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## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. 2000-NE-34-AD; Amendment 39-12642; AD 2002-03-01]

RIN 2120-AA64

**Airworthiness Directives; Honeywell International, Inc., (Formerly AlliedSignal, Inc., and Textron Lycoming) T5311A, T5311B, T5313B, T5317A, T5317B, T53-L-11, T53-L-11A, T53-L-11B, T53-L-11C, T53-L-11D, T53-L-11A S/SA, T53-L-13B, T53-L-13B S/SA, T53-L-13B S/SB, and T53-L-703 Turboshaft Engines**

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

**ACTION:** Final rule.

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**SUMMARY:** This amendment adopts a new airworthiness directive (AD), that is applicable to Honeywell International, Inc., (formerly AlliedSignal, Inc., and Textron Lycoming) T5311A, T5311B, T5313B, T5317A, T5317B, and former military T53-L-11, T53-L-11A, T53-L-11B, T53-L-11C, T53-L-11D, T53-L-11A S/SA, T53-L-13B, T53-L-13B S/SA, T53-L-13B S/SB, and T53-L-703 series turboshaft engines. This amendment requires initial and repetitive special vibration tests of the engine, and if necessary replacement with a serviceable reduction gearbox assembly, or a serviceable engine before further flight. This amendment is prompted by reports of tachometer drive spur gear failure, resulting in potential engine overspeed, loss of power turbine speed (N2) instrument panel indication, and hard landings. The actions specified in this AD are intended to prevent excessive vibrations produced by the reduction gearbox assembly that could cause failure of the tachometer drive spur gear.

**DATES:** Effective date March 21, 2002. The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of March 21, 2002.

**ADDRESSES:** The service information referenced in this AD may be obtained from Honeywell International, Inc., (formerly AlliedSignal, Inc., and Textron Lycoming), Attn: Data Distribution, M/S 64-3/2101-201, P.O. Box 29003, Phoenix, AZ 85038-9003; telephone: (602) 365-2493; fax: (602) 365-5577. This information may be examined, by appointment, 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:** Robert Baitoo, Aerospace Engineer, Los Angeles Aircraft Certification Office, FAA, Transport Airplane Directorate, 3960 Paramount Blvd., Lakewood, CA 90712-4137; telephone: (562) 627-5245; fax: (562) 627-5210.

**SUPPLEMENTARY INFORMATION:** A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an AD that is applicable to Honeywell International, Inc., (formerly AlliedSignal, Inc., and Textron Lycoming) T5311A, T5311B, T5313B, T5317A, T5317B, and former military T53-L-11, T53-L-11A, T53-L-11B, T53-L-11C, T53-L-11D, T53-L-11A S/SA, T53-L-13B, T53-L-13B S/SA, T53-L-13B S/SB, and T53-L-703 series turboshaft engines was published in the Federal Register on June 15, 2001 (66 FR 32591). That action proposed to require initial and repetitive special vibration tests of the engine, and if necessary replacement with a serviceable reduction gearbox assembly, or a serviceable engine before further flight, in accordance with AlliedSignal, Inc., Service Bulletin (SB) No.'s T5311A/B-0100, dated January 20, 2000; T5313B/17-0100, dated November 19, 1999; T53-L-11-0100, dated January 20, 2000; T53-L-13B-0100, Revision 2, dated May 11, 1999; and T53-L-703-0100, Revision 2, dated May 11, 1999.

## Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. Due consideration has been given to the one comment received.

The commenter stated that further investigation into the root problem causing the spur gear failures needs to be addressed. The problem may be a manufacturing problem from one U.S. Government contract supplier.

The FAA does not agree. The commenter did not supply sufficient evidence substantiating a design nonconformity.

After careful review of the available data, including the comment noted above, the FAA has determined that air safety and the public interest require the adoption of the rule as proposed.

## Economic Analysis

There are about 4,500 engines of the affected design in the worldwide fleet. The FAA estimates that 300 engines installed on aircraft of U.S. registry would be affected by this AD, and that it would take about four work hours per engine to accomplish each special vibration test, and that the average labor rate is \$60 per work hour. Based on these figures, for each special vibration test, the total labor cost effect on U.S. operators is estimated to be \$240 per engine. The FAA estimates that operators, on average, will perform ten special vibration tests per year, resulting in a total annual cost on U.S. operators of \$720,000.

## Regulatory Analysis

This final rule does not have federalism implications, as defined in Executive Order 13132, because it 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. Accordingly, the FAA has not consulted with state authorities prior to publication of this final 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 the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979); and (3) if promulgated, 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 it is contained in the Rules Docket. A copy of it may be obtained by contacting 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.

#### **Sec. 39.13 [Amended]**

2. Section 39.13 is amended by adding a new airworthiness directive to read as follows:

# AIRWORTHINESS DIRECTIVE



Aircraft Certification Service  
Washington, DC

U.S. Department  
of Transportation  
**Federal Aviation  
Administration**

*We post ADs on the internet at "av-info.faa.gov"*

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Title 14 of the Code of Federal Regulations (14 CFR) part 39, applies to an aircraft model of which our records indicate you may be the registered owner. Airworthiness Directives affect aviation safety and are regulations which require immediate attention. You are cautioned that no person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of the Airworthiness Directive (reference 14 CFR part 39, subpart 39.3).

## **2002-03-01 Honeywell International, Inc.:** Amendment 39-12642. Docket No. 2000-NE-34-AD.

*Applicability:* This airworthiness directive (AD) is applicable to Honeywell International, Inc., (formerly AlliedSignal, Inc., and Textron Lycoming) T5311A, T5311B, T5313B, T5317A, T5317B, and former military T53-L-11, T53-L-11A, T53-L-11B, T53-L-11C, T53-L-11D, T53-L-11A S/SA, T53-L-13B, T53-L-13B S/SA, T53-L-13B S/SB, and T53-L-703 turboshaft engines. These engines are installed on, but not limited to Bell Helicopter Textron 204, 205, and 209 series, and Kaman K-1200 series helicopters, and the following surplus military helicopters that have been certified in accordance with sections 21.25 or 21.27 of the Federal Aviation Regulations (14 CFR 21.25 or 21.27): Bell Helicopter Textron manufactured AH-1, HH-43, TH-1, UH-1 and SW-204/205 (UH-1) series.

**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 (d) 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, unless already done.

To prevent excessive vibrations produced by the reduction gearbox assembly that could cause failure of the tachometer drive spur gear, do the following:

### **Initial and Repetitive Special Vibration Tests**

(a) Perform an initial special vibration test of the engine in accordance with the applicable service bulletin (SB) listed in the following Table 1, within 100 flight hours after the effective date of this AD:

**Table 1. AlliedSignal SB's for Special Vibration Tests.**

<b>Engine</b>	<b>SB's</b>
(1) T5311A and T5311B.....	T5311A/B-0100, dated January 20, 2000.
(2) T5313B, T5317A, and T5317B....	T5313B/17-0100, dated November 19, 1999.
(3) T53-L-11, -11A, -11B, -11C, 11D, and 11A S/SA.	T53-L-11-0100, Revision 2, dated January 20, 2000.
(4) T53-L-13B, -13B S/SA, and -13B S/SB.	T53-L-13B-0100, Revision 2, dated May 11, 1999. May 11, 1999.
(5) T53-L-703.....	T53-L-703-0100, Revision 2, dated

(b) Perform repetitive special vibration tests of the engine in accordance with the applicable SB listed in Table 1 of this AD, as follows:

(1) For engines that have tachometer drive spur gear part number (P/N) 1-070-062-04 installed, perform repetitive special vibration tests within 500 flight hours since the last special vibration test.

(2) For engines that have tachometer drive spur gear P/N 1-070-062-06 installed, perform repetitive special vibration tests within 1,000 flight hours since the last special vibration test.

### **Engines That Fail Special Vibration Tests**

(c) For engines that fail a special vibration test performed in accordance with paragraph (a) or (b) of this AD, do either of the following:

(1) Replace the gearbox assembly with a serviceable reduction gearbox assembly, and before further flight perform an initial special vibration test as specified in paragraph (a) of this AD; or

(2) Replace the engine with a serviceable engine, and before further flight perform an initial special vibration test as specified in paragraph (a) of this AD.

### **Alternative Methods of Compliance**

(d) 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 (ACO). Operators must submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Los Angeles ACO.

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

### **Special Flight Permits**

(e) Special flight permits may be issued in accordance with Secs. 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 special vibration tests and engine replacement requirements of this AD can be done.

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

(f) The inspection must be done in accordance with the following AlliedSignal, Inc. Service Bulletins (SB's):

Document No.	Pages	Revision	Date
SB T5311A/B-0100..... Total pages: 5	All.....	Original.....	January 20, 2000.
SB T5313B/17-0100..... Total pages: 5	All.....	Original.....	November 19, 1999.
SB T53-L-11-0100..... Total pages: 5	All.....	Revision 2.....	January 20, 2000.
SB T53-L-13B-0100..... Total pages: 5	All.....	Revision 2.....	May 11, 1999.
SB T53-L-703-0100..... Total pages: 5	All.....	Revision 2.....	May 11, 1999.

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 International, Inc. (formerly AlliedSignal, Inc. and Textron Lycoming), Attn: Data Distribution, M/S 64-3/2101-201, P.O. Box 29003, Phoenix, AZ 85038-9003; telephone: (602) 365-2493; fax: (602) 365-5577. Copies may be inspected, by appointment, 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**

(g) This amendment becomes effective on March 21, 2002.

Issued in Burlington, Massachusetts, on February 4, 2002.

**Jay J. Pardee,**

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

[FR Doc. 02-3310 Filed 2-13-02; 8:45 am]

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