

PŘÍKAZ K ZACHOVÁNÍ LETOVÉ ZPŮSOBILOSTI

CAA-AD-087/2000

Datum vydání: 31. srpna 2000

MOTOR - ROTOR VYSOKOTLAKÉHO KOMPRESORU - KONTROLA

Týká se: motorů vyrobených firmou General Electric Company (GE) CF6-45, -50, -80A, -80C2 a -80E1, se zastavěným rotorem vysokotlakého kompresoru (HPCR) stupeň 3-9, níže uvedených katalogových čísel (P/Ns). Tyto motory mohou být instalovány na těchto letadlech: Airbus A300, A310 a A330, Boeing 747 a 767 a McDonnell Douglas DC-10 a MD-11, ale nejen na těchto.

Engine Model	HPCR 3-9 Spool P/N
CF6-45/50 Series Engines	9136M89G02, 9136M89G03, 9136M89G06, 9136M89G07 9136M89G08, 9136M89G09, 9136M89G17, 9136M89G18, 9136M89G19, 9136M89G21, 9136M89G22, 9136M89G27, 9273M14G01, 9331M29G01, 9253M85G01, 9253M85G02
CF6-80A Series Engines	9136M89G10, 9136M89G11, 9136M89G20, 9136M89G21, 9136M89G22, 9136M89G27
CF6-80C2 Series Engines	1333M66G01, 1333M66G03, 1333M66G07, 1333M66G09, 1781M52P01, 1781M53G01, 1854M95P01, 1854M95P02, 1854M95P03, 1854M95P04, 1854M95P05, 1854M95P06, 1854M95P07, 9380M28P05
CF6-80E1 Series Engines	1669M22G01, 1669M22G03, 1782M22G01, 1782M22G02

Datum účinnosti: 05. října 2000

Provést v termínech: Jak je popsáno v FAA AD 2000-16-12 (příloha tohoto PZZ).

Postup provedení prací: Dle FAA AD 2000-16-12.

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 2000-16-12.

Ing. Pavel MATOUŠEK
Ředitel technického inspektorátu
Úřad pro civilní letectví

Applicability

This airworthiness directive is applicable to General Electric Company (GE) CF6-45, -50, -80A, -80C2, and -80E1 turbofan engines with high pressure compressor rotor stage 3-9 spools with the following part numbers (P/N's). These engines are installed on, but not limited to, Airbus A300, A310, and A330 series, Boeing 747 and 767 series, and McDonnell Douglas DC-10 and MD-11 series airplanes.

Engine Model	HPCR 3-9 Spool P/N
CF6-45/50 Series Engines	9136M89G02, 9136M89G03, 9136M89G06, 9136M89G07 9136M89G08, 9136M89G09, 9136M89G17, 9136M89G18, 9136M89G19, 9136M89G21, 9136M89G22, 9136M89G27, 9273M14G01, 9331M29G01, 9253M85G01, 9253M85G02
CF6-80A Series Engines	9136M89G10, 9136M89G11, 9136M89G20, 9136M89G21, 9136M89G22, 9136M89G27
CF6-80C2 Series Engines	1333M66G01, 1333M66G03, 1333M66G07, 1333M66G09, 1781M52P01, 1781M53G01, 1854M95P01, 1854M95P02, 1854M95P03, 1854M95P04, 1854M95P05, 1854M95P06, 1854M95P07, 9380M28P05
CF6-80E1 Series Engines	1669M22G01, 1669M22G03, 1782M22G01, 1782M22G02

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 (j) 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

Compliance with this AD is required as indicated below, unless already done.

To detect cracks which can cause separation of the HPCR stage 3-9 spool and result in an uncontained engine failure, perform the following inspections:

CF6-45/50 Series Engines

(a) For HPCR stages 3-9 spools installed in CF6-45/50 series engines that have not been inspected in accordance with AD 99-24-15, do the following:

Number of Cycles-Since-New (CSN)	Action	By the earliest of

(1) More than 7,000 CSN but fewer than 10,500 CSN after the effective date of this AD.	Eddy current and ultrasonic inspect bores for cracks in accordance with ASB 72-A1108, Revision 3, dated November 12, 1999.	(i) Within the next 1,000 cycles-in-service (CIS) after the effective date of this AD, or (ii) At the next engine shop visit (ESV) after the effective date of the AD, or (iii) Before July 29, 2001.
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Number of Cycles-Since-New (CSN)	Action	By the earliest of
(2) 10,500 or more CSN, after the effective date of this AD, on HPCR 3-9 spools P/N 9136M89G02, 9136M89G03, 9136M89G06, 9136M89G07, 9136M89G08, 9136M89G09, 9136M89G17, 9136M89G18, 9273M14G01, 9331M29G01, 9253M85G01, 9253M85G02.	Eddy current and ultrasonic inspect bores for cracks in accordance with ASB 72-A1108, Revision 3, dated November 12, 1999.	(i) Within the next 500 CIS after the effective date of this AD, or (ii) At the next ESV after the effective date of the AD, or (iii) Before May 31, 2001.
(3) 10,500 or more CSN, after the effective date of this AD, on HPCR 3-9 spools P/N 9136M89G19, 9136M89G21, 9136M89G22, 9136M89G27	Replace with a serviceable HPCR 3-9 spool.	(i) Within the next 500 CIS after the effective date of this AD, or (ii) At the next ESV after the effective date of the AD, or (iii) Before May 31, 2001.

(b) Remove any HPCR 3-9 spool from service that equals or exceeds the reject criteria established by ASB 72-A1108, Revision 3, dated November 12, 1999; and replace it with a serviceable spool before further flight.

CF6-80A Series Engines

(c) For HPCR stages 3-9 spools installed in CF6-80A series engines that have not been inspected in accordance with AD 99-24-15, do the following:

Number of Cycles-Since-New (CSN)	Action	By the earliest of
(1) More than 7,000 CSN but	Eddy current and ultrasonic	(i) Within the next 1,000 CIS after

fewer than 10,500 CSN, after the effective date of this AD.	inspect bores for cracks in accordance with ASB 72-A0678, Revision 3, dated November 12, 1999.	the effective date of this AD, or (ii) At the next ESV after the effective date of the AD, or (iii) Before July 29, 2001.
(2) 10,500 or more CSN, after the effective date of this AD, on HPCR 3-9 spools P/N 9136M89G10, 9136M89G11.	Eddy current and ultrasonic inspect bores for cracks in accordance with ASB 72-A0678, Revision 3, dated November 12, 1999.	(i) Within the next 500 CIS after the effective date of this AD, or (ii) At the next ESV after the effective date of the AD, or (iii) Before May 31, 2001.
(3) 10,500 or more CSN, after the effective date of this AD, on HPCR 3-9 spools P/N 9136M89G20, 9136M89G21, 9136M89G22, 9136M89G27	Replace with a serviceable HPCR 3-9 spool.	(i) Within the next 500 CIS after the effective date of this AD, or (ii) At the next ESV after the effective date of the AD, or (iii) Before May 31, 2001.

(d) Remove any HPCR 3-9 spool from service that equals or exceeds the reject criteria established by ASB 72-A0678, Revision 3, dated November 12, 1999, and replace it with a serviceable spool before further flight.

CF6-80C2 Series Engines

(e) For HPCR stages 3-9 spools installed in CF6-80C2 series engines that have not been inspected in accordance with both ASB 72-A0812, Revision 2, dated October 28, 1999; and ASB 72-A0848, Revision 5, dated August 3, 2000; or AD 99-24-15, do the following:

Number of Cycles-Since-New (CSN)	Action	By the earliest of
(1) More than 7,000 CSN but fewer than 10,500 CSN, after the effective date of this AD.	Eddy current and ultrasonic inspect the bores and webs for cracks in accordance with ASB 72-A0812, Revision 2, dated October 28, 1999; and ASB 72-A0848, Revision 5, dated August 3, 2000.	(i) Within the next 1,000 CIS after the effective date of this AD, or (ii) At the next ESV after the effective date of the AD, or (iii) Before July 29, 2001.
(2) 10,500 or more CSN, after the	Replace with a serviceable HPCR	(i) Within the next 500 CIS after

effective date of this AD.	3-9 spool.	the effective date of this AD, or (ii) At the next ESV after the effective date of the AD, or (iii) Before May 31, 2001.
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(f) Remove any HPCR 3-9 spool from service that equals or exceeds the reject criteria established by ASB 72-A0812, Revision 2, dated October 28, 1999; and ASB 72-A0848, Revision 5, dated August 3, 2000, and replace it with a serviceable spool before further flight.

CF6-80E1 Series Engines

(g) For HPCR stages 3-9 spools installed in CF6-80E1 series engines that have not been inspected in accordance with both ASB 72-A0135, Revision 1, dated October 28, 1999; and ASB 72-A0126, Revision 3, dated August 3, 2000; or AD 99-24-15, do the following:

Number of Cycles-Since-New (CSN)	Action	By the earliest of
(1) More than 7,000 CSN but fewer than 10,500 CSN, after the effective date of this AD.	Eddy current and ultrasonic inspect the bores and webs for cracks in accordance with ASB 72-A0126, Revision 3, dated August 3, 2000, and ASB 72-A0135, Revision 1, dated October 28, 1999.	(i) Within the next 1,000 CIS after the effective date of this AD, or (ii) At the next ESV after the effective date of the AD, or (iii) Before July 29, 2001.
(2) 10,500 or more CSN after the effective date of this AD.	Replace with a serviceable HPCR 3-9 spool.	(i) Within the next 500 CIS after the effective date of this AD, or (ii) At the next ESV after the effective date of the AD, or (iii) Before May 31, 2001.

(h) Remove any HPCR 3-9 spool from service before further flight that equals or exceeds the reject criteria established by ASB 72-A0135, revision 1, dated October 28, 1999; or ASB 72-A0126, revision 3, dated August 3, 2000, and replace it with a serviceable spool.

Definitions

(i) For the purpose of this AD, an ESV is defined as any time an engine is introduced into a shop for the separation of a major engine flange.

Alternative Methods of Compliance

(j) 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 requests 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.

Special Flight Permits

(k) Special flight permits may be issued in accordance with §§ 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.

(l) The inspection shall be done in accordance with the following GE Alert Service Bulletins:

Document No.	Pages	Revision	Date
GE CF6-50 ASB No. 72-A1108	1-15	3	November 12, 1999
Total pages: 15			
GE CF6-80A ASB No. 72-A0678	1-18	3	November 12, 1999
Total pages: 18			
GE CF6-80C2 ASB No. 72-A0812	1-13	2	October 28, 1999
Total pages: 13			
GE CF6-80C2 ASB No. 72-A0848	1-47	5	August 3, 2000
Total pages: 47			
GE CF6-80E1 ASB No. 72-A0126	1-47	3	August 3, 2000
Total pages: 47			
GE CF6-80E1 ASB No. 72-A0135	1-11	1	October 28, 1999
Total pages: 11			

The incorporations by reference of ASB's No. CF6-50 72-A1108, Revision 3; CF6-80A 72-A0678, Revision 3; CF6-80C2 72-A0812, Revision 2; and CF6-80E1 72-A0135, Revision 1, were approved by the Director of the Federal Register on January 28, 2000 (64 FR 66554; November 29, 1999). The incorporations by reference of ASB's CF6-80C2 72-A0848, Revision 5; and CF6-80E1 72-A0126, Revision 3 were approved by the Director of the Federal Register on September 5, 2000 in accordance with 5 U.S.C. 552(a) and 1 CFR part 51. Copies may be obtained from General Electric Company via Lockheed Martin Technology Services, 10525 Chester Road, Suite C, Cincinnati, Ohio 45215, telephone (513) 672-8400, fax (513) 672-8422. 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.

(m) This amendment becomes effective on September 5, 2000.

FOR FURTHER INFORMATION CONTACT: Chris Gavriel, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone: (781) 238-7147, fax: (781) 238-7199.

Issued in Burlington, Massachusetts, on August 10, 2000.

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