## PŘÍKAZ K ZACHOVÁNÍ LETOVÉ ZPŮSOBILOSTI

CAA-AD-2-036/98

Datum vydání: 29.04.1998

Datum účinnosti: 05.05.1998

98-07-02 CFM International: Amendment 39-10420. Docket 98-ANE-16-AD.

Applicability: CFM International CFM56-2, -3, -3B, and 3C series turbofan engines installed on, but not limited to, McDonnell Douglas DC-8 series and Boeing 737 series aircraft.

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 (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 rubs between the outer cone of the No. 3 bearing rear stationary air/oil seal and the high pressure compressor rotor (HPCR) stage 1-2 spool, which could result in a potential uncontained failure of the HPCR stage 1-2 spool, and damage to the aircraft, accomplish the following:

- (a) For CFM International CFM56-2 series engines, with high pressure compressor rotor (HPCR) stage 1-2 spool, Part Number (P/N) 9992M60G07, with part Serial Number (S/N) listed in CFM56-2 Service Bulletin (SB) No. 72-825, dated January 23, 1998, installed, accomplish the following:
- (1) Remove the HPCR stage 1-2 spool from service at the next engine shop visit after the effective date of this AD, or prior to accumulating 2,000 cycles in service (CIS) since the engine shop visit that first confirmed the rub event, whichever occurs first, in accordance with CFM International CFM56-2 SB No. 72-825, dated January 23, 1998, and replace with a serviceable HPCR stage 1-2 spool.
- (2) Install No. 3 bearing rear air/oil seal retention bushings in accordance with CFM International CFM56-2 SB No. 72-823, dated August 12, 1997.
- (b) For CFM International CFM56-3, -3B, and -3C series engines, with HPCR stage 1-2 spool, P/N 1589M66G02, with part S/Ns listed in CFM International CFM56-3/-3B/-3C SB No. 72-856, dated January 23, 1998, installed, accomplish the following:
- (1) Remove the HPCR stage 1-2 spool from service at the next engine shop visit after the effective date of this AD, or prior to accumulating 2,000 CIS since the engine shop visit that first confirmed the rub event, whichever occurs first, in accordance with CFM56-3/-3B/-3C SB No. 72-856, dated January 23, 1998, and replace with a serviceable HPCR stage 1-2 spool.
- (2) Install No. 3 bearing rear air/oil seal retention bushings in accordance with CFM International CFM56-3/-3B/-3C SB No. 72-855, Revision 1, dated February 9, 1998.
- (c) For CFM56-3, -3B, and -3C engines, having any of the following engine S/Ns: 856692, 856709, 856713, 856699, 856673, 856691, 856694, 856696, 856697,

856746, 856780, 857669, 857685, 857686, 857704, and 859115; accomplish the following within 15 days after the effective date of this AD:

- (1) Remove from service No. 3 bearing rear stationary air/oil seal, P/N 1663M91G03, and replace with a serviceable No. 3 bearing rear stationary air/oil seals removed in accordance with this paragraph are unserviceable.
- (2) Install No. 3 bearing rear air/oil seal retention bushings in accordance with CFM International CFM56-3/-3B/-3C SB No. 72-855, Revision 1, dated February 9, 1998.
- (d) For the purpose of this AD, the following definitions apply:
- (1) A shop visit is defined as the induction of an engine into the shop for any maintenance.
- (2) A serviceable HPCR stage 1-2 spool is defined as a spool without a rub or scratch indication.
- (3) A serviceable No. 3 bearing rear stationary air/oil seal is defined as a new seal, P/N 1663M91G03, that is not identified by S/N in Table 1 of this AD.

Table 1 No. 3 Bearing Rear Stationary Air/Oil Seal S/Ns

## P/N 1663M91G03

| CTD81631 | CTD81907 | CTD81908 | CTD81998 |
|----------|----------|----------|----------|
| CTD82004 | CTD82132 | CTD82208 | CTD82210 |
| CTD82212 | CTD82213 | CTD82271 | CTD82295 |
| CTD82297 | CTD82298 | CTD82300 | CTD82304 |
| CTD82457 | CTD82759 | CTD82766 | CTD82767 |
| CTD82788 | CTD82817 | CTD82822 | CTD82854 |
| CTD82855 | CTD82856 | CTD82857 | CTD82859 |
| CTD82962 | CTD83232 | CTD83474 | CTD83837 |
| CTD83839 | CTD84100 | CTD84138 | CTD84140 |
| CTD84141 | CTD84143 | CTD84144 | CTD84145 |
| CTD84148 | CTD84203 | CTD84206 | CTD84207 |
| CTD84258 | CTD84262 | CTD84360 | CTD84363 |
| CTD84604 | CTD84712 | CTD84741 | CTD85147 |
| CTD85148 | CTD85149 | CTD85161 | CTD85162 |
| CTD85166 | CTD85168 | CTD85169 | CTD85170 |
| CTD85172 | CTD85348 | CTD85349 | CTD85351 |

CTD85355

- (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, Engine 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, Engine 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 Engine 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) The actions required by this AD shall be done in accordance with the following CFM International SBs:

| Document No.                   | Pages | Revision | Date             |
|--------------------------------|-------|----------|------------------|
| CFM56-2 SB No. 72-823          | 1-12  | Original | August 12, 1997  |
| Total pages: 12.               |       |          |                  |
| CFM56-2 SB No. 72-825          | 1-7   | Original | January 23, 1998 |
| Total pages: 7.                |       |          |                  |
| CFM56-3/-3B/-3C, SB No. 72-856 | 1-8   | Original | January 23, 1998 |
| Total pages: 8.                |       |          |                  |
| CFM56-3/-3B/-3C, SB No. 72-855 | 1-16  | 1        | February 9, 1998 |
| Total pages: 16.               |       |          |                  |

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) 552-2981, fax (513) 552-2816. Copies may be inspected at the FAA, New England Region, Office of 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.

(h) This amendment becomes effective on March 30, 1998.

## FOR FURTHER INFORMATION CONTACT:

Robert Ganley, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7138; fax (781) 238-7199.

Případné dotazy konzultujte s pracovníkem ÚCL Technický inspektorát: Ing.Toman tf.č.2011/27