Brushgear

Where necessary, the brushes and brush-holders must be cleaned using a clean fluffless petrol-moistened cloth.

To prevent damage to the commutator, brushes must be renewed when worn to $\frac{5}{16}$ in. (8 mm.) length.

To renew the brushes, proceed as follows:—

Insulated brushes

Cut off the original brush flexible $\frac{1}{8}$ in. (3·17 mm.) from the aluminium.

Clean up and tin the original resistance-brazed joint.

Open out the loop of the new brush flexible.

Tin the loop, taking extra care not to allow any solder to run towards the brush.

Place the original joint within the loop.

Squeeze-up the clips and solder.

Providing the necessary equipment is available for refitting and tightening of the pole shoes, the above operations will be found easier to carry out if the field coils are removed from the yoke.

Earth brushes

1. Unsolder the brush flexible from the clip located beneath the brush box mounting. Open up the clip, insert the new flexible, squeeze up the clip and re-solder

   The brushes are pre-formed so that pre-bedding to the commutator is unnecessary.

2. Check the brush spring tension using a spring scale as previously instructed.

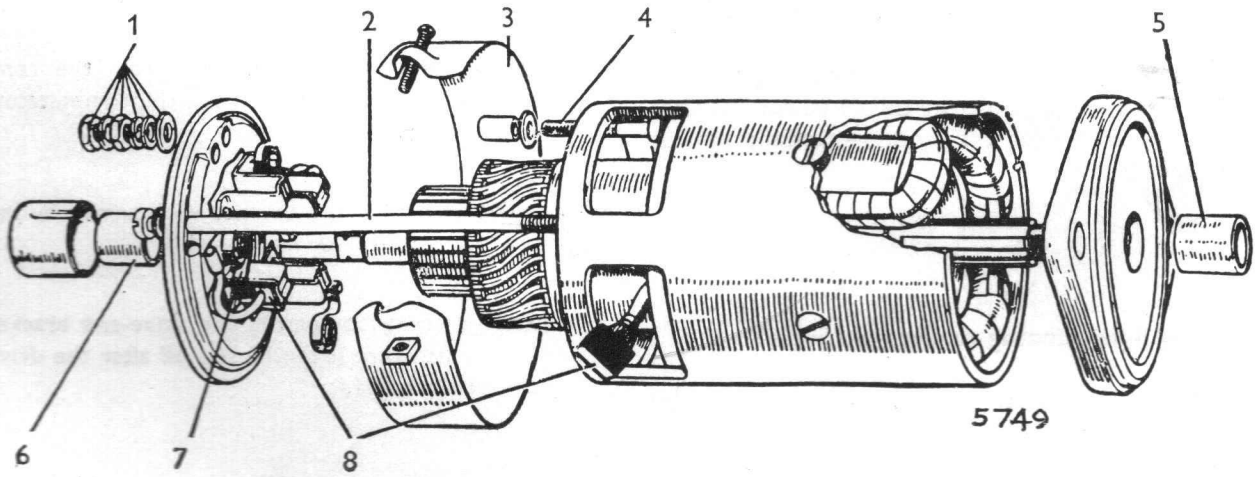
   Check the tension of any new spring and ensure that it makes contact with the centre of the brush top.

Commutator

1. A commutator in good condition will be smooth and free from pits and burned spots.

2. Clean the commutator with a petrol-moistened cloth. If this is ineffective, carefully polish with a strip of fine glass paper, while rotating the armature. To remedy a badly worn commutator, dismantle the starter drive and remove the armature from the end bracket.

3. Mount the armature in a lathe, rotate at a high speed and take a light cut with a very sharp tool.



1. TERMINAL NUTS AND WASHERS
2. THROUGH BOLT
3. COVER BAND
4. TERMINAL POST
5. BEARING BUSH (DRIVE END)
6. BEARING BUSH (COMMUTATOR END)
7. BRUSH SPRINGS
8. BRUSHES

Fig. 16. *Exploded view of starter motor*