

>>> Service Letter

Technical Aspects are FAA Approved

Number: L94-03A

Replaces ServL94-003

Date: 07/13/2004

Subject: SA629117-1 and SA631654 Rotator Assembly

Application: Any engine using Superior Air Parts, Inc. SA629117-1 and SA631654 rotator assemblies.

Superior Air Parts, Inc. has received inquiries regarding service aspects of rotator assemblies. This service letter is a response to those inquiries.

Tests on non free rotator assemblies returned has not revealed any defective assemblies. It is not possible to test the operation of the rotator by checking the free turn of the retainer body and spring seating collar by twisting in your hands. Operational test must be conducted with a special fixture that can apply a load of 80 to 210 pounds to the rotator assembly in order to cause it to rotate.

Superior has noted advanced stages of wear and occasionally fractured garter springs inside the assembly during the normal engine service period. There are several causes for this:

1. Lack of adequate lubrication during initial engine operation. It is recommended that during engine assembly, the engine manufacturer's recommended makeup oil should be liberally applied to the groove between the retainer body and the spring seating collar of the rotator assembly.
2. Engine over speed, improper valve lash clearance and modifications to parts in the valve train can lead to erratic operation of the valve train applying extra stress to the rotator garter spring and spring washer.

Superior Air Parts, Inc. hopes that the above will be helpful and useful in assuring a full TBO service life for the rotator assemblies.