

PŘÍKAZ K ZACHOVÁNÍ LETOVÉ ZPŮSOBILOSTI

Číslo: CAA-AD-035/2000

Datum vydání: 11. dubna 2000

MOTOR - VYSOKOTLAKÁ TURBÍNA - KONTROLA

Týká se: motorů vyrobených firmou CFM International (CFMI) - CFM56-2, -2A, -2B, -3, -3B a -3C, instalovaných na letadlech McDonnell Douglas DC-8, Boeing 737, Boeing E-3, E-6 a KC-135 (Military).

Datum účinnosti: 18. května 2000

Provést v termínech: Jak je popsáno v FAA AD 2000-05-22 (příloha tohoto PZZ).

Postup provedení prací: Dle FAA AD 2000-05-22.

Poznámky: Provedení tohoto PZZ musí být zapsáno do motorové knihy. Případné dotazy týkající se tohoto PZZ adresujte na ÚCL technický inspektorát - Ing. Toman. Pokud to vyžaduje povaha tohoto PZZ, musí být zapracován do příslušné části dokumentace pro obsluhu, údržbu a opravy letadla. Tento PZZ byl vypracován na základě FAA AD 2000-05-22.

Ing. Pavel MATOUŠEK

Ředitel technického inspektorátu

Úřad pro civilní letectví

2000-05-22 CFM INTERNATIONAL: Amendment 39-11632. Docket 99-ANE-57-AD.

Applicability: CFM International (CFMI) CFM56-2, -2A, -2B, -3, -3B, and -3C series turbofan engines, installed on but not limited to McDonnell Douglas DC-8 series, Boeing 737 series, as well as Boeing E-3, E-6, and KC-135 (Military) series airplanes.

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 (c) 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 detect cracks in the bolt holes of high pressure turbine (HPT) front rotating air seals, which can lead to an uncontained engine failure and damage to the aircraft, accomplish the following:

One-Time Eddy Current Inspections (ECI) Based Upon Engine Model and Thrust Ratings

(a) Perform a one-time ECI for cracks in the bolt holes of HPT front rotating air seals, part number 1282M72P03, and, if necessary, replace with serviceable parts, as follows:

CFM56-3 Series

- (1) For CFM56-3-B1 engine nameplate models with HPT front rotating air seals listed by serial number (S/N) in paragraph 1.A(1), Effectivity, of CFMI CFM56-3/3B/3C Service Bulletin (SB) 72-922, dated November 12, 1999, inspect in accordance with the procedures described in Paragraph 2, Accomplishment Instructions, of that SB, and in accordance with the intervals listed in paragraph (a)(4)(i) or (a)(4)(ii) of this AD, as applicable.
- (2) For CFM56-3B-2 models with maximum thrust limited to 20,100 or 18,500 pounds by the flight management computer (FMC) and aircraft flight manual (AFM), with HPT front rotating air seals listed by S/N in paragraph 1.A(1), Effectivity, of CFMI CFM56-3/3B/3C SB 72-922, dated November 12, 1999, inspect in accordance with the procedures described in Paragraph 2, Accomplishment Instructions, of that SB, and in accordance with the intervals listed in paragraph (a)(4)(i) or (a)(4)(ii) of this AD, as applicable.
- (3) For CFM56-3C-1 models with maximum thrust limited to 20,100 or 18,500 pounds by the FMC and AFM, with HPT front rotating air seals listed by S/N in paragraph 1.A(1), Effectivity, of CFMI CFM56-3/3B/3C SB 72-922, dated November 12, 1999, inspect in accordance with the procedures described in Paragraph 2, Accomplishment Instructions, of that SB, and in accordance with the intervals listed in paragraph (a)(4)(i) or (a)(4)(ii), as applicable.

Compliance Times for (a)(1), (a)(2), and (a)(3)

- (4) Use the following compliance times for the engine models listed in paragraphs (a)(1), (a)(2), and (a)(3) of this AD:
 - (i) For HPT front rotating air seals with less than 10,000 cycles since new (CSN) on the effective date of this AD, inspect at the next engine shop visit after accumulating 4,000 CSN, not to exceed 13,000 CSN.
 - (ii) For HPT front rotating air seals with 10,000 CSN or more on the effective date of this AD, inspect at the next engine shop visit prior to accumulating 3,000 cycles-in-service (CIS) after the effective date of this AD, or prior to accumulating 20,000 CSN, whichever occurs first.
- (5) For CFM56-3B-2 engine nameplate models, with HPT front rotating air seals listed by S/N in paragraph 1.A(1), Effectivity, of CFMI CFM56-3/3B/3C SB 72-922, dated November 12, 1999, inspect in accordance with the procedures described in Paragraph 2, Accomplishment Instructions, of that SB, and in accordance with the intervals listed in paragraphs (a)(7)(i), or (a)(7)(ii) of this AD, as applicable.
- (6) For CFM56-3C-1 models with maximum thrust limited to 22,100 pounds by the FMC and AFM, with HPT front rotating air seals listed by S/N in paragraph 1.A(1), Effectivity, of CFMI CFM56-3/3B/3C SB 72-922, dated November 12, 1999, inspect in accordance with the procedures described in Paragraph 2, Accomplishment Instructions, of that SB, and in accordance with the intervals listed in paragraphs (a)(7)(i), or (a)(7)(ii) of this AD, as applicable.

Compliance Times for (a)(5) and (a)(6)

- (7) Use the following compliance times for the engine models listed in paragraphs (a)(5) and (a)(6) of this AD:
 - (i) For HPT front rotating air seals with less than 9,800 CSN on the effective date of this AD, inspect at the next engine shop visit after accumulating 4,000 CSN, not to exceed 12,800 CSN.
 - (ii) For HPT front rotating air seals with 9,800 CSN or more on the effective date of this AD, inspect at the next engine shop visit prior to accumulating 3,000 CIS after the effective date of this AD, or prior to accumulating 15,800 CSN, whichever occurs first.
- (8) For CFM56-3C-1 engine nameplate models, with HPT front rotating air seals listed by S/N in paragraph 1.A(1), Effectivity, of CFMI CFM56-3/3B/3C SB 72-922, dated November 12, 1999, inspect in accordance with the procedures described in Paragraph 2, Accomplishment Instructions, of that SB, as

follows:

(i) For HPT front rotating air seals with less than 9,100 CSN on the effective date of this AD, inspect at the next engine shop visit after accumulating 4,000 CSN, not to exceed 12,100 CSN.

(ii) For HPT front rotating air seals with 9,100 CSN or more on the effective date of this AD, inspect at the next engine shop visit prior to accumulating 3,000 CIS after the effective date of this AD, or prior to accumulating 15,100 CSN, whichever occurs first.

Uninstalled Parts

(9) Prior to installation in CFM56-3/3B/3C series engines, inspect uninstalled parts listed by S/N in paragraph 1.A(1), Effectivity, of CFMI CFM56-3/3B/3C SB 72-922, dated November 12, 1999, in accordance with Paragraph 2, Accomplishment Instructions, of that SB.

CFM56-2 Series

(10) For CFM56-2 engine nameplate models, with HPT front rotating air seals listed by S/N in paragraph 1.A(1), Effectivity, of CFMI CFM56-2 SB 72-869, dated November 12, 1999, inspect in accordance with the procedures described in Paragraph 2, Accomplishment Instructions, of that SB, as follows:

(i) For HPT front rotating air seals with less than 9,100 CSN on the effective date of this AD, inspect at the next engine shop visit after accumulating 4,000 CSN, not to exceed 10,100 CSN.

(ii) For HPT front rotating air seals with 9,100 CSN or more on the effective date of this AD, inspect at the next engine shop visit prior to accumulating 1,000 CIS after the effective date of this AD, or prior to accumulating 13,100 CSN, whichever occurs first.

Uninstalled Parts

(11) Prior to installation in CFM56-2 series engines, inspect uninstalled parts listed by S/N in paragraph 1.A(1), Effectivity, of CFMI CFM56-2 SB 72-869, dated November 12, 1999, in accordance with Paragraph 2, Accomplishment Instructions, of that SB.

CFM56-2A Series

(12) For CFM56-2A engine nameplate models, with HPT front rotating air seals listed by S/N in paragraph 1.A(1), Effectivity, of CFM56-2A SB 72-470, dated November 12, 1999, inspect in accordance with the procedures described in Paragraph 2, Accomplishment Instructions, of that SB, after accumulating 3,000 CSN but before accumulating 6,000 CSN.

Uninstalled Parts

(13) Prior to installation in CFM56-2A series engines, inspect uninstalled parts listed by S/N in paragraph 1.A(1), Effectivity, of CFMI CFM56-2A SB 72-470, dated November 12, 1999, in accordance with the procedures described in Paragraph 2, Accomplishment Instructions, of that SB.

CFM56-2B Series

(14) For CFM56-2B engine nameplate models, with HPT front rotating air seals listed by S/N in paragraph 1.A(1), Effectivity, of CFM56-2B SB 72-611, dated November 12, 1999, inspect in accordance with the procedures described in Paragraph 2, Accomplishment Instructions, of that SB, after accumulating 3,000 CSN but before accumulating 6,000 CSN.

Uninstalled Parts

(15) Prior to installation in CFM56-2B series engines, inspect uninstalled parts listed by S/N in paragraph 1.A(1), Effectivity, of CFMI CFM56-2B SB 72-611, dated November 12, 1999, in accordance with the procedures described in Paragraph 2, Accomplishment Instructions, of that SB.

Replace Cracked Parts

(16) Prior to further flight, replace cracked HPT front rotating air seals with serviceable parts.

Definition

(b) For the purpose of this AD, an engine shop visit is defined as the next time, after the effective date of this AD, an engine is in the shop for the purpose of maintenance or inspection.

Alternative Methods of Compliance

(c) 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, Engine Certification Office (ECO). Operators shall submit their request through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, ECO.

NOTE 2: Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the ECO.

Incorporation by Reference

(d) The inspections shall be done in accordance with the following CFMI SB's: CFMI CFM 56-3/3B/3C SB 72-922, dated November 12, 1999; CFMI CFM56-2 SB 72-869, dated November 12, 1999; CFM56-2A SB 72-470, dated November 12, 1999, and CFM56-2B SB 72-611, dated November 12, 1999. 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 CFM International, Technical Publications Department, 1 Neumann Way, Cincinnati, OH 45215; telephone (513) 552-2800, fax (513) 552-2816. Copies may be inspected at the FAA, New England Region, Office of the Regional 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.

Ferry Flights

(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 requirements of this AD can be accomplished.

(f) This amendment becomes effective on May 2, 2000.

FOR FURTHER INFORMATION CONTACT:

James Rosa, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7152, fax (781) 238-7199.

Issued in Burlington, Massachusetts, on March 7, 2000.

David A. Downey, Assistant Manager, Engine and Propeller Directorate, Aircraft Certification Service.