

## Carbon Brushes

The condition of the carbon brushes must be checked from time to time.

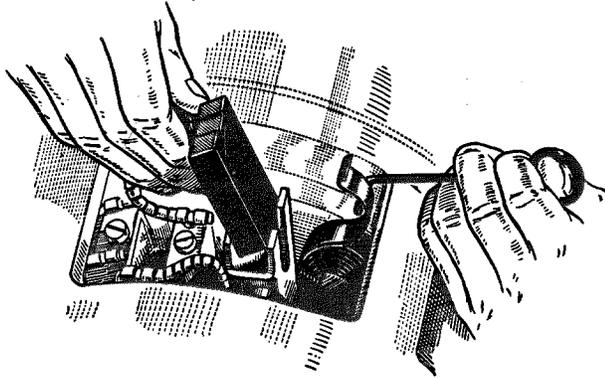


Figure 15-12/1

Checking of Carbon Brushes

After removing the cover band lift the spring, which presses the carbon brush against the commutator, with a hook. (Do not bend the spring to one side and do not lift more than necessary). Then check whether the carbon brushes can be easily moved in their guides in the brush holder.

The carbon brushes and the brush holders must be free of dust, oil, and grease. If these parts are fouled or jamming and the carbon brushes are therefore no longer pressed properly against the commutator, they must be cleaned with a rag soaked in gasoline (not with cotton waste) and well dried. Never use emery paper, knife, or file on the smooth contact surface of the carbon brushes! Thoroughly blow out brush holder with compressed air.

If a brush is broken, unsoldered, or worn so much that the spring or the wire soldered into the brush is in danger of coming into contact with the brush holder, the brush must be replaced. When inserting the brush make sure that the spring does not strike hard against the brush. Always replace the entire set of brushes and use only original carbon brushes!

**Note:** In the dustproof generator LJ/GEH 90/12-2300 R 15 the bearing bracket at the commutator end containing brush holders and carbon brushes must be unscrewed from the armature housing in order to check the carbon brushes.

## Commutator

The condition of the commutator surface is very important for the proper functioning of the generator. The surface of the commutator should be uniformly smooth and grey-black in color; it must also be free of dust, oil, and grease. Furthermore, the commutator must run perfectly true, otherwise the run-out of the commutator will deflect the carbon brushes which in turn will be sparking, thus interfering with proper supply of current. Fouled commutators have to be cleaned

with a clean rag soaked in gasoline (not with cotton waste) and well dried. Scored and out-of-round commutators must be reconditioned by precision-turning (see Job No. 15-13). Under no circumstances should emery paper or a file be used on the commutator.

### **Lubrication**

The generator is equipped with ball-bearings (annular grooved bearings) which are filled with a special grease. Additional lubrication is therefore not necessary.

**Note:** On the generator LJ/RJH 150/12-2100 BR 1 a few drops of motor oil should be filled into the cap oiler at the commutator bearing bracket, if necessary.