



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2011-0945; Directorate Identifier 2011-NE-18-AD]

RIN 2120-AA64

Airworthiness Directives; Honeywell International Inc. Turbofan Engines

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: We propose to adopt a new airworthiness directive (AD) for the products identified above. This proposed AD was prompted by a report of a quality escape of about 8,000 2nd stage low pressure turbine (LPT2) rotor blades, manufactured by Honeywell Chihuahua Manufacturing Operation since 2009. This proposed AD would require removing and inspecting certain LPT2 rotor blades. During LPT rotor acceleration, these blades may contact and damage the 3rd stage LPT (LPT3) nozzle seal carrier, which may subsequently fatigue and contact the adjacent rotor and damage the rotor. Also, these blades could deform the blade retainers, which could lead to blade movement that may cause rotor damage. We are proposing this AD to correct an unsafe condition caused by these blades installed on these engines.

DATES: We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.

- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this proposed AD, contact Honeywell International Inc., 111 S. 34th Street, Phoenix, AZ 85034-2802; web site: <http://portal.honeywell.com>; or call Honeywell toll free at phone: 800-601-3099 (U.S./Canada) or 602-365-3099 (International Direct). You may review copies of the referenced service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803. 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>; 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 proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Office (phone: 800-647-5527) is in the ADDRESSES section. Comments will be available in the AD docket shortly after receipt.

FOR FURTHER INFORMATION CONTACT: Joseph Costa, Aerospace Engineer, Los Angeles Aircraft Certification Office, FAA, Transport Airplane Directorate, 3960 Paramount Blvd., Lakewood, CA 90712-4137; phone: 562-627-5246; fax: 562-627-5210; e-mail: joseph.costa@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

We invite you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2011-0945; Directorate Identifier 2011-NE-18-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all comments received by the closing date and may amend this proposed AD because of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

Discussion

During a routine replacement of LPT2 rotor blades, part numbers (P/Ns) 3075424-2 and 3075424-3, the new LPT2 rotor blades, P/Ns 3075424-2 and 3075424-3, were seen to have aft discouragers that were approximately 0.020 inch (0.51 mm) longer than the existing LPT2 rotor blades, P/Ns 3075424-2 and 3075424-3. Further investigation revealed that the aft discouragers of the new LPT2 rotor blades, P/Ns 3075424-2 and 3075424-3, did not meet the type design requirements. That investigation also found that only LPT2 rotor blades P/Ns 3075424-2 and 3075424-3, manufactured from specific machining lots, are affected. P/N 3075424-2 suspect lots were manufactured between March 2009 and September 2010, inclusive. P/N 3075424-3 suspect lots were manufactured between July 2010 and September 2010, inclusive.

During LPT rotor acceleration, these blades may contact and damage the LPT3 nozzle seal carrier, which may subsequently fatigue and contact the adjacent rotor and

damage the rotor. Also, these blades could deform the blade retainers, which could lead to blade movement that may cause rotor damage.

We have not received any reports of engine in-flight shutdowns due to these blades being in service.

These blades may damage the rotor. This condition, if not corrected, could result in damage to these blades installed on these engines.

Relevant Service Information

Honeywell International Inc. Service Bulletin (SB) TFE731-72-5221, Revision 0, dated November 11, 2010 describes procedures for determining affected engine serial numbers (S/Ns) and machining lot of affected LPT2 rotor blades.

FAA's Determination

We are proposing this AD because we evaluated all the relevant information and determined the unsafe condition described previously is likely to exist or develop in other products of the same type design.

Proposed AD Requirements

This proposed AD would require removing and inspecting suspect LPT2 rotor blades:

- At the next major periodic inspection, not to exceed 3,000 hours time-since-new, or
- Five years after the effective date of this proposed AD, or
- When the LPT module is disassembled.

Costs of Compliance

We estimate that this proposed AD would affect 3,000 engines installed on airplanes of U.S. registry. We also estimate that it would take about 1 work-hour per engine to perform the record review, and that the average labor rate is \$85 per work-hour. For an estimated 500 engines with discrepant blades, blade rework cost was estimated at

\$2,380 per engine with a replacement parts cost about \$1,100 per engine. Based on these figures, we estimate the total cost of the proposed AD to U.S. operators to be \$1,430,100.

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

We determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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 this proposed regulation:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Is not a "significant rule" under the 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.

The Proposed Amendment

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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):

Honeywell International Inc. (Formerly Allied Signal Inc. and Garrett Turbine Engine Company): Docket No. FAA-2011-0945; Directorate Identifier 2011-NE-18-AD.

(a) Comments Due Date

We must receive comments by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE Federal Register].

(b) Affected ADs

None.

(c) Applicability

(1) This AD applies to Honeywell International Inc. TFE731-20R, -20AR, -20BR, -40, -40AR, -40R, -50R, and -60 turbofan engines.

(i) With an engine model number and serial number (S/N) listed in Table 4 of Honeywell Service Bulletin (SB) TFE731-72-5221, Revision 0, dated November 11, 2010, or

(ii) With 2nd stage low pressure turbine (LPT2) rotor assembly part numbers (P/Ns) 3060608-2, 3060608-3, or 3060608-5 that had any LPT2 rotor blades P/N 3075424-2 replaced between March 2009 and September 2010, inclusive, or that had any LPT2 rotor blades P/N 3075424-3 replaced between July 2010 and September 2010, inclusive.

(d) Unsafe Condition

This AD was prompted by a report of a quality escape of about 8,000 LPT2 rotor blades, manufactured by Honeywell Chihuahua Manufacturing Operation since 2009. During LPT rotor acceleration, these blades may contact and damage the 3rd stage LPT (LPT3) nozzle seal carrier that may subsequently fatigue and contact the adjacent rotor and damage the rotor. Also, these blades could deform the blade retainers, which could lead to blade movement that may cause rotor damage. We are issuing this AD to correct the unsafe condition caused by these blades installed on these engines.

(e) Compliance

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

(f) Remove LPT2 Rotor Blades

(1) At the next major periodic inspection, not to exceed 3,000 hours time-since-new, or within 5 years after the effective date of this AD, or at the next access, whichever occurs first, do the following using Section 3.0, Accomplishment Instructions, of Honeywell SB TFE731-72-5221, Revision 0, dated November 11, 2010:

(i) Remove any suspect LPT2 rotor blades from service.

(ii) Inspect suspect LPT2 rotor blades.

(g) Alternative Methods of Compliance (AMOCs)

The Manager, Los Angeles Certification Office, FAA, may approve AMOCs to this AD. Use the procedures found in 14 CFR 39.19 to make your request.

(h) Definitions

For purposes of this AD, next access is defined as when the LPT module is disassembled.

(i) Related Information

(1) For more information about this AD, contact Joseph Costa, Aerospace Engineer, Los Angeles Aircraft Certification Office, FAA, Transport Airplane Directorate, 3960 Paramount Blvd., Lakewood, CA 90712-4137; phone: 562-627-5246; fax: 562-627-5210; e-mail: joseph.costa@faa.gov.

(2) For service information identified in this AD, contact Honeywell International Inc., 111 S. 34th Street, Phoenix, AZ 85034-2802; web site: <http://portal.honeywell.com>; or call Honeywell toll free at phone: 800-601-3099 (U.S./Canada) or 602-365-3099 (International Direct). You may review copies of the referenced service information at the FAA, Engine & Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803. For information on the availability of this material at the FAA, call 781-238-7125.

Issued in Burlington, Massachusetts on December 29, 2011.

Peter A. White,
Manager, Engine & Propeller Directorate,
Aircraft Certification Service.

[FR Doc. 2012-80 Filed 01/06/2012 at 8:45 am; Publication Date: 01/09/2012]