

[4910-13-U]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [64 FR 9910 No. 39 03/01/99]

[Docket No. 98-ANE-76-AD; Amendment 39-11053; AD 99-05-05]

RIN 2120-AA64

Airworthiness Directives; International Aero Engines AG (IAE) V2500-A1 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-A1 series turbofan engines, that requires initial and repetitive inspections of certain High Pressure Turbine (HPT) stage 1 and stage 2 disks utilizing an improved ultrasonic method when the disks are exposed during a normal shop visit, and if a subsurface anomaly is found, removal from service and replacement with a serviceable part. This amendment is prompted by the results of a stage 1 HPT disk fracture investigation which has identified a population of HPT stage 1 and 2 disks that may have subsurface anomalies formed as a result of the processes used to manufacture the material. The actions specified by this AD are intended to prevent HPT disk fracture, which could result in an uncontained engine failure, and damage to the airplane.

DATES: Effective date April 30, 1999.

The incorporation by reference of certain publications listed in the regulations is approved by the Director of the Federal Register as of April 30, 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-A1 series turbofan engines was published in the

Federal Register on January 6, 1999 (64 FR 787). That action proposed to require initial and repetitive inspections of certain High Pressure Turbine (HPT) stage 1 and stage 2 disks utilizing an improved ultrasonic method when the disks are exposed during a normal shop visit. The action also proposed removal from service and replacement with a serviceable part in accordance with IAE Service Bulletin (SB) No. V2500-ENG-72-0344, dated December 18, 1998, if a subsurface anomaly is found.

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 supports the proposed actions contained in the notice of proposed rulemaking (NPRM).

One commenter notes that its operators are not affected by the proposed actions contained in the NPRM.

One commenter suggests changing some of the wording in the discussion section of the NPRM to more accurately describe the process by which a defect within the HPT stage 1 and stage 2 disks may have occurred. The FAA concurs and has made an appropriate wording change in the summary section.

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 as proposed. The FAA has determined that these changes will neither increase the economic burden on any operator nor increase the scope of the AD.

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:

SUPERSEDED

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).

99-05-05 International Aero Engines: Amendment 39-11053. Docket 98-ANE-76-AD.

Applicability: International Aero Engines AG (IAE) Models V2500-A1 turbofan engines, installed on but not limited to Airbus Industrie A320 series airplanes.

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 (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: Required as indicated, unless accomplished previously.

To prevent a high pressure turbine (HPT) disk fracture, which could result in an uncontained engine failure, and damage to the airplane, accomplish the following:

(a) Ultrasonic inspect for subsurface anomalies those HPT stage 1 and stage 2 disks, with serial numbers listed in Tables 1, 2, 3, and 4 of IAE Service Bulletin (SB) V2500-ENG-72-0344, dated December 18, 1998, at the first opportunity when the engine is disassembled sufficiently to afford access to the High Pressure Turbine (HPT) subassembly, or no later than 10,000 cycles in service (CIS) from the effective date of this AD, whichever occurs first, in accordance with Paragraphs F (1) and (2) of IAE SB V2500-ENG-72-0344, dated December 18, 1998.

(b) Thereafter, repetitively ultrasonic inspect for subsurface anomalies those HPT disks identified in paragraph (a) whenever the engine is disassembled sufficiently to afford access to the HPT subassembly, or no later than 12,000 CIS since last ultrasonic inspection, whichever occurs first, in accordance with Paragraph F (1) and (2) of IAE SB V2500-ENG-72-0344, dated December 18, 1998.

(c) Those HPT disks rejected at inspection may not be reinstalled and must be replaced with a serviceable part.

(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, 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.

(e) 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 aircraft to a location where the requirements of this AD can be accomplished.

(f) The inspections must be done in accordance with the following International Aero Engines SB:

Document No.	Pages	Revision	Date
V2500-ENG-72-0344	1-8	Original	December 18, 1998

Total pages: 8.

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.

(g) This amendment becomes effective on April 30, 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.