



## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2025-0926; Project Identifier AD-2025-00200-E]

RIN 2120-AA64

#### Airworthiness Directives; International Aero Engines AG Engines

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

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** The FAA proposes to adopt a new airworthiness directive (AD) for certain International Aero Engines AG (IAE AG) Model V2522-A5, V2524-A5, V2525-D5, V2527-A5, V2527E-A5, V2527M-A5, V2528-D5, V2530-A5, V2531-E5, and V2533-A5 engines. This proposed AD was prompted by a manufacturer investigation that revealed a quality escape following angled ultrasonic inspections (AUSIs) performed on certain high-pressure turbine (HPT) 1st-stage hubs and HPT 2nd-stage hubs. This proposed AD would require removal and replacement of certain HPT 1st-stage hubs and HPT 2nd-stage hubs. The FAA is proposing this AD to address the unsafe condition on these products.

**DATES:** The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to [regulations.gov](https://www.regulations.gov). Follow the instructions for submitting comments.
- Fax: (202) 493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

*AD Docket:* You may examine the AD docket at regulations.gov under Docket No. FAA-2025-0926; 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 NPRM, any comments received, and other information. The street address for Docket Operations is listed above.

**FOR FURTHER INFORMATION CONTACT:** Carol Nguyen, Aviation Safety Engineer, FAA, 2200 South 216th Street, Des Moines, WA 98198; phone: (781) 238-7655; email: carol.nguyen@faa.gov.

**SUPPLEMENTARY INFORMATION:**

**Comments Invited**

The FAA invites you to send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2025-0926; Project Identifier AD-2025-00200-E” at the beginning of your comments. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may revise this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to regulations.gov, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

**Confidential Business Information**

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked

submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Carol Nguyen, Aviation Safety Engineer, FAA, 2200 South 216th Street, Des Moines, WA 98198. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

### **Background**

The FAA received a report of a quality escape on HPT 1st-stage hubs and HPT 2nd-stage hubs that had AUSIs performed at production and are installed on certain IAE AG Model V2522-A5, V2524-A5, V2525-D5, V2527-A5, V2527E-A5, V2527M-A5, V2528-D5, V2530-A5, V2531-E5, and V2533-A5 engines. A manufacturer investigation of these AUSIs revealed that the quality escape resulted from the misinterpretation of a rejection criteria for the AUSIs performed on affected HPT 1st-stage hubs and HPT 2nd-stage hubs. This condition, if not addressed, could result in an uncontained hub failure, release of high-energy debris, damage to the engine, damage to the airplane, and loss of the airplane.

### **FAA's Determination**

The FAA is issuing this NPRM after determining that the unsafe condition described previously is likely to exist or develop on other products of the same type design.

### **Proposed AD Requirements in this NPRM**

This proposed AD would require removal and replacement of certain HPT 1st-stage hubs and HPT 2nd-stage hubs.

### **Costs of Compliance**

The FAA estimates that this AD, if adopted as proposed, would affect two engines of U.S. registry. The FAA estimates that two engines would need replacement of the HPT 1st-stage hub and no engines would need replacement of the HPT 2nd-stage hub.

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

### Estimated costs

Action	Labor Cost	Parts Cost	Cost per product	Cost on U.S. operators
Replace HPT 1st-stage hub	100 work-hours x \$85 per hour = \$8,500	\$460,000	\$468,500	\$937,000
Replace HPT 2nd-stage hub	100 work-hours x \$85 per hour = \$8,500	\$360,000	\$368,500	\$0

### 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

The FAA determined that this proposed AD would not have federalism implications under Executive Order 13132. This proposed AD 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.

For the reasons discussed above, I certify this proposed regulation:

- (1) Is not a “significant regulatory action” under Executive Order 12866,
- (2) Would not affect intrastate aviation in Alaska, and
- (3) Would 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.

### **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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:

**International Aero Engines AG:** Docket No. FAA-2025-0926; Project Identifier AD-2025-00200-E.

#### **(a) Comments Due Date**

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

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

None.

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

This AD applies to International Aero Engines AG (IAE AG) Model V2522-A5, V2524-A5, V2525-D5, V2527-A5, V2527E-A5, V2527M-A5, V2528-D5, V2530-A5, V2531-E5, and V2533-A5 engines.

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

Joint Aircraft System Component (JASC) Code 7250, Turbine Section.

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

This AD was prompted by a manufacturer investigation that revealed a quality escape following angled ultrasonic inspections performed on certain high-pressure turbine (HPT) 1st-stage hubs and HPT 2nd-stage hubs. The FAA is issuing this AD to prevent failure of the HPT 1st-stage hub and HPT 2nd-stage hub. The unsafe condition, if

not addressed, could result in an uncontained hub failure, release of high-energy debris, damage to the engine, damage to the airplane, and loss of the airplane.

**(f) Compliance**

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

**(g) Required Actions**

For engines with an installed part, part number (P/N) and serial number (S/N) identified in table 1 to paragraph (g) of this AD, at the next engine shop visit after the effective date of this AD before exceeding the applicable removal cycle limit listed in table 1 to paragraph (g) of this AD or within 100 flight cycles from the effective date of this AD, whichever occurs later, remove the affected part from service and replace with a part eligible for installation.

**Table 1 to Paragraph (g) - Affected HPT 1st Stage and HPT 2nd Stage Hubs**

<b>Part</b>	<b>P/N</b>	<b>S/N</b>	<b>Removal Cycle Limit (Cycles Since New)</b>
HPT 1st-stage hub	2A5001	PKLBSK9287	100
HPT 1st-stage hub	2A5001	PKLBSS9200	4,800
HPT 1st-stage hub	2A5001	PKLBST5011	5,500
HPT 1st-stage hub	2A5001	PKLBST7489	6,200
HPT 2nd-stage hub	2A4802	PKLBST5005	4,000
HPT 2nd-stage hub	2A4802	PKLBSS9840	3,900
HPT 2nd-stage hub	2A4802	PKLBSS0301	5,000
HPT 2nd-stage hub	2A4802	PKLBSR2100	6,000

**(h) Installation Prohibition**

After the effective date of this AD, do not install an HPT 1st-stage hub or HPT 2nd-stage hub that has a P/N and S/N listed in table 1 to paragraph (g) of this AD in any engine.

**(i) Definitions**

For the purpose of this AD:

(1) A “part eligible for installation” is an HPT 1st-stage hub or HPT 2nd-stage hub having a P/N and S/N that is not listed in table 1 to paragraph (g) of this AD.

(2) An “engine shop visit” is the induction of an engine into the shop for maintenance involving the separation of any major mating engine flanges, H-P, except for the following situations, which do not constitute an engine shop visit:

(i) Separation of engine flanges solely for the purposes of transportation without subsequent engine maintenance.

(ii) Engine removal for the purpose of performing field maintenance activities at a maintenance facility in lieu of performing them on-wing.

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

(1) The Manager, AIR-520 Continued Operational Safety 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 AIR-520 Continued Operational Safety Branch, send it to the attention of the person identified in paragraph (k) of this AD and email to: [AMOC@faa.gov](mailto: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.

**(k) Additional Information**

For more information about this AD, contact Carol Nguyen, Aviation Safety Engineer, FAA, 2200 South 216th Street, Des Moines, WA 98198; phone: (781) 238-7655; email: [carol.nguyen@faa.gov](mailto:carol.nguyen@faa.gov).

**(I) Material Incorporated by Reference**

None.

Issued on June 9, 2025.

Lona C. Saccomando,  
Acting Deputy Director, Integrated Certificate Management Division,  
Aircraft Certification Service.  
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