

Service Bulletin

FAA Approved

Number: B96-02 B

Replaces 96-002A

Date: 07/06/2004

Subject: Cylinder Head Fractures - Superior P/N SL54000-A1, SL54000-A2, SL54000-A2P, SL54000-A20P, and SL54000-A21P Replacement Cylinder Assemblies

Application:

Textron Lycoming:

TIO-540-A2C, J2B, F2BD, N2BD, R2AD, S1AD;
LTIO-540-J2B, F2BD, J2BD, N2BD, R2AD;
IO-540-M1B5D
Superior Cylinder Serial Numbers: 001 through 650

Compliance: Beginning at 250 hours of operation and each 25 hours thereafter through 300 hours, inspect cylinders. Cylinders are to be removed at 300 hours of service. Ferry back to a maintenance base for inspection or removal is allowed.

Superior Air Parts, Inc. has been made aware of the possibility of cracks forming in the SL54000 series cylinder head castings. The cracks initiate in the intake valve side wall. Propagation of the cracks may lead to head separation and loss of power in flight. This bulletin requires dye penetrant inspection of the affected cylinders in the field.

Product improvements are in progress and will be implemented in future cylinders.

Procedure

Customers who have SL54000 series cylinders installed on the engines defined in the "Engine Application" section of this bulletin. Engines should be advised of this Mandatory Service Bulletin and immediate arrangements should be made to inspect the cylinders when cylinder service reaches 250 hours.

Please call Superior on the toll free number **1-800-420-4727** to report the serial numbers being inspected.

A dye penetrant inspection when a complete engine is to be inspected will require removal of the baffling and two center cylinders (No. 3 and No. 4). If less than a full set of cylinders are to be inspected, proceed as follows.

To inspect Cylinders 1, 3, 4, or 6, remove the affected cylinder.

or

Remove only Cylinder 3 to inspect numbers 1 and 3.

or

Remove only cylinder No. 4 to inspect numbers 4 and 6.

To inspect Cylinders 2 or 5, remove appropriate baffling.

*****NOTE*****

In no case is it necessary to remove more than two cylinders to perform this inspection.

The dye penetrant should be applied to the area as indicated in Illustration A. Follow the procedures outlined by the dye penetrant manufacturer's instructions. The SL54000 series cylinder heads as produced by Superior Air Parts, Inc. are anodized and do not require stripping prior to inspection, unless subsequently painted by the using facility.

Labor Allowance

First Cylinder Removed, Each Side of Engine	6.0 hours
Baffling removal only (Cylinders 2 and 5)	1.0 hour
Dye Penetrant inspection, Each cylinder	0.5 hour

Conditions

Labor and parts allowances stated above will be effective for 18 months from the date of this letter.

Inspection Reimbursement

Upon completion of this inspection, Superior will reimburse each claimant 1) labor based on the labor allowances listed above at your posted shop labor rate, and 2) a single cylinder top overhaul gasket set plus exhaust gaskets for each SL54000 series cylinder removed per the procedures of this Mandatory Service Bulletin. Your claim must be made on the attached Superior SL54000 Inspection Form. Also, be sure that you list the serial number of each cylinder you inspect. (See Illustration B).

Parts List

Parts listed below are per cylinder:

<u>Quantity</u>	<u>Part Number</u>	<u>Description</u>
1 each	SL12033SC	Single Cylinder Gasket Set
2 each	SL15619	Exhaust Gasket

*****NOTE*****

**INFORMATION AND PARTS
ARE OBTAINABLE BY CALLING
1-800-420-4727 ONLY.**