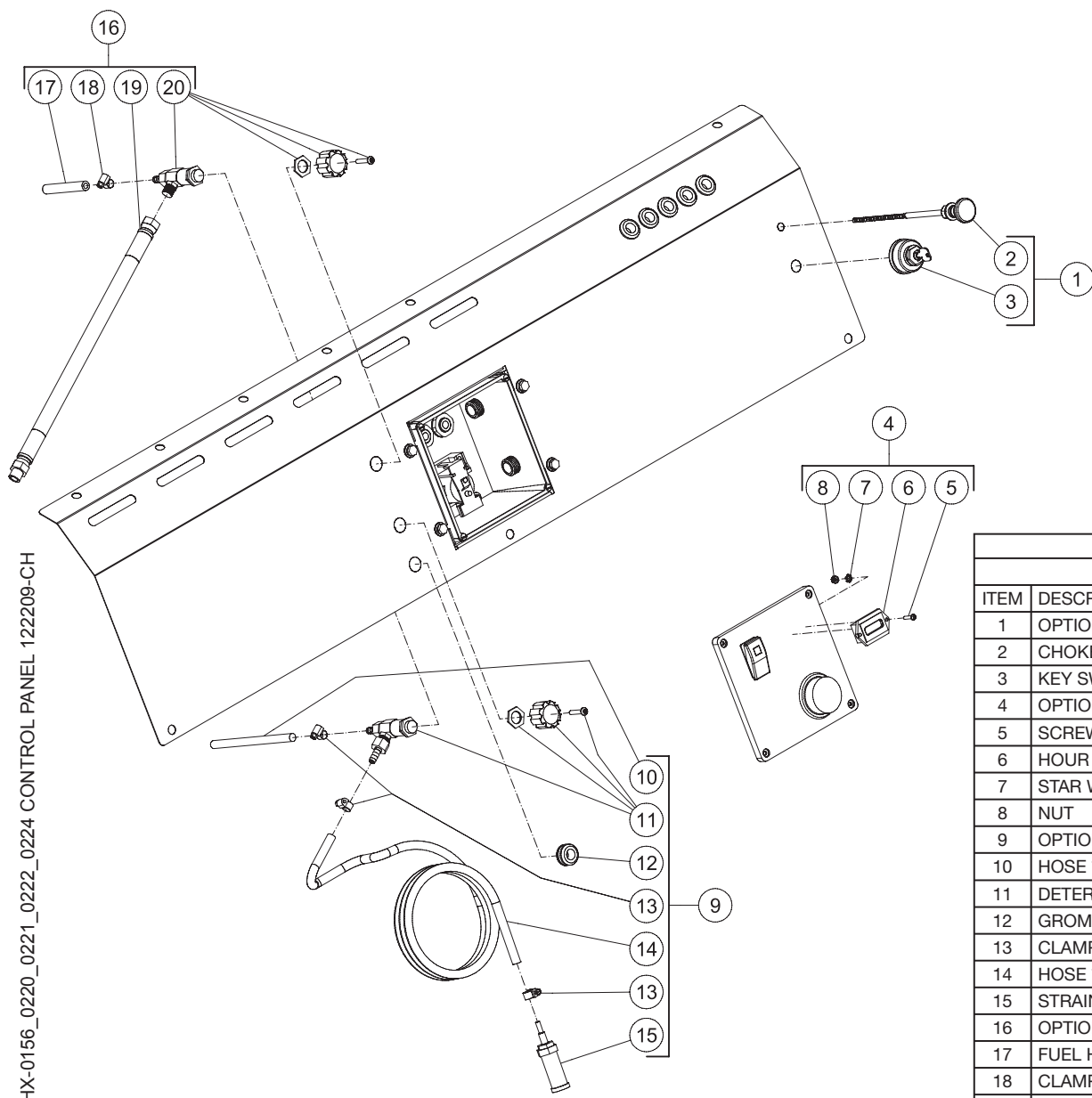
## TRAPPING UNLOADER OPTION (HX-0225)



HX-0225 TRAPPING UNLOADER OPTION-122209-CH

HX-0225 TRAPPING UNLOADER 122209-CH			
TRAPPING UNLOADER (HX-0225)			
ITEM	DESCRIPTION	Mi-T-M #	QTY
1	SWIVEL	24-0037	1
2	STREET TEE	23-0058	1
3	PRESSURE SWITCH	22-0243	1
4	UNLOADER	850-0252	1
5	ELBOW	24-0092	1
6	ELBOW	23-0050	1
7	HOSE CLAMP	42-0011	1
8	HOSE *(TWO FEET REQUIRED)	15-0007	1
9	HEAT DUMP VALVE	22-0432	1
10	HIGH PRESSURE HOSE ASSEMBLY	15-0221	1
11	EASY START VALVE	22-0242	1
12	STREET TEE	23-0058	1
13	ELBOW	24-0131	1
14	EASY START HOSE	15-0140	1
15	NIPPLE	23-0247	1
*MUST ORDER IN ONE FOOT LENGTHS			

### CONTROL PANEL (HX-0156/0220/0221/0222/0224)

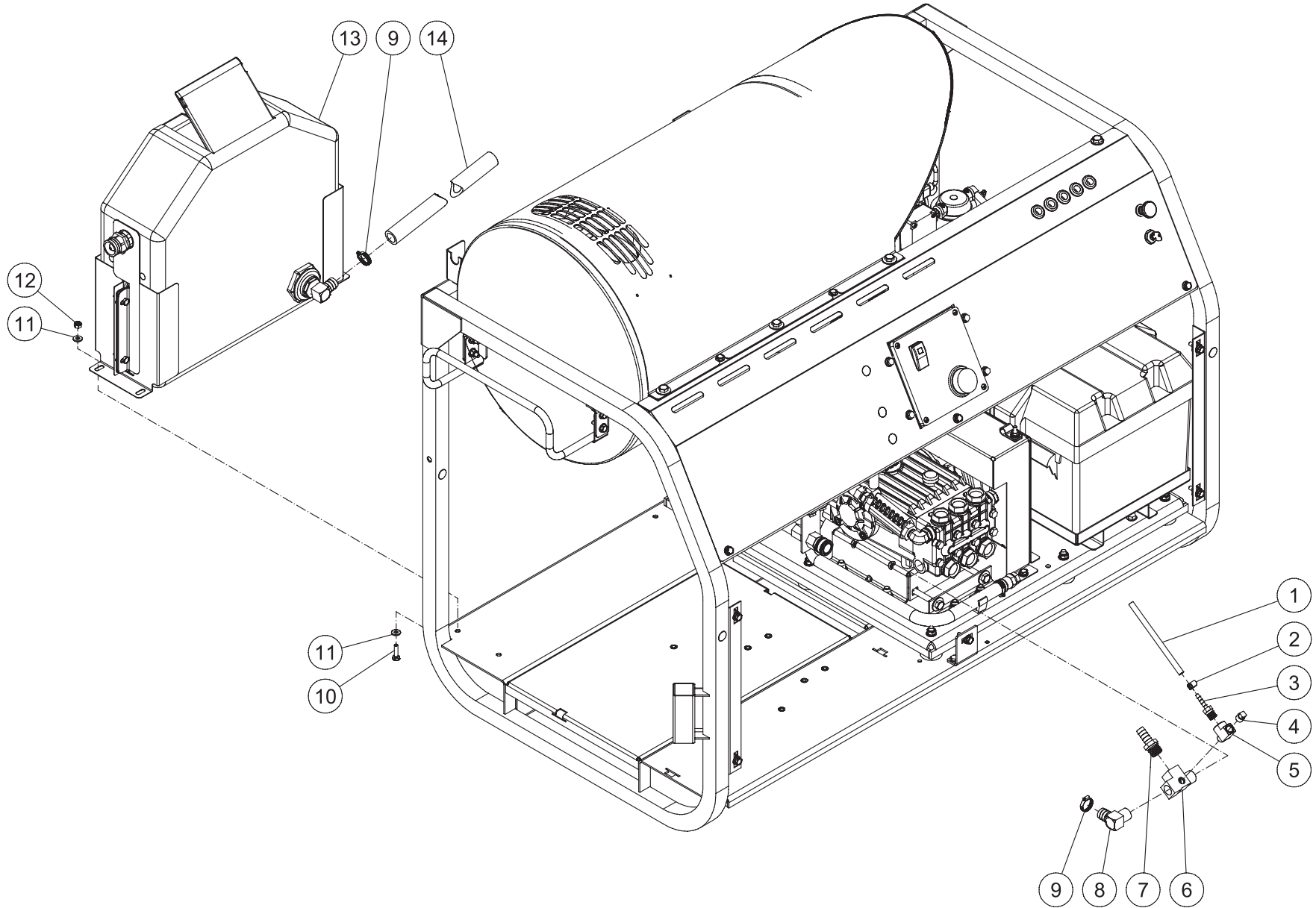


HX-0156\_0220\_0221\_0222 CONTROL PANEL 122209-CH

HX-0156/0220/0221/0222/0224 122209-CH			
CONTROL PANEL (HX-0156/0220/0221/0222/0224)			
ITEM	DESCRIPTION	Mi-T-M #	QTY
1	OPTION - PANEL KEYSWITCH (INC. 2-3)	HX-0222	-
2	CHOKE CABLE	33-0081	1
3	KEY SWITCH (SEE ENGINE BREAKDOWN)	-	1
4	OPTION - HOUR METER (INC. 5-8)	HX-0156	-
5	SCREW	27-8881	2
6	HOUR METER	32-0431	1
7	STAR WASHER	28-1009	2
8	NUT	30-0052	2
9	OPTION - FLOAT TANK W/ CHEMICAL (INC. 10-15)	HX-0220 HX-0221	-
10	HOSE *(TWO FEET REQUIRED)	15-0079	1
11	DETERGENT VALVE	22-0226	1
12	GROMMET	33-0001	1
13	CLAMP WORM	42-0004	3
14	HOSE *(SIX FEET REQUIRED)	15-0021	1
15	STRAINER	19-0056	1
16	OPTION - STEAM HDB-3005 (INC. 17-20)	HX-0224	-
17	FUEL HOSE *(TWO FEET REQUIRED)	15-0008	1
18	CLAMP WORM SS 1/4-5/8	42-0004	1
19	HIGH PRESSURE HOSE	15-0225	1
20	STEAM VALVE	22-0329	1

\*MUST ORDER IN ONE FOOT LENGTHS

# FLOAT TANK OPTION (HX-0220/0221)

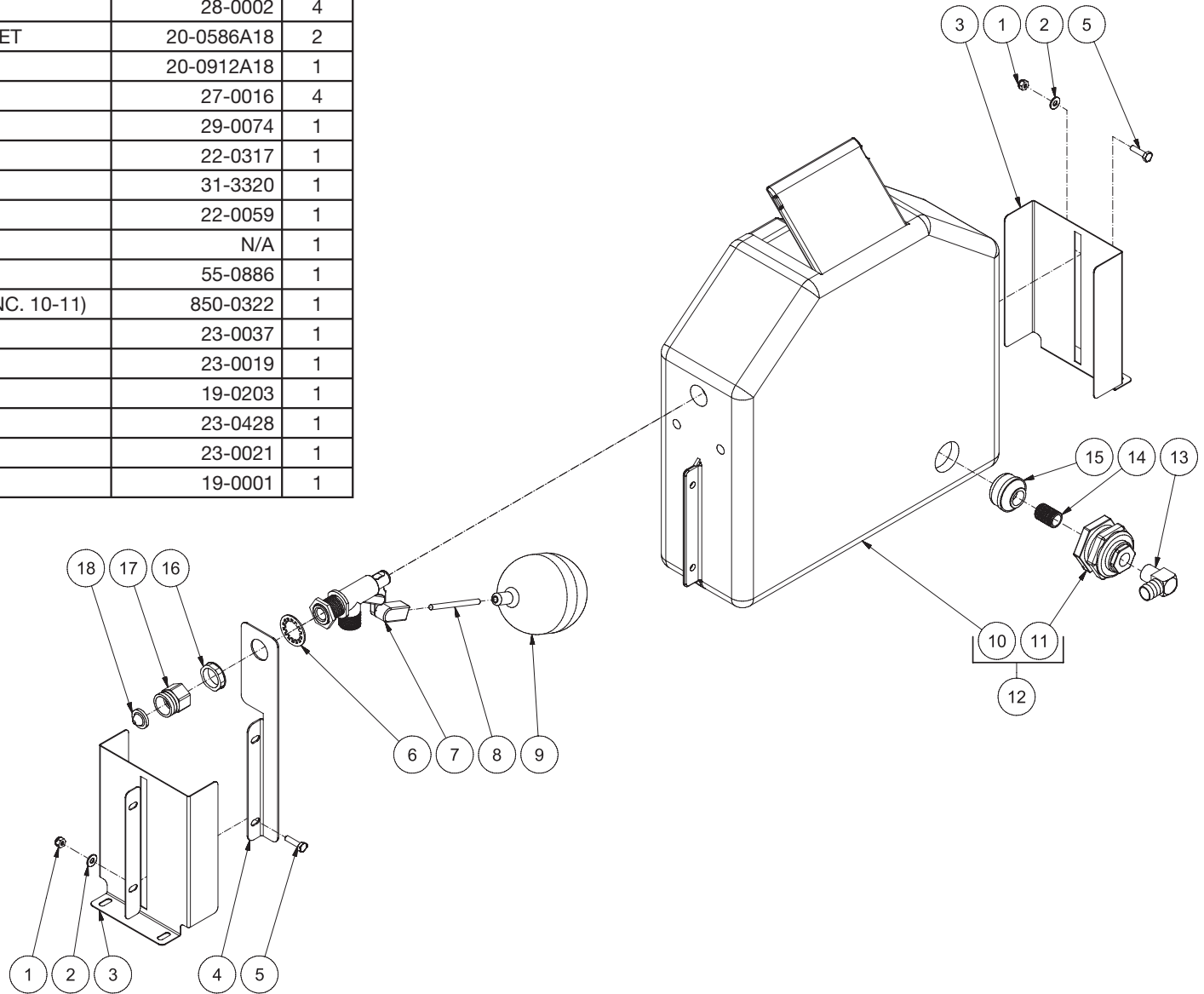


HX-0220\_221 FLOAT TANK OPTION 121114 KMD

HX-0220/0221 FLOAT TANK OPTION 121114KMD			
FLOAT TANK OPTION (HX-0220/0221)			
ITEM	DESCRIPTION	PART #	QTY
1	HOSE *(TWO FEET REQUIRED)	15-0079	1
2	CLAMP WORM	42-0004	1
3	BARB	23-0051	1
4	PLUG (HX-0220)	23-0238	1
-	NIPPLE (HX-0221)	23-0247	1
5	TEE	23-0127	1
6	STREET TEE	23-0388	1
7	BARB	23-0045	1
8	ELBOW	23-0037	1
9	HOSE CLAMP	42-0003	2
10	BOLT	27-0016	4
11	WASHER	28-0002	8
12	LOCKNUT	30-0155	4
13	FLOAT TANK ASSEMBLY	N/A	1
14	HOSE *(TWO FEET REQUIRED)	15-0033	1
*MUST ORDER IN ONE FOOT LENGTHS			

# FLOAT TANK ASSEMBLY

HDS FLOAT TANK ASSY 082809-CH			
FLOAT TANK ASSY			
ITEM	DESCRIPTION	PART #	QTY
1	LOCKNUT	30-0155	4
2	WASHER	28-0002	4
3	FLOAT TANK INLET BRACKET	20-0586A18	2
4	BRACKET	20-0912A18	1
5	BOLT	27-0016	4
6	LOCKWASHER	29-0074	1
7	FLOAT VALVE	22-0317	1
8	BALL FLOAT STUD	31-3320	1
9	FLOAT	22-0059	1
10	FLOAT TANK	N/A	1
11	BULKHEAD	55-0886	1
12	FLOAT TANK ASSEMBLY (INC. 10-11)	850-0322	1
13	ELBOW	23-0037	1
14	NIPPLE	23-0019	1
15	STRAINER	19-0203	1
16	LOCKNUT	23-0428	1
17	GARDEN HOSE INLET	23-0021	1
18	FILTER	19-0001	1

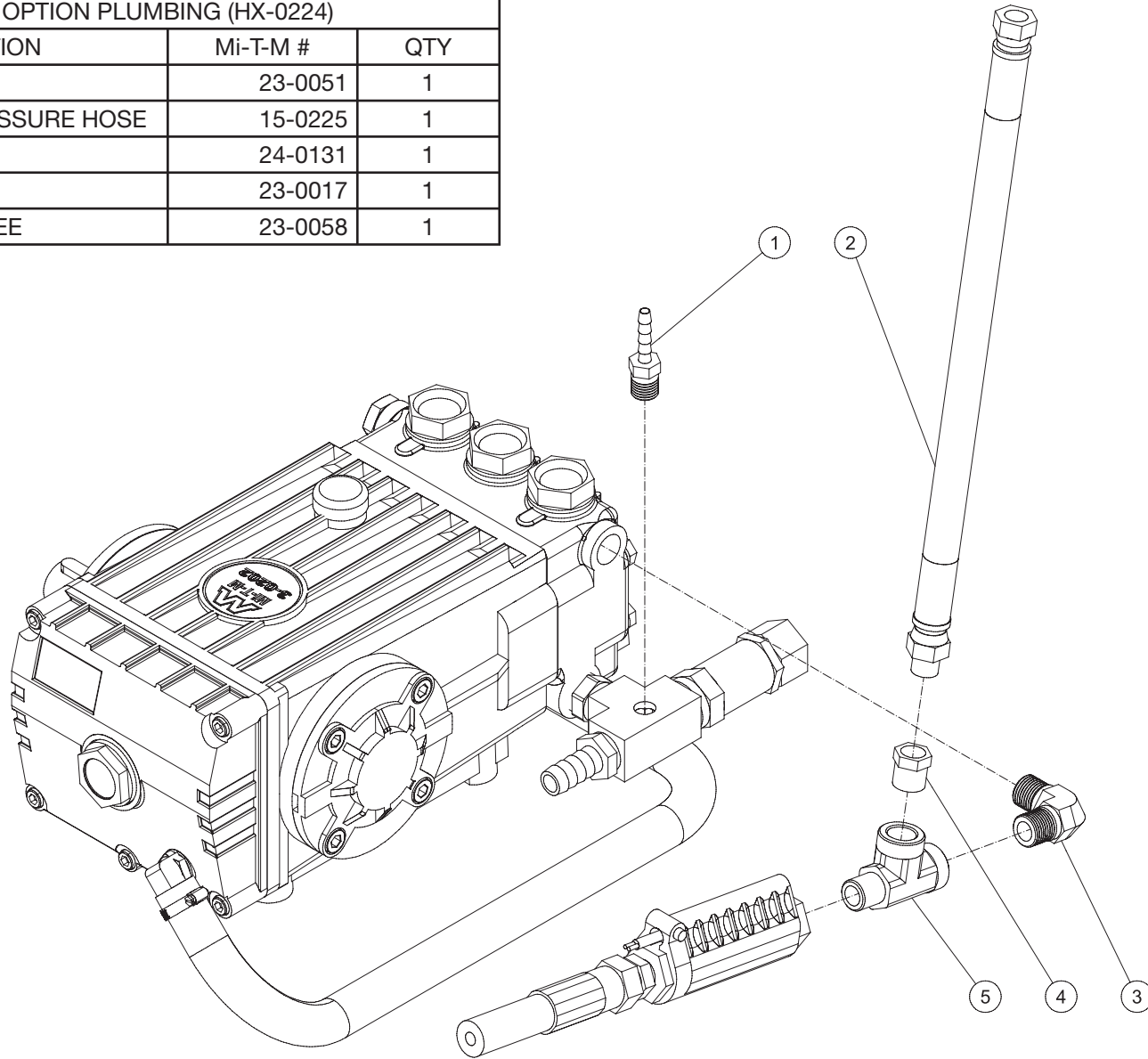


HDS FLOAT TANK ASSY-082809-CH



## STEAM OPTION PLUMBING (HX-0224)

HX-0224-STEAM OPTION PLUMBING 122209-CH			
STEAM OPTION PLUMBING (HX-0224)			
ITEM	DESCRIPTION	MI-T-M #	QTY
1	BARB	23-0051	1
2	HIGH PRESSURE HOSE	15-0225	1
3	ELBOW	24-0131	1
4	REDUCER	23-0017	1
5	STREET TEE	23-0058	1



HX-0224-STEAM OPTION PLUMBING 122209-CH

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