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Sektion 2. Utlandstillverkad flygmateriel

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**TITEL:** Kontroll av cylindrar

**GÄLLER:** TCM O-470 och IO-470 och TCM modell E-165, E-185, E-225, O-470 och IO-470 med S/N angivna i TCM Critical Service Bulletin (CSB) No CSB97-10A daterad 15 juli 1997, installerade i luftfartyg angivna i bifogad kopia av FAA AD 97-21-02.

**ATGÄRD:** Utför åtgärder angivna i FAA AD 97-21-02.

*Anm:* Motorer åtgärdade enligt (a) i FAA AD 97-21-02 är ej berörda.

**TID FÖR ATGÄRD:** Inom 10 flygtimmar räknat från detta LVD's utgivningsdatum.

**UNDERLAG:** FAA AD 97-21-02  
TCM Critical Service Bulletin (CSB) No. CSB97-10A daterad 15 juli 1997 eller senare utgåva.

**REFERENS:** FAA AD 97-21-02

**BESLUTSDATUM:** 1998-04-07

**LFS 1998:21**

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.

Postadress	Gatuadress	Telefonnummer	Telegram Civilair	Telex
601 79 NORRKÖPING	Vikboplan 11	011-192000	Norrköping	62450

## AIRWORTHINESS DIRECTIVE

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 Support 39.3).

**97-21-02 Teledyne Continental Motors:** Amendment 39-10155. Docket No. 97-ANE-39-AD. Supersedes Priority Letter AD 97-15-01, issued July 17, 1997.

**Applicability:** Teledyne Continental Motors (TCM) new and rebuilt Model O-470 and IO-470 series reciprocating engines with serial numbers (S/Ns) listed in Table 1 of TCM Critical Service Bulletin (CSB) No. CSB97-10A, dated July 15, 1997; and TCM Model E-165, E-185, E-225, O-470 and IO-470 series reciprocating engines, regardless of S/N, which have cylinder(s) with part number and purchase date as shown in Table 2 of TCM CSB No. CSB97-10A, dated July 15, 1997. These engines are installed on but not limited to the following aircraft: Bellanca Models 14-19-2 and 14-19-3; Cessna Models 180, 180A through K, 182, 182A through R, 185, 185A through E, 188, 188A, 188B, 210, 210A through C, 210-5 (205), 210-5A (205A), 305A, 305C, 305D, 305F, 310, 310A through Q, E310H, E310J, 310J-1; Frontier-Aerospace, Inc. (Fletcher) Models FU-24 and FU-24A; Luscombe Aircraft Corporation Model 11A; Navion models Navion, Navion A, and Navion D through G; Prop-Jets, Inc. Models 200, 200A through C; Raytheon (formerly Beech) Models 35, A35 through P35, 35R, 35-33, 35-A355, 35-B33, 35-C33, E33, F33, 45 (YT-34), A45 (T-34A, B-45), D45 (T-34B), 95-55, 95-55A, 95-B55, 95-B55A and 95-B55B; Reims models F182P and F182Q; and Twin Commander Aircraft, Inc. Model 500-A.

**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 (d) 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 extreme side loading of the piston, and consequent failure of the piston and engine, accomplish the following:

(a) Operators that have removed affected cylinders in accordance with priority letter AD 97-15-01 and TCM CSB No. CSB97-10, dated June 19, 1997, are in compliance with this AD and no further action is required.

(b) For the TCM O-470 and IO-470 series engines listed by S/N in Table 1 of TCM CSB No. CSB97-10A, dated July 15, 1997, within 10 hours time in service (TIS) after the effective date of this AD, accomplish the following:

(1) Remove from service the cylinders, six each, and the piston pins, six each, in accordance with the Inspection Instructions, Part 2-1(a), of TCM CSB No. CSB97-10A, dated July 15, 1997.

(2) Obtain serviceable replacement parts and reassemble the engine in accordance with the Inspection Instructions, Part 2-2, of TCM CSB No. CSB97-10A, dated July 15, 1997.

(c) For the E-165, E-185, E-225, series engines and those O-470 and IO-470 series engines not listed by S/N in Table 1 of TCM CSB No. CSB97-10A dated July 15, 1997, within 10 hours TIS after the effective date of this AD, accomplish the following:

(1) Determine from engine log books or maintenance records if a cylinder has been replaced with a cylinder purchased in the time frames shown in Table 2 of TCM CSB No. CSB97-10A, dated July 15, 1997.

(2) If a cylinder was **not** replaced with a cylinder purchased during those time frames listed in the CSB, or if a cylinder is identified with the letter "M" or "P" steel stamped after the cylinder position number, as cylinders marked with "M" or "P" have a surface finish that has been found to be within specification, no further action is required. The cylinder position number is located at the 12 o'clock position on the cylinder mounting flange.

(3) If a cylinder **has** been replaced with a cylinder purchased during those time frames listed in the CSB, remove from service the affected cylinders and piston pins in accordance with the Inspection Instructions, Part 2-1(a) of TCM CSB No. CSB97-10A, dated July 15, 1997.

(4) Obtain serviceable replacement parts and reassemble the engine in accordance with the Inspection Instructions, Part 2-2, of TCM CSB No. CSB97-10A, dated July 15, 1997.

(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. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Atlanta Aircraft 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 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 requirements of this AD can be accomplished.

(f) The actions required by this AD shall be done in accordance with the following TCM CSB:

Document No.	Pages	Date
CSB97-10A	1-11	July 15, 1997

Total pages: 11.

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, PO Box 90, Mobile, AL 36601; telephone toll free (888) 826-5874. 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 supersedes priority letter AD 97-15-01, issued July 17, 1997.

(h) This amendment becomes effective on October 27, 1997.

**FOR FURTHER INFORMATION CONTACT:**

Jerry Robinette, Aerospace Engineer, Atlanta Aircraft Certification Office, FAA, Small Airplane Directorate, 1895 Phoenix Boulevard, One Crown Center, Suite 450, Atlanta, GA 30349; telephone (770) 703-6096, fax (770) 703-6097.