[4910-13-U]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39 [65 FR 65255 11/1/2000]

[Docket No. 2000-NE-21-AD; Amendment 39-11953; AD 2000-22-07]

RIN 2120-AA64

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

AGENCY: Federal Aviation Administration, DOT.

ACTION: Final Rule.

SUMMARY: This amendment adopts a new airworthiness directive (AD) that is applicable to certain International Aero Engines AG (IAE) V2500-A5 and -D5 series turbofan engines, identified by serial number. This amendment requires the removal of engines assembled with an improper High Pressure Turbine (HPT) module configuration from service prior to accumulating 5,100 or 7,600 cycles in the improper configuration, or at the next shop visit, depending on the type of improper HPT configuration, and restoration to type design. This amendment is prompted by reports of engines that do not conform to the engine type design, which could cause a Low Cycle Fatigue (LCF) life reduction of the HPT stage 1 disk. The actions specified by this AD are intended to restore engines to type design configuration and to prevent possible LCF failure of the HPT stage 1 disk, which could result in an uncontained engine failure and damage to the airplane.

DATES: Effective date December 6, 2000. The incorporation by reference of certain publications listed in the rule is approved by the Director of the Federal Register as of December 6, 2000.

ADDRESSES: The service information referenced in this AD may be obtained from International Aero Engines AG, 400 Main Street, East Hartford, CT 06108; telephone: (860) 565-5515; fax: (860) 565-5510. This information may be examined 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.

FOR FURTHER INFORMATION CONTACT: Robert Ganley, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone: 781-238-7138, fax: 781-238-7199.

SUPPLEMENTARY INFORMATION: A proposal to amend part 39 of the Federal Aviation Regulations (14 CFR 39) to include an airworthiness directive (AD) that is applicable to International Aero Engines AG V2500-A5 and -D5 series turbofan engines was published in the **Federal Register** on June 30, 2000 (65 FR 40555). That action proposed to require the removal from service of certain V2500-A5 and -D5 series engines, identified by serial numbers, prior to accumulating 5,100 or 7,600 cycles in the improper configuration, or at the next shop visit, depending on the type of improper HPT module configuration and the restoration type design.

Comments Received

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

The comment states that the manufacturer's service documentation is the root cause of the configuration errors, and that the documentation should be designed to minimize the probability of such errors.

The FAA disagrees. The FAA believes that the manufacturer's service documentation, as currently written, is technically accurate. The documentation should not in itself be considered the root cause for configuration errors. The FAA recognizes that in some instances, service documentation may not be as clear as originally intended. The FAA continues to work with all engine manufacturers to ensure that clear and precise service documents are issued to alleviate any potential confusion by the operators.

Economic Impact

No comments were received on the economic impact contained in the proposed rules.

Regulatory Impact

This 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 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 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



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).

2000-22-07 International Aero Engines AG: Amendment 39-11953 Docket No. 2000-NE-21-AD.

Applicability: International Aero Engines AG (IAE) V2500-A5 and -D5 series turbofan engines listed by Serial Number (S/N) as follows:

These engines are installed on, but not limited to, Airbus Industries A319, A320, A321 series, 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 (b) 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 restore the engines to type design and to prevent possible low cycle fatigue (LCF) failure of the HPT stage 1 disk, which could lead to an uncontained engine failure and damage to the airplane, accomplish the following:

Removal and Restoration of the HPT Module

(a) For those engines identified by serial numbers in Table 1 of this AD, with HPT modules built to configuration X, X', X*, Y, or Z, remove from service in accordance with Table 1 and restore the HPT module to type design in accordance with IAE All Operators Wire (AOW) 1053, Issue 2, dated June 20, 2000.

ENGINE SERIAL NUMBER	HPT MODULE CONFIGURATION	HPT HARDWARE	RECONFIGURE AT OR PRIOR TO:
V10084, V10035, V10036, V10039, V10130, V10011, V10040, V10079, V10080, V10124, V10123, V10111, V20013, V20017, V10172, V10174, V20019, V10180, V20023	Х	High Flow Blades: Post SB72-0242 Low Flow Duct Assembly: Pre SB72-0241 Towel Bar Seals, P/N 2A0530:Installed	The earlier of the next shop visit; or accumulating either 5100 cycles in service (CIS) in configuration X, or 100 CIS after the effective date of this AD, whichever occurs later.
V20037	Χ'	2 High Flow Blades: Post SB72-0242 Low Flow Duct Assembly : Pre SB72-0241 Towel Bar Seals, P/N 2A0530: Not Installed	The earlier of the next shop visit; or accumulating either 7600 CIS in configuration X', or 100 CIS after the effective date of this AD, whichever occurs later
V20001,V20033	X*	3 or fewer High Flow Blades: Post SB72-0242 Low Flow Duct Assembly: Pre SB72-0241 Towel Bar Seals, P/N 2A0530: Installed	Next Shop Visit
V10199, V10166, V10054, V10131, V10139, V10041, V10121, V10067, V10341	Y	High Flow Blades: Post SB72-0242 High Flow Duct Assembly: Post SB72-0241 Towel Bar Seals, P/N 2A0530: Installed	Next Shop Visit
V10221	Z	Low Flow Blades: Pre SB72-0242 High Flow Duct Assembly: Post SB72-0241 Towel Bar Seals, P/N 2A0530: Installed	Next Shop Visit

Alternative Methods of Compliance

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

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

Special Flight Permits

(c) 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.

Incorporation by Reference

(d) The restoration to type design must be done in accordance with IAE AOW 1053, Issue 2, dated June 20, 2000. 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 International Aero Engines AG, 400 Main Street, East Hartford, CT 06108; telephone: (860) 565-5515; fax (860) 565-5510. 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.

Effective Date of this AD

(e) This amendment becomes effective on December 6, 2000.

FOR FURTHER INFORMATION CONTACT: Robert Ganley, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803-5299; telephone: 781-238-7138, fax: 781-238-7199.

Issued in Burlington, Massachusetts, on October 23, 2000.

David A. Downey, Assistant Manager, Engine and Propeller Directorate, Aircraft Certification Service.