



Fig. 19. Brush-box insulation test

Fitting new field coils; proceed as follows:—

1. Unscrew the four pole-shoe retaining screws using a pole-shoe screwdriver.
2. Remove the insulation piece which is fitted to prevent the inter-coil connectors from contacting with the yoke. Mark the yoke and pole shoes in order that they may be refitted in their original positions.
3. Draw the pole shoes and coils out of the yoke and lift off the coils.
4. Fit the new field coils over the pole shoes and place them in position inside the yoke. Ensure that the taping of the field coils is not trapped between the pole shoes and the yoke.
5. Locate the pole shoes and field coils by lightly tightening the fixing screws.
6. Refit the insulation piece between the field coil connections and the yoke.

7. Finally, tighten the screws by means of the pole-shoe screwdriver.

Bearings

Bearings which are worn to such an extent that they will allow excessive side play of the armature shaft must be renewed.

To renew the bearing bushes proceed as follows:—

1. Press the bearing bush out of the end bracket.
2. Press the new bearing bush into the end bracket using a shouldered, highly polished mandrel of the same diameter as the shaft which is to fit in the bearing. Porous bronze bushes must not be opened out after fitting, or the porosity of the bush may be impaired.
3. Before fitting a new porous bronze bearing bush it should be completely immersed for 24 hours in clean thin engine oil. On occasions of urgency this period may be shortened by heating the oil to 100°C. (212°F) for two hours, then allowing to cool before removing the bearing bush.

Starter drive

1. The pinion and barrel is permanently retained during manufacture by rolling the four projecting lugs at the trailing edge of the barrel over the four notches of the control nut. This assembly cannot be dismantled for subsequent re-assembly. When necessary the complete barrel assembly (and, preferably, the screwed sleeve) must be renewed.
2. The pinion must move freely along the splined sleeve. If there is any dirt or foreign matter on the sleeve, the starter drive must be washed in petrol or paraffin and a light film of machine oil smeared on it.

Re-assembly of the starter motor (See Fig. 16)

This is, in the main, a reversal of the procedure outlined for dismantling the starter.