



CIVIL AVIATION AUTHORITY  
CZECH REPUBLIC  
Airworthiness Division

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## AIRWORTHINESS DIRECTIVE

**Number: CAA-AD-050/2004**

Date of issue: May 28, 2004

**CFM International**  
CFM56-2-C, -3, -5

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*This AD has been issued in accordance with Decision No.: 2/2003 of the Executive Director of the EASA (ADs issued by the state of design are automatically adopted in EU member states).*

### ENGINE - MAIN FUEL PUMP - REPLACEMENT

**Applicability:** to CFM International, S.A. CFM56-2-C, -3 series, and -5 series turbofan engines. These engines are installed on, but not limited to, Airbus Industrie A319 and A320, Boeing 737, and McDonnell Douglas DC-8 airplanes.

**Effective date:** July 08, 2004

**Compliance:** Required as indicated FAA AD 2004-10-13.

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*Remarks: The compliance of this AD must be recorded in Aircraft Logbook, where applicable the requirements of this AD must be integrated into Aircraft Technical Documentation. Address inquiries concerning this AD to: Civil Aviation Authority, Airworthiness Division, Ruzyně Airport, 160 08 Prague 6, Czech Republic, tel.: 420 2 33320922, fax: 420 2 20562270.*

**Ing. Pavel MATOUŠEK**  
**Director**

**2004-10-13 CFM International, S.A.:** Amendment 39-13643. Docket No. 2002-NE-26-AD.

### *Applicability*

This airworthiness directive (AD) applies to CFM International, S.A. CFM56-2-C, -3 series, and -5 series turbofan engines. These engines are installed on, but not limited to, Airbus Industrie A319 and A320, Boeing 737, and McDonnell Douglas DC-8 airplanes.

**Note 1:** This 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 (f) 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 at the next engine shop visit, or main fuel pump replacement, whichever is earlier, after the effective date of this AD, but no later than January 1, 2007, unless already done.

To prevent main fuel pump bearing failures resulting in fuel nozzle clogging, low pressure turbine (LPT) case burn-through, and damage to the airplane, do the following:

#### **Main Fuel Pumps Installed on CFM56-2-C Engines**

(a) For CFM56-2-C engines, do the following:

(1) Remove from service main fuel pumps part number (P/N) 301- 779-002-0.

(2) For all CFM56-2-C series engines that have incorporated CFM International Service Bulletin (SB) (CFM56-2) 73-081, remove from service main fuel pumps P/N 301-776-101-0, P/N 301-776-102-0, P/N 301-776-103-0, P/N 301-776-104-0, P/N 301-776-105-0, P/N 301-776- 106-0, P/N 301-776-108-0, P/N 301-776-109-0, P/N 301-776-110-0, P/N 301-776-111-0, P/N 301-776-112-0, and P/N 301-776-113-0.

(3) For all CFM56-2-C series engines that have incorporated SB (CFM56-3) 73-087, remove from service main fuel pumps P/N 301-778- 801-0, P/N 301-778-802-0, P/N 301-778-804-0, and P/N 301-778-805-0.

(4) For all CFM56-2-C engines that have incorporated SB (CFM56- 2-C) 73-A113, remove from service main fuel pumps P/N 301-779-006-0.

(5) Install a serviceable main fuel pump. Information on converting removed pumps into serviceable pumps can be found in SB (CFM56-2) 73-0104, Revision 3, dated December 17, 2003.

#### **Main Fuel Pumps Installed on CFM56-3 Series Engines**

(b) For CFM56-3 series engines, do the following:

(1) Remove main fuel pumps P/N 301-779-002-0.

(2) For all CFM56-3 series engines that have incorporated SB (CFM56-3) 73-A129, remove from service main fuel pumps P/N 301-779- 006-0.

(3) For all CFM56-3 series engines that have incorporated SB (CFM56-3) 73-087, remove from service main fuel pumps P/N 301-778- 801-0, P/N 301-778-802-0, P/N 301-778-804-0, and P/N 301-778-805-0.

(4) Install a serviceable main fuel pump. Information on converting removed pumps into serviceable pumps can be found in SB (CFM56-3) 73-0120, Revision 5, dated December 17, 2003.

## **Main Fuel Pumps Installed on CFM56-5 Series Engines**

(c) For CFM56-5 series engines, do the following:

(1) Remove main fuel pumps P/N 301-785-502-0.

(2) For all CFM56-5 series engines that have incorporated SB (CFM56-5A) 73-A143, remove from service main fuel pumps P/N 301-785-504-0.

(3) Install a serviceable main fuel pump. Information on converting removed pumps into serviceable pumps can be found in SB (CFM56-5A) 73-0126, Revision 4, dated December 17, 2003.

## **Do Not Install Main Fuel Pumps**

(d) After the effective date of this AD, do not install the following P/N main fuel pumps onto any engine:

(1) For all engines: P/N 301-779-002-0, P/N 301-779-006-0, P/N 301-785-502-0, and P/N 301-785-504-0.

(2) For CFM56-2-C engines that have incorporated SB (CFM56-2-C) 73-081 but have not incorporated SB (CFM56-2-C) 73-0104: P/N 301-776-101-0, P/N 301-776-102-0, P/N 301-776-103-0, P/N 301-776-104-0, P/N 301-776-105-0, P/N 301-776-106-0, P/N 301-776-108-0, P/N 301-776-109-0, P/N 301-776-110-0, P/N 301-776-111-0, P/N 301-776-112-0, and P/N 301-776-113-0.

(3) For CFM56-2-C engines that have incorporated SB (CFM56-3) 73-087 but have not incorporated SB (CFM56-3) 73-0120: P/N 301-778-801-0, P/N 301-778-802-0, P/N 301-778-804-0, and P/N 301-778-805-0.

(4) For CFM56-3 series engines that have incorporated SB (CFM56-3) 73-087 but have not incorporated SB (CFM56-3) 73-0120: P/N 301-778-801-0, P/N 301-778-802-0, P/N 301-778-804-0, and P/N 301-778-805-0.

## **Definition**

(e) An engine shop visit is defined as any maintenance that includes the separation of an engine casing flange.

## **Alternative Methods of Compliance (AMOC)**

(f) An AMOC 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 must 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.

## **Special Flight Permits**

(g) 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 done.

## **Documents That Have Been Incorporated by Reference**

(h) None.

## **Effective Date**

(i) This amendment becomes effective on June 24, 2004.

## **Footer Information**

Issued in Burlington, Massachusetts, on May 13, 2004.  
Peter A. White,

Acting Manager, Engine and Propeller Directorate,  
Aircraft Certification Service.  
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