

LUFTVÄRDIGHETSDIREKTIV (LVD)

D. Flygmotor Teledyne Continental LVD nr 2605 Upphäver LVD 2550

Sektion 2. Utlandstillverkad flygmateriel

TITEL:

Sprickkontroll / byte av motorfästen

GÄLLER:

IO-346A, IO-346B, IO-520C, IO-520CB och IO-550C (se även

Applicability i bifogad kopia av FAA AD 95-03-14).

ÅTGÄRD:

Utför åtgärder angivna i TCM Mandatory Service Bulletin (MSB) nr

M94-9 daterad 21 oktober 1994 eller senare utgåva.

TID FÖR

ATGÄRD:

Inom 50 flygtimmar räknat från detta LVD's utgivningsdatum.

UNDERLAG:

FAA AD 95-03-14.

TCM Mandatory Service Bulletin (MSB) nr M94-9, daterad

21 oktober 1994 eller senare utgåva.

REFERENS:

FAA AD 95-03-14.

UTGIVNINGS-

DATUM:

1995-04-06

LFS: 1995:20

Åtgärd enligt LVD utgör nödvändig förutsättning för ifrågavarende 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 senaste gällande revision/utgåva. LVD utges i luftfartsverkets författningssamlingar LFS.

AIRWORTHINESS DIRECTIVE

FLIGHT STANDARDS SERVICE REGULATORY SUPPORT DIVISION P.O. BOX 26460 OKLAHOMA CITY, OKLAHOMA 73125-0460 U.S. Department of Transportation Federal Aviation Administration

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Federal Aviation Regulations, Part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference FAR Subpart 39.3).

95-03-14 Teledyne Continental Motors: Amendment 39-9150. Docket 94-ANE-57. Supersedes AD 94-09-07, Amendment 39-8896.

Applicability: Teledyne Continental Motors (TCM) engine models IO-346A, IO-346B, IO-520C, IO-520CB, and IO-550C; rebuilt engine model IO-520C with serial numbers (S/N) 287051-R and lower; rebuilt engine model IO-520CB with S/N 282226-R and lower; rebuilt engine model IO-550C with S/N 271742-R and lower; and all factory overhauled IO-520C, IO-520CB, and IO-550C engines with a build date prior to August 6, 1992. These engines are installed on but not limited to Beech model A23, A23A, 95-C55, 95-C55A, D55, D55A, E55, E55A, 58, and 58A airplanes.

Compliance: Required as indicated, unless accomplished previously.

To prevent engine separation from the aircraft due to cracks in the engine mount brackets, accomplish the following:

- (a) For engines with engine mount brackets that have completed at least one engine overhaul or rebuild cycle, or have accumulated 2,500 or more hours time in service (TIS) on the effective date of this airworthiness directive (AD), inspect the lower left engine mount bracket, Part Number (P/N) 630695 or Casting Number (C/N) 630724, for cracks using the dye penetrant techniques specified in this paragraph and in accordance with TCM Mandatory Service Bulletin (MSB) No. MSB94-9, dated October 21, 1994, within the next 50 hours TIS after the effective date of this AD.
- NOTE 1: TCM MSB No. MSB94-9, dated October 21, 1994, differs from TCM MSB No. M92-13, dated September 4, 1992, which was referenced in AD 94-09-07, only in clarification of part identification by utilizing a cross reference table for P/N and C/N.
- NOTE 2: The P/N is ink stamped on the part and may not be visible. The engine mount bracket can be identified by the C/N which is cast in the engine mount bracket.
 - (1) Perform the dye penetrant inspection as follows:
- NOTE: Military Specification MIL-I-6866 and American Society of Testing Materials specifications ASTM E1417-93 and E165-9 contain additional information on dye penetrant inspection processes.
- (i) **Preparation**: clean and dry all parts in such a manner as to leave the surfaces free from grease, oil, soaps, alkalies, and other substances which would interfere with inspection. Vapor degreasing is generally suitable for this purpose.
- (ii) Penetrant Application Procedure: after preparation, spray or brush the parts with the penetrant, and allow to stand for not less than 5 minutes. The effectiveness of the penetrant increases if left standing for a longer time, as the penetrant will reach finer discontinuities.
- (iii) **Penetrant Cleaning**: clean the parts thoroughly using a medium which will remove penetrant from the surfaces of parts; wash with water when the penetrant is water soluble. When other than water soluble penetrants are used, the penetrant shall be removed with a suitable cleaner. Avoid excessive cleaning which would remove the penetrant from discontinuities.
- (iv) **Drying**: dry the parts as thoroughly as possible. Drying of parts may be accomplished by evaporation at room temperature or by placing the parts in a circulating warm air oven or in the air stream of a hot air dryer. Avoid excessive drying time or drying temperatures above 75°C (165°F) to prevent excessive evaporation of the penetrant. If heat is used for drying parts, cool parts to approximately 50°C (120°F) before proceeding to the developing procedure.
- (v) **Developing**: apply the developer to the dry parts as lightly and as evenly as possible, using as thin a coating of developer as is possible. A translucent film is adequate. Mix wet developer by agitation immediately prior to applying it. After applying the developer, take care that no penetrant indication is disturbed or obliterated in subsequent handling.
- (vi) **Examination**: examine the developed penetrant indications in accordance with the dye penetrant manufacturer's instructions. Examine parts for indications of discontinuities open to the surface.
- (vii) Final cleaning: clean the parts following the inspection to remove penetrant and developer.

- NOTE 1: Caution: because of differences among penetrants, take care to ensure that the final cleaner, the penetrant, the penetrant remover, and the developer are suitable for use with each other.
- NOTE 2: Caution: all penetrant materials should be kept as free from moisture as possible.
- NOTE 3: Caution: most penetrants, cleaning agents, and developer suspensions are low flash point material; use caution to prevent fires.
- (2) If no crack is detected, inspect in accordance with paragraph (a) of this AD at intervals not to exceed 500 hours TIS since the last inspection.
- (3) If a crack is detected, prior to further flight replace both the lower left engine mount bracket, P/N 630695 or C/N 630724, and lower right engine mount bracket, P/N 630694 or C/N 630723, with improved design engine mount brackets, P/N 653306 or C/N 653299, and P/N 653305 or C/N 653298, respectively.
- (b) For all engines, replace both the lower left engine mount bracket, P/N 630695 or C/N 630724, and lower right engine mount bracket, P/N 630694 or C/N 630723, with improved design engine mount brackets, P/N 653306 or C/N 653299, and P/N 653305 or C/N 653298, respectively, at the next engine removal after the effective date of this AD.
- (c) Installation of the improved design engine mount brackets, P/N 653306 or C/N 653299, and P/N 653305 or C/N 653298, constitutes terminating action to the inspection requirements of this AD.
- (d) 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, Atlanta Aircraft Certification Office. The request should be forwarded through an appropriate FAA Maintenance Inspector, who may add comments and then send it to the Manager, Atlanta Aircraft Certification Office.
- NOTE: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the Atlanta Aircraft Certification Office.
- (e) Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the aircraft to a location where the inspection may be performed.
 - (f) The inspections and replacement shall be done in accordance with the following service document:

Document No.	Pages .	Date
TCM MSB No. MSB94-9	1-2	October 21, 1994

Total pages: 2.

This incorporation by reference was approved by the Director of the Federal Register in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from Teledyne Continental Motors, P.O. Box 90, Mobile, AL 36601; telephone (334) 438-3411. Copies may be inspected at the FAA, New England Region, Office of the Assistant Chief Counsel, 12 New England Executive Park, Burlington, MA; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

(g) This amendment becomes effective on March 13, 1995.

FOR FURTHER INFORMATION CONTACT:

Jerry Robinette, Aerospace Engineer, Atlanta Aircraft Certification Office, FAA, Small Airplane Directorate, Campus Building, 1701 Columbia Ave., Suite 2-160, College Park, GA 30337-2748; telephone (404) 305-7371, fax (404) 305-7348.