[4910-13-U]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [64 FR 6786 NO. 28 02/11/99]

[Docket No. 98-ANE-08-AD; Amendment 39-11027; AD 99-04-03]

RIN 2120-AA64

Airworthiness Directives; International Aero Engines AG (IAE) V2500-A5/-D5 Series Turbofan Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), applicable to International Aero Engines AG (IAE) V2500-A5/-D5 series turbofan engines, that requires the removal from service of certain high pressure compressor (HPC) stage 9-12 drums prior to reaching the new reduced cyclic life limits, and replacement with serviceable parts. This amendment is prompted by the reduction of the life limit for certain IAE V2500 HPC stage 9-12 drums due to higher stresses in this part than originally predicted. The actions specified by this AD are intended to prevent high pressure compressor (HPC) stage 9-12 drum failure, which could result in an uncontained engine failure and damage to the aircraft.

DATES: Effective date April 12, 1999.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of April 12, 1999.

ADDRESSES: The service information referenced in this AD may be obtained from Rolls-Royce Commercial Aero Engine Limited, P. O. Box 31, Derby, England, DE2488J, Attention: Publication Services ICL-TP. 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: Diane Cook, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7133, fax (781) 238-7199.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR part 39) to include an airworthiness directive (AD) that is applicable to International Aero Engines AG (IAE) V2500-A5/-D5 series turbofan engines was published in the Federal Register on September 28, 1998 (63 FR 51545). That action proposed to require removal from service of certain HPC stage 9-12 drums prior to reaching new, reduced cyclic

life limits, and replacement with serviceable parts in accordance with IAE Service Bulletin (SB) No. V2500-ENG-72-0293, dated December 19, 1997.

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

One commenter identifies a typographical error in paragraph (a) of the Compliance section and requests that "Remove for service" be changed to "Remove from service." The FAA concurs. The typographical error has been corrected to "Remove from service."

Two commenters express concern about the clarity and intent of paragraph (d) of the Compliance section. They believed that the second sentence of paragraph (d) suggested a life limit of all part number (P/N) stage 9-12 drums are limited by the requirements of the proposed AD. They are concerned that that this could be interpreted to mean that future stage 9-12 drums would have their life limits controlled by this proposed AD. The FAA concurs. Paragraph (d) has been changed to add "P/N 6A4156" to the end of the sentence. The last sentence will now state "Thereafter, except as provided in paragraph (e) of this AD, no alternative cyclic retirement life limits may be approved for HPC stage 9-12 drum, P/N 6A4156."

After careful review of the available data, including the comments 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.

There are approximately 400 International Aero Engines AG (IAE) V2500-A5/-D5 series turbofan engines of the affected design in the worldwide fleet. The FAA estimates that 162 engines installed on airplanes of U.S. registry will be affected by this AD and that it will take no additional work hours per engine to accomplish the required actions. Required parts, on a prorated basis, will cost approximately \$49,000 per engine. Based on these figures, the total cost impact of the AD on U.S. operators is estimated to be \$7,900,000

The regulations adopted herein will not have substantial direct effects 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. Therefore, in accordance with Executive Order 12612, it is determined that this final rule does not have sufficient federalism implications to warrant the preparation of a Federalism Assessment.

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 it 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:

AIRWORTHINESS DIRECTIVE

REGULATORY SUPPORT DIVISION P.O. BOX 26460 OKLAHOMA CITY, OKLAHOMA 73125-0460



U.S. Department of Transportation Federal Aviation Administration

The following Airworthiness Directive issued by the Federal Aviation Administration in accordance with the provisions of Federal Aviation Regulations, 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 FAR Subpart 39.3).

99-04-03 International Aero Engines: Amendment 39-11027. Docket 98-ANE-08-AD.

Applicability: International Aero Engines AG (IAE) Models V2522-A5, V2524-A5, V2527-A5, V2527-A5, V2527-A5, V2530-A5, V2533-A5, V2525-D5, V2528-D5 turbofan engines, installed on but not limited to Airbus Industrie A319, A320, A321 series and McDonnell Douglas MD-90 series aircraft.

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 high pressure compressor (HPC) stage 9-12 drum failure, which could result in an uncontained engine failure and damage to the aircraft, accomplish the following:

(a) Remove from service HPC stage 9-12 drums, part number (P/N) 6A4156, operated in a single engine model at a single thrust rating prior to accumulating the new, reduced cyclic life limits, which are dependent upon the engine installation and thrust rating, as described in Table 1 of IAE Service Bulletin (SB) No. V2500-ENG-72-0293, dated December 19, 1997, and replace with a serviceable part.

(b) Remove from service HPC stage 9-12 drums, P/N 6A4156, installed in engines which operate at a mixture of thrust ratings, prior to accumulating the cyclic life limit of the highest thrust rating employed, as described in Table 1 of IAE SB No. V2500-ENG-72-0293, dated December 19, 1997, and replace with a serviceable part. The use of an HPC stage 9-12 drum, P/N 6A4156, at a higher thrust rating for even a single flight invokes the cyclic life limit applicable for the higher thrust rating.

(c) Remove from service HPC stage 9-12 drums, P/N 6A4156, removed from one engine model and installed into another engine model or operated at different thrust ratings prior to accumulating the applicable component cyclic life limit for the engine model with the highest thrust rating, as described in Table 1 of IAE SB No. V2500-ENG-72-0293, dated December 19, 1997, regardless of the cycles in service at this rating, and replace with a serviceable part.

(d) This AD establishes new cyclic retirement life limits for HPC stage 9-12 drums, part number (P/N) 6A4156. Thereafter, except as provided in paragraph (e) of this AD, no alternative cyclic retirement life limits may be approved for HPC stage 9-12 drums, P/N 6A4156.

(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, Engine Certification Office. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector, who may add comments and then send it to the Manager, Engine Certification Office.

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

(f) 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.

(g) The cyclic retirement life limits shall be determined in accordance with the following International Aero Engines SB:

Document No.	Pages	Revision	Date
V2500-ENG-72-0293	1-7	Original	December 19, 1997
Total pages: 7.			

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 Rolls-Royce Commercial Aero Engine Limited, P. O. Box 31, Derby, England, DE2488J, Attention: Publication Services ICL-TP. 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.

(h) This amendment becomes effective on April 12, 1999.

FOR FURTHER INFORMATION CONTACT: Diane Cook, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone (781) 238-7133, fax (781) 238-7199.