

# Proposed Rules

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This section of the FEDERAL REGISTER contains notices to the public of the proposed issuance of rules and regulations. The purpose of these notices is to give interested persons an opportunity to participate in the rule making prior to the adoption of the final rules.

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2009-0544; Directorate Identifier 2009-NE-37-AD]

RIN 2120-AA64

#### Airworthiness Directives; International Aero Engines AG (IAE) V2500-A1, V2522-A5, V2524-A5, V2525-D5, V2527-A5, V2527E-A5, V2527M-A5, V2528-D5, V2530-A5, and V2533-A5 Turbofan 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 all International Aero Engines AG (IAE) V2500-A1, V2525-D5 and V2528-D5 turbofan engines and certain serial numbers (S/Ns) of IAE V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, and V2533-A5 turbofan engines. For certain S/Ns of V2500-A1, V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, and V2533-A5 series turbofan engines, this proposed AD would require initial and repetitive on-wing ultrasonic inspections (UIs) of the high-pressure compressor (HPC) stage 3 to 8 drum for cracks. As mandatory terminating action to the repetitive inspections, this proposed AD would require removal from service of the fully silver plated nuts attaching the HPC stage 3 to 8 drum to the HPC stage 9 to 12 drum, removal of silver residue from the HPC stage 3 to 8 drum, and fluorescent penetrant inspection (FPI) of the stage 3 to 8 drum within a specified time. For all other engines, this proposed AD would require removal from service of the fully silver plated nuts attaching the HPC stage 3 to 8 drum to the HPC stage 9 to 12 drum, removal of silver residue from the HPC stage 3 to 8 drum, and FPI of the HPC

stage 3 to 8 drum at the next drum piece-part exposure. This proposed AD results from reports of 39 HPC stage 3 to 8 drums found cracked since March 2009. We are proposing this AD to prevent uncontained failure of the HPC stage 3 to 8 drum, which could result in damage to the airplane.

**DATES:** We must receive any comments on this proposed AD by April 13, 2010.

**ADDRESSES:** Use one of the following addresses to comment on this proposed AD.

- *Federal eRulemaking Portal:* Go to <http://www.regulations.gov> and follow the instructions for sending your comments electronically.
- *Mail:* Docket Management Facility, U.S. Department of Transportation, 1200 New Jersey Avenue, SE., West Building Ground Floor, Room W12-140, Washington, DC 20590-0001.
- *Hand Delivery:* Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.
- *Fax:* (202) 493-2251.

Contact International Aero Engines AG, 400 Main Street, East Hartford, CT 06108; *telephone:* (860) 565-5515; *fax:* (860) 565-5510, for a copy of the service information identified in this proposed AD.

#### FOR FURTHER INFORMATION CONTACT:

Kevin Dickert, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; *e-mail:* [kevin.dickert@faa.gov](mailto:kevin.dickert@faa.gov); *telephone* (781) 238-7117, *fax* (781) 238-7199.

#### SUPPLEMENTARY INFORMATION:

##### Comments Invited

We invite you to send us any written relevant data, views, or arguments regarding this proposal. Send your comments to an address listed under **ADDRESSES**. Include "Docket No. FAA-2009-0544; Directorate Identifier 2009-NE-37-AD" in the subject line of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of the proposed AD. We will consider all comments received by the closing date and may amend the proposed AD in light of those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any

personal information you provide. We will also post a report summarizing each substantive verbal contact with FAA personnel concerning this proposed AD. Using the search function of the Web site, anyone can find and read the comments in any of our dockets, including, if provided, the name of the individual who sent the comment (or signed the comment on behalf of an association, business, labor union, etc.). You may review the DOT's complete Privacy Act Statement in the **Federal Register** published on April 11, 2000 (65 FR 19477-78).

#### Examining the AD Docket

You may examine the AD docket on the Internet at <http://www.regulations.gov>; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this proposed AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone (800) 647-5527) is the same as the Mail address provided in the **ADDRESSES** section. Comments will be available in the AD docket shortly after receipt.

#### Discussion

Since March 2009, we received reports of 12 V2500-A5 series HPC stage 3 to 8 drums found cracked during shop visit inspections, and reports of 24 V2500-A5 series HPC stage 3 to 8 drums found cracked during on-wing inspections. We also received reports of 3 V2500-A1 stage 3 to 8 drums found cracked during shop visits. Analysis revealed that high levels of chlorine in the engine, combined with engine operation in high temperature and high humidity environments, led to depletion of the silver plating on the exterior of the nuts that attach the HPC stage 3 to 8 drum to the HPC stage 9 to 12 drum. The depletion of the silver plating led to deposits of silver chloride on the HPC stage 3 to 8 drum, causing stress corrosion and cracking. This condition, if not corrected, could result in uncontained failure of the HPC stage 3 to 8 drum, which could result in damage to the airplane.

#### Relevant Service Information

We have reviewed and approved the technical contents of IAE Service Bulletin (SB) No. V2500-ENG-72-0594,

Revision 5, dated November 23, 2009, and IAE SB No. V2500-ENG-0603, Revision 1, dated December 18, 2009, which describe procedures for performing initial and repetitive on-wing UIs of HPC stage 3 to 8 drums for cracks. We have also reviewed and approved the technical contents of IAE SB No. V2500-ENG-72-0601, Revision 1, dated December 18, 2009, which describes procedures for removal of silver residue from the HPC stage 3 to 8 drum. Although SB No. V2500-ENG-72-0601, Revision 1, dated December 18, 2009, only specifies certain S/N engines in the effectivity section, we are proposing to require accomplishing this bulletin on all engines affected by this AD.

V2500-A5 series engines with S/Ns listed in Groups "A" and "D" of IAE SB No. V2500-ENG-72-0594, Revision 5, dated November 23, 2009, and V2500-A1 series engines with S/Ns listed in "Group A" of IAE SB No. V2500-ENG-72-0603, Revision 1, dated December 18, 2009, are those engines suspect of having been exposed to excessive levels of chlorine contamination. These engines require initial and repetitive inspection of the HPC stage 3 to 8 drum for cracks, and removal from service of the fully silver plated nuts joining the HPC stage 3 to 8 drum to the HPC stage 9 to 12 drum within 27 months from the effective date of the proposed AD.

#### FAA's Determination and Requirements of the Proposed AD

We have evaluated all pertinent information and identified an unsafe condition that is likely to exist or develop on other products of this same type design. We are proposing this AD, which would require:

- For certain S/Ns of IAE V2500-A1, V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, and V2533-A5 turbofan engines:
  - Initial and repetitive on-wing UIs of HPC stage 3 to 8 drums for cracks; and
  - As mandatory terminating action to the repetitive UIs, within 27 months from the effective date of this AD, removal from service of the fully silver plated nuts attaching the HPC stage 3 to 8 drum to the HPC stage 9 to 12 drum, removal of silver residue from the HPC stage 3 to 8 drums, and FPI of the HPC stage 3 to 8 drums.
- For all other engines, at the next piece-part exposure of the HPC stage 3 to 8 drum, removal from service of the fully silver plated nuts attaching the HPC stage 3 to 8 drum to the HPC stage 9 to 12

drum, removal of silver residue from the HPC stage 3 to 8 drums, and FPI of the HPC stage 3 to 8 drums.

The proposed AD would require you to use the service information described previously to perform the inspections and removal of silver residue.

#### Costs of Compliance

We estimate that this proposed AD would affect 848 IAE V2500-A1, V2522-A5, V2524-A5, V2525-D5, V2527-A5, V2527E-A5, V2527M-A5, V2528-D5, V2530-A5, and V2533-A5 turbofan engines installed on airplanes of U.S. registry. We estimate that 29 of these engines would require UIs, and that it would take about 3 work-hours per engine to perform one UI. We estimate that it would take about 2 work-hours per engine to perform the FPI of the HPC stage 3 to 8 drum, and that the average labor rate is \$85 per work-hour. We also estimate that removal of silver residue from the engine would cost about \$2,600 per engine. Required parts would cost about \$795 per engine. Based on these figures, we estimate the total cost of the proposed AD to U.S. operators to be \$3,030,515.

#### 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.

We are 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

We have 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 that the proposed AD:

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. 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.

We prepared a regulatory evaluation of the estimated costs to comply with this proposed AD. You may get a copy of this summary at the address listed under **ADDRESSES**.

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

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

#### The Proposed Amendment

Under the authority delegated to me by the Administrator, the Federal Aviation Administration 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-2009-0544; Directorate Identifier 2009-NE-37-AD.

#### Comments Due Date

- (a) The Federal Aviation Administration (FAA) must receive comments on this airworthiness directive (AD) action by April 13, 2010.

#### Affected ADs

- (b) None.

#### Applicability

- (c) This AD applies to:
  - (1) All International Aero Engines AG (IAE) V2500-A1 turbofan engines; and
  - (2) All IAE V2525-D5 and V2528-D5 turbofan engines; and
  - (3) IAE V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, and V2533-A5 turbofan engines with serial numbers (S/Ns) up to and including V13181, and with S/Ns from V15000 up to and including V15245.
  - (4) These engines are installed on, but not limited to, Airbus A319, A320, and A321, and McDonnell Douglas MD-90 airplanes.

#### Unsafe Condition

- (d) This AD results from reports of 39 high-pressure compressor (HPC) stage 3 to 8 drums found cracked since March 2009. We

are issuing this AD to prevent uncontained failure of the HPC stage 3 to 8 drum, which could result in damage to the airplane.

### Compliance

(e) You are responsible for having the actions required by this AD performed within the compliance times specified unless the actions have already been done.

### Engines Requiring Ultrasonic Inspections (UI) of the HPC Stage 3 to 8 Drum

(f) For IAE V2522-A5, V2524-A5, V2527-A5, V2527E-A5, V2527M-A5, V2530-A5, and V2533-A5 turbofan engines with S/Ns in "Group A" or "Group D" in IAE Service Bulletin (SB) No. V2500-ENG-72-0594, Revision 5, dated November 23, 2009, and for V2500-A1 turbofan engines with S/Ns in "Group A" in IAE SB No. V2500-ENG-72-0603, Revision 1, dated December 18, 2009, do the following:

(1) Perform an initial UI of the HPC stage 3 to 8 drum using paragraph 3 of the Accomplishment Instructions of IAE SB No. V2500-ENG-72-0594, Revision 5, dated November 23, 2009, or IAE SB No. V2500-ENG-72-0603, Revision 1, dated December 18, 2009, as applicable, before accumulating 5,200 cycles-since-new (CSN) or within 500 cycles from the effective date of this AD, whichever occurs later.

(2) Thereafter, perform repetitive UIs of the HPC stage 3 to 8 drum for cracks within every 500 cycles-since-last-inspection.

(3) If cracks or crack indications are identified, remove the drum from service before further flight.

### Mandatory Terminating Action

(4) As mandatory terminating action to the repetitive inspections required by this AD, at the next engine shop visit, but no later than 27 months after the effective date of this AD, do the following before returning any HPC stage 8 to 12 drum to service:

(i) Remove from service fully silver plated nuts, part number (P/N) AS44862 or equivalent, that attach the HPC stage 3 to 8 drum to the HPC stage 9 to 12 drum.

(ii) Remove the silver residue from the HPC stage 3 to 8 drum using paragraph 3 of the Accomplishment Instructions of IAE SB No. V2500-ENG-72-0601, Revision 1, dated December 18, 2009. Drums cleaned before the effective date of this AD using engine manual task 72-41-11-110-001 satisfy this requirement.

(iii) Fluorescent penetrant inspect (FPI) the HPC stage 3 to 8 drum for cracks, and remove from service any drum found cracked. You can find guidance on performing an FPI of the HPC stage 3 to 8 drum in IAE engine manual task 72-41-11-200-001.

(iv) Installation of a zero-time HPC stage 3 to 8 drum or a drum that has never operated with fully silver plated nuts, P/N AS44862 or equivalent, that attach the HPC stage 3 to 8 drum to the HPC stage 9 to 12 drum eliminates the need for the cleaning and FPI required by paragraphs (f)(4)(ii) and (f)(4)(iii) of this AD.

### All Other Engines

(g) For all other engines, at the next piece-part exposure of the HPC stage 3 to 8 drum after the effective date of this AD, do the

following before returning the drum to service:

(1) Remove from service fully silver plated nuts, P/N AS44862 or equivalent, that attach the HPC stage 3 to 8 drum to the HPC stage 9 to 12 drum.

(2) Remove the silver residue from the HPC stage 3 to 8 drum using paragraph 3 of the Accomplishment Instructions of IAE SB No. V2500-ENG-72-0601, Revision 1, dated December 18, 2009. Drums cleaned before the effective date of this AD using engine manual task 72-41-11-110-001 satisfy this requirement.

(3) FPI the HPC stage 3 to 8 drum for cracks, and remove from service any drum found cracked. You can find guidance on performing an FPI of the HPC stage 3 to 8 drum in IAE engine manual task 72-41-11-200-001.

(4) Installation of a zero-time HPC stage 3 to 8 drum or a drum that has never operated with fully silver plated nuts, P/N AS44862 or equivalent, that attach the HPC stage 3 to 8 drum to the HPC stage 9 to 12 drum eliminates the need for the cleaning and FPI required by paragraphs (g)(2) and (g)(3) of this AD.

### Definitions

(h) 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 a pair 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) For the purpose of this AD, piece-part exposure of the HPC stage 3 to 8 drum is removal of the drum from the engine and removal of all blades from the drum.

### Previous Credit

(j) Initial or repetitive ultrasonic inspections of the HPC stage 3 to 8 drum using IAE SB No. V2500-ENG-72-0594, Revision 3, dated August 7, 2009, or Revision 4, dated October 13, 2009, before the effective date of this AD, meets the inspection requirements of paragraphs (f)(1) through (f)(3) of this AD.

(k) Initial or repetitive ultrasonic inspections of the HPC stage 3 to 8 drum using IAE SB No. V2500-ENG-72-0603, Original Issue, dated November 24, 2009, before the effective date of this AD, meets the inspection requirements of paragraphs (f)(1) through (f)(3) of this AD.

### Alternative Methods of Compliance

(l) The Manager, Engine Certification Office, has the authority to approve alternative methods of compliance for this AD if requested using the procedures found in 14 CFR 39.19.

### Related Information

(m) Contact Kevin Dickert, Aerospace Engineer, Engine Certification Office, FAA, Engine and Propeller Directorate, 12 New England Executive Park, Burlington, MA 01803; e-mail: kevin.dickert@faa.gov; telephone (781) 238-7117, fax (781) 238-7199, for more information about this AD.

(n) Contact International Aero Engines AG, 400 Main Street, East Hartford, CT 06108; telephone: (860) 565-5515; fax: (860) 565-5510, for a copy of the service information referenced in this AD.

Issued in Burlington, Massachusetts, on February 8, 2010.

**Peter A. White,**

*Assistant Manager, Engine and Propeller Directorate, Aircraft Certification Service.*

[FR Doc. 2010-2999 Filed 2-11-10; 8:45 am]

**BILLING CODE 4910-13-P**

## DEPARTMENT OF TRANSPORTATION

### Federal Aviation Administration

#### 14 CFR Part 39

[Docket No. FAA-2010-0039; Directorate Identifier 2009-NM-239-AD]

**RIN 2120-AA64**

**Airworthiness Directives; Bombardier, Inc. Model CL-600-1A11 (CL-600), CL-600-2A12 (CL-601), CL-600-2B16 (CL-601-3A, CL-601-3R, and CL-604 Variants (Including CL-605 Marketing Variant)) Airplanes**

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

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

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for the products listed above. This proposed AD results from mandatory continuing airworthiness information (MCAI) originated by an aviation authority of another country to identify and correct an unsafe condition on an aviation product. The MCAI describes the unsafe condition as:

Seven cases of on-ground hydraulic accumulator screw cap or end cap failure have been experienced on CL-600-2B19 (CRJ) aircraft, resulting in loss of the associated hydraulic system and high-energy impact damage to adjacent systems and structure. \* \* \*

\* \* \* \* \*

A detailed analysis of the systems and structure in the potential line of trajectory of a failed screw cap/end cap for each accumulator \* \* \* has been conducted. It has been identified that the worst case scenario would be failure of one of the brake accumulator screw caps/end caps, resulting in impact damage causing loss of both hydraulic systems No. 2 and No. 3, with consequent loss of both braking and nose wheel steering and the potential for a runway excursion [resulting in damage to the airplane and hazards to persons or property on the ground].

\* \* \* \* \*

The proposed AD would require actions that are intended to address the unsafe condition described in the MCAI.