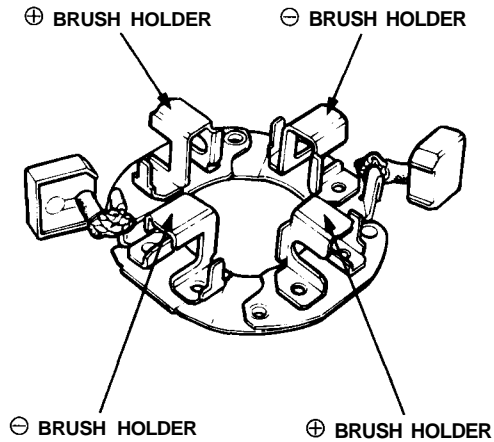




## Starter Brush Holder Test

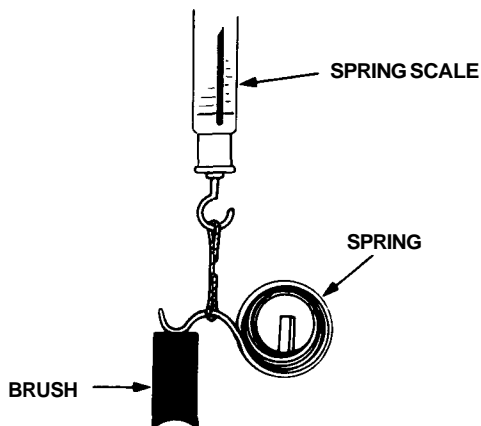
1. Check that there is no continuity between the  $\oplus$  and  $\ominus$  brush holders.  
If continuity exists, replace the brush holder assembly.



2. Insert the brush into the brush holder, and bring the brush into contact with the commutator, then attach a spring scale to the spring. Measure the spring tension at the moment the spring lifts off the brush.

### Spring Tension:

**18.0-24.0 N (1.80-2.40 kg, 4.0-5.3 lbs)**



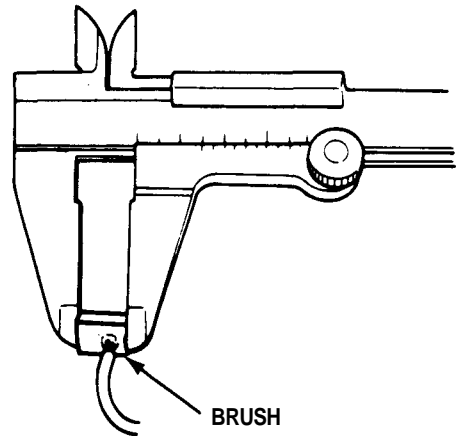
## Starter Brush Inspection

Measure the brush length. If not within the service limit, replace the armature housing and brush holder assembly.

### Brush Length

**Standard (New): 15.0-15.5 mm (0.591 -0.610 in)**

**Service Limit: 10.0 mm (0.394 in)**



**NOTE:** To seat new brushes after installing them in their holders, slip a strip of #500 or #600 sandpaper, with the grit side up, over the commutator, and smoothly rotate the armature. The contact surface of the brushes will be sanded to the same contour as the commutator.