

AIRWORTHINESS DIRECTIVE

released by DIRECTION GENERALE DE L'AVIATION CIVILE

Inspection and/or modifications described below are mandatory. No person may operate a product to which this Airworthiness Directive applies except in accordance with the requirements of this Airworthiness Directive.

Translation of 'Consigne de Navigabilité' ref. : 97-010(B) R1
In case of any difficulty, reference should be made to the French original issue.

CFMI

CFM 56-2 /-3 /-5 jet engines

Life limits, low pressure turbine

Applicability : CFM International (CFMI) CFM 56-2 /-2A /-2B /-3 /-3B /-3C /-5 series turbofan engines installed on, but not limited to AIRBUS A319 and A320 series, McDONNELL DOUGLAS DC-8 series, and BOEING 737.

Compliance : required as indicated, unless accomplished previously.

To prevent a low cycle fatigue (LCF) failure of the low pressure turbine rotor (LPTR) stub shaft and conical support, which could result in an uncontained engine failure and damage to the aircraft, accomplish the following :

- A** - Reidentify CFM 56-2A LPTR stub shafts, Part Numbers (P/N) 301-330-623-0 and 301-330-624-0, with Serial Numbers (S/N) listed in Table 2 of CFMI CFM 56-2A Service Bulletin (SB) No. 72-338, dated November 25, 1993, in accordance with the Accomplishment Instructions of CFMI CFM 56-2A SB No. 72-338, dated November 25, 1993, at the next piece-part exposure after the effective date of this Airworthiness Directive, but not to exceed 6,400 cycles since new (CSN).
- B** - Reidentify CFM 56-2B LPTR stub shafts, P/N 301-330-618-0, 301-330-619-0, 301-330-623-0, and 301-330-624-0, with S/N listed in Table 2 of CFMI CFM 56-2B SB No. 72-476, dated December 7, 1993, in accordance with the Accomplishment Instructions of CFMI CFM 56-2B SB No. 72-476, dated December 7, 1993, at the next piece-part exposure after the effective date of this Airworthiness Directive, but not to exceed 8,300 CSN.
- C** - Reidentify CFM 56-2 LPTR conical supports, P/N 305-056-106-0, 305-056-109-0, 305-056-110-0, and 305-056-111-0, with S/N listed in Table 1 of CFMI CFM 56-2 SB No. 72-728, Revision 2, dated December 21, 1994, in accordance with the Accomplishment Instructions of CFMI CFM 56-2 SB No. 72-728, Revision 2, dated December 21, 1994, at the next piece-part exposure after the effective date of this Airworthiness Directive, but not to exceed 18,000 CSN.
- D** - Reidentify CFM 56-2A LPTR conical supports, P/N 305-056-110-0 and 305-056-111-0, with S/N listed in Table 1 of CFMI CFM 56-2A SB No. 72-338, dated November 25, 1993, in accordance with the Accomplishment Instructions of CFMI CFM 56-2A SB No. 72-338, dated November 25, 1993, at the next piece-part exposure after the effective date of this Airworthiness Directive, but not to exceed 5,700 CSN.
- E** - Reidentify CFM 56-2B LPTR conical supports, P/N 305-056-106-0, 305-056-109-0, 305-056-110-0, and 305-056-111-0, with S/N listed in Table 1 of CFMI CFM 56-2B SB No. 72-476, dated December 7, 1993, in accordance with the Accomplishment Instructions of CFMI CFM 56-2B SB No. 72-476, dated December 7, 1993, at the next piece-part exposure after the effective date of this Airworthiness Directive, but not to exceed 8,700 CSN.

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February 26, 1997

CFMI
CFM 56-2 / -3 / -5 jet engines

97-010(B) R1

- F -** Reidentify CFM 56-3 /-3B /-3C LPTR stub shafts, P/N 301-330-618-0, 301-330-619-0, 301-330-623-0, and 301-330-624-0, with S/N listed in Table 2 of CFMI CFM 56-3 /-3B /-3C SB No. 72-695, dated November 25, 1993, in accordance with the Accomplishment Instructions of CFMI CFM 56-3 /-3B /-3C SB No. 72-695, dated November 25, 1993, as follows :
- F.1.** For CFM 56-3 /-3B /-3C series engines operating at the Category A thrust rating, at the next piece-part exposure after the effective date of this Airworthiness Directive, but not to exceed a total Category A thrust rating life of 20,000 CSN.
- F.2.** For CFM 56-3B /-3C series engines operating at the Category B thrust rating, at the next piece-part exposure after the effective date of this Airworthiness Directive, but not to exceed a total Category B thrust rating life of 11,400 CSN.
- F.3.** For CFM 56-3C series engines operating at the Category C thrust rating, at the next piece-part exposure after the effective date of this Airworthiness Directive, but not to exceed a total Category C thrust rating life of 7,900 CSN.
- G -** Reidentify CFM 56-3 /-3B /-3C LPTR conical supports, P/N 305-056-106-0, 305-056-109-0, 305-056-110-0, and 305-056-111-0, with S/N listed in Table 1 of CFMI 56-3 /-3B /-3C SB No. 72-695, dated November 25, 1993, in accordance with the Accomplishment Instructions of CFMI CFM 56-3 /-3B /-3C SB No. 72-695, dated November 25, 1993, as follows :
- G.1.** For CFM 56-3 /-3B /-3C series engines operating at the Category A thrust rating, at the next piece-part exposure after the effective date of this Airworthiness Directive, but not to exceed a total Category A thrust rating life of 12,100 CSN.
- G.2.** For CFM 56-3B /-3C series engines operating at the Category B thrust rating, at the next piece-part exposure after the effective date of this Airworthiness Directive, but not to exceed a total Category B thrust rating life of 9,300 CSN.
- G.3.** For CFM 56-3C series engines operating at the Category C thrust rating, at the next piece-part exposure after the effective date of this Airworthiness Directive, but not to exceed a total Category C thrust rating life of 5,700 CSN.
- H -** Remove from service CFM 56-5 LPTR conical support, P/N 336-000-305-0, prior to accumulating 11,300 CSN.
- I -** This action establishes new LCF retirement lives for parts reidentified in accordance with paragraphs (a) through (g) of this Airworthiness Directive, and the new LCF retirement life noted in paragraph (h) of this Airworthiness Directive, which are published in Chapter 05 of the applicable engine shop manual (CFM 56-2 CFMI-TP.SM.4, CFM 56-2A /-2B CFMI-TP.SM.6, CFM 56-3 CFMI-TP.SM-5, and CFM 56-5 CFMI-TP.SM.7).
- J -** The Category A, B, and C thrust rating noted in paragraphs (f) and (g) of this Airworthiness Directive are defined in Chapter 05 of CFM 56-3 engine shop manual, CFMI-TP.SM.5.
- K -** Compliance with FAA AD 96-18-16 is an acceptable mean to meet the requirements of the present Airworthiness Directive.

Ref. : Service Bulletin CFM 56-2 72-728
CFM 56-2A 72-338
CFM 56-2B 72-476
CFM 56-3 /-3B /-3C 72-695

This Revision 1 replaces the original Airworthiness Directive 97-010(B) dated January 02, 1997.

EFFECTIVE DATES :

Original AD : JANUARY 11, 1997
Revision 1 : MARCH 08, 1997