[Federal Register: September 24, 2001 (Volume 66, Number 185)]
[Rules and Regulations]
[Page 48791-48792]
From the Federal Register Online via GPO Access [wais.access.gpo.gov]
[DOCID:fr24se01-3]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. 2000-NE-41-AD; Amendment 39-12442; AD 2001-19-03]

RIN 2120-AA64

Airworthiness Directives; Rolls-Royce Corporation (Formerly Allison Engine Company) Model AE 3007A and AE 3007C Turbofan Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), that is applicable to Rolls-Royce Corporation (formerly Allison Engine Company) Model AE 3007A and AE 3007C turbofan engines with a certain part number high pressure turbine (HPT) 1st to 2nd stage turbine spacer installed. This amendment requires removal and replacement of that HPT 1st to 2nd stage turbine spacer before it reaches its new reduced engine cycle life limit.This amendment is prompted by the results of a detailed component analysis that indicates that the HPT 1st to 2nd stage turbine spacer stresses are higher than predicted.The actions specified by this AD are intended to prevent HPT 1st to 2nd stage turbine spacer failure which could result in an uncontained engine failure and damage to the airplane.

DATES: Effective date October 29, 2001.

FOR FURTHER INFORMATION CONTACT: Michael Downs, Aerospace Engineer, Chicago Aircraft Certification Office, FAA, Small Airplane Directorate, 2300 E. Devon Ave., Des Plaines, IL 60018; telephone (847) 294-7870, fax (847) 294-7834.

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 Rolls-Royce Corporation (formerly Allison Engine Company) Model AE 3007A and AE 3007C turbofan engines with HPT 1st to 2nd stage turbine spacer part number (P/N) 23058369 installed was published in the Federal Register on February 22, 2001 (66 FR 11126). That action proposed to require removal and replacement of the HPT 1st to 2nd stage turbine spacer P/N 23058369 before it reaches its new reduced engine cycle life limit.

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. The FAA has determined that air safety and the public interest require the adoption of the rule as proposed.

Economic Impact

There are approximately 378 engines of the affected design in the worldwide fleet. The FAA estimates that 300 engines installed on 150 airplanes of U.S. registry would be affected by this proposed AD. It will take approximately 13 work hours per engine to accomplish the removal and replacement of the affected HPT 1st to 2nd stage spacer. The 13 work hours cited include teardown and reassembly from the module level, but not engine removal. Engines are rarely scheduled off-wing solely for the purpose of replacement of time-expired components.The average labor rate is $60 per work hour. Required parts will cost approximately $10,012 per engine. Based on these figures, the FAA estimates the total cost impact of the proposed AD on U.S. operators, to be $3,237,600. Because most of the fleet field parts are below the new value, special scheduling should not be required.

Regulatory Impact

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, 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 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).

2001-19-03 Rolls-Royce Corporation (formerly Allison Engine Company): Model AE 3007A and AE 3007C turbofan engines with high pressure turbine (HPT) 1st to 2nd stage turbine spacer part number (P/N) 23058369 installed. Amendment 39-12442. Docket 2000-NE-41-AD.

Applicability

This airworthiness directive (AD) is applicable to Rolls-Royce Corporation (formerly Allison Engine Company) Model AE 3007A and AE 3007C turbofan engines with HPT 1st to 2nd stage turbine spacer P/N 23058369 installed. These engines are installed on, but not limited to Empresa Brasileira de Aeronautica S.A. (EMBRAER) EMB-145, and Cessna 750 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 (c) 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 HPT 1st to 2nd stage turbine spacer failure, which could result in an uncontained engine failure and damage to the airplane, do the following:

New Reduced Engine Cycle Life Limit

(a) For all Rolls-Royce Corporation Model AE 3007A and AE 3007C turbofan engines with HPT 1st to 2nd stage turbine spacer, P/N 23058369 installed, remove spacer before reaching the new reduced engine cycle life limit of 9,400 cycles and replace with a serviceable part.

(b) Revise the airworthiness limitations section of the Instruction for Continued Airworthiness, as follows: P/N 23058369=9,400 cycles.

Alternative Methods of Compliance

(c) 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, Chicago Aircraft Certification Office. Operators must submit their request through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Chicago Aircraft Certification Office (ACO).

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

Special Flight Permits

(d) 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.

(e) This amendment becomes effective on October 29, 2001.

Issued in Burlington, Massachusetts, on September 17, 2001.

Jay J. Pardee,

Manager, Engine and Propeller Directorate, Aircraft Certification Service.

[FR Doc. 01-23730 Filed 9-21-01; 8:45 am]

BILLING CODE 4910-13-P