



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2016-9380; Directorate Identifier 2016-NE-21-AD; Amendment 39-18857; AD 2017-08-08]**

**RIN 2120-AA64**

**Airworthiness Directives; CFE Company Turbofan Engines**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for certain CFE Company (CFE) turbofan engines. This AD was prompted by a quality escape for high-pressure compressor (HPC) impellers made from forgings with nonconforming material grain size. This AD requires removal of the HPC impeller. We are issuing this AD to correct the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this final rule, contact CFE Company, 111 S. 34<sup>th</sup> Street, Phoenix, Arizona 85034-2802; phone: 800-601-3099; Internet: <https://www.myaerospace.com>. You may view this service information at the FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

## **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2016-9380; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The address for the Docket Office (phone: 800-647-5527) is Document Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Martin Adler, Aerospace Engineer, Engine Certification Office, FAA, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7157; fax: 781-238-7199; email: [martin.adler@faa.gov](mailto:martin.adler@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain CFE CFE738-1-1B model turbofan engines with HPC impeller, part number (P/N) 6079T77P07 or P/N 6079T77P09, installed. The NPRM published in the Federal Register on January 3, 2017 (82 FR 52). The NPRM was prompted by a quality escape for HPC impellers made from forgings with nonconforming material grain size. The NPRM proposed to require removal of the HPC impeller. We are issuing this AD to correct the unsafe condition on these products.

### **Comments**

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM (82 FR 52, January 3, 2017) or on the determination of the cost to the public.

## **Conclusion**

We reviewed the relevant data and determined that air safety and the public interest require adopting this AD as proposed.

## **Related Service Information under 1 CFR part 51**

We reviewed CFE Service Bulletin (SB) CFE738-72-8080, Revision 0, dated August 18, 2016. The SB describes procedures for replacing specific serial numbered HPC impellers, P/N 6079T77P07 or P/N 6079T77P09. This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

## **Costs of Compliance**

We estimate that this AD affects 176 engines installed on airplanes of U.S. registry.

We estimate the following costs to comply with this AD:

### **Estimated costs**

<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Pro-rated HPC impeller	\$0.00	\$42,240	\$42,240	\$7,434,240

## **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

We are issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds

necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will not have a substantial direct effect on the States, on the relationship between the national government and the States, or on the distribution of power and responsibilities among the various levels of government.

For the reasons discussed above, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Is not a “significant rule” under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),
- (3) Will not affect intrastate aviation in Alaska, and
- (4) Will not have a significant economic impact, positive or negative, on a substantial number of small entities under the criteria of the Regulatory Flexibility Act.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

### **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 14 CFR part 39 as follows:

### **PART 39 - AIRWORTHINESS DIRECTIVES**

1. The authority citation for part 39 continues to read as follows:

Authority: 49 U.S.C. 106(g), 40113, 44701.

#### **§ 39.13 [Amended]**

2. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2017-08-08 **CFE Company**: Amendment 39-18857; Docket No. FAA-2016-9380;  
Directorate Identifier 2016-NE-21-AD.

**(a) Effective Date**

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(b) Affected ADs**

None.

**(c) Applicability**

This AD applies to CFE Company (CFE) CFE738-1-1B model turbofan engines with a high-pressure compressor (HPC) impeller, part number (P/N) 6079T77P07 or P/N 6079T77P09, with a serial number listed in CFE Service Bulletin (SB) CFE738-72-8080, Revision 0, dated August 18, 2016, installed.

**(d) Subject**

Joint Aircraft System Component (JASC) 7230, Turbine Engine Compressor Section.

**(e) Unsafe Condition**

This AD was prompted by a quality escape for HPC impellers made from forgings with nonconforming material grain size. We are issuing this AD to prevent uncontained failure of the HPC impeller, damage to the engine, and damage to the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Required Action**

Remove all affected HPC impellers from service at the next piece-part exposure and replace with a part eligible for installation.

**(h) Definition**

For the purposes of this AD, “piece-part exposure” is defined as separation of the impeller from the compressor rotor assembly.

**(i) Alternative Methods of Compliance (AMOCs)**

The Manager, Engine Certification Office, FAA, may approve AMOCs for this AD. Use the procedures found in 14 CFR 39.19 to make your request. You may email your request to: ANE-AD-AMOC@faa.gov.

**(j) Related Information**

For more information about this AD, contact Martin Adler, Aerospace Engineer, Engine Certification Office, FAA, 1200 District Avenue, Burlington, MA 01803; phone: 781-238-7157; fax: 781-238-7199; email: martin.adler@faa.gov.

**(k) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless the AD specifies otherwise.

(i) CFE Service Bulletin CFE738-72-8080, Revision 0, dated August 18, 2016.

(ii) Reserved.

(3) For CFE service information identified in this AD, contact CFE Company, 111 S. 34th Street, Phoenix, Arizona 85034-2802; phone: 800-601-3099; Internet: <https://www.myaerospace.com>.

(4) You may view this service information at FAA, Engine & Propeller Directorate, 1200 District Avenue, Burlington, MA. For information on the availability of this material at the FAA, call 781-238-7125.

(5) You may view this service information at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, call 202-741-6030, or go to: <http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Burlington, Massachusetts, on April 11, 2017.

Robert J. Ganley,  
Acting Manager, Engine & Propeller Directorate,  
Aircraft Certification Service.  
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