

[4910-13-U]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [64 FR 17956 NO. 70 04/13/99]

[Docket No. 98-ANE-45-AD; Amendment 39-11117; AD 99-08-11]

RIN 2120-AA64

Airworthiness Directives; International Aero Engines AG (IAE) V2500-A1/-A5/-D5 Series Turbofan Engines

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD), that requires revisions to the Airworthiness Limitations Section (ALS) and Maintenance Scheduling Section (MSS) of the Instructions for Continued Airworthiness (ICA) in the Time Limits Manual (Chapter 05-10-00) of the Engine Manuals for International Aero Engines AG (IAE) V2500-A1/-A5/-D5 series turbofan engines to include required enhanced inspection of selected critical life-limited parts at each piece-part exposure. This AD will also require an air carrier's approved continuous airworthiness maintenance program to incorporate these inspection procedures. This amendment is prompted by a Federal Aviation Administration (FAA) study of in-service events involving uncontained failures of critical rotating engine parts which indicated the need for improved inspections. The improved inspections are needed to identify those critical rotating parts with conditions, that if allowed to continue in service, could result in uncontained failures. 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 May 13, 1999.

ADDRESSES: The information referenced in this AD 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 IAE V2500-A1/-A5/-D5 series turbofan engines was published in the Federal Register on July 28, 1998 (63 FR 40218). That action proposed to require revisions to the ALS and MSS of the ICA in the Time Limits Manual (Chapter 05-10-00) of the Engine Manuals for IAE V2500-A1/-A5/-D5 series turbofan engines to include required enhanced inspection of selected critical life-limited parts at each piece-part exposure and the incorporation of these procedures into the air carriers' approved continuous airworthiness maintenance program.

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 proposes to remove the current publication dates of the engine manuals specified in paragraphs (a)(1), (2), and (3) of the compliance section of this AD to avoid AD applicability issues in the event of a manual revision prior to the effectivity of the Final Rule AD. The FAA concurs. The purpose of paragraphs (a)(1), (2), and (3) is to identify the engine manuals and the specific areas in the manuals that will be revised by this AD. The publication dates are not necessary to identify these engine manuals since the part number of each manual is specified. Therefore, the dates will be deleted from these subject paragraphs in the AD. Additionally, page numbers have been removed from paragraphs (a)(1), (2), and (3).

One commenter indicates that there is a typographical error in the part number (P/N) of the A1/-A5 Engine Manual. The correct P/N is E-V2500-1IA not M-V2500-1IA. The FAA concurs. The typographical error will be corrected in paragraph (a)(2) of the compliance section of this AD.

Several commenters ask that the FAA clarify the record keeping aspects of the mandatory inspections resulting from the required changes to the Original Equipment Manufacturer's manual and operator's continuous airworthiness maintenance program. One commenter believes that paragraph (e) of the proposed rule is unclear and suggests that it be revised by eliminating the word "or" from the first sentence and beginning a second sentence with "In lieu of the record..." Two commenters state that the AD should be revised to clearly specify which types of maintenance records must be retained (i.e., inspection results, defect reporting requirements, date of performed maintenance, signature of the person performing the maintenance). These commenters believe that these revisions are necessary in order to avoid potential differences in interpretation between the air carriers and the FAA. And, one commenter states that the AD should clarify that there is no need for a special form to comply with the AD record keeping requirements. The FAA concurs in part. Generally, record keeping requirements are addressed in other regulations and this AD does not change those requirements. In order to allow flexibility from operator to operator, the FAA does not agree that the AD itself specify the precise nature of the records that will result from the required changes to the manufacturer's manual and operator's maintenance program. The FAA has, however, revised Paragraph (e) of this AD to clarify record keeping aspects of the new mandatory inspections.

One commenter supported the rule as proposed.

No comments were received on the economic analysis contained in the proposed rules. Based on that analysis, the FAA has determined that the annual per engine cost of \$61 does not create a significant economic impact on small entities.

Additional editorial changes:

The engine manuals' Airworthiness Limitations sections contain a paragraph that refers to paragraph 2, "Maintenance Scheduling," which meets the intent of this AD. Therefore, the exact wording from the manual will be used in this AD. Paragraph (a)(i) of the compliance section will read: "Refer to Paragraph 2 - Maintenance Scheduling for information that sets forth the operators' maintenance requirements for the V2500 On-Condition engine."

In addition, for clarity, Paragraph (a)(ii) of the compliance section will read: "Whenever a Group A part identified in this paragraph, (see 2.1 for definition of Group A), satisfies both ...conditions."

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 regulations adopted herein would 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 would 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 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 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 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).

99-08-11 International Aero Engines AG (IAE): Amendment 39-11117. Docket 98-ANE-45-AD.

Applicability: International Aero Engines AG (IAE) V2500-A1/-A5/-D5 series turbofan engines installed on but not limited to Airbus A319, A320, A321, and McDonnell Douglas MD-90 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 (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: Required as indicated, unless accomplished previously.

To prevent critical life-limited rotating engine part failure, which could result in an uncontained engine failure and damage to the airplane, accomplish the following:

(a) Within the next 30 days after the effective date of this AD, revise the Airworthiness Limitations Section (ALS) and Maintenance Scheduling Section (MSS) of the Instructions for Continued Airworthiness (ICA) in the Time Limits Manuals of the Engine Manuals, part number (P/N) E-V2500-1IA and P/N E-V2500-3IA, and for air carrier operations revise the approved continuous airworthiness maintenance program, by adding the following:

(1) For Engine Manual, P/N E-V2500-1IA, Time Limits Manual, Chapter 5-10-00, Configuration -1, (Effectivity: V2500-A1); and

(2) For Engine Manual, P/N E-V2500-1IA, Time Limits Manual, Chapter 5-10-00, Configuration -2, (Effectivity: V2500-A5), and;

(3) For Engine Manual, P/N E-V2500-3IA, Time Limits Manual, Chapter 5-10-00, (Effectivity: V2500-D5):

(i) Add the following to paragraph 1, entitled "Airworthiness Limitations:"
"Refer to paragraph 2 - Maintenance Scheduling for information that sets forth the operators maintenance requirements for the V2500 On-Condition engine."

(ii) Add the following to paragraph 2, entitled " Maintenance Scheduling:"
"Whenever a Group A part identified in this paragraph (see 2.1 for definition of group A) satisfies both of the following conditions:

(A) The part is considered completely disassembled when accomplished in accordance with the disassembly instructions in the engine manufacturer's engine manual; and

(B) The part has accumulated more than 100 cycles in service since the last piece-part opportunity inspection, provided that the part was not damaged or related to the cause for its removal from the engine; then that part is considered to be at the piece-part level and it is mandatory to perform the inspections for that part as specified in the following:

Part Nomenclature	Part number (P/N)	Inspect per Engine Manual
Fan Disk	All	Chapter 72-31-12
		Subtask 72-31-12-230-054"

(b) Except as provided in paragraph (c) of this AD, and notwithstanding contrary provisions in Sec. 43.16 of the Federal Aviation Regulations (14 CFR 43.16), these mandatory inspections shall be performed only in accordance with the ALS and MSS in the applicable Engine Manual.

(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, Engine Certification Office. Operators shall submit their requests through an appropriate FAA Principal Maintenance Inspector (PMI), 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.

(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 airplane to a location where the requirements of this AD can be accomplished.

(e) FAA-certificated air carriers that have an approved continuous airworthiness maintenance program in accordance with the record keeping requirement of Sec. 121.369 (c) of the Federal Aviation Regulations [14 CFR 121.369 (c)] of this chapter must maintain records of the mandatory inspections that result from revising the Time Limits section of the Instructions for Continuous Airworthiness (ICA) and the air carrier's continuous airworthiness program. Alternately, certificated air carriers may establish an approved system of record retention that provides a method for preservation and retrieval of the maintenance records that include the inspections resulting from this AD, and include the policy and procedures for implementing this alternate method in the air carrier's maintenance manual required by Sec. 121.369 (c) of the Federal Aviation Regulations [14 CFR 121.369 (c)]; however, the alternate system must be accepted by the appropriate PMI and require the maintenance records be maintained either indefinitely or until the work is repeated. Records of the piece-part inspections are not required under Sec. 121.380 (a) (2) (vi) of the Federal Aviation Regulations [14 CFR 121.380 (a) (2) (vi)]. All other Operators must maintain the records of mandatory inspections required by the applicable regulations governing their operations.

Note 3: The requirements of this AD have been met when the engine manual changes are made and air carriers have modified their continuous airworthiness maintenance plans to reflect the requirements in the engine manuals.

(f) This amendment becomes effective on May 13, 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.

SUPERSEDED