



MODEL B100KD AND B150KD

SPEC. NO. 3114G25 AND 3059G33

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**OPERATING, MAINTENANCE and SERVICE  
INSTRUCTIONS with PARTS LIST**

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6/19



**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 fuel oil only |              |
| Air output, approx.<br>(Cu. ft. per minute) | 200          | 500          | Fuel tank capacity<br>(U. S. gallons)           | 9.0                             | 13.5         |
| Amperage (During normal run)                | 4            | 5            | Fuel consumption, approx.<br>(Gallons per hour) | 0.66                            | 1.1          |
| Air Pressure (PSI)                          | 4            | 5            | Voltage and cycles                              | 115/60                          | 115/60       |
| Weight, approx. (Lbs.)                      |              |              | Motor rpm                                       | 3450                            | 3450         |
| Shipping                                    | 79           | 90.5         | Duct  | Not recommended                 |              |
| Net (dry)                                   | 62           | 76           |   |                                 |              |

### 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.

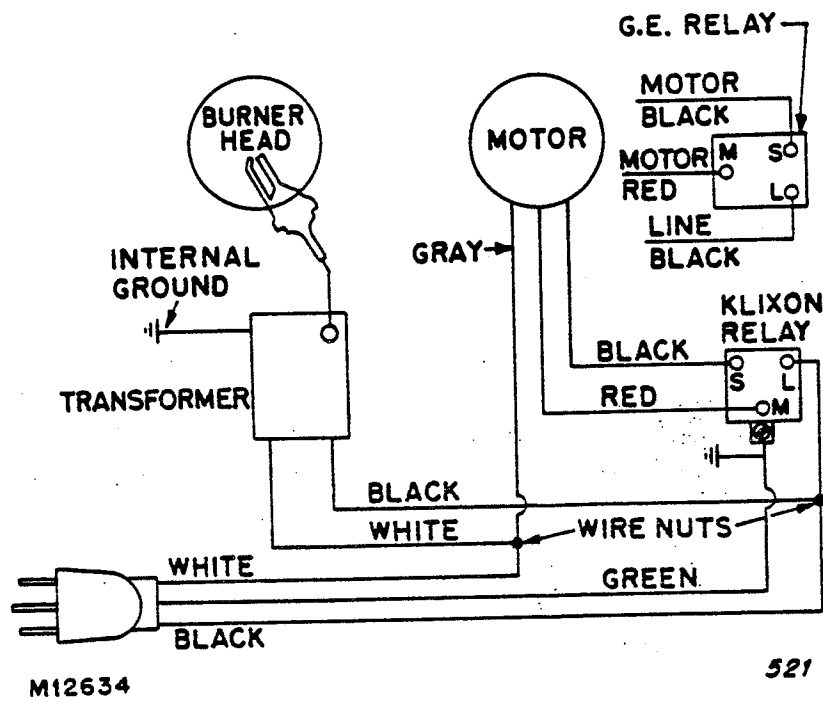
2. Remove the tape securing the wheels and axle to the carton liner and lift out the wheels, axle, handles and wheel support frame from the carton.

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

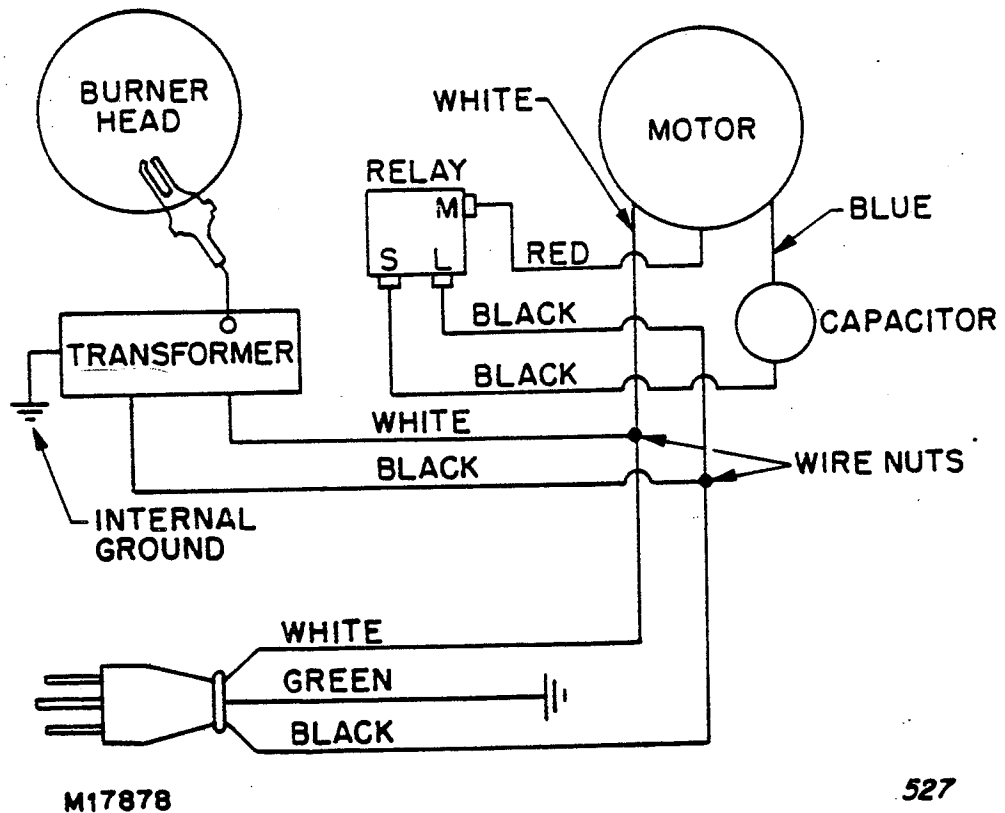
3. Check the heater for possible shipping damage. If any damage is found, IMMEDIATELY notify the agent of the carrier which delivered the heater to you, and make out a claim for the damage.

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.



Model B100KD



Model B150KD

Figure 9. Wiring Diagram

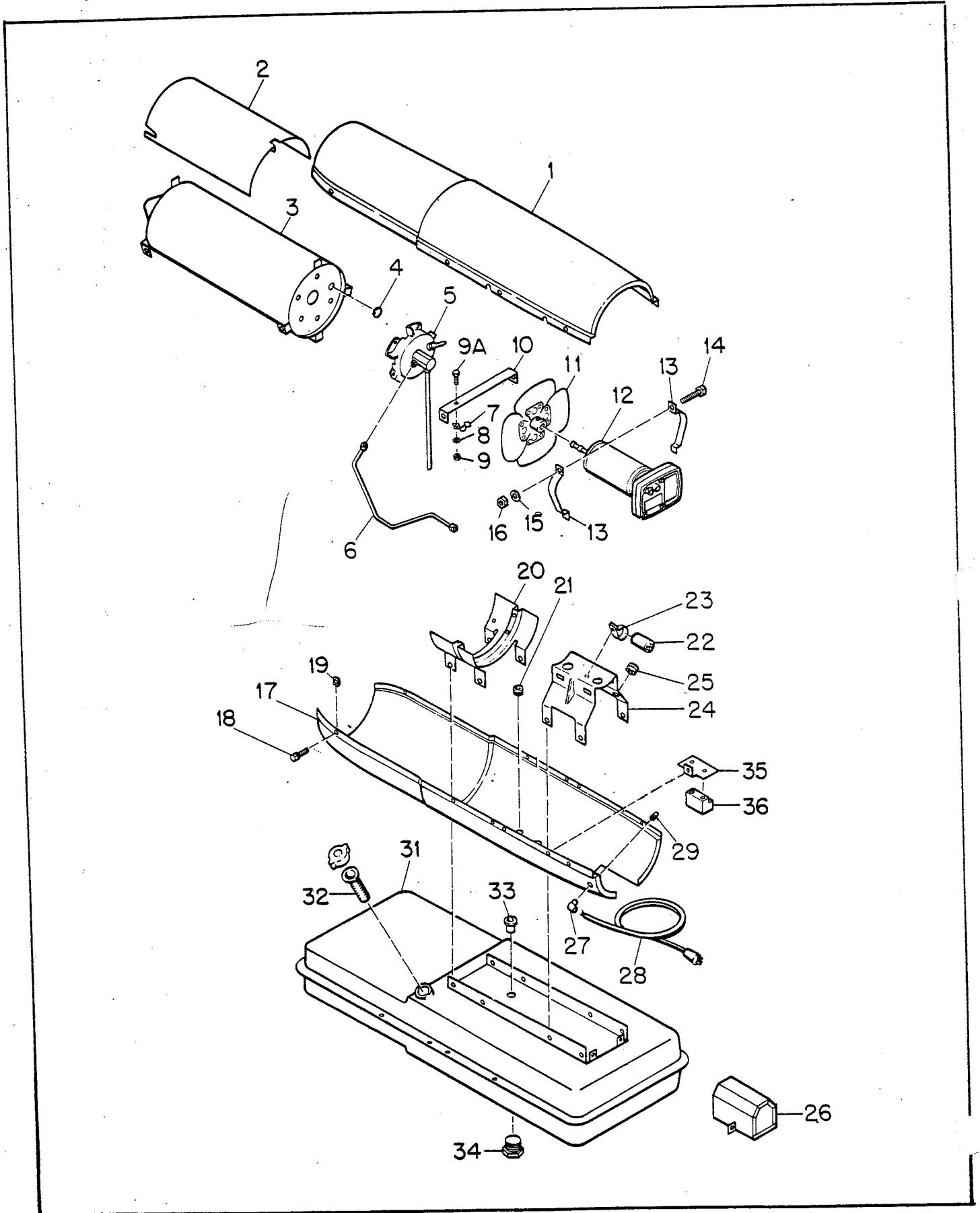


Figure 13. Portable Heater, Exploded View

**BASIC HEATER ASSEMBLY**

| Fig. 13   |             |  | Qty.   |        | Fig. 13   |             |  |        |        |
|-----------|-------------|--|--------|--------|-----------|-------------|--|--------|--------|
| Index No. | Part Number | Part Name or Description                                 | B100KD | B150KD | Index No. | Part Number | Part Name or Description                                       | B100KD | B150KD |
| 1         | M13134-3A   | Shell, Upper   | 1      | -      | 22        | M12650-1    | Capacitor  | -      | 1      |
| 1         | M17015-1A   | Shell, Upper   | -      | 1      | 23        | M12651      | Clamp, Capacitor Mounting                                      | -      | 1      |
| 2         | M16679      | Deflector, Heat  | -      | 1      | -         | M11084-27   | Screw  | -      | 1      |
| 3         | M16781-4    | Combustion Chamber                                       | 1      | -      | -         | ST2-8B      | Screw (M16708 Clamp)   | -      | (1)    |
| -         | M16887-6    | Combustion Chamber                                       | -      | 1      | 24        | M25059      | Bracket, Motor Support   | 1      | -      |
| -         | M11084-27   | Screw (Combustion Chamber attaching, front)              | 2      | 2      | -         | M16645      | Bracket, Motor Support   | -      | 1      |
| -         | M11084-29   | Screw (Combustion Chamber attaching, rear)               | 2      | 2      | -         | M11084-27   | Screw (Motor Support Bracket to Lower Shell and Fuel Tank)     | 6      | 6      |
| 4         | M15995      | Plug Button (Rear head of combustion chamber)            | 1      | 1      | 25        | 1000576     | Grommet (Motor Leads thru Motor Support Bracket)               | 1      | 1      |
| 5         | Ref         | <u>Burner Head Assembly</u><br>(See Figure 14)           | 1      | 1      | -         | 1000577     | Grommet (Motor and Capacitor Leads thru Motor Support Bracket) | -      | 2      |
| -         | M11084-27   | Screw (Burner Head to Combustion Chamber)                | 3      | 3      | -         | M15823-26   | Screw  | -      | 2      |
| 6         | M16879      | Air Line   | 1      | -      | 26        | M16697      | Transformer, 5000-Volt   | 1      | 1      |
| -         | M16804      | Air Line   | -      | 1      | -         | M11084-27   | Screw (Transformer to motor support bracket)                   | 2      | 2      |
| 7         | M24717      | Clamp, Tube  | 1      | 1      | 27        | M11143-1    | Bushing, Strain Relief (Service cord to lower shell)           | 1      | 1      |
| 8         | WLM-3       | Lockwasher   | 1      | 1      | 28        | M10813-21   | Service (Extension) cord                                       | 1      | -      |
| 9         | NPF-3C      | Nut, Plain, 10-32  | 1      | 1      | -         | M15779-19   | Service (Extension) cord                                       | -      | 1      |
| 9A        | M12469-27   | Screw (Air Line Clamp)                                   | 1      | 1      | 29        | M13942-5    | Connector (Wire Nut)   | 2      | 2      |
| 10        | M15807      | Strap, Retainer  | 1      | -      | 31        | M27552-01A  | Fuel Tank  | 1      | -      |
| -         | M16871      | Strap, Retainer  | -      | 1      | 31        | M27547-01A  | Fuel Tank  | -      | 1      |
| -         | M11084-27   | Screw (Strap to Shell)                                   | 2      | 2      | -         | M23284      | Cap, Fuel Tank,  | 1      | 1      |
| 11        | M23147      | Fan  | 1      | -      | 32        | M18053      | Screen, Filler Neck  | 1      | 1      |
| -         | M17058      | Fan  | -      | 1      | 33        | M10990-3    | Bushing, Rubber (Fuel Filter into Fuel Tank)                   | 1      | 1      |
| -         | SF4-2-1/2K  | Setscrew, Soc. hd., cup pt., 1/4-28 (Fan to motor shaft) | 2      | 2      | 34        | M27417      | Plug, Pipe   | 1      | 1      |
| 12        | Ref         | <u>Motor Package Assembly</u><br>(See Figure 15)         | 1      | 1      | 35        | M11952      | Bracket, Starting Relay Mounting                               | 1      | 1      |
| 13        | M16661      | Clamp, Motor   | 4      | 4      | -         | M11084-27   | Screw (Relay Mounting Bracket to Lower Shell)                  | 1      | 1      |
| 14        | HC4-10C     | Screw (Motor Clamps)                                     | 2      | 2      | 36        | M12462-16   | Relay, Starting  | 1      | -      |
| 15        | WLM-4       | Lockwasher, 1/4 in. (Motor Clamps)                       | 2      | 2      | -         | M12462-6    | Relay, Starting  | -      | 1      |
| 16        | NPC-4C      | Nut, Hex, 1/4-20 (Motor Clamps)                          | 2      | 2      | -         | RC2-2C      | Screw (Starting Relay to Mounting Bracket)                     | 2      | 2      |
| 17        | M16777A     | Shell, Lower   | 1      | -      | -         | WLI-2       | Lockwasher, Internal No. 8                                     | 2      | 2      |
| -         | M16810A     | Shell, Lower   | -      | 1      | -         | ST2-2AC     | Screw (Grounding Wire Assy, Black (to Starting Relay))         | 1      | 1      |
| 18        | M11084-27   | Screw (Upper Shell to Lower Shell)                       | 6      | 8      | -         | M9900-62    | Wire Assy., Black (to Starting Relay)                          | 1      | 1      |
| 19        | M11271-6    | Nut, Tinnerman (Upper Shell to Lower Shell)              | 6      | 8      | -         | M9900-77    | Wire Assy., Black to Capacitor                                 | -      | 1      |
| 20        | M12330      | Bracket, Shell Support                                   | 1      | -      |           |             |  |        |        |
| -         | M12828      | Bracket, Shell Support                                   | -      | 1      |           |             |  |        |        |
| -         | M11084-27   | Screw (Support Bracket to Lower Shell and Fuel Tank)     | 4      | 6      |           |             |  |        |        |
| -         | M11084-29   | Screw (Lower Shell to Support Bracket)                   | 2      | 2      |           |             |  |        |        |
| 21        | 1000576     | Grommet (Ignition Cable thru Lower Shell)                | 2      | 1      |           |             |  |        |        |



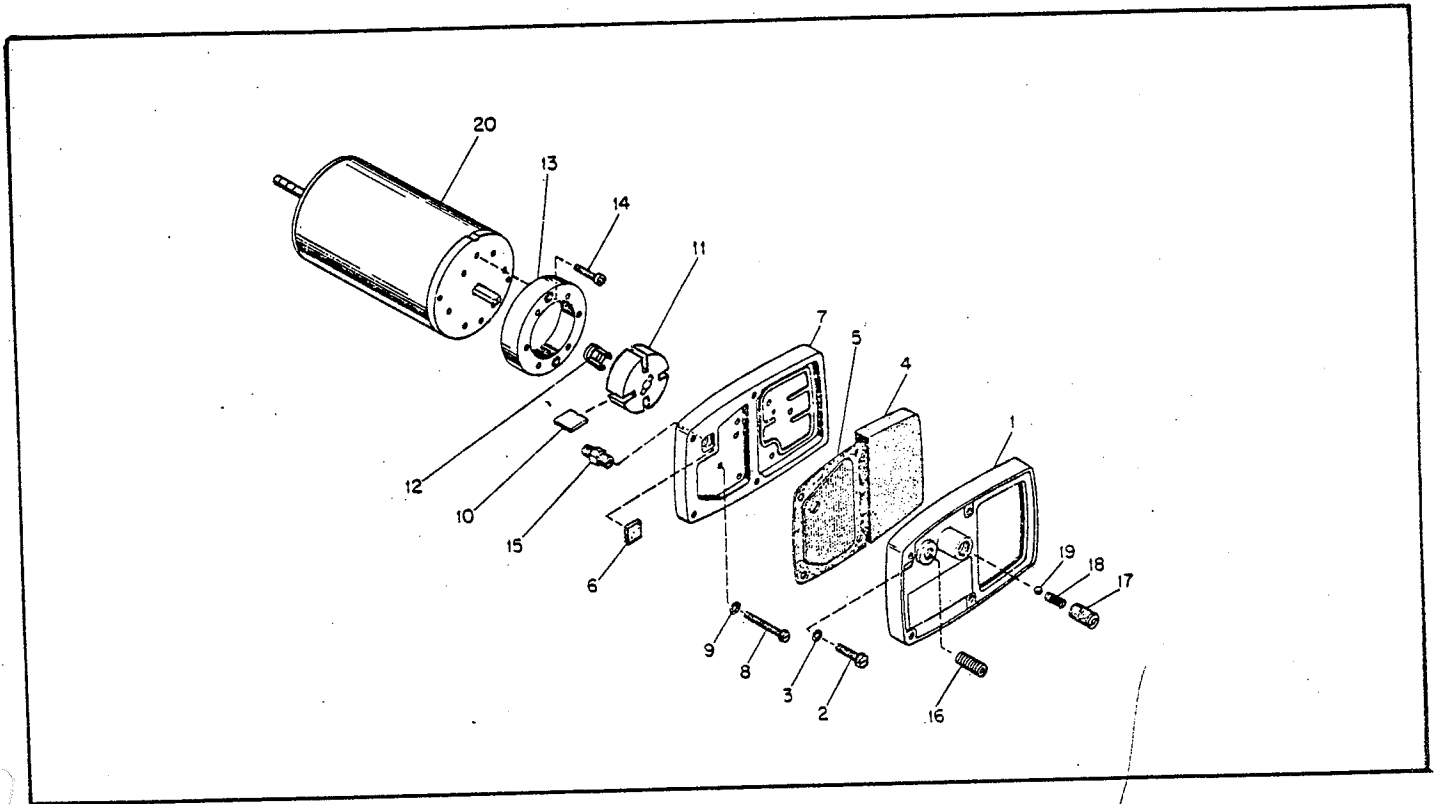


Figure 16. Motor Package Assembly

| Fig. 16<br>Index<br>No. | Part<br>Number | Part Name or<br>Description                      | Qty.   |        |
|-------------------------|----------------|--|--------|--------|
|                         |                |  | B100KD | B150KD |
| 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<br>to Pump End Cover) | 4      | 4      |
| 3                       | WLI-3          | .. Lockwasher, Internal,<br>No. 10               | 4      | 4      |
| 4                       | M12179         | .. Intake Air Filter                             | 1      | 1      |
| 5                       | M12244-1       | .. Output Filter<br>Assembly                     | 1      | 1      |
| 6                       | M11637         | .. Filter, Lint                                  | 1      | 1      |
| 7                       | M12233         | .. End cover, Pump<br>(Port Plate)               | 1      | 1      |
| 8                       | M12461-34      | .. Screw (End Cover to<br>Motor)                 | 6      | 6      |
| 9                       | WLI-3          | .. Lockwasher, Internal<br>No. 10                | 6      | 6      |
| 10                      | M8643          | .. Blade   | 4      | -      |
| 10                      | M8643-3        | .. Blade   | -      | 4      |

| Fig. 16<br>Index<br>No. | Part<br>Number | Part Name or<br>Description                 | Qty.   |        |
|-------------------------|----------------|---|--------|--------|
|                         |                |   | 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<br>body to motor)            | 2      | 1      |
| 14                      | FHPF3-7C       | .. Screw (Pump<br>body to motor)            | 1      | 2      |
| 15                      | 69248          | .. Elbow                                    | 1      | -      |
| 15                      | M5976          | .. Connector, Male                          | -      | 1      |
| 16                      | M22997         | .. Plug                                     | 1      | 1      |
| 17                      | M27694         | .. Screw, Pressure<br>Adjustment            | 1      | 1      |
| 18                      | M10993-1       | .. Spring, Compression<br>(Pressure Relief) | 1      | 1      |
| 19                      | M8940          | .. Ball, 1/4 in. dia.                       | 1      | 1      |
| 20                      | M30718-01      | .. Motor                                    | 1      | -      |
| 21                      | M17814         | .. Motor                                    | -      | 1      |