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Disassembling and Assembling Generator

Disassembly

1. Remove V-belt pulley and blower.
2. Disconnect field coil terminal from brush holder of positive brush.
3. Remove nuts from generator through bolts.
4. Disassemble generator and remove armature.
5. Remove ball bearing. After disassembling the generator thoroughly wash all components with clean solvent and dry with compressed air.

Assembly

The assembly is accomplished in the reverse order of disassembly observing the following points:

1. Test armature, field coils, cable connections and brushes.
2. Examine ball bearings for wear and damage. Replace if necessary. Rinse bearings in clean solvent and lubricate with high temperature grease.
3. Check end play: Too little play may cause bearing damage while too much play will permit the armature to touch the field coils.
4. Insure that cables are correctly connected to brush holders.

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Testing Armature

Armature failures cannot be found through visual inspection in most cases. The armature must therefore be tested for open circuits, short circuits, and internal ground.

Testing:

1. Open circuits in the armature usually cause arcing between segments and are therefore easily visible. Open circuits may also be found by using a potentiometer which, however, is not always available.
2. A short in the armature windings can only be tested using a growler (A.C.-Test magnet). Place the armature on the growler and turn the armature slowly, holding a thin steel strip or hacksaw blade over the core segments. Short circuits in the armature cause the hacksaw blade to vibrate against the core when held above the slot containing the short. A similar device uses a feeler containing a coil instead of a hacksaw blade. The feeler coil is connected to ear phones which make a growling noise due to the alternating current induced in the feeler coil by the short circuit (Fig. 15).

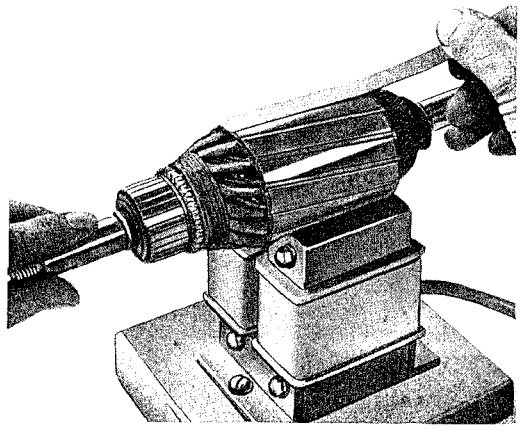

Fig. 14