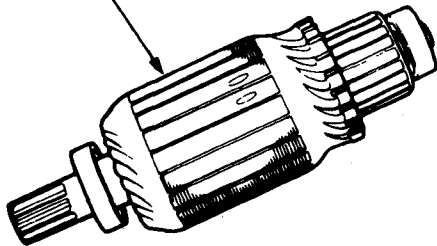


Starting System

Armature Inspection and Test

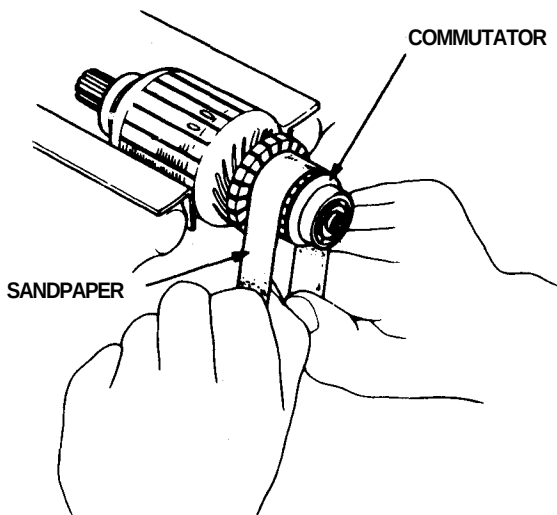
1. Inspect the armature for wear or damage due to contact with the permanent magnet. If there is wear or damage, replace the armature.

Inspect for damage



2. Check commutator surface and diameter.

- If the surface is dirty or burnt, resurface with emery cloth or a lathe within the following specifications, or recondition with #500 or #600 sandpaper.

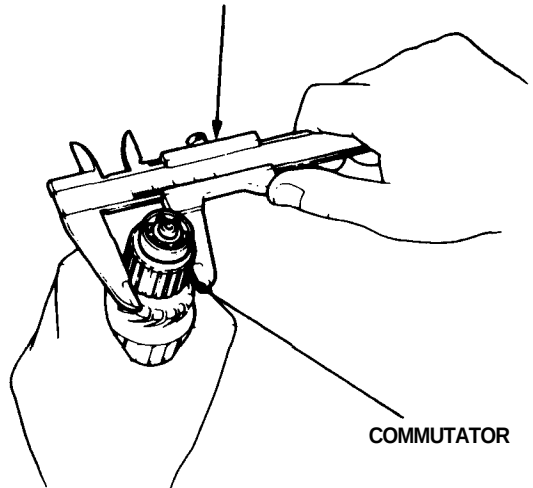


- If commutator diameter is below the service limit, replace the armature.

Commutator Diameter

Standard (NEW)	Service Limit
31.9-32.1 mm (1.256 -1.264 in)	31.5 mm (1.240 in)

VERNIER CALIPER



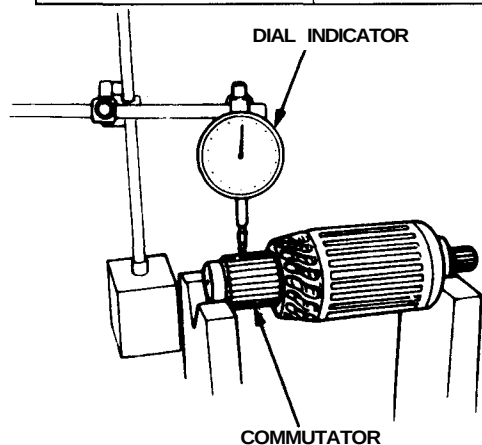
3. Measure the commutator runout.

- If the commutator runout is within the service limit, check the commutator for carbon dust or brass chips between the segments.
- If the commutator runout is not within the service limit, replace the armature.

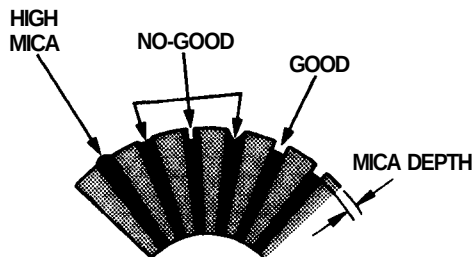
Commutator Runout

Standard (NEW)	Service Limit
0-0.05 mm (0-0.002 in)	0.1 mm (0.004 in)

DIAL INDICATOR



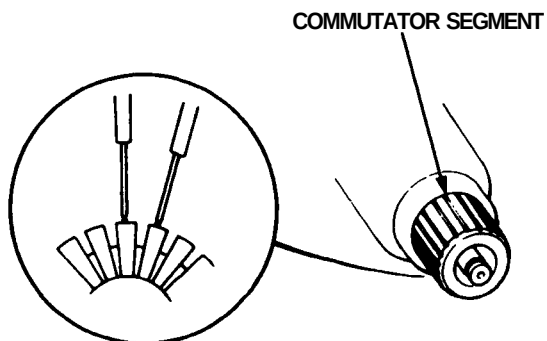
4. Check for mica depth. If necessary, undercut the mica with a hacksaw blade to achieve proper depth. If the service limit cannot be maintained, replace the armature.



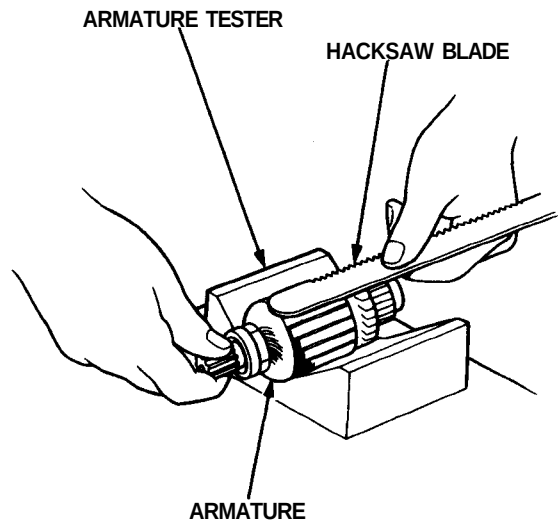
Commutator Mica Depth

Standard (NEW)	Service Limit
0.5-0.8 mm (0.020-0.031 in)	0.20 mm (0.008 in)

5. Check for continuity between the segments of the commutator. If an open circuit exists between any segments, replace the armature.



6. Place the armature on an armature tester. Hold a hacksaw blade on the armature core. If the blade is attracted to the core or vibrates while the core is turned, the armature is shorted. Replace the armature.



7. With an ohmmeter, check that no continuity exists between the commutator and armature coil core, and between the commutator and armature shaft. If there is continuity, replace the armature.

