

PŘÍKAZ K ZACHOVÁNÍ LETOVÉ ZPŮSOBILOSTI

CAA-AD-T-053/1999

Datum vydání: 13. května 1999

MOTOR - KLIKOVÝ HRÍDEL - KONTROLA/VÝMĚNA

Týká se: motorů vyrobených firmou Teledyne Continental Motors (TCM) následujících sérií O-470, IO-470, TSIO-470, IO-520, TSIO-520, LTSIO-520, IO-550, TSIO-550 a TSIOL-550.

Důvod vydání: provést prohlídky klikových hřídelů s cílem zabránit poruše zaviněné trhlinami, což může vést k úplné ztrátě výkonu motoru a popřípadě k jeho vysazení v průběhu letu.

Datum účinnosti: ihned po obdržení.

Provést v termínech: Jak je popsáno v FAA PL AD 99-09-17 (příloha tohoto PZZ).

Postup provedení prací: Dle pokynů v FAA PL AD 99-09-17.

Poznámky: Provedení tohoto PZZ musí být zapsáno do motorové knihy. Případné dotazy týkající se tohoto PZZ adresujte na ÚCL technický inspektorát - Ing. J. Beneš. Pokud to vyžaduje povaha tohoto PZZ musí být zapracováno do příslušné části dokumentace pro obsluhu, údržbu a opravy letadla. Tento PZZ byl vypracován na základě FAA AD 99-09-17.

Ing. Pavel MATOUŠEK

Ředitel technického inspektorátu

Úřad pro civilní letectví

99-09-17 TELEDYNE CONTINENTAL MOTORS: Priority Letter issued on April 22, 1999. Docket No. 99-NE-28-AD.

Applicability: Teledyne Continental Motors (TCM) O-470, IO-470, TSIO-470, IO-520, TSIO-520, LTSIO-520, IO-550, TSIO-550 and TSIOL-550 series new and rebuilt reciprocating engines, manufactured between January 1, 1998, and December 31, 1998, inclusive, listed by serial number (S/N) in TCM Critical Service Bulletin (CSB) 99-3, dated April 19, 1999, and any other engine from the above series that has had a new crankshaft installed that was manufactured between January 1, 1998, and December 31, 1998, inclusive.

Note 1: Engine S/Ns can be found in log books or other maintenance records. For those engines that were overhauled in the field with factory new crankshafts, crankshaft S/Ns should be shown in work orders, log books, or other maintenance records.

Note 2: This Priority Letter 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 crankshaft failure due to No. 2 and No. 5 cheek cracks, which could result in total engine power loss, in-flight engine failure, and possible forced landing, accomplish the following:

(a) For those engines listed by S/N on pages 3 through 12 of TCM CSB 99-3 dated April 19, 1999, with 300 hours or less time-in-service (TIS) upon receipt of this priority letter AD, perform the crankshaft visual and ultrasonic (UT) inspections within 10 hours TIS after receipt of this priority letter AD, in accordance with sections A and B of TCM CSB 99-3, dated April 19, 1999. These inspections must be performed by TCM representatives.

(1) If a crack is found, replace the crankshaft with a serviceable crankshaft of the same part number (P/N) prior to further flight.

(2) If no crack is found, reassemble the engine and return it to service.

(b) For those engines listed by S/N on pages 3 through 12 of TCM CSB 99-3, dated April 19, 1999, with more than 300 hours TIS upon receipt of this priority letter AD, perform the crankshaft visual and UT inspections at the next maintenance event, or within 50 hours TIS after receipt of this priority letter AD, whichever occurs first, in accordance with sections A and B of TCM CSB 99-3, dated April 19, 1999. These inspections must be performed by TCM representatives.

(1) If a crack is found, replace the crankshaft with a serviceable crankshaft of the same P/N prior to further flight.

(2) If no crack is found, reassemble the engine and return it to service.

(c) For any other engine with a crankshaft installed that was manufactured between January 1, 1998, and December 31, 1998, with 300 hours or less TIS upon receipt of this priority letter AD, perform the crankshaft visual and UT inspections within 10 hours TIS after receipt of this priority letter AD, in accordance with sections A and B of TCM CSB 99-3, dated April 19, 1999. These inspections must be performed by TCM representatives.

(1) If a crack is found, replace the crankshaft with a serviceable crankshaft of the same P/N prior to further flight.

(2) If no crack is found, reassemble the engine and return it to service.

(d) For any other engine with a crankshaft installed that was manufactured between January 1, 1998, and December 31, 1998, with more than 300 hours TIS upon receipt of this priority letter AD, perform the crankshaft visual and UT inspections at the next maintenance event, or within 50 hours TIS after receipt of this priority letter AD, whichever occurs first, in accordance with sections A and B of TCM CSB 99-3, dated April 19, 1999. These inspections must be performed by TCM representatives.

(1) If a crack is found, replace the crankshaft with a serviceable crankshaft of the same P/N prior to further flight.

(2) If no crack is found, reassemble the engine and return it to service.

Note 3: Engines and crankshafts that are the subject of this priority letter AD were manufactured between January 1, 1998, and December 31, 1998, inclusive. Purchase and delivery dates of engines/crankshafts produced in December 1998 could have been in the January/February 1999 time frame and are therefore affected by this AD. Likewise, engines/crankshafts purchased/delivered in January/February 1998 could have been December 1997 production and are not affected by this AD. Use the S/N of the engine or crankshaft to determine applicability: engine S/Ns are listed in TCM CSB 99-3, dated April 19, 1999, while the crankshafts, not listed by S/N, were manufactured during 1998. See Note 4 for information on identifying crankshafts.

Note 4: The following information is provided to avoid confusion in crankshaft S/N interpretation. A typical crankshaft S/N could be C229805N. The first letter is the month of manufacture beginning with A – January and ending with L – December; therefore, C is March. The next two digits are the day of the month; in this example, the 22nd. The next two digits are the year; in this example 1998. The final two digits are the sequential number of the crankshaft for a given day; in the example, this was the 5th crankshaft produced that day. The final letter, "N", identifies this as a crankshaft S/N. Therefore, for this example: we have the 5th crankshaft produced on March 22, 1998. For all practical purposes, you only need look for the year, i.e. 98 (fourth and fifth positions in the S/N sequence) because that will determine AD effectivity. The crankshaft S/N is stamped on the edge of the propeller flange.

Note 5: The engine S/Ns listed in TCM CSB 99-3 contain only the numerical portion of the S/N. Rebuilt engines will have the letter "R" at the end of the six digit numerical portion while new engines use only the six digit numerical sequence.

(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, 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 6: 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.

(f) 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.

(g) Copies of the applicable service information may be obtained from Teledyne Continental Motors, PO Box 90, Mobile, AL 36601; telephone toll free (888) 200-7565. This information may be examined at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA.

(h) Priority Letter AD 99-09-17, issued April 22, 1999, becomes effective upon receipt.

FOR FURTHER INFORMATION CONTACT:

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