Master

PORTABLE HEATERS

MODEL BIOOKD AND BISOKD

SPEC. NO. 3114G25 AND 3059G33

OPERATING, MAINTENANCE and SERVICE INSTRUCTIONS with PARTS LIST







Koehring
Construction Equipment Division

C. SPECIFICATIONS

CHARACTERISTIC	MODEL B100KD	MODEL B150KD	CHARACTERISTIC	MODEL B100KD	MODEL B150KD
Output rating (BTU per hour)	90,000	150,000	Fuel Kerosene	or No. 1 fue	oil only
Air output, approx.	200	500	Fuel tank capacity (U.S. gallons)	9.0	13.5
(Cu. ft. per minute) Amperage (During normal run)	4	500	Fuel consumption, approx. (Gallons per hour)	0.66	1.1
Air Pressure (PSI)	4	5	Voltage and cycles	115/60	115/60
Weight, approx. (Lbs.) Shipping Net (dry)	79 62	90.5 76	Motor rpm Duct	3450 Not recon	3450

D. MODEL DIFFERENCES

The two sizes of heaters covered in this manual are similar in design and construction and alike in principle. The motor starting circuits are slightly different.

E. ACCESSORIES AND OPTIONS

A thermostat accessory, No. HA1200 is available for use with these heaters. In addition, they can be converted to automatic safety shutoff in case of failure of the flame or lack of fuel, by the installation of the Safety Control Kit, HA2200.

F. PREPARING FOR OPERATION

This heater is shipped with the wheel support frame, handles, axle and wheels removed. To assemble these parts proceed as follows:

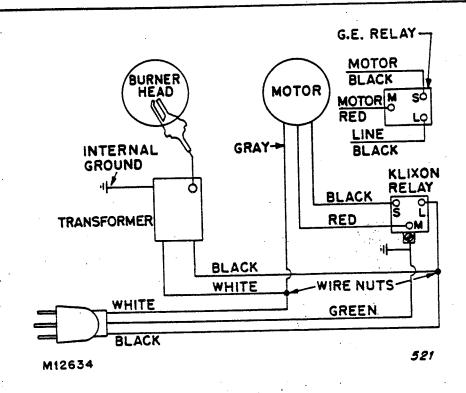
1. Remove all protective material which may have been applied to the heater for shipment.

2. Remove the tape securing the wheels and axle to the carton liner and lift out the wheels, axle, handles and wheel support frame from the carton.

Remove the carton liner and lift out the heater. A package of screws and nuts should also be in the carton.

- 3. Check the heater for possible shipping damage If any damage is found, IMMEDIATELY notify the agent of the carrier which delivered the heater to you, and make out a claim for the damage.
- 4. Slide the axle through the wheel support frame. Install a flat washer, wheel and a cap nut onto each end of the axle. Set the heater body onto the wheel support frame so that the wheels will be located as in figure 15.

Attach each handle onto the fuel tank flange and secure with the screws and nuts provided. Do not tighten nuts until all screws have been installed. Draw up nuts until snug, then tighten each in turn.



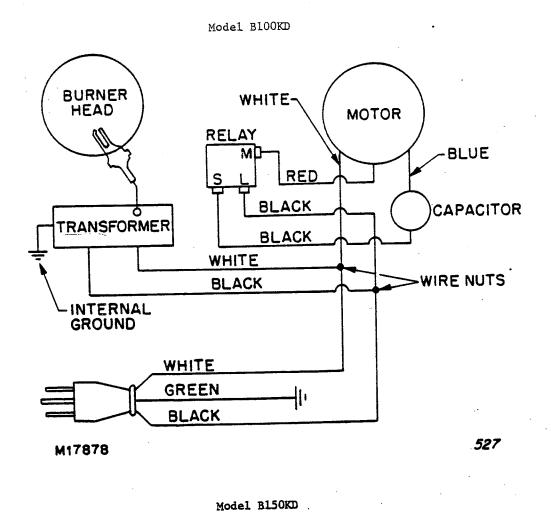


Figure 9. Wiring Diagram

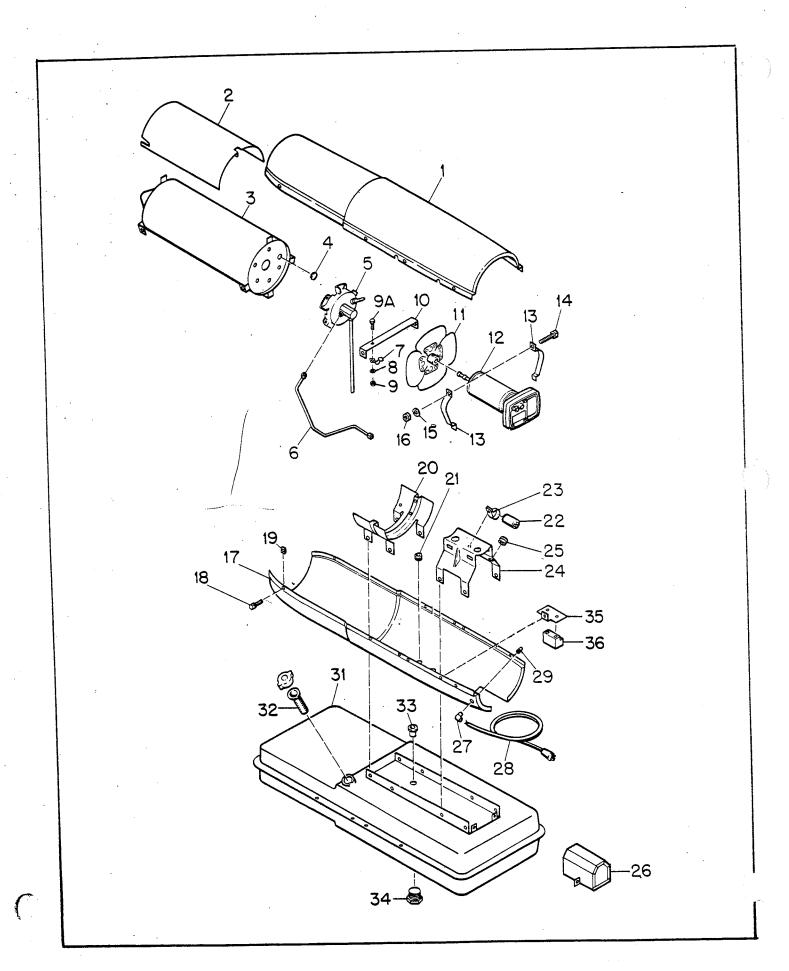


Figure 13. Portable Heater, Exploded View

BASIC HEATER ASSEMBLY

	,		Qty	•	1			_	_
Fig. 13 Index No.	Part Number	Part Name or Description	B100KD	B150KD	Fig. 13 Index No.	Part Number	Part Name or Description	B100KD	B150KD
			1		22	M12650-1	Capacitor	-	1
1	M13134-3A	Shell, Upper	-	1	23	M12651	Clamp, Capacitor		
1	M17015-1A	Shell, Upper	_	1	1	_	Mounting	-	1
2	M16679	Deflector, Heat	-	_	_	M11084-27	Screw	-	1
3	M16781-4	Combustion Chamber	1			ST2-8B	Screw (M16708 Clamp)	-	(1)
Ť	M16887-6	Combustion Chamber	-	1		M25059		1	-
_	M11084-27	Screw (Combustion Chamber			24	M16645	Bracket, Motor Support	_	1
		attaching, front)	2	2		M11084-27	Screw (Motor Support		
_	M11084-29	Screw (Combustion Chamber			-	. <u>W</u> 111004-21	Bracket to Lower Shell		
-	111211001	attaching, rear)	2	2			and Fuel Tank)	6	6
4	M15995	Plug Button (Rear head of			1		Grommet (Motor Leads	•	•
4	MITOBAO	combustion chamber)	1	-1	25	1000576			
		Burner Head Assembly				. •	thru Motor Support	1	1
5	Ref	(See Figure 14)	. 1	1			Bracket)	Τ.	
		(See Figure 14)	-		·	1000577	Grommet (Motor and		
-	M11084-27	Screw (Burner Head to	3	3			Capacitor Leads thru		_
		Combustion Chamber)	1	-	ļ		Motor Support Bracket)	-	2
6	M16879 T	Air Line	-	1	1	M15823-26	Screw	-	2
	M16804	Air Line		1	26	M16697	Transformer, 5000-Volt	1	1
7	M24717	Clamp, Tube	1	-	20	M11084-27	Screw (Transformer to	•	
8	WLM-3	Lockwasher	1	1	-	1111001, 11.	motor support		
9	NPF-3C	Nut, Plain, 10-32	1	. 1	•		bracket)	2	2
.9A	M12469-27	Screw (Air Line Clamp)	1	1		2011140 1	Bushing, Strain Relief		
10	M15807	Strap, Retainer	1	-	27	M11143-1	(Service cord to		
10	M16871	Strap, Retainer	-	1			lower shell)	1	1
	M11084-27	Screw (Strap to Shell)	2	2				_	
-		Fan	1	-	28	M10813-21	Service (Extension)	1	
11	M23147	ran Fan	_	1			cord	Τ.	
	M17058	-				M15779-19	Service (Extension)		1
-	SF4-2-1/2K	pt., 1/4-28 (Fan to					cord		
		pt., 1/4-28 (Fan to	2	2	29	M13942-5	Connector (Wire Nut)	2	2
		motor shaft)	-	_	31	M27552-01A	Fuel Tank	1	
12	Ref	Motor Package Assembly	1	. 1	31	M27547-01A	Fuel Tank	-	1
		(See Figure 15)	4			M23284	Cap, Fuel Tank,	1	1
13	M16661	Clamp, Motor			32	M18053	Screen, Filler Neck	1	1
14	HC4-10C	Screw (Motor Clamps)	2	4	33	M10990-3	Bushing, Rubber		
15	WLM-4	Lockwasher, 1/4 in.			33	11120000	(Fuel Filter into		
		(Motor Clamps)	2	2 2	1		Fuel Tank)	1	1
16	NPC-4C	Nut, Hex, 1/4-20				M27417	Plug, Pipe	1	1
-0		(Motor Clamps)		2 2	34		Bracket, Starting Relay		
17	M16777A	Shell, Lower		1 -	35	M11952	Mounting	1	1
-1	M16810A	Shell, Lower	•	- 1		3411004 05	Screw (Relay Mounting		
10	M11084-27	Screw (Upper Shell to			-	M11084-27	Bracket to		
18	MITTOG	Lower Shell)		6 8			Lower Shell)	1	1
	3411071_G	Nut, Tinnerman (Upper She	1					1	
19	M11271-6	to Lower Shell)		6 8	36	M12462-16	Relay, Starting	_	1
		Bracket, Shell Support		1 -	ł	M12462-6	Relay, Starting		•
20	M12330	Bracket, Shell Support		- 1	-	RC2-2C	Screw (Starting Relay		
	M12828	Screw (Support Bracket to			ĺ		to Mounting		. 2
-	M11084-27				1		Bracket)	2	-
		Lower Shell and		4 6		WLI-2	Lockwasher,	_	
		Fuel Tank)		- ·	·		Internal No. 8	2	2
_	M11084-29	Screw (Lower Shell to		2 2	. _	ST2-2AC	Screw (Grounding Wire		
		Support Bracket)		2 2	' -		Assy, Black (to		
21	1000576	Grommet (Ignition Cable			l		Starting Relay)	1	. 1
		thru				M9900-62	Wire Assy., Black		
•		Lower Shell)		2	· -	1177 200 OE	(to Starting Relay)	1	
						M9900-77	Wire Assy. , Black to Capaci	<u>i</u> -	
						19122300~((······································		

BURNER HEAD ASSEMBLY

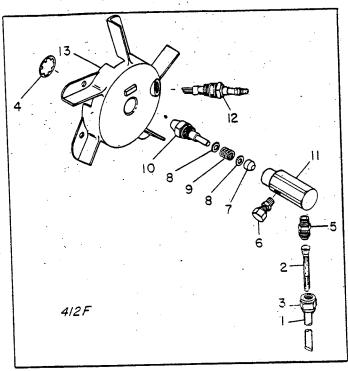


Figure 14. Burner Head Assembly

Fig. 14 Index No.	Part Number	Part Name or Description	B100KD	B150KD
14-	M23150-1	Burner Head Assembly	1	-
	M16803-4	Burner Head Assembly	-	1
1	M167900-8	. Filter, Tube	1	-
•	M1670-12	. Tube, Filter	-	1
2	M19630	. Filter, Fuel	1	,1
3	M13849	. Nut, Flared	İ	1
4	M16741-18	. Ring, Retaining	1	1
-	M23151-1	. Nozzle Adapter Assy.	1	
	M16787-3	. Nozzle Adapter Assy.	-	1
• 5	M16791	Connector, Male	1	1
	M5976	Connector, Male	1	1
6 7	M8882	Sleeve, Nozzle Seal	1	1
8 .	M10659-1	Washer, Nozzle Seal	2	2
9	M10809-1	Spring, Nozzle Seal	1	1
10	M23103	Nozzle, Aspirating	1	-
	M18022	Nozzle, Aspirating	-	1
11	M16535	Adapter, Nozzle	1	1
12	M10962-2	. Spark Plug	1	1
13	M16534	. Body, Burner Head	1	-
	M23090	. Body, Burner Head	-	1

DECALS, HANDLES AND WHEELS

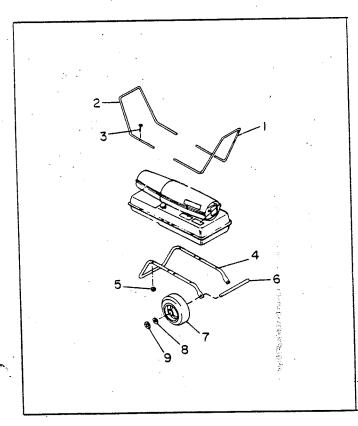


Figure 15. Handles and Wheels

Fig. 15 Index No.	Part Number	Part Name or Description	B100KD	B150KD
1	M15131-3	Handle, Rear	1	-
	M14243-3	Handle,	-	1
2	M15131-3	Handle, Front	1	-
_	M14244-3	Handle, Front	-	1
3	M12345-34	Screw, Handles and		
-		Wheel Support Frame		_
		to Fuel Tank	8	8
4.	M12342-3	Wheel Support Frame	1	-
-	M12831-3	Frame, Wheel Support	-	1
5	NTC-3C	Nut, Hex, 10-24		
•		Torque Lock	8	8
6	M16801A	Axle	1	1
	M16801-2A	Axle	2	
7	M19295	Wheel	2	1 2 2
3 9	WPC-8C	Washer, Flat	2	2
9	M28526	Nut, Cap DECALS		_
	M17137	Decal, Trade Name	1	1
	M23152-20	Decal, Model	1	-
	M27311-10	Decal, Model	-	1
	M12634	Decal, Wiring	1	-
	M17878	Decal, Wiring	-	1
	M24724	Decal, Mfg. by	1	1
	M22743	Decal, Warning	1	1
	M22898	Decal, Name Plate	1	1
	M22823	Decal, Flag	1	1

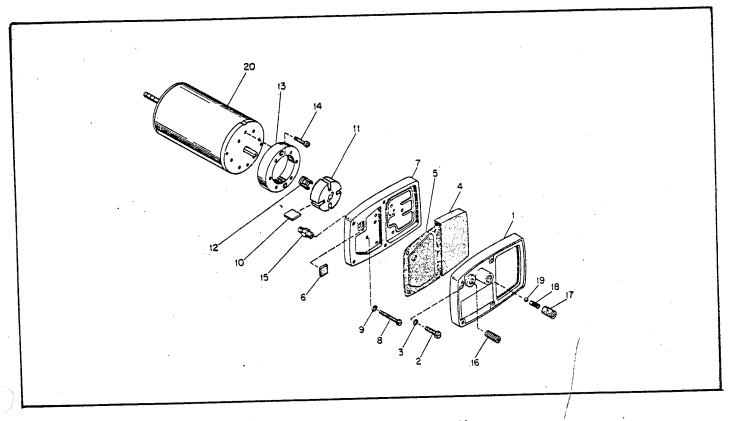


Figure 16. Motor Package Assembly

			Qty	
Fig. 16 Index No.	Part Number	Part Name or Description	B100KD	В150КD
16-	M23149-7	Motor Package Assembly	1	-
	M17875-1	Motor Package Assembly	-	1
1	M16545	End Cover, Filter	1	1
2	M12461-31	Screw (Filter End Cover)	4	4
3	WLI-3	. Lockwasher, Internal, No. 10	4	4
4	м12179	Intake Air Filter	1	1
5	M12244-1	Output Filter Assembly	1	1
6	M11637	. Filter, Lint	1	1
7	M12233	End cover, Pump (Port Plate)	1	1
8	M12461-34	Screw (End Cover to Motor)	6	6
9	WLI-3	Lockwasher, Internal No. 10	6	6
10	M8643	Blade	4	-
10	M8643-3	Blade	-	4

			Qty.	
Fig. 16 Index No.	Part Number	Part Name or Description	B100KD	B150KD
	M22456-1	Rotor	1	-
11	M22456-3	Rotor	-	1
12	M22009	Insert	1	1.
13	M8645	Body, Pump	1	-
13	M8645-3	Pump Body		1
14	FHPF3-4C	Screw (Pump body to motor)	2	1
14	FHPF3-7C	body to motor)	1	2
15	69248	Elbow	1	-
15	M5976	Connector, Male	-	1
16	M22997	Plug	1	1
17	M27694	Screw, Pressure Adjustment	1	1
18	M10993-1	Spring, Compression	1	1
		(Pressure Relief)	1	1
19	M8940	Ball, 1/4 in. dia.	1	_
20	M30718-01 -	. Motor	1	1
21	M17814	. Motor		