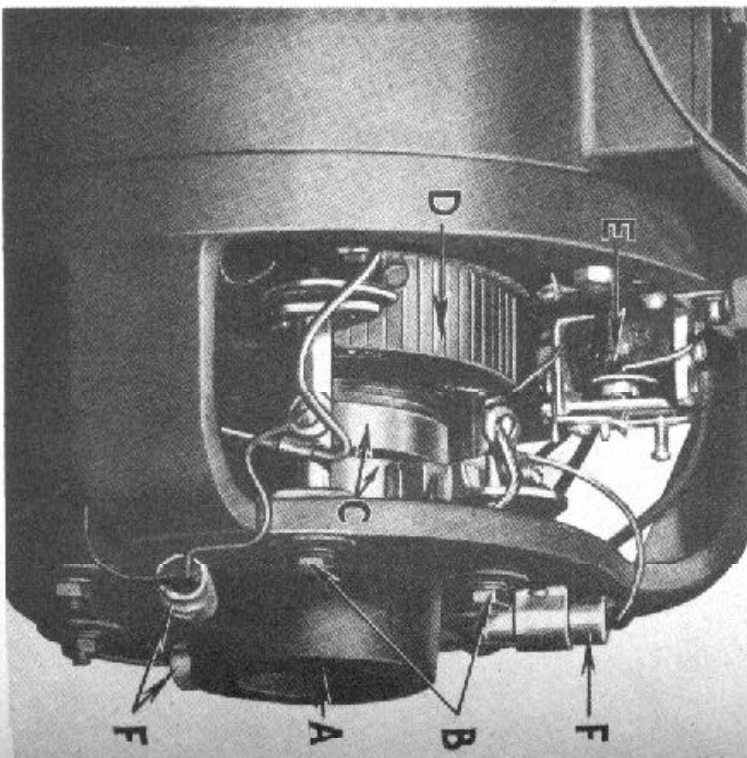


a. Governor. Engine speed on the 1½-KVA Kohler power unit is automatically maintained by a centrifugal governor, operated from the camshaft gear. The governor has been carefully adjusted to maintain normal speed of 1,200 revolutions per minute under load. Do not change adjustment unless absolutely necessary. If necessary loosen the screw holding the governor weight, to the governor operating fork (fig. 12) and slide the weight on the fork arm. To test for accuracy of setting, measure engine speed with a tachometer or the frequency at the output terminals with a frequency meter. The engine can be idled by manually operating the governor arm. See paragraph 14 for correct grade of oil to use in lubricating governor shaft bearing.



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- A. Generator bearing housing.
- B. Brush holder studs.
- C. Collector rings.
- D. Commutator.
- E. Voltage regulating relay.
- F. Capacitors.

Figure 13. Generator with end cover removed.

13. GENERATOR.

a. General. The following preventive maintenance measures can be performed by removing the generator end cover (fig. 1). This cover is held to the brush holder bracket by four screws. Figure 13 shows view of generator with end cover removed. Additional disassembly is required to replace bearings, collector rings, armature, field coils, and flywheel. Detailed instructions for this are in part six, Corrective Maintenance.

b. Care of Commutator and Collector Rings. The monthly, or 200-hour operating check, outlined in paragraph 11b includes steps to follow in keeping the commutator and collector rings in good condition. Be sure to clean carbon dust out of commutator slots regularly.

c. Brush Care and Replacement.

(1) **GENERAL.** Brushes must fit easily in brush holders and be held against commutator or rings with uniform pressure. Brushes that are too loose will chatter or get out of alignment. Check condition of the brushes in the Kohler power unit at least once every 300 operating hours.

(2) **REPLACEMENT AND CLEANING.** When replacing new brushes, sand the ends which ride on the commutator to the proper shape. To do this wrap a piece of No. 00 sandpaper on the commutator. Insert brushes into holders and turn armature shaft with starting crank. Continue this shaping operation until at least 75 percent fit is obtained by resting brushes in proper position with brush holder springs in place. Follow the same procedure in sanding collector ring brushes. After a period of use, a gummy substance will collect on the brushes. Remove brushes from holders when this occurs and clean them with dry cleaning solvent.

d. Generator Bearing. Check the generator ball bearing on the armature shaft for smooth operation. Noisy operation indicates the bearing should be replaced. It is necessary to check the bearing lubricant every 200 hours (monthly). See next paragraph for correct grade of lubricant.

14. LUBRICATION.

a. Crankcase. Use only the grade of oil specified in table in paragraph 8a in the engine crankcase. The lubrication system of this engine is not designed for heavier oils which might be satisfactory for use in a truck. Drain the crankcase, as demonstrated in figure 7, while the engine is still warm. Replace drain plug before filling with correct grade of fresh oil. Do not flush out the crankcase with kerosene. If drained oil is badly discolored or sludgy, check the oil filter according to instructions given for 200-hour check.