

comments and then send it to the Manager, CHIACO.

**Note 2:** Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the CHIACO.

#### Special Flight Permits

(e) 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.

#### Incorporation by Reference

(f) The inspection must be done in accordance with McCauley Alert Service Bulletin 234, dated May 1, 2000. 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 McCauley Propeller Systems, A Textron Company, 3535 McCauley Drive, Vandella, Ohio 45377. 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.

#### Effective Date of This AD

(g) This amendment becomes effective on August 23, 2000.

Issued in Burlington, Massachusetts, on July 28, 2000.

**David A. Downey,**

*Assistant Manager, Engine and Propeller Directorate, Aircraft Certification Service.*

[FR Doc. 00-19665 Filed 8-7-00; 8:45 am]

**BILLING CODE 4910-13-P**

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. 99-NE-10-AD; Amendment 39-11841; AD 2000-15-09]

RIN 2120-AA64

#### Airworthiness Directives; Honeywell International Inc. TFE731-2, -3, -4, and -5 Series Turbofan Engines

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Final rule.

**SUMMARY:** This amendment adopts a new airworthiness directive (AD), applicable to Honeywell International, Inc. (formerly AlliedSignal Inc. and Garrett Turbine Engine Company) high pressure compressor (HPC) impellers installed on TFE731-2, -3, -4, and -5 series turbofan engines. This AD requires the removal and inspection of

the HPC impeller and, if necessary, replacement of the HPC impeller with a serviceable impeller. This amendment is prompted by an incident of an uncontained impeller failure due to cracking in the seal relief area of the HPC impeller. The actions specified by this AD are intended to prevent HPC impeller failure due to fatigue cracking.

**DATES:** Effective October 10, 2000. The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of October 10, 2000.

**ADDRESSES:** The service information referenced in this AD may be obtained from Honeywell Engines and Systems (formerly AlliedSignal) Technical Publications and Distribution, M/S 2101-201, P.O. Box 52170, Phoenix, AZ 85072-2170; telephone: (602) 365-2493 (General Aviation), (602) 365-5535 (Commercial), fax: (602) 365-5577 (General Aviation), (602) 365-2832 (Commercial). This information may be examined at the Federal Aviation Administration (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.

**FOR FURTHER INFORMATION CONTACT:** Joseph Costa, Aerospace Engineer, Los Angeles Aircraft Certification Office, FAA, Transport Airplane Directorate, 3960 Paramount Blvd., Lakewood, CA 90712-4137; telephone: (562) 627-5246, fax: (562) 627-5210.

**SUPPLEMENTARY INFORMATION:** A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) applicable to Honeywell International, Inc. (formerly AlliedSignal Inc. and Garrett Turbine Engine Company) high pressure compressor (HPC) impellers installed on TFE731-2, -3, -4, and -5 series turbofan engines was published in the **Federal Register** on July 28, 1999 (64 FR 40789). That action proposed to require replacement of the HPC impeller with a serviceable impeller, which has been eddy-current inspected, at the next core zone inspection (CZI) or at the next access to the HPC module, and repetitive inspections at each subsequent CZI or each subsequent access to the HPC impeller for cause if the impeller has more than 1,000 cycles since the last eddy current inspection (ECI). The NPRM was prompted by the failure of a high pressure compressor (HPC) impeller, part number (P/N) 3073394-1, that separated and exited from a TFE731-3R-1D turbofan engine. Following that event, low-temperature

fatigue testing with a sustained peak hold time (dwell) at higher than engine-operating stresses indicated that normal cyclic fatigue lives may be influenced by dwell times and an unfavorable titanium macrostructure. The FAA determined that low-cycle fatigue (LCF) cracking in high stressed areas of the HPC impeller may lead to an uncontained impeller separation.

The FAA received a number of comments on that proposal. As a result of those comments, the FAA published a supplemental notice of proposed rulemaking (NPRM) in the **Federal Register** on March 7, 2000 (65 FR 11942). This supplemental NPRM revised the proposed rule by eliminating the terminating action and adding impeller P/Ns to the suspect impeller population. The supplemental NPRM also clarified certain portions of the proposed AD based on comments received from the public.

#### Conclusion

Interested persons have been afforded an opportunity to participate in the making of this amendment. No comments were received on the supplemental proposal or the FAA's revised economic analysis. All comments on the original NPRM were addressed in the discussion of the supplemental notice. The FAA has determined that air safety and the public interest require the adoption of the rule as proposed.

#### Economic Analysis

There are approximately 7,510 engines of the affected design in the worldwide fleet. The FAA estimates that 5,482 engines installed on aircraft of U.S. registry will be affected by this AD, that it will take approximately three work hours per engine to accomplish the required actions, and that the average labor rate is \$60 per work hour. The FAA also estimates that some of the impellers will be replaced and that each impeller will cost approximately \$45,000. Based on these figures, the FAA estimates the total cost impact of the AD on U.S. operators for the next four years will be \$2,201,760.

#### Regulatory Impact

This rule does not have federalism implications, as defined in Executive Order 13132, because it does 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. Accordingly, the FAA has not consulted with state authorities prior to publication of this rule.

For the reasons discussed above, I certify that this action (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); and (3) 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. A final evaluation has been prepared for this action and is contained in the Rules Docket. A copy of it may be obtained from the Rules Docket at the location provided under the caption **ADDRESSES**.

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

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

**Adoption of the Amendment**

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration amends part 39 of the Federal Aviation Regulations (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. Section 39.13 is amended by adding the following new airworthiness directive:

**2000-15-09 Honeywell International Inc.:** Amendment 39-11841. Docket 99-NE-10-AD.

*Applicability*

Honeywell International Inc. (formerly AlliedSignal Inc. and Garrett Turbine Engine Company) TFE731-2, -3, -4, and -5 series turbofan engines with high pressure

compressor (HPC) impeller part numbers (P/Ns) 3073393-1, 3073394-1, 3073433-1, 3073434-1, 3073398-All (All denotes all dash numbers), 3073435-All, and 3075171-All, installed on, but not limited to, Avions Marcel Dassault-Breguet Aviation (AMD-BA) Falcon 10, Dassault-Aviation Mystere-Falcon 50, and 900 series airplanes; Dassault Aviation Mystere-Falcon 20 series airplanes; Learjet Inc. Models 31, 35, 36, and 55 series airplanes; Lockheed-Georgia Corporation 1329-23 and 25 series airplanes; Israel Aircraft Industries Ltd. 1124 series and 1125 Westwind series airplanes; Cessna Aircraft Co. Model 650 Citation III, VI, and VII series airplanes; Raytheon Aircraft Co. HS-125 series airplanes; and Sabreliner Corporation NA-265-65 airplanes.

**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 failure of the HPC impeller due to fatigue cracking, accomplish the following:

**Initial Inspection**

(a) Remove and inspect the applicable HPC impeller in accordance with Section 2.A. of the Accomplishment Instructions of AlliedSignal Inc. Alert Service Bulletin (ASB) TFE731-A72-3641, Revision 1, dated October 20, 1999, or ASB TFE731-A72-3641 dated November 24, 1998, and, if necessary, replace the impeller with a serviceable impeller at the earlier of the following:

- (1) At the next core zone inspection (CZI) after the effective date of this AD; or
- (2) At the next access to the HPC module after the effective date of this AD.

**Repetitive Inspection**

(b) Thereafter, remove and inspect the applicable HPC impeller in accordance with

Section 2.A. of the Accomplishment Instructions of ASB TFE731-A72-3641, dated November 24, 1998, or ASB TFE731-A72-3641, Revision 1, dated October 20, 1999, and, if necessary, replace the impeller with a serviceable impeller, whenever either of the following conditions are met:

- (1) At every CZI; or
- (2) At access to the HPC module if the impeller has accumulated more than 1,000 cycles since the last Eddy Current Inspection (ECI).

**Definitions**

(c) This AD defines access to the HPC module as whenever the low pressure compressor case is removed from the compressor interstage diffuser.

(d) For the purposes of this AD, a serviceable impeller is defined as an impeller that complies with all applicable visual, dimensional, and fluorescent penetrant inspections requirements for the level of maintenance being accomplished, as contained in the Heavy Maintenance Manual, and is either an impeller with fewer than 1000 engine operation cycles since new or an impeller with fewer than 1000 engine operation cycles since last ECI.

**Alternative Method of Compliance**

(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, Los Angeles Aircraft Certification Office (LAACO). Operators shall submit their request through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, LAACO.

**Note 2:** Information concerning the existence of approved alternative methods of compliance with this airworthiness directive, if any, may be obtained from the LAACO.

**Special Flight Permits**

(f) 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.

**Documents Incorporated by Reference**

(g) The actions required by this AD shall be done in accordance with the following AlliedSignal Inc. Alert Service Bulletins:

Document No.	Pages	Revision	Date
TFE731-A72-3641 .....	10	Original .....	November 24, 1998.
Total pages: 10			
TFE731-A72-3641 .....	12	1 .....	October 20, 1999.
Total pages: 12			

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 Honeywell Engines and Systems (formerly AlliedSignal) Technical

Publications and Distribution, M/S 2101-201, P.O. Box 52170, Phoenix, AZ 85072-2170; telephone: (602) 365-2493 (General Aviation), (602) 365-5535 (Commercial), fax: (602) 365-5577 (General Aviation), (602) 365-2832 (Commercial). 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.

**Effective Date**

(h) This amendment becomes effective on October 10, 2000.

Issued in Burlington, Massachusetts, on July 10, 1999.

**David A. Downey,**

*Assistant Manager, Engine and Propeller Directorate, Aircraft Certification Service.*

[FR Doc. 00-19666 Filed 8-7-00; 8:45 am]

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**DEPARTMENT OF TRANSPORTATION****Federal Aviation Administration****14 CFR Part 39**

[Docket No. 2000-NM-89-AD; Amendment 39-11847; AD 2000-15-15]

RIN 2120-AA64

**Airworthiness Directives; McDonnell Douglas Model DC-9, Model MD-90-30, Model 717-200, and Model MD-88 Airplanes**

**AGENCY:** Federal Aviation Administration, DOT.

**ACTION:** Final rule; request for comments.

**SUMMARY:** This amendment supersedes an existing airworthiness directive (AD), applicable to all McDonnell Douglas Model DC-9, Model MD-90-30, Model 717-200, and Model MD-88 airplanes, that currently requires inspecting the general condition of the jackscrew assembly and the area around the jackscrew assembly to detect the presence of metal shavings and flakes. This amendment also requires inspecting for metallic particles in the lubrication for the jackscrew assembly of the horizontal stabilizer and surrounding area to detect any discrepancy; follow-on actions; and corrective actions, if necessary. This amendment is prompted by numerous reports from operators that indicate instances of metallic shavings in the vicinity of the jackscrew assembly and gimbal nut of the horizontal stabilizer. The actions specified in this AD are intended to prevent loss of pitch trim capability due to excessive wear of the jackscrew assembly of the horizontal stabilizer, which could result in reduced controllability of the airplane.

**DATES:** Effective August 23, 2000.

The incorporation by reference of Boeing Alert Service Bulletin DC9-27A362, Revision 02, dated March 30, 2000; Boeing Alert Service Bulletin MD90-27A034, Revision 02, dated March 30, 2000; and Boeing Alert Service Bulletin 717-27A0002, Revision 02, dated March 30, 2000; as listed in

the regulations; is approved by the Director of the Federal Register as of August 23, 2000.

The incorporation by reference of Boeing Alert Service Bulletin DC9-27A362, dated February 11, 2000; Boeing Alert Service Bulletin MD90-27A034, dated February 11, 2000; and Boeing Alert Service Bulletin 717-27A0002, dated February 11, 2000; as listed in the regulations; was approved previously by the Director of the Federal Register as of March 6, 2000 (65 FR 10379, February 28, 2000).

Comments for inclusion in the Rules Docket must be received on or before October 10, 2000.

**ADDRESSES:** Submit comments in triplicate to the Federal Aviation Administration (FAA), Transport Airplane Directorate, ANM-114, Attention: Rules Docket No. 2000-NM-89-AD, 1601 Lind Avenue, SW., Renton, Washington 98055-4056. Comments sent via the Internet as attached electronic files must be formatted in Microsoft Word 97 for Windows or ASCII text.

The service information referenced in this AD may be obtained from The Boeing Company, Long Beach Division, 3855 Lakewood Boulevard, Long Beach, California 90846, Attention: Technical Publications Business Administration, Dept. C1-L52 (2-60). This information may be examined at the FAA, Transport Airplane Directorate, 1601 Lind Avenue, SW., Renton, Washington; or at the FAA, Transport Airplane Directorate, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; or at the Office of the Federal Register, 800 North Capitol Street, NW., suite 700, Washington, DC.

**FOR FURTHER INFORMATION CONTACT:**

Mike Lee, Aerospace Engineer, Structures Branch, ANM-120L, FAA, Transport Airplane Directorate, Los Angeles Aircraft Certification Office, 3960 Paramount Boulevard, Lakewood, California 90712-4137; telephone (562) 627-5325; fax (562) 627-5210.

**SUPPLEMENTARY INFORMATION:** On February 17, 2000, the FAA issued AD 2000-03-51, amendment 39-11595 (65 FR 10379, February 28, 2000), applicable to all McDonnell Douglas Model DC-9, Model MD-90-30, Model 717-200, and Model MD-88 airplanes, to require inspecting the general condition of the jackscrew assembly and the area around the jackscrew assembly to detect the presence of metal shavings and flakes. That action was prompted by a report from an operator that indicated two instances of metallic shavings in the vicinity of the jackscrew assembly and

gimbal nut of the horizontal stabilizer. The actions required by that AD are intended to prevent loss of pitch trim capability due to excessive wear of the jackscrew assembly of the horizontal stabilizer, which could result in loss of vertical control of the airplane.

**Actions Since Issuance of Previous Rule**

Since the issuance of AD 2000-03-51, the FAA has received numerous reports of incidents in which metallic particles (including slivers and dust, as well as shavings and flakes) were found imbedded within the grease on the threaded portion of the jackscrew assembly of the horizontal stabilizer actuator and on the area directly below the jackscrew assembly. Findings by the manufacturer indicate that such metallic particles can be identified as a non-magnetic metallic substance which is golden in color.

**New Service Information**

Since the issuance of the previous rule, the FAA has reviewed and approved the following new Boeing Alert Service Bulletins, which have been approved as alternative methods of compliance to the requirements of AD 2000-03-51:

- DC9-27A362, Revision 02, dated March 30, 2000 (for Model DC-9 and Model MD-88 airplanes);
- MD90-27A034, Revision 02, dated March 30, 2000 (for Model MD-90-30 airplanes); and
- 717-27A0002, Revision 02, dated March 30, 2000 (for Model 717-200 airplanes).

Revision 02 of the alert service bulletins revises certain procedures included in the original issue of the alert service bulletins, which were referenced in AD 2000-03-51 as the appropriate sources of service information. Revision 02 describes new procedures for detailed visual inspections to detect the presence of metallic particles (including slivers and dust, as well as shavings and flakes) in the lubrication for the jackscrew assembly. In addition, Revision 02 revises certain follow-on and corrective actions. Follow-on actions include performing repetitive inspections, testing the horizontal shutoff controls, and lubricating the jackscrew of the horizontal stabilizer actuator. Corrective actions include removing dirt/grease from exposed jackscrew threads, performing wear checks of the jackscrew (endplay and freeplay checks), adjusting the trim system and shutoff control system of the horizontal stabilizer, and replacing the jackscrew assembly of the horizontal stabilizer actuator with a new or serviceable unit.