



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2019-0832; Project Identifier 2019-NE-28-AD; Amendment 39-21117; AD 2020-09-03]**

**RIN 2120-AA64**

**Airworthiness Directives; International Aero Engines AG Turbofan Engines**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** The FAA is adopting a new airworthiness directive (AD) for all International Aero Engines AG (IAE) V2500-A1, V2522-A5, V2524-A5, V2525-D5, V2527-A5, V2527E-A5, V2527M-A5, V2528-D5, V2530-A5, V2531-E5, and V2533-A5 model turbofan engines with a certain diffuser case assembly installed. This AD was prompted by a report of a manufacturing quality escape that could impact the life of the diffuser case assembly. This AD requires removal of the affected diffuser case assembly from service and replacement with a part eligible for installation. The FAA is issuing this AD to address the unsafe condition on these products.

**DATES:** This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** For service information identified in this final rule, contact International Aero Engines AG, 400 Main Street, East Hartford, CT, 06118; phone: 800-565-0140; email: [help24@pw.utc.com](mailto:help24@pw.utc.com); Internet: <https://fleetcare.pw.utc.com>. You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 1200 District Avenue, Burlington, MA, 01803. For information on the availability of this material at the FAA, call 781-238-7759. It is also available on the

Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0832.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2019-0832; or in person at Docket Operations between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this final rule, any comments received, and other information. The address for Docket Operations is U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Nicholas Paine, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA, 01803; phone: 781-238-7116; fax: 781-238-7199; email: [nicholas.j.paine@faa.gov](mailto:nicholas.j.paine@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Discussion**

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all IAE V2500-A1, V2522-A5, V2524-A5, V2525-D5, V2527-A5, V2527E-A5, V2527M-A5, V2528-D5, V2530-A5, V2531-E5, and V2533-A5 model turbofan engines with a certain diffuser case assembly installed. The NPRM published in the Federal Register on December 16, 2019 (84 FR 68374). The NPRM was prompted by a report of a manufacturing quality escape that could impact the life of the diffuser case assembly. The NPRM proposed to require removal of the affected diffuser case assembly from service and replacement with a part eligible for installation. The FAA is issuing this AD to address the unsafe condition on these products.

## **Comments**

The FAA gave the public the opportunity to participate in developing this final rule. The following presents the comments received on the NPRM and the FAA's response to each comment.

### **Request to Revise the Required Actions**

Delta Air Lines (DAL) requested that the FAA revise paragraph (g), Required Actions, of this AD to include instructions applicable to IAE V2500-D5 model turbofan engines. DAL reasoned that IAE Non-Modification Service Bulletin (NMSB) V2500-ENG-72-0707, dated July 1, 2019 ("IAE NMSB V2500-ENG-72-0707"), referenced in paragraph (g) of this AD, only includes procedures for replacing the affected diffuser case assemblies on IAE V2500-A1/A5 model turbofan engines. If one of the affected diffuser case assemblies was installed on a V2500-D5 model engine, DAL would not be able to accomplish the required actions of this AD.

As an alternative to revising paragraph (g) of this AD, DAL requested that the FAA add an installation prohibition or parts installation limitation to this AD to prevent the installation of the affected diffuser case assembly in any model turbofan engine. If the FAA adds the installation prohibition to this AD, then DAL requested that the FAA remove the IAE V2500-D5 model turbofan engine from paragraph (c), Applicability, of this AD.

The FAA disagrees. This AD does not require operators to use IAE NMSB V2500-ENG-72-0707 to replace the affected diffuser case assembly. The note to paragraph (g) of this AD, referencing use of IAE NMSB V2500-ENG-72-0707, is provided as guidance.

The FAA disagrees with adding an installation prohibition or parts installation limitation to this AD because paragraph (g) of this AD requires the removal of all affected diffuser case assemblies from service.

### **Support for the AD**

The Air Line Pilots Association, International, expressed support for the AD as written.

### **No Concerns with the AD**

United Airlines commented that it does not operate any of the affected diffuser case assemblies and indicated it does not have any concerns with the proposed AD.

### **Conclusion**

The FAA reviewed the relevant data, considered the comments received, and determined that air safety and the public interest require adopting this final rule as proposed.

### **Related Service Information**

The FAA reviewed IAE NMSB V2500-ENG-72-0707, dated July 1, 2019. The NMSB describes procedures for replacing the affected diffuser case assemblies on IAE V2500-A5 model turbofan engines.

### **Costs of Compliance**

The FAA estimates that this AD affects two engines installed on airplanes of U.S. registry.

The FAA estimates the following costs to comply with this AD:

#### **Estimated costs**

<b>Action</b>	<b>Labor Cost</b>	<b>Parts Cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Replace the diffuser case assembly	70 work-hours X \$85 per hour = \$5,950	\$250,000	\$255,950	\$511,900

According to the manufacturer, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. The FAA does

not control warranty coverage for affected individuals. As a result, the FAA has included all costs in our cost estimate.

### **Authority for this Rulemaking**

Title 49 of the United States Code specifies the FAA's authority to issue rules on aviation safety. Subtitle I, section 106, describes the authority of the FAA Administrator. Subtitle VII: Aviation Programs, describes in more detail the scope of the Agency's authority.

The FAA is issuing this rulemaking under the authority described in Subtitle VII, Part A, Subpart III, Section 44701: "General requirements." Under that section, Congress charges the FAA with promoting safe flight of civil aircraft in air commerce by prescribing regulations for practices, methods, and procedures the Administrator finds necessary for safety in air commerce. This regulation is within the scope of that authority because it addresses an unsafe condition that is likely to exist or develop on products identified in this rulemaking action.

### **Regulatory Findings**

This AD will not have federalism implications under Executive Order 13132. This AD will 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.

For the reasons discussed above, I certify that this AD:

- (1) Is not a "significant regulatory action" under Executive Order 12866,
- (2) Will not affect intrastate aviation in Alaska, 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.

### **List of Subjects in 14 CFR Part 39**

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

## **Adoption of the Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA amends 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. The FAA amends § 39.13 by adding the following new airworthiness directive (AD):

2020-09-03 **International Aero Engines AG**: Amendment 39-21117; Docket No. FAA-2019-0832; Project Identifier 2019-NE-28-AD.

#### **(a) Effective Date**

This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

#### **(b) Affected ADs**

None.

#### **(c) Applicability**

This AD applies to International Aero Engines AG (IAE) V2500-A1, V2522-A5, V2524-A5, V2525-D5, V2527-A5, V2527E-A5, V2527M-A5, V2528-D5, V2530-A5, V2531-E5, and V2533-A5 model turbofan engines with diffuser case assembly, serial number PGGUBB8267, PGGUBB8271, PGGUA95825, PGGUA95827, or PGGUBB8264, installed.

#### **(d) Subject**

Joint Aircraft System Component (JASC) Code 7230, Turbine Engine Compressor Section.

#### **(e) Unsafe Condition**

This AD was prompted by a report of a manufacturing quality escape that could impact the life of the diffuser case assembly. The FAA is issuing this AD to prevent failure of the diffuser case assembly. The unsafe condition, if not addressed, could result in the uncontained release of the diffuser case assembly, damage to the engine, and damage to the airplane.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Required Action**

At the next engine shop visit after the effective date of the AD or before accumulating 10,000 cycles since new, whichever occurs first, remove the affected diffuser case assembly from service and replace with a part eligible for installation.

Note to paragraph (g): IAE Non-Modification Service Bulletin (NMSB) V2500-ENG-72-0707, dated July 1, 2019, contains guidance for replacing the diffuser case assembly.

**(h) Definition**

For the purpose of this AD, an “engine shop visit” is the induction of an engine into the shop for maintenance involving the separation of pairs of major mating engine flanges, except that the separation of engine flanges solely for the purposes of transportation without subsequent engine maintenance does not constitute an engine shop visit.

**(i) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, ECO Branch, FAA, has the authority to approve AMOCs for this AD, if requested using the procedures found in 14 CFR 39.19. In accordance with 14 CFR 39.19, send your request to your principal inspector or local Flight Standards District Office, as appropriate. If sending information directly to the manager of the

certification office, send it to the attention of the person identified in paragraph (j) of this AD. You may email your request to: ANE-AD-AMOC@faa.gov.

(2) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the local flight standards district office/certificate holding district office.

**(j) Related Information**

For more information about this AD, contact Nicholas Paine, Aerospace Engineer, ECO Branch, FAA, 1200 District Avenue, Burlington, MA, 01803; phone: 781-238-7116; fax: 781-238-7199; email: nicholas.j.paine@faa.gov.

**(k) Material Incorporate by Reference**

None.

Issued on April 20, 2020.

Lance T. Gant, Director,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

[FR Doc. 2020-08703 Filed: 4/23/2020 8:45 am; Publication Date: 4/24/2020]