
Sektion 2. Utlandstillverkad flygmateriel

TITEL: Byte av cylinder

GÄLLER: TIO-540, LTIO-540 och IO-540 modeller och installationer angivna i bifogad kopia av FAA Priority Letter Airworthiness Directive 97-01-04.

ÅTGÄRD: Utför åtgärder angivna i FAA AD 97-01-04.

TID FÖR ÅTGÄRD: Inom tider och intervaller angivna i FAA AD 97-01-04.

UNDERLAG: FAA AD 97-01-04
Superior Air Parts, Inc. Mandatory Service Bulletin (MSB) No. 96-002, Revision A daterad 17 december 1996 eller senare utgåva.

REFERENS: FAA AD 97-01-04 samt LFV skrivelse L 1997-17-1041 daterad 1997-01-04 sänd till kända ägare/brukare.

BESLUTSDATUM: 1997-03-18

LFS 1997:16

Åtgärder enligt LVD utgör nödvändig förutsättning för ifrågavarande flygmateriels luftvärdighet. Referens BCL M 1.11.

Anteckning om åtgärd, som vidtagits i enlighet med LVD, skall införas i teknisk journal för berörd flygmateriel med hänvisning till ifrågavarande LVD-nummer. Angivet underlag refererar till senast gällande revision/utgåva. LVD utges i luftfartsverkets författningssamlingar LFS.

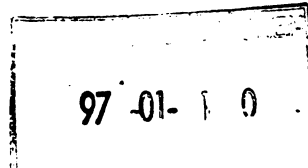
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PRIORITY LETTER AIRWORTHINESS DIRECTIVE

REGULATORY SUPPORT DIVISION
P.O. BOX 26460
OKLAHOMA CITY, OKLAHOMA 73125-0460

U.S. Department
of Transportation
**Federal Aviation
Administration**

DATE: December 27, 1996
97-01-04



Send to all U.S. owners and operators of Textron Lycoming Models TIO-540-A2C, -J2B, -F2BD, -J2BD, -N2BD, -R2AD, -S1AD, and LTIO-540-J2B, -F2BD, -J2BD, N2BD, -R2AD, and IO-540-M1B5D reciprocating engines, with Superior Air Parts, Inc. Parts Manufacture Approval (PMA) part number SL54000-A1, -A2, -A2P, -A20P, and A21P series replacement cylinder assemblies installed, with serial numbers 001 through 650. These engines are installed on but not limited to the following aircraft: Bellanca DW-1 (Eagle), The New Piper Aircraft Co. PA-31 and PA-32 series, Riley Aircraft Cessna 310 conversion, and Twin Commander Aircraft Corp. 700 series.

This priority letter Airworthiness Directive (AD) is applicable to Textron Lycoming Models TIO-540-A2C, -J2B, -F2BD, -J2BD, -N2BD, -R2AD, -S1AD, and LTIO-540-J2B, -F2BD, -J2BD, N2BD, -R2AD, and IO-540-M1B5D reciprocating engines, with Superior Air Parts, Inc. Parts Manufacture Approval (PMA) part numbers SL54000-A1, -A2, -A2P, -A20P, and A21P replacement cylinder assemblies installed, with serial numbers 001 through 650. This AD is prompted by a report from the Australian Civil Aviation Authority (CAA) of a New Piper Company Model PA31-350 aircraft, with a Textron Lycoming TIO-540 engine installed, that suffered an inflight engine failure. An examination of the engine revealed that a Superior Air Parts, Inc. PMA part numbers SL54000 series replacement cylinder assembly experienced a cylinder head separation. A soap leak check of the other 5 cylinders detected bubbles in 2 cylinders indicating a crack. Superior Air Parts has reported 12 fractured cylinders from the field. The cause of the cylinder head fractures and separations appears to be that the design of the PMA cylinder wall thickness is too thin. This condition, if not corrected, could result in cylinder head separation, inflight loss of power, possible engine failure, and fire.

The FAA has reviewed and approved the technical contents of Superior Air Parts, Inc. Mandatory Service Bulletin (MSB) No. 96-002, Revision A, dated December 17, 1996, that describes procedures for dye penetrant inspections of cylinder assemblies for cracking.

Since an unsafe condition has been identified that is likely to exist or develop on other engines of this same type design, this AD requires the removal of cylinders from engines with 300 or more hours Time in Service (TIS) since installation of the affected cylinder assemblies on the effective date of this AD within 5 hours TIS after the effective date of this AD, and replacement with serviceable parts. For engines with 245 hours or more TIS since installation of the affected cylinder assemblies on the effective date of this AD, this AD requires an initial dye penetrant inspection within 5 hours TIS after the effective date of this AD, followed by repetitive dye penetrant inspections at intervals not to exceed 25 hours TIS until reaching the 300 hours TIS limit, upon which the cylinder assemblies must be removed from service. Cylinder assemblies with less than 245 hours TIS since installation of the affected cylinder assemblies on the effective date of this AD must begin the dye penetrant inspections upon reaching 250 hours TIS since installation of the affected cylinder assemblies. All cylinder assemblies found cracked during the dye penetrant inspections must be removed from service. The actions are required to be accomplished in accordance with the Superior Air Parts Inc., MSB described previously.

This rule is issued under 49 U.S.C. Section 44701 (formerly section 601 of the Federal Aviation Act of 1958) pursuant to the authority delegated to me by the Administrator, and is effective immediately upon receipt of this priority letter.

97-01-04 Textron Lycoming and Superior Air Parts, Inc.: Priority Letter issued on December 27, 1996. Docket No. 96-ANE-43.

Applicability: Textron Lycoming Models TIO-540-A2C, -F2BD, -J2B, -J2BD, -N2BD, -R2AD, -S1AD, and LTIO-540-J2B, -F2BD, -J2BD, N2BD, -R2AD, and IO-540-M1B5D reciprocating engines, with Superior Air Parts, Inc. Parts Manufacture Approval (PMA) part numbers SL54000-A1, -A2, -A2P, -A20P, and A21P replacement cylinder assemblies installed, with serial numbers 001 through 650. These engines are installed on but not limited to the following aircraft: Bellanca DW-1 (Eagle), The New Piper Aircraft Co. PA-31 and PA-32 series, Riley Aircraft Cessna 310 conversion, and Twin Commander Aircraft Corp. 700 series.

Note 1: This airworthiness directive (AD) applies to each engine identified in the preceding applicability provision, regardless of whether it has been modified, altered, or repaired in the area subject to the requirements of this AD. For engines that have been modified, altered, or repaired so that the performance of the requirements of this AD is affected, the owner/operator must request approval for an alternative method of compliance in accordance with paragraph (e) of this AD. The request should include an assessment of the effect of the modification, alteration or repair on the unsafe condition addressed by this AD; and, if the unsafe condition has not been eliminated, the request should include specific proposed actions to address it.

Compliance: Required as indicated, unless accomplished previously.

To prevent cylinder head separation, inflight loss of power, possible engine failure, and fire, accomplish the following:

(a) Within 5 hours Time in Service (TIS) after the effective date of this AD, for engines with 300 or more hours TIS since installation of the affected cylinder assemblies on the effective date of this AD, remove from service affected cylinder assemblies and replace with serviceable parts.

(b) Within 5 hours TIS after the effective date of this AD, for engines with 245 hours but less than 300 hours TIS since installation of the affected cylinder assemblies on the effective date of this AD, accomplish the following:

(1) Perform an initial dye penetrant inspection for cracks in accordance with Superior Air Parts, Inc. Mandatory Service Bulletin (MSB) No. 96-002, Revision A, dated December 17, 1996, or remove and replace with a serviceable part.

(2) Thereafter, perform repetitive dye penetrant inspections for cracks at intervals not to exceed 25 hours TIS since last inspection, in accordance with Superior Air Parts, Inc. MSB No. 96-002, Revision A, dated December 17, 1996, or remove and replace with a serviceable part.

(3) Prior to further flight, remove from service cylinder assemblies found cracked during dye penetrant inspections and replace with serviceable parts.

(4) Upon accumulating 300 hours TIS since installation of the affected cylinder assemblies, prior to further flight remove from service affected cylinder assemblies and replace with serviceable parts.

(c) For engines with less than 245 hours TIS since installation of the affected cylinder assemblies on the effective date of this AD, accomplish the following:

(1) Upon accumulating 250 hours TIS since installation of the affected cylinder assemblies, perform an initial dye penetrant inspection for cracks in accordance with Superior Air Parts, Inc. MSB No. 96-002, Revision A, dated December 17, 1996, or remove and replace with a serviceable part.

(2) Thereafter, perform repetitive dye penetrant inspections for cracks at intervals not to exceed 25 hours TIS since last inspection, in accordance with Superior Air Parts, Inc. MSB No. 96-002, Revision A, dated December 17, 1996, or remove and replace with a serviceable part.

(3) Prior to further flight, remove from service cracked cylinder assemblies and replace with serviceable parts.

(4) Upon accumulating 300 hours TIS since installation of the affected cylinder assemblies, prior to further flight remove from service affected cylinder assemblies and replace with serviceable parts.

(d) For the purpose of this AD, a serviceable part is defined as a cylinder assembly other than a Superior Air Parts, Inc. PMA part number SL54000-A1, -A2, -A2P, -A20P, and A21P replacement cylinder assembly, with serial numbers 001 through 650.

(e) An alternative method of compliance or adjustment of the compliance time that provides an acceptable level of safety may be used if approved by the Manager, Special Certification Office. The request should be forwarded through an appropriate FAA Maintenance Inspector, who may add comments and then send it to the Manager, Special Certification Office.

Note 2: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the Special Certification Office.

(f) Special flight permits in accordance with Sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) may **not** be issued.

(g) Copies of the applicable service information may be obtained from Superior Air Parts, Inc., 14280 Gillis Road, Dallas, TX 75244-3792; telephone (800) 400-5949, fax (972) 702-8723. This information may be examined at the FAA, New England Region, Office of the Assistant Chief Counsel, 12 New England Executive Park, Burlington, MA.

(h) Priority Letter AD 97-01-04, issued December 27, 1996, becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT: M. Monica Merritt, Aerospace Engineer, Special Certification Office, FAA, Rotorcraft Directorate, 2601 Meacham Blvd., Ft. Worth, TX 76137-4298; telephone (817) 222-5196, fax (817) 222-5136.