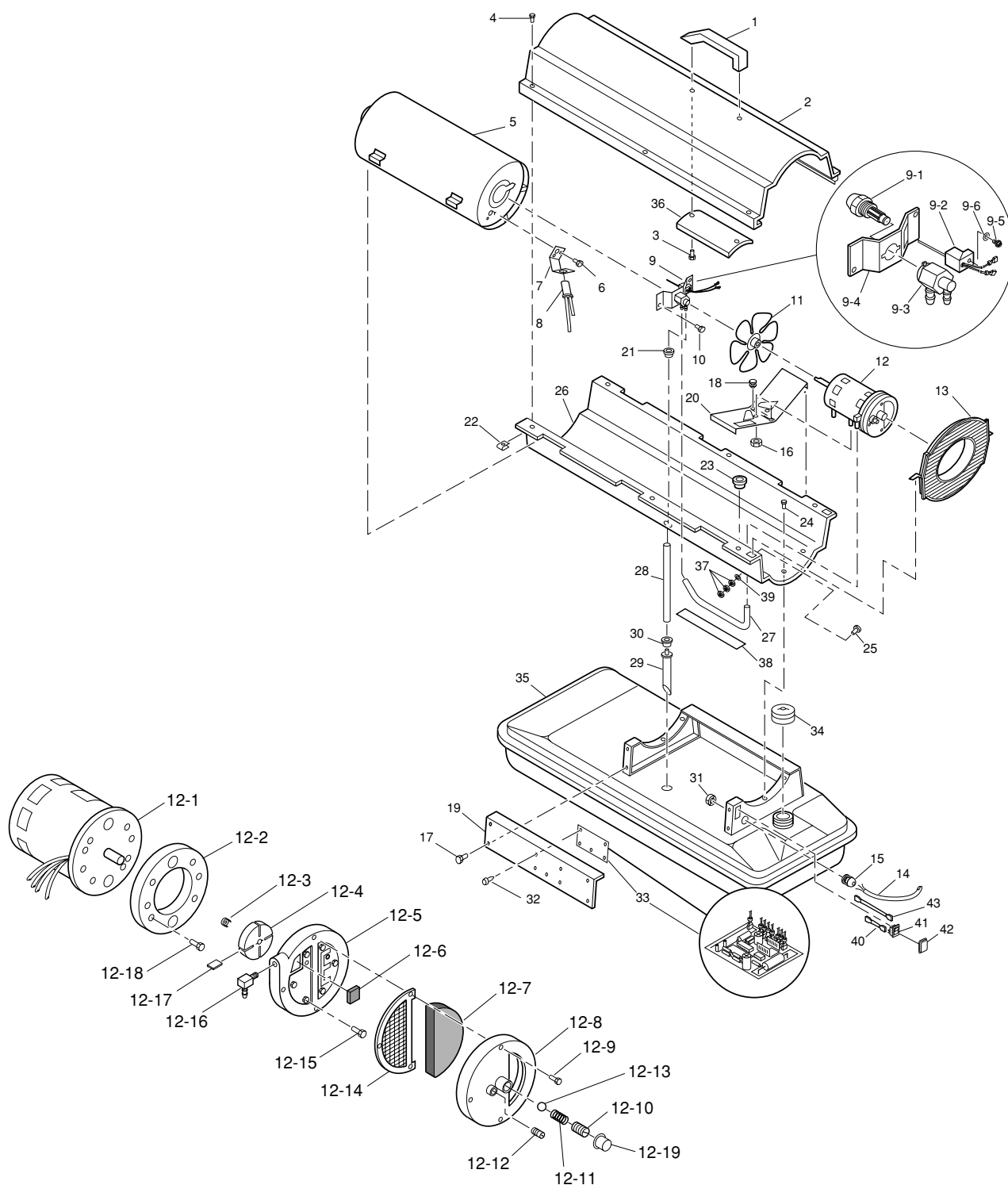


MASTER DIRECT OIL HEATERS

MODEL 35 CEL10 kW Model

ILLUSTRATED PARTS BREAKDOWN



Motor and Pump Assembly

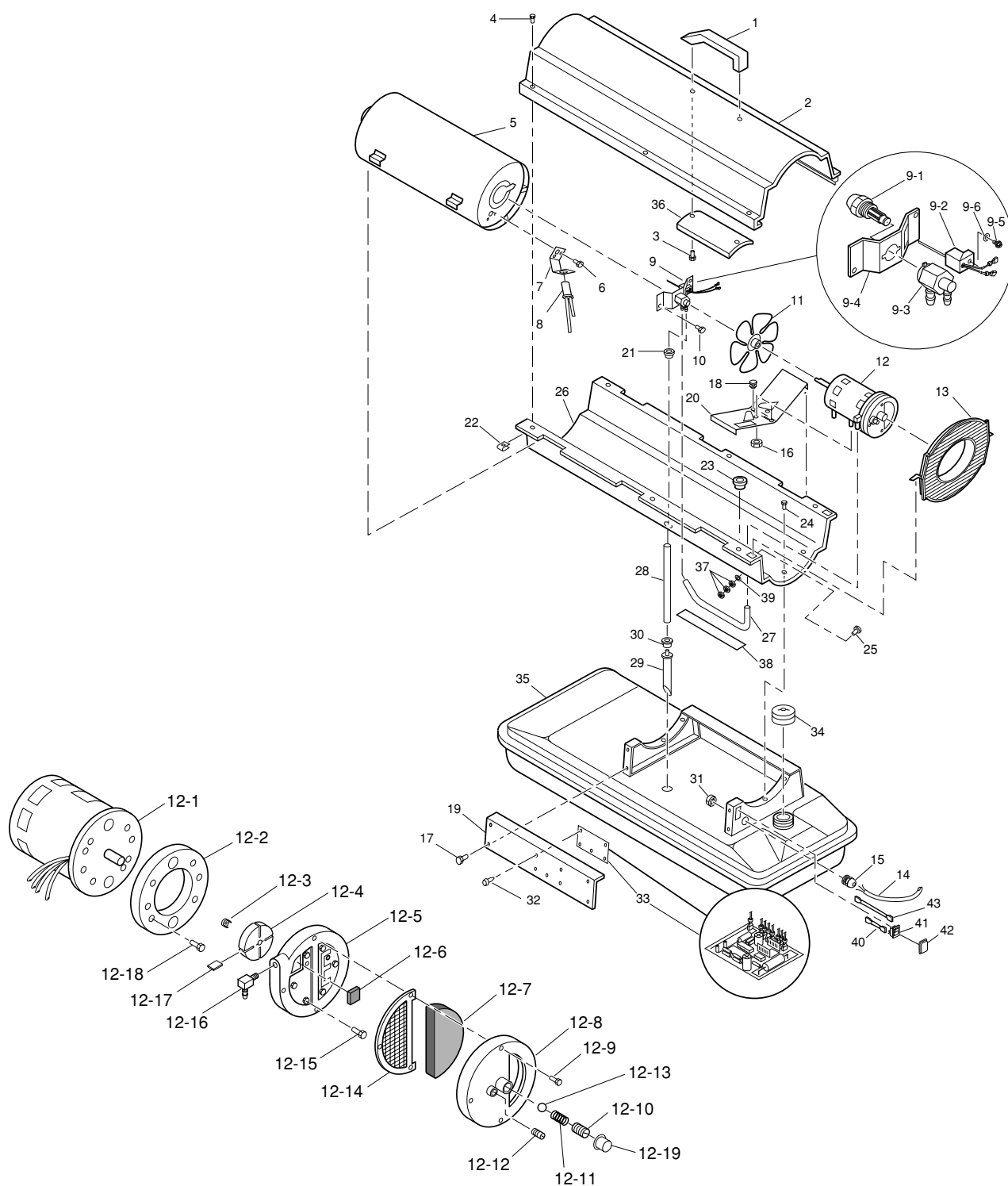
MASTER DIRECT OIL HEATERS

MODEL 35 CEL 10 kW

PARTS LIST

Key No.	Part Number	Description	Qty.	Key No.	Part Number	Description	Qty.
1	4160.715	Handle	1	16	4108.486	Hex Lock Nut, 1/4-20	2
2	4110.064	Upper Shell	1	17	4110.124	Screw/Lockwasher, 1/2"	4
3	4160.602	Screw	2	18	4150.553	Rubber Bumper	2
4	4109.590	Screw/Lockwasher	6	19	4100.635	Side Cover	1
5	4110.050	Combustion Chamber	1	20	4110.187	Motor Bracket	1
6	4103.529	Screw, #6-32 x 3/8"	2	21	4101.151	Bushing	1
7	4100.657	Photocell Bracket	1	22	4104.170	Clip Nut	6
8	4103.590	Photocell Assembly	1	23	4101.152	Bushing	1
9	**	Burner Strap Assembly	1	24	4110.124	Screw/Lockwasher, 1/2"	6
9-1	4100.648	Nozzle Assembly	1	25	4110.133	Screw	1
9-2	4110.132	Ignitor	1	26	4100.636	Lower Shell	1
9-3	4100.664	Nozzle Adapter	1	27	4104.147	Rubber Airline	1
9-4	4100.653	Nozzle Adapter Bracket	1	28	4109.567	Fuel Line	1
9-5	4100.669	Screw, #6-32 x 7/8"	1	29	4110.135	Fuel Filter	1
9-6	4100.660	Belleville Washer	1	30	4100.541	Rubber Bushing	1
10	4110.124	Screw/Lockwasherr	2	31	4100.656	Nylon Locknut	1
11	4100.662	Fan	1	32	4100.654	PCB Support	5
12	**	Motor and Pump Assembly	1	33	4110.142	PC Board	1
12-1	4110.042	Motor	1	34	4103.891	Fuel Cap (Includes Gasket)	1
12-2	4101.532	Pump Body	1	35	4110.136	Fuel Tank	1
12-3	4108.635	Insert	1	36	4100.671	Shell Heat-Shield	1
12-4	4103.441	Rotor	1	37	4110.134	Nut	3
12-5	4109.724	Pump End Cover	1	38	4110.075	Vinyl Foam Gasket	1
12-6	4109.716	Lint Filter	1	39	4160.613	Lockwasher	1
12-7	4109.690	Intake Filter	1	40	4110.036	Wire Assembly (Brown)	1
12-8	4109.674	End Cover	1	41	4100.667	ON/OFF Switch	1
12-9	4108.528	Screw, #10-32 x 1"	3	42	4104.336	Switch Cover	1
12-10	4102.133	Adjusting Screw	1	43	4110.037	Wire Assembly (White)	1
12-11	4102.141	Pressure Relief Spring	1	PARTS AVAILABLE - NOT SHOWN			
12-12	4102.125	Plug	1				
12-13	4108.379	Steel Ball, 1/4" Diameter	1		4105.292	Filler Neck Screen	1
12-14	4109.708	Output Filter	1		4161.829	PC Board Fuse	1
12-15	4108.536	Screw #10-32 x 1 1/8"	6				
12-16	4100.661	Nylon Elbow, 90	1				
12-17	4101.666	Blade	4				
12-18	4108.590	Screw, #10-32 x 3/4"	2				
12-19	4100.666	Plastic Cap	1				
13	4103.685	Fan Guard	1				
14	4110.038	Power Cord	1				
15	4150.528	Strain Relief Bushing	1				

** Parts not available as an assembly, order parts separately.



Motor and Pump Assembly

MASTER DIRECT OIL HEATERS

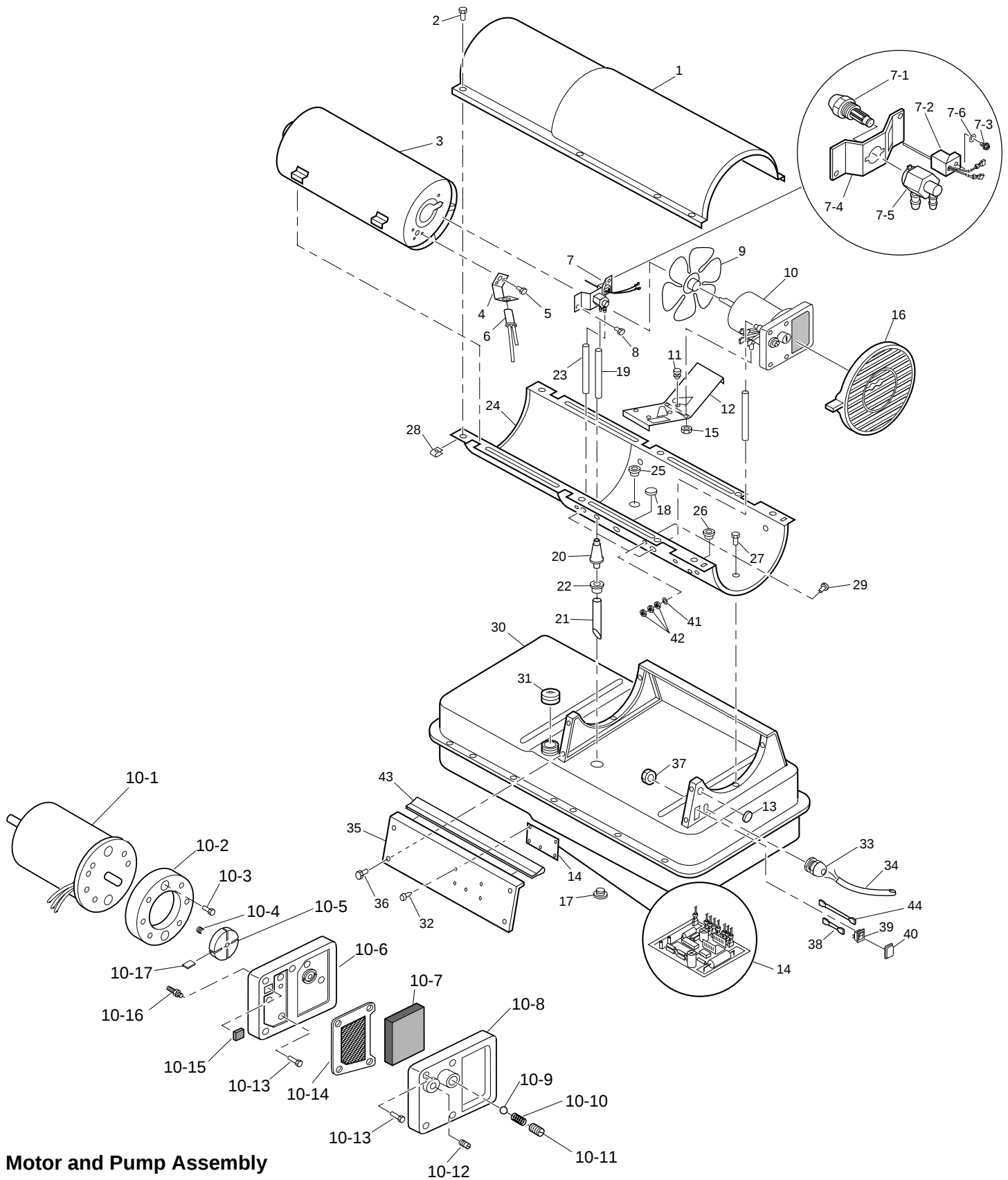
MODEL 70 CEL 20 kW				PARTS LIST			
Key No.	Part Number	Description	Qty.	Key No.	Part Number	Description	Qty.
1	4110.130	Handle	1	16	4108.486	Hex Lock Nut, 1/4-20	2
2	4110.064	Upper Shell	1	17	4110.124	Screw/Lockwasher, 1/2"	4
3	4160.602	Screw	2	18	4150.553	Rubber Bumper	2
4	4109.590	Screw/Lockwasher	6	19	4100.635	Side Cover	1
5	4110.050	Combustion Chamber	1	20	4110.187	Motor Bracket	1
6	4103.529	Screw, #6-32 x 3/8"	2	21	4101.151	Bushing	1
7	4100.658	Photocell Bracket	1	22	4104.170	Clip Nut	6
8	4103.590	Photocell Assembly	1	23	4101.152	Bushing	1
9	**	Burner Strap Assembly	1	24	4110.124	Screw/Lockwasher, 1/2"	6
9-1	4100.647	Nozzle Assembly	1	25	4110.133	Screw	1
9-2	4110.132	Ignitor	1	26	4110.535	Lower Shell	1
9-3	4100.664	Nozzle Adapter	1	27	4104.147	Rubber Airline	1
9-4	4100.653	Nozzle Adapter Bracket	1	28	4109.567	Fuel Line	1
9-5	4100.669	Screw, #6-32 x 7/8"	1	29	4103.875	Fuel Filter	1
9-6	4100.660	Belleville Washer	1	30	4100.541	Rubber Bushing	1
10	4110.124	Screw/Lockwasherr	2	31	4100.656	Nylon Locknut	1
11	4100.662	Fan	1	32	4100.654	PCB Support	5
12	**	Motor and Pump Assembly	1	33	4110.142	PC Board	1
12-1	4110.079	Motor	1	34	4103.891	Fuel Cap (Includes Gasket)	
12-2	4101.317	Pump Body	1	35	4110.140	Fuel Tank	1
12-3	4108.635	Insert	1	36	4100.671	Shell Heat-Shield	1
12-4	4108.627	Rotor	1	37	4110.134	Nut	3
12-5	4109.724	Pump End Cover	1	38	4110.075	Vinyl Foam Gasket	1
12-6	4109.716	Lint Filter	1	39	4160.613	Lockwasher	1
12-7	4109.690	Intake Filter	1	40	4110.036	Wire Assembly (Brown)	1
12-8	4109.674	End Cover	1	41	4100.667	ON/OFF Switch	1
12-9	4108.528	Screw, #10-32 x 1"	3	42	4104.336	Switch Cover	1
12-10	4102.133	Adjusting Screw	1	43	4110.037	Wire Assembly (White)	1
12-11	4102.141	Pressure Relief Spring	1	PARTS AVAILABLE - NOT SHOWN			
12-12	4102.125	Plug	1				
12-13	4108.379	Steel Ball, 1/4" Diameter	1		4105.292	Filler Neck Screen	1
12-14	4109.708	Output Filter	1		4161.829	PC Board Fuse	1
12-15	4108.528	Screw #10-32 x 1"	6				
12-16	4100.661	Nylon Elbow, 90	1				
12-17	4101.200	Blade	4				
12-18	4108.588	Screw, #10-32 x 5/8"	2				
12-19	4100.666	Plastic Cap	1				
13	4103.685	Fan Guard	1				
14	4110.038	Power Cord	1				
15	4150.528	Strain Relief Bushing	1				

** Parts not available as an assembly, order parts separately.

MASTER DIRECT OIL HEATERS

MODEL 100 CEL 29 kW Model

ILLUSTRATED PARTS BREAKDOWN



MASTER DIRECT OIL HEATERS

MODEL 100 CEL 29 kW

PARTS LIST

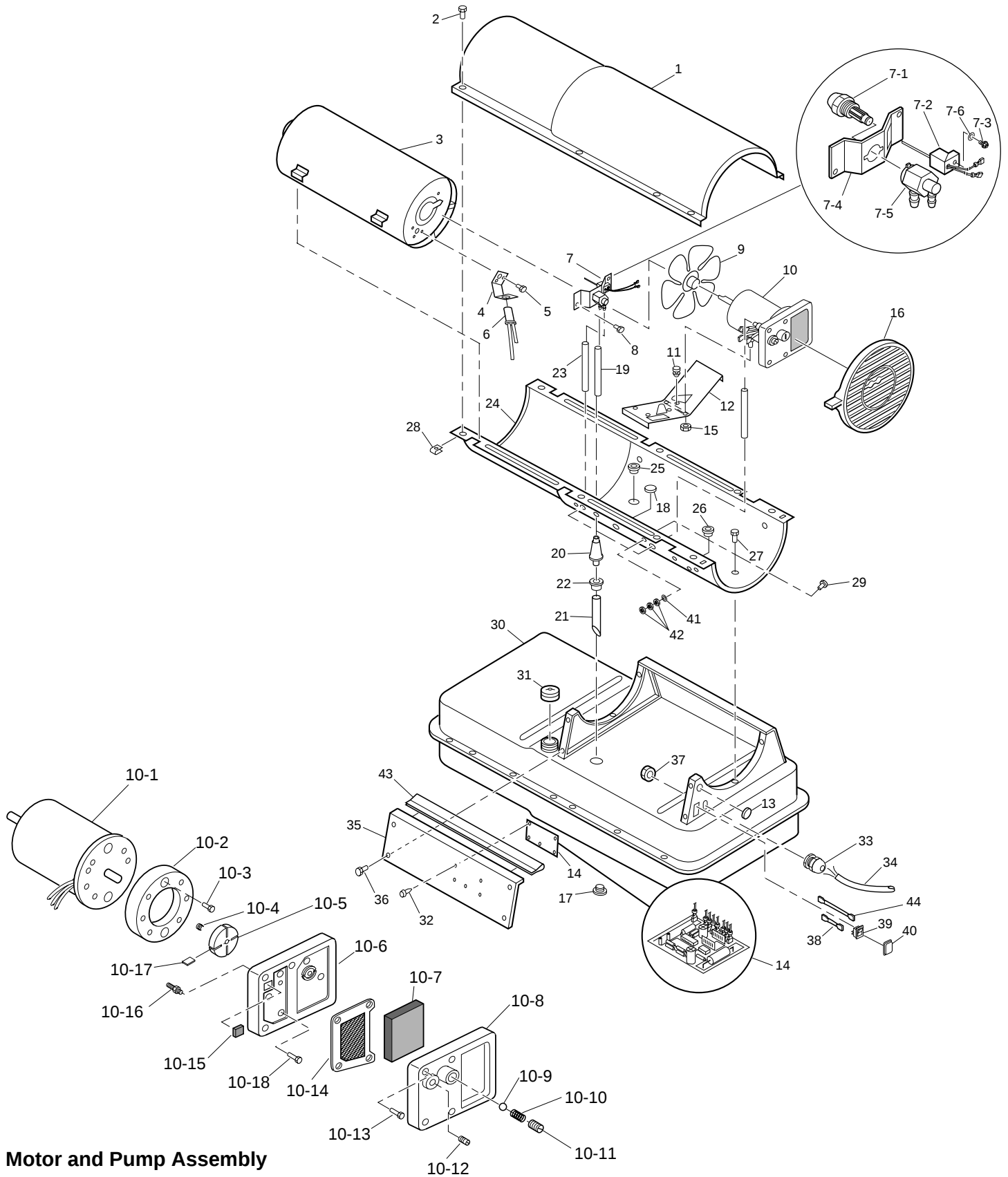
Key No.	Part Number	Description	Qty.	Key No.	Part Number	Description	Qty.
1	4104.006	Upper Shell	1	17	4100.632	Drain Plug (Includes "o" Ring)	1
2	4109.590	Screw/Lockwasher, 1/2"	8	18	4110.070	Button Plug	1
3	4110.050	Combustion Chamber	1	19	4110.032	Fuel Line	1
4	4100.658	Photocell Bracket	1	20	4100.630	Fuel Filter	1
5	4103.529	Screw	2	21	4110.147	Fuel Line Tube	1
6	4103.590	Photocell Assembly	1	22	4100.541	Rubber Bushing	1
7	**	Burner Strap Assembly	1	23	4104.156	Airline	1
7-1	4100.645	Nozzle Assembly	1	24	4110.063	Lower Shell	1
7-2	4110.132	Ignitor	1	25	4101.112	Bushing	1
7-3	4100.669	Screw, #6-32 x 7/8"	1	26	4160.646	Bushing	1
7-4	4100.653	Nozzle Adapter Bracket	1	27	4110.124	Screw/Lockwasher, 1/2"	6
7-5	4100.663	Nozzle Adapter	1	28	4104.170	Clip Nut	8
7-6	4100.660	Belleville Washer	1	29	4110.133	Screw,	1
8	4110.124	Screw/Lockwasher, 1/2"	2	30	4110.149	Fuel Tank	1
9	4105.062	Fan	1	31	4103.891	Fuel Cap (Includes Gasket)	1
10	**	Motor and Pump Assembly	1	32	4100.654	P.C. Board Support	5
10-1	4110.080	Motor	1	33	4150.528	Strain Relief Bushing	1
10-2	4101.317	Pump Body	1	34	4110.038	Power Cord	1
10-3	4108.590	Screw, #10-32 x 5/8"	2	35	4100.670	Side Cover	1
10-4	4108.635	Rotor Insert	1	36	4110.124	Screw/Lockwasher, 1/2"	4
10-5	4108.627	Pump Rotor	1	37	4100.656	Nylon Locknut	1
10-6	4101.325	Pump End Cover	1	38	4110.036	Wire Assembly (Brown)	1
10-7	4101.358	Intake Filter	1	39	4100.667	ON/OFF Switch	1
10-8	4108.643	End Cover	1	40	4104.336	Switch Cover	1
10-9	4108.379	Steel Ball, 1/4" Diameter	1	41	4100.527	Lockwasher, #10	1
10-10	4102.141	Relief Spring	1	42	4110.134	Nut	3
10-11	4102.133	Adjusting Screw	1	43	4103.850	Edge Liner	1
10-12	4102.125	Plug	1	44	4110.037	Wire Assembly (White)	1
10-13	4108.528	Screw, #10-32 x 1"	10	PARTS AVAILABLE - NOT SHOWN			
10-14	4101.341	Output Filter	1		4105.292	Filler Neck Screen	1
10-15	4101.333	Lint Filter	1		4161.829	PC Board Fuse	1
10-16	4104.118	Barb Fitting	1				
10-17	4101.200	Blade	4				
11	4150.553	Rubber Bumper	2				
12	4110.186	Motor Mounting Bracket	1				
12	4100.649	Button Plug	1				
14	4110.142	PC Board	1				
15	4108.486	Hex Lock Nut, 1/4-20	2				
16	4103.695	Fan Guard	1				

** Parts not available as an assembly, order parts separately.

MASTER DIRECT OIL HEATERS

MODEL 150 CEL 44 kW Model

ILLUSTRATED PARTS BREAKDOWN



Motor and Pump Assembly

MASTER DIRECT OIL HEATERS

MODEL 150 CEL 44 kW

PARTS LIST

Key No.	Part Number	Description	Qty.	Key No.	Part Number	Description	Qty.
1	4104.006	Upper Shell	1	17	4100.632	Drain Plug (Includes "o" Ring)	1
2	4109.590	Screw/Lockwasher, 1/2"	8	18	4110.070	Button Plug	1
3	4110.182	Combustion Chamber	1	19	4110.032	Fuel Line	1
4	4100.659	Photocell Bracket	1	20	4100.630	Fuel Filter	1
5	4103.529	Screw	2	21	4110.147	Fuel Line Tube	1
6	4103.590	Photocell Assembly	1	22	4100.541	Rubber Bushing	1
7	**	Burner Strap Assembly	1	23	4104.156	Airline	1
7-1	4100.646	Nozzle Assembly	1	24	4110.063	Lower Shell	1
7-2	4110.132	Ignitor	1	25	4101.112	Bushing	1
7-3	4100.669	Screw, #6-32 x 7/8"	1	26	4160.646	Bushing	1
7-4	4100.653	Nozzle Adapter Bracket	1	27	4110.124	Screw/Lockwasher, 1/2"	6
7-5	4100.663	Nozzle Adapter	1	28	4104.170	Clip Nut	8
7-6	4100.660	Belleville Washer	1	29	4110.133	Screw,	1
8	4110.124	Screw/Lockwasher, 1/2"	2	30	4110.149	Fuel Tank	1
9	4105.062	Fan	1	31	4103.891	Fuel Cap (Includes Gasket)	1
10	**	Motor and Pump Assembly	1	32	4100.654	P.C. Board Support	5
10-1	4110.080	Motor	1	33	4150.528	Strain Relief Bushing	1
10-2	4101.532	Pump Body	1	34	4110.038	Power Cord	1
10-3	4108.590	Screw, #10-32 x 3/4"	2	35	4100.670	Side Cover	1
10-4	4108.635	Rotor Insert	1	36	4110.124	Screw/Lockwasher, 1/2"	4
10-5	4103.441	Pump Rotor	1	37	4100.656	Nylon Locknut	1
10-6	4101.325	Pump End Cover	1	38	4110.036	Wire Assembly (Brown)	1
10-7	4101.358	Intake Filter	1	39	4100.667	ON/OFF Switch	1
10-8	4108.643	End Cover	1	40	4104.336	Switch Cover	1
10-9	4108.379	Steel Ball, 1/4" Diameter	1	41	4100.527	Lockwasher, #10	1
10-10	4102.141	Relief Spring	1	42	4110.134	Nut	3
10-11	4102.133	Adjusting Screw	1	43	4103.850	Edge Liner	1
10-12	4102.125	Plug	1	44	4110.037	Wire Assembly (White)	1
10-13	4108.528	Screw, #10-32 x 1"	4	PARTS AVAILABLE - NOT SHOWN			
10-14	4101.341	Output Filter	1		4105.292	Filler Neck Screen	1
10-15	4101.333	Lint Filter	1		4161.829	PC Board Fuse	1
10-16	4104.118	Barb Fitting	1				
10-17	4101.666	Blade	4				
10-18	4108.536	Screw, #10-32 x 1 1/8"	6				
11	4150.553	Rubber Bumper	2				
12	4110.186	Motor Mounting Bracket	1				
13	4100.649	Button Plug	1				
14	4110.142	PC Board	1				
15	4108.486	Hex Lock Nut, 1/4-20	2				
16	4103.695	Fan Guard	1				

** Parts not available as an assembly, order parts separately.