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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 99–NE–51–AD; Amendment 39–12780; AD 2002–12–08]

RIN 2120–AA64

Airworthiness Directives; Honeywell International, Inc. (formerly AlliedSignal Inc., and Textron Lycoming) ALF502 and LF507 Series Turbofan Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), that is applicable to Honeywell International, Inc. (formerly AlliedSignal Inc., and Textron Lycoming) ALF502 and LF507 series turbofan engines. This amendment requires removal from service of certain gas producer turbine (GPT) components prior to reaching new, lower cyclic life limits using drawdown plans and replacing with serviceable parts. This amendment is prompted by continuous analysis of field-returned hardware indicating smaller service life margins than originally expected. The actions specified by this AD are intended to prevent GPT component failure, which could result in an uncontained engine failure and damage to the airplane.

DATES: Effective July 17, 2002.

ADDRESSES: Information regarding this action 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.

FOR FURTHER INFORMATION CONTACT: Robert Baitoo, Aerospace Engineer, Los Angeles Aircraft Certification Office, FAA, Transport Airplane Directorate, 3960 Paramount Blvd., Lakewood, CA 90712; 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) ALF502 and LF507 series turbofan engines was published in the **Federal Register** on August 23, 2001 (66 FR 44316). That action proposed to require removal from service of certain GPT components prior to reaching new, lower cyclic life limits using drawdown plans, and replacing with serviceable parts.

Comments

Interested persons have been afforded an opportunity to participate in the making of this amendment. No comments were received on the proposal or the FAA's determination of the cost to the public. However, since the proposal was published, the FAA has identified the need for a few corrections and clarifications.

Eliminate Redundant Part Numbers (P/N's)

Because the title of Table 3 lists those turbine spacer P/N's affected, the spacer P/N's in item 2 of the table are redundant and have been deleted.

Engine Model Inadvertantly Listed

Item 3 of Table 3, which is engine model ALF502R–3, has been identified as not having on its build list, spacer P/N 2–121–071–36. Therefore, this information has been deleted, and Table 3 has been renumbered accordingly.

Certain Spacer Installations Not Affected

A note after Table 3 has been added, to clarify that this AD does not affect the life limit of spacers P/N's 2–121–071–37–42, installed in ALF502R–3 engines. The life limit remains at 11,600 cycles-since-new.

After careful review of the available data, including the changes noted above, the FAA has determined that air safety and the public interest require the adoption of the rule with the changes described previously. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

Economic Analysis

There are approximately 1,600 engines of the affected design in the worldwide fleet. The FAA estimates that 300 engines installed on airplanes of U.S. registry would be affected by this AD, and that the prorated cost of the life reduction per engine would be approximately $7,980. Based on these figures, the total cost of the AD to U.S. operators is estimated to be $2,394,000.

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) 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, 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 a new airworthiness directive to read as follows:

2002–12–08 Honeywell International, Inc.: Amendment 39–12780. Docket No. 99–NE–51–AD.

Applicability

This airworthiness directive (AD) is applicable to Honeywell International, Inc. (formerly AlliedSignal Inc., and Textron Lycoming) ALF502 and LF507 series turbofan engines with certain first turbine rotor sealing plates, first turbine rotor discs, and turbine spacers installed. These engines are installed on, but not limited to, Bombardier (Canadair) CL600–1A11, and British Aerospace BAe 146 series and AVRO 146-RJ series airplanes.

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 (f) 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 gas producer turbine (GPT) component failure, which could result in an uncontained engine failure and damage to the airplane, do the following:

Drawdown Schedule for First Turbine Rotor Sealing Plate

(a) Remove from service first turbine rotor sealing plates according to the drawdown plan described in the following Table 1 of this AD, and replace with serviceable parts:

TABLE 1.—FIRST TURBINE ROTOR SEALING PLATE

Part Numbers (P/N's) 2–121–075–15, –21, –27, –28, and –36

Engine model	Cycles-in-service since new (CSN) on the effective date of this AD	Replace
(1)ALF502R, LF507–1F, and LF507–1H series	(i) Fewer than 15,000 CSN	Before accumulating 20,000 CSN.
	(ii) 15,000 or more CSN	Within 5,000 cycles-in-service (CIS) after the effective date of this AD or at the next access after the effective date of this AD, whichever is earlier, but do not exceed 25,000 CSN.
(2) All ALF502L series	(i) Fewer than 17,500 CSN	Before accumulating 18,000 CSN.
	(ii) 17,500 or more CSN	Within 500 CIS after the effective date of this AD or at the next access after the effective date of this AD, whichever is earlier, but do not exceed 23,000 CSN.

Drawdown Schedule for First Turbine Rotor Disc

(b) Remove from service first turbine rotor discs according to the drawdown plan described in the following Table 2 of this AD, and replace with serviceable parts:

TABLE 2.—FIRST TURBINE ROTOR DISC

P/N's 2–121–051–18, –24, –25, –R35, –36, –37, –44, –R52, and –R55

Engine model	Cycles-in-service since new (CSN) on the effective date of this AD	Replace
(1) ALF502R, LF507–1F, and LF507–1H series	(i) Fewer than 15,000 CSN	Before accumulating 20,000 CSN.
	(ii) 15,000 or more CSN	Within 5,000 CIS after the effective date of this AD or at the next access after the effective date of this AD, whichever is earlier, but do not exceed 25,000 CSN.
(2) All ALF502L series	(i) Fewer than 13,500 CSN	Before accumulating 14,000 CSN.
	(ii) 13,500 or more CSN	Within 500 CIS after the effective date of this AD or at the next access after the effective date of this AD, whichever is earlier, but do not exceed 21,000 CSN.

Drawdown Schedule for Turbine Spacer

(c) Remove from service turbine spacers according to the drawdown plan described in the following Table 3 of this AD, and replace with serviceable parts:

TABLE 3.—TURBINE SPACER

P/N's 2–121–071–36, –37, and –42

Engine model	First turbine rotor assembly P/N	Cycles-in-service since new (CSN) on the effective date of this AD	Replace
(1) ALF502R series (except ALF502R–3, see information in Note 2), LF507–1F, and LF507–1H series	P/N 2–121–090–63, –64, –65, –R66, or –R67.	(i) Fewer than 10,000 CSN	Before accumulating 15,000 CSN.
		(ii) 10,000 or more CSN	Within 5,000 CIS after the effective date of this AD or at the next access after the effective date of this AD, whichever is earlier, but do not exceed 20,000 CSN.
(2) ALF502R series	P/N 2–121–090–41 or –42 or if rotor assembly P/N cannot be determined.		Before accumulating 12,000 CSN.
(3) All ALF502L series	P/N 2–121–090–63, –64, –65, –R66, –R67, –91, –R92.	(i) Fewer than 13,500 CSN	Before accumulating 14,000 CSN.
		(ii) 13,500 or more CSN	Within 500 CIS after the effective date of this AD or at the next access after the effective date of this AD, whichever is earlier, but do not exceed 19,500 CSN.
(4) All ALF502L series	P/N 2–121–090–41, –42 or if rotor assembly P/N cannot be determined.		Before accumulating 10,800 CSN.

Note 2: For ALF502R–3 engines, turbine spacers P/N's 2–121–071–37/-42 are not affected by this drawdown plan. Their life limit remains at 11,600 CSN.

Reduced Life Limits

(d) Except for the drawdown provisions of paragraphs (a), (b), and (c) of this AD and the approvals granted under the provisions of paragraph (f) of this AD, no first turbine rotor sealing plates, first turbine rotor discs, or turbine spacers may remain in service beyond the cyclic life limits provided in paragraphs (a), (b), or (c) of this AD.

Definitions

(e) For the purposes of this AD, access is defined as when the engine has been disassembled to where the affected part may be removed.

Alternative Methods of Compliance

(f) 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 must submit their request through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, LAACO.

Note 3: 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

(g) 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 airplane to a location where the requirements of this AD can be done.

Effective Date

(h) This amendment becomes effective on July 17, 2002.

Issued in Burlington, Massachusetts, on June 5, 2002.

Francis A. Favara,

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

[FR Doc. 02–14697 Filed 6–11–02; 8:45 am]

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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 98–ANE–61–AD; Amendment 39–12778; AD 2002–12–06]

RIN 2120–AA64

Airworthiness Directives; Pratt & Whitney (PW) PW2000 Series Turbofan Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment supersedes an existing airworthiness directive (AD), that is applicable to certain Pratt & Whitney (PW) PW2000 series turbofan engines. That AD currently requires revisions to the engine manufacturer's Time Limits section (TLS) to include enhanced inspection of selected critical life-limited parts at each piece-part exposure. This action modifies the airworthiness limitations section of the manufacturer's manual and an air carrier's approved continuous airworthiness maintenance program to incorporate additional inspection requirements. This amendment is prompted by an FAA study of in-service events involving uncontained failures of critical rotating engine parts that has indicated the need for mandatory inspections. The actions specified by this AD are intended to prevent critical life-limited rotating engine part failure, which could result in an uncontained engine failure and damage to the airplane.

DATES: Effective date July 17, 2002.

ADDRESSES: The information referenced in this AD 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.

FOR FURTHER INFORMATION CONTACT: Jason Yang, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803–5299; telephone (781) 238–7747; fax (781) 238–7199.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) by superseding AD 2000–21–09, Amendment 39–11941 (65 FR 65730, November 3, 2000), which is applicable to Pratt & Whitney (PW) PW2000 series turbofan engines, was published in the