

Proposed Rules

Federal Register

Vol. 66, No. 113

Tuesday, June 12, 2001

This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2000-NE-32-AD]

RIN 2120-AA64

Airworthiness Directives; Honeywell International, Inc. (formerly AlliedSignal, Inc. and Textron Lycoming), T5313B, T5317 Series, and T53 Series Turboshaft Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The Federal Aviation Administration (FAA) proposes to adopt a new airworthiness directive (AD) that is applicable to Honeywell International, Inc., (formerly AlliedSignal, Inc., and Textron Lycoming) T5313B series, T5317 series, and former military T53 series, turboshaft engines having certain serial number centrifugal compressor impellers, installed. This proposal would require for T5313B series and T5317 series engines, initial and repetitive inspections of those compressor impellers, if installed. This proposal would also require for T53 series engines, a revised operating cycle count (prorate) for those compressor impellers if installed, and initial and repetitive inspections, with eventual compressor impeller replacement. In addition, this proposal would require the marking of those compressor impellers. This proposal is prompted by a report from the supplier that four centrifugal compressor impellers may have been inadvertently misidentified. The actions specified by the proposed AD are intended to prevent premature failure of the impellers from being operated beyond their design service life, which could result in an uncontained engine failure, in-flight shutdown, or damage to the helicopter.

DATES: Comments must be received by August 13, 2001.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 2000-NE-32-AD, 12 New England Executive Park, Burlington, MA 01803-5299. Comments may also be sent via the Internet using the following address: 9-ane-adcomment@faa.gov". Comments sent via the Internet must contain the docket number in the subject line. Comments may be inspected at this location between 8:00 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays. The service information referenced in this proposed rule 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 at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA.

FOR FURTHER INFORMATION CONTACT: Robert Baitoo, Aerospace Engineer, Los Angeles Aircraft Certification Office (ACO), FAA, Transport Airplane Directorate, 3960 Paramount Blvd., Lakewood, CA 90712-4137; telephone: (562) 627-5245; fax: (562) 627-5210.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications should identify the Rules Docket number and be submitted in triplicate to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before taking action on the proposed rule. The proposals contained in this action may be changed in light of the comments received.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments submitted will be available, both before and after the closing date for comments, in the Rules Docket for examination by

interested persons. A report summarizing each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this action must submit a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 2000-NE-32-AD." The postcard will be date stamped and returned to the commenter.

Availability of NPRM's

Any person may obtain a copy of this NPRM by submitting a request to the FAA, New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 2000-NE-32-AD, 12 New England Executive Park, Burlington, MA 01803-5299.

Discussion

The manufacturer recently notified the FAA of four centrifugal compressor impellers, serial numbers 83317, 83327, 83328, and 83330, that may have been inadvertently misidentified. These impellers are installed in Honeywell International, Inc. (formerly AlliedSignal, Inc., and Textron Lycoming) T5313B series, T5317 series, and T53 series turboshaft engines. This misidentification allows these impellers to be operated beyond their design service life. This proposal would require for T5313B series and T5317 series engines, initial and repetitive inspections of those compressor impellers, if installed. This proposal would also require for T53 series engines, a revised operating cycle count (prorate) for those four centrifugal compressor impellers if installed, and initial and repetitive inspections, with replacement within 300 operating hours or six calendar months, whichever occurs first, after the effective date of this AD. In addition, this proposal would require the marking of those four compressor impellers. The actions specified in this AD are intended to prevent premature failure of the impellers from being operated beyond their design service life, which could result in an uncontained engine failure, in-flight shutdown, or damage to the helicopter.

Manufacturer's Service Information

The FAA has reviewed and approved the technical contents of Honeywell International, Inc. Service Bulletins (SB's) T5313B/17-0020, Revision 5, dated March 31, 2001, T53-L-13B-0020, Revision 2, dated April 25, 2001, T53-L-13B/D-0020, Revision 1, dated April 25, 2001, and T53-L-703-0020, Revision 1, dated April 25, 2001, that describe procedures for conducting a revised centrifugal compressor impeller operating cycle count (prorate). The FAA has also reviewed and approved the technical contents of Textron Lycoming SB T5313B/17-0052, Revision 2, dated December 16, 1993, AlliedSignal, Inc. SB's T53-L-13B-0108, Revision 1, dated November 22, 1999, T53-L-13B/D-0108, Revision 1, dated November 22, 1999, and T53-L-703-0108, Revision 1, dated November 22, 1999, that describe procedures for visual and fluorescent penetrant inspections of centrifugal compressor impellers.

Proposed Actions

Since an unsafe condition has been identified that is likely to exist or develop on other engines of the same type design registered in the United States, this AD is being issued to prevent premature failure of the impellers from being operated beyond their design service life, which could result in an uncontained engine failure, in-flight shutdown, or damage to the helicopter. The actions would be required to be accomplished in accordance with compliance requirements contained in this proposed rule.

Economic Impact

The FAA estimates there are approximately four Honeywell International, Inc., (formerly AlliedSignal, Inc., and Textron Lycoming) T5313B series, T5317 series, and former military T53 series turboshaft engines having the misidentified centrifugal compressor impellers, that are installed on helicopters of U.S. registry. The FAA also estimates that it would take approximately eight work hours per engine to accomplish the inspection, and that the average labor rate is \$60 per work hour. No additional work hour cost would be incurred if the centrifugal compressor impeller is replaced during normal engine disassembly. The prorated cost of a replacement compressor impeller is estimated to be \$20,000. Based on these figures, the total labor cost impact of the proposed

AD on U.S. operators is estimated to be \$21,920.

Regulatory Impact

This proposed 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 proposed rule.

For the reasons discussed above, I certify that 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); 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 copy of the draft regulatory evaluation prepared for this action 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, Safety.

The Proposed Amendment

Accordingly, pursuant to the authority delegated to me by the Administrator, the Federal Aviation Administration proposes to amend 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:

Honeywell International, Inc. Docket 2000-NE-32-AD.

Applicability

This airworthiness directive (AD) is applicable to Honeywell International, Inc., (formerly AlliedSignal, Inc., and Textron Lycoming) T5313B series, T5317 series, and former military T53 series, turboshaft engines with centrifugal compressor impellers having serial numbers (SN's) 83317, 83327, 83328, or 83330 installed. 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, 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 (i) 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 accomplished previously.

Life limits

(a) When conducting a revised centrifugal compressor impeller operating cycle count on impellers having SN's 83317, 83327, 83328, or 83330, consider these impellers to be centrifugal compressor impeller P/N 1-100-078-07. The life limit must use the value as if these centrifugal compressor impellers are P/N 1-100-078-07.

Revised Operating Cycle Count (Prorate) for T53 engines

(b) For former military T53 series engines, within 25 operating cycles or 7 calendar days, whichever occurs first, after the effective date of this airworthiness directive (AD), perform the following:

(1) Conduct a revised centrifugal compressor impeller operating cycle count (prorate) in accordance with paragraph 2.E. of the Honeywell International, Inc. Service Bulletin (SB) that applies to the engine, from the following list:

(i) For T53-L-13B series engines, use SB T53-L-13B-0020, Revision 2, dated April 25, 2001.

(ii) For T53-L-13B/D engines, use SB T53-L-13B/D-0020, Revision 1, dated April 25, 2001.

(iii) For T53-L-703 engines, use SB T53-L-703-0020, Revision 1, dated April 25, 2001.

(2) Remove from service centrifugal compressor impellers with SN's 83317, 83327, 83328, or 83330, that exceed their new life limit as calculated in accordance with paragraph (b)(1) of this AD.

Impeller Marking

(c) At the next access to the centrifugal compressor impeller, mark the impeller by vibropeening a line over the -14 suffix, and vibropeen a -07 suffix immediately following the -14. Use the following vibropeening parameters:

(1) Vibropeen to a depth of 0.001–0.006 inch.

(2) Do not vibropeen within 0.30 inch of corners, fillets, or sharp edges.

Definition

(d) For the purpose of this AD, access to the centrifugal compressor impeller is defined as whenever the turboshaft engine is disassembled sufficiently as specified by the applicable maintenance manual, to expose the compressor impeller for marking in accordance with paragraph (c) of this AD.

Inspection of Impellers on T5313B and T5317 Series Engines

(e) For T5313B and T5317 series engines, inspect centrifugal compressor impellers having SN's 83317, 83327, 83328, or 83330, for cracks in accordance with the Accomplishment Instructions of Textron Lycoming SB No. T5313B/17–0052, Revision 2, dated December 16, 1993, as follows:

(1) For those centrifugal compressor impellers installed on AlliedSignal, Inc. Model T5313B engines, accomplish the following:

(i) For centrifugal compressor impellers with equal to or greater than 4,600 cycles in service (CIS) on the effective date of this AD, initially inspect within 200 CIS after the effective date of this AD.

(ii) For those centrifugal compressor impellers with less than 4,600 CIS on the effective date of this AD, initially inspect no later than 4,800 CIS.

(2) For those centrifugal compressor impellers installed on AlliedSignal, Inc. T5317 series engines, accomplish the following:

(i) For those centrifugal compressor impellers with equal to or greater than 3,500 CIS on the effective date of this AD, initially inspect within 200 CIS after the effective date of this AD.

(ii) For those centrifugal compressor impellers with less than 3,500 CIS on the effective date of this AD, initially inspect no later than 3,700 CIS.

(3) Centrifugal compressor impellers found cracked in accordance with the Accomplishment Instructions of Textron Lycoming SB No. T5313B/17–0052, Revision 2, dated December 16, 1993, must be removed from service and replaced with a serviceable part that does not exceed the life limit.

(4) If no cracks are detected, perform repetitive inspections of the centrifugal compressor impellers at intervals not to exceed 500 CIS since last inspection in accordance with the Accomplishment Instructions of Textron Lycoming SB No. T5313B/17–0052, Revision 2, dated December 16, 1993.

Inspection of Impellers on T53–L–13B Series Engines

(f) For T53–L–13B/D series engines with centrifugal compressor impellers having SN's 83317, 83327, 83328, or 83330, perform the following:

(1) Within 25 operating hours from the effective date of this AD, inspect the centrifugal compressor impeller for cracks using the revised cycle count (prorate) required by paragraph (b)(1) of this AD, in

accordance with Accomplishment Instructions of AlliedSignal, Inc. SB No. T53–L–13B–0108, Revision 1, dated November 22, 1999.

(2) If cracks are detected, then prior to further flight, replace centrifugal compressor impellers found cracked in accordance with the Accomplishment Instructions of AlliedSignal, Inc. SB No. T53–L–13B–0108, Revision 1, dated November 22, 1999, and replace with a centrifugal compressor impeller P/N 1–100–078–13/–14.

(3) If no cracks are detected, perform repetitive inspections of the centrifugal compressor impellers at intervals not to exceed 100 operating hours since last inspection in accordance with the Accomplishment Instructions of AlliedSignal, Inc. SB No. T53–L–13B–0108, Revision 1, dated November 22, 1999.

(4) Within 300 operating hours or 6 calendar months, whichever occurs first, after the effective date of this AD, replace centrifugal compressor impellers having SN's 83317, 83327, 83328, or 83330, with a centrifugal compressor impeller P/N 1–100–078–13/–14. Replacement of centrifugal compressor impellers having SN's 83317, 83327, 83328, or 83330, with a centrifugal compressor impeller P/N 1–100–078–13/–14 constitutes terminating action for the inspection requirements of paragraphs (f)(1) and (f)(3) of this AD.

Inspection of Impellers on T53–L–13B/D Series Engines

(g) For T53–L–13B/D series engines with centrifugal compressor impellers having SN's 83317, 83327, 83328, or 83330, perform the following:

(1) Within 25 operating hours from the effective date of this AD, inspect the centrifugal compressor impeller for cracks using the revised cycle count (prorate) required by paragraph (b)(1) of this AD, in accordance with Accomplishment Instructions of AlliedSignal, Inc. SB No. T53–L–13B/D–0108, Revision 1, dated November 22, 1999.

(2) If cracks are detected, then prior to further flight, replace centrifugal compressor impellers found cracked in accordance with the Accomplishment Instructions of AlliedSignal, Inc. SB No. T53–L–13B/D–0108, Revision 1, dated November 22, 1999, and replace with a centrifugal compressor impeller P/N 1–100–078–13/–14.

(3) If no cracks are detected, perform repetitive inspections of the centrifugal compressor impellers at intervals not to exceed 100 operating hours since last inspection in accordance with the Accomplishment Instructions of AlliedSignal, Inc. SB No. T53–L–13B/D–0108, Revision 1, dated November 22, 1999.

(4) Within 300 operating hours or 6 calendar months, whichever occurs first, after the effective date of this AD, replace centrifugal compressor impellers having SN's 83317, 83327, 83328, or 83330, with a centrifugal compressor impeller P/N 1–100–078–13/–14. Replacement of centrifugal compressor impellers having SN's 83317, 83327, 83328, or 83330, with a centrifugal compressor impeller P/N 1–100–078–13/–14 constitutes terminating action for the

inspection requirements of paragraphs (g)(1) and (g)(3) of this AD.

Inspection of Impellers on T53–L–703 Engines

(h) For T53–L–703 series engines with centrifugal compressor impellers having SN's 83317, 83327, 83328, or 83330, perform the following:

(1) Within 25 operating hours from the effective date of this AD, inspect the centrifugal compressor impeller for cracks using the revised cycle count (prorate) required by paragraph (b)(1) of this AD, in accordance with Accomplishment Instructions of AlliedSignal, Inc. SB No. T53–L–703–0108, Revision 1, dated November 22, 1999.

(2) If cracks are detected, then prior to further flight, replace centrifugal compressor impellers found cracked in accordance with the Accomplishment Instructions of AlliedSignal, Inc. SB No. T53–L–703–0108, Revision 1, dated November 22, 1999, and replace with a centrifugal compressor impeller part number (P/N) 1–100–078–13/–14.

(3) If no cracks are detected, perform repetitive inspections of the centrifugal compressor impellers at intervals not to exceed 100 operating hours since last inspection in accordance with the Accomplishment Instructions of AlliedSignal, Inc. SB No. T53–L–703–0108, Revision 1, dated November 22, 1999.

(4) Within 300 operating hours or 6 calendar months, whichever occurs first, after the effective date of this AD, replace centrifugal compressor impellers having SN's 83317, 83327, 83328, or 83330, with a centrifugal compressor impeller P/N 1–100–078–13/–14. Replacement of centrifugal compressor impellers having SN's 83317, 83327, 83328, or 83330, with a centrifugal compressor impeller P/N 1–100–078–13/–14 constitutes terminating action for the inspection requirements of paragraphs (h)(1) and (h)(3) of this AD.

Alternative Methods of Compliance

(i) 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 shall 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 AD, if any, may be obtained from the Los Angeles ACO.

Special Flight Permits

(j) 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 helicopter to a location where the requirements of this AD can be accomplished.

Issued in Burlington, Massachusetts, on June 4, 2001.

Francis A. Favara,

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

[FR Doc. 01-14672 Filed 6-11-01; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 99-NE-62-AD]

RIN 2120-AA64

Airworthiness Directives; General Electric Company GE90 Series Turbofan Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The Federal Aviation Administration (FAA) proposes to supersede an existing airworthiness directive (AD), applicable to certain General Electric Company (GE) GE90 series turbofan engines. That AD currently requires inspecting and purging the P3B and Ps3 lines and associated fittings and ports of moisture. This proposal would allow the installation of improved hardware as terminating action to requirements of the AD, and remove the GE90-92B engine model from the AD applicability. This proposal is prompted by the recent FAA approval of redesigned P3B and Ps3 sense lines, and the removal of the GE90-92B engine from the applicability. The actions described in this proposal are intended to prevent loss of thrust control due to corruption of the P3B and Ps3 signals to the FADEC, which if it occurs in a critical phase of flight, could result in loss of airplane control.

DATES: Comments must be received by August 13, 2001.

ADDRESSES: Submit comments in triplicate to the Federal Aviation Administration (FAA), New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 99-NE-62-AD, 12 New England Executive Park, Burlington, MA 01803-5299. Comments may also be sent via the Internet using the following address: "9-ane-adcomment@faa.gov". Comments sent via the Internet must contain the docket number in the subject line. Comments may be inspected at this location between 8:00 a.m. and 4:30 p.m., Monday through Friday, except Federal holidays. The service information

referenced in the proposed rule may be obtained from General Electric Company via Lockheed Martin Technology Services, 10525 Chester Road, Suite C, Cincinnati, OH 45215; telephone: (513) 672-8400, fax: (513) 672-8422. This information may be examined at the FAA, New England Region, Office of the Regional Counsel, 12 New England Executive Park, Burlington, MA.

FOR FURTHER INFORMATION CONTACT: John E. Golinski, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone: (781) 238-7135; fax: (781) 238-7199.

SUPPLEMENTARY INFORMATION:

Comments Invited

Interested persons are invited to participate in the making of the proposed rule by submitting such written data, views, or arguments as they may desire. Communications should identify the Rules Docket number and be submitted to the address specified above. All communications received on or before the closing date for comments, specified above, will be considered before we take action on the proposed rule. The proposals contained in this action may be changed in light of the comments received.

Comments are specifically invited on the overall regulatory, economic, environmental, and energy aspects of the proposed rule. All comments sent will be available, both before and after the closing date for comments, in the Rules Docket for examination by interested persons. A report summarizing each FAA-public contact concerned with the substance of this proposal will be filed in the Rules Docket.

Commenters wishing the FAA to acknowledge receipt of their comments submitted in response to this action must send a self-addressed, stamped postcard on which the following statement is made: "Comments to Docket Number 99-NE-62-AD." The postcard will be date stamped and returned to the commenter.

Availability of NPRM's

Any person may obtain a copy of this NPRM by submitting a request to the FAA, New England Region, Office of the Regional Counsel, Attention: Rules Docket No. 99-NE-62-AD, 12 New England Executive Park, Burlington, MA 01803-5299.

Discussion

On December 29, 1999, the FAA issued AD 99-27-15, Amendment 39-

11496 (65 FR 692, January 6, 2000), to require visually inspecting P3B and Ps3 sense lines and FADEC P3B and Ps3 sensing ports and fittings, cleaning P3B and Ps3 fittings and sensing ports, purging the P3B and Ps3 systems of moisture, and, if necessary, blending of high metal, nicks, burrs, or scratches on P3B and Ps3 fitting threads. That action was prompted by seven reports of loss of thrust control due to corruption of the signals to the FADEC caused by water freezing in the Ps3 sensing system. That condition, if not corrected, could result in loss of thrust control due to corruption of the P3B and Ps3 signals to the FADEC, which if it occurs in a critical phase of flight, could result in loss of airplane control. Since that AD was issued, improved hardware has been introduced as terminating action to the visual inspections, cleanings, purging, and blending of metal. Also, alternative methods of compliance approved for AD 99-27-15 are incorporated as conventional methods of compliance in this proposal. Also, the GE90-92B engine model has been removed from the AD applicability. The FAA recently removed the GE90-92B engine from the type certificate at the request of GE.

Service Information

The FAA has reviewed and approved the technical contents of GE Alert Service Bulletin (ASB) GE90 73-A0060, Revision 3, dated September 14, 2000, that describes procedures for:

- Visually inspecting P3B and Ps3 sense lines and FADEC sensing ports and fittings.
- Cleaning P3B and Ps3 fittings and sensor ports, purging the P3B and Ps3 systems of moisture.
- Blending of high metal, nicks, burrs, or scratches on Ps3 and P3B fitting threads.

The FAA has also reviewed and approved the technical contents of GE Service Bulletin (SB) GE90 S/B 75-0031, Revision 3, dated March 30, 2001, that describes procedures for replacing existing P3B and Ps3 lines and related brackets and clamping with redesigned hardware.

Differences Between ASB, SB, and Proposal

This proposal contains provisions for initial actions and GE ASB GE90 73-A0060, Revision 3, dated September 14, 2000, assumes that all operators have completed the initial actions based on field reports. If, however, operators have already accomplished the required initial actions, they need not repeat those actions, but may proceed directly to accomplishing the repetitive actions,