

DEPARTMENT OF TRANSPORTATION**Federal Aviation Administration****14 CFR Part 39**

[Docket No. FAA-2024-0223; Project Identifier MCAI-2023-00996-T; Amendment 39-22821; AD 2024-16-15]

RIN 2120-AA64

Airworthiness Directives; Airbus SAS Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all Airbus SAS Model A330-200, A330-200 freighter, A330-800, and A330-900 series airplanes; Model A330-301, -302, -303, -323, -342, and -343 airplanes; and Model A340-312 and -313 airplanes. This AD was prompted by reports of quality non-conformity on main landing gear (MLG) axles where the high velocity oxygen-fuel (HVOF) coating on the bearing journal runout areas had a coating that was thicker than allowable limits. This AD requires repetitive inspections of the affected parts (MLG axles) for any discrepancy, corrective actions, and eventual replacement of affected parts, and prohibits the installation of affected parts, as specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective October 30, 2024.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of October 30, 2024.

ADDRESSES:

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2024-0223; 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, the mandatory continuing airworthiness information (MCAI), 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.

Material Incorporated by Reference:

- For EASA material identified in this AD, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email

ADs@easa.europa.eu; website easa.europa.eu. You may find this material on the EASA website at ad.easa.europa.eu.

- You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2024-0223.

FOR FURTHER INFORMATION CONTACT:

Vladimir Ulyanov, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 206-231-3229; email vladimir.ulyanov@faa.gov.

SUPPLEMENTARY INFORMATION:**Background**

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all Airbus SAS Model A330-200, A330-200 freighter, A330-800, and A330-900 series airplanes; Model A330-301, -302, -303, -323, -342, and -343 airplanes; and Model A340-312 and -313 airplanes. The NPRM published in the **Federal Register** on February 12, 2024 (89 FR 9795). The NPRM was prompted by EASA AD 2023-0167, dated August 30, 2023 (EASA AD 2023-0167) (also referred to as the MCAI), issued by EASA, which is the Technical Agent for the Member States of the European Union. The MCAI states there are reports of quality non-conformity on MLG axles where the HVOF coating on the bearing journal runout areas had a coating thicker than allowable limits. This over-thickness could lead to damage, cracking, or spalling of the protective coating, which could expose the base material and allow corrosion to develop. This condition, if not detected and corrected, could lead to a MLG axle failure, possibly resulting in a MLG collapse, with consequent damage to the airplane and injury to occupants.

In the NPRM, the FAA proposed to require repetitive inspections of the affected parts (MLG axles) for any discrepancy, corrective actions, and eventual replacement of affected parts, and to prohibit the installation of affected parts, as specified in EASA AD 2023-0167. The FAA is issuing this AD to address the unsafe condition on these products.

You may examine the MCAI in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2024-0223.

Discussion of Final Airworthiness Directive**Comments**

The FAA received comments from two commenters, Air Line Pilots Association, International (ALPA), and an anonymous commenter, who supported the NPRM without change.

The FAA received additional comments from Delta Air Lines. The following presents the comments received on the NPRM and the FAA's response to each comment.

Request for an Exception To Clarify Re-Installation of an Affected Part

Delta Air Lines (Delta) requested adding an exception to paragraph (h) of the proposed AD to clarify note 2 of EASA AD 2023-0167 regarding installation versus re-installation of affected parts. Delta requested that the exception state that if an assembly, including the bogie beam assembly, containing an affected part is removed and re-installed during a single maintenance visit, that action is not considered an installation as specified in paragraph (7) of EASA AD 2023-0167. Delta stated that note 2 of EASA AD 2023-0167 allows the MLG to be removed and re-installed during the same maintenance visit but does not address sub-assemblies containing affected parts.

The FAA agrees to add an exception to paragraph (h) of this AD to address reinstallation of assemblies, including bogie beam assemblies. As defined in EASA AD 2023-0167, the affected parts are MLG axles with certain part numbers and serial numbers. The MLG axle is installed in the MLG bogie beam assembly. Bogie beam assemblies with an affected axle may be removed and reinstalled on the MLG as a separate unit. Paragraph (7) of EASA AD 2023-0167 prohibits the installation of a MLG having an affected axle. Note 2 of EASA AD 2023-0167 allows removal of MLG having an affected axle and subsequent reinstallation of that MLG on the same airplane, accomplished during a single maintenance visit, which is not considered as an installation as specified in paragraph (7) of EASA AD 2023-0167. Since the bogie beam assembly, with an affected axle, may be removed and reinstalled on the MLG as a separate unit during a single maintenance visit, such reinstallation should also not be considered an installation as specified in paragraph (7) of EASA AD 2023-0167. Paragraph (h)(5) has been added to this AD accordingly.

Request for an Exception To Address Service Information Error

Delta requested an exception be added to paragraph (h) of the proposed AD to address an error in the service information referenced in EASA AD 2023-0167. Delta stated that a “Required for Compliance” (RC) step, paragraph 3.C.(1)(b)1a (in Task set A330-A-32-XX-3305-01000-93BA-A), specifies to “remove the cover protection of the affected axle,” but pointed out that a note advises against the removal of paint or zinc nickel to complete the inspection. Delta added that it asked Airbus for clarification and that Airbus confirmed that the paint or zinc nickel on the HVOF should not be removed, and that the step “remove the cover protection of the affected axle” should be deleted from the service information. Delta asserted that adding the exception to delete the step would eliminate the need to request an alternative method of compliance (AMOC) when the final AD is published.

The FAA agrees to add an exception to paragraph (h) of this AD to address the specified error in the procedures for a detailed inspection of the affected axle. The exception in paragraph (h)(6) of this AD has been added for the reasons described by Delta.

Conclusion

This product has been approved by the aviation authority of another country and is approved for operation in the United States. Pursuant to the FAA’s bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI referenced above. The FAA reviewed the relevant data, considered the comments received, and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on this product. Except for minor editorial changes, and any other changes described previously, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

Material Incorporated by Reference Under 1 CFR Part 51

EASA AD 2023-0167 specifies, for certain airplanes, procedures for repetitive inspections of the affected parts (MLG axles) for any discrepancy (damage, cracking, or spalling of HVOF coating, or corrosion), doing corrective actions including obtaining and following repair instructions and replacement of affected parts. EASA AD 2023-0167 also prohibits the installation of affected parts, and installation of MLG having an affected part installed. This material is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in the ADDRESSES section.

Costs of Compliance

The FAA estimates that this AD affects 7 airplanes of U.S. registry. The FAA estimates the following costs to comply with this AD:

ESTIMATED COSTS FOR REQUIRED ACTIONS

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Part and serial number inspection.	0.5 work-hours × \$85 per hour = \$42.50 per airplane.	\$0	\$42.50	\$298.
Inspection of affected axle	Up to 16 work-hours × \$85 per hour = \$1,360 per axle, per inspection cycle.	0	Up to \$1,360 per axle, per inspection cycle.	Up to \$9,520 per axle, per inspection cycle.

The FAA estimates the following costs to do any necessary on-condition actions that would be required based on

the results of any required actions. The FAA has no way of determining the

number of aircraft that might need these on-condition actions:

ESTIMATED COSTS OF ON-CONDITION ACTIONS

Action	Labor cost	Parts cost	Cost per product
Repair	Up to 16 work-hours × \$85 per hour = \$1,360	\$0	\$1,360.
Axle replacement	Up to 88 work-hours × \$85 per hour = \$7,480	47,126	\$54,606.
Optional replacement of MLG	Up to 48 work-hours × \$85 per hour = \$4,080	(*)	Up to \$4,080.

* The FAA has received no definitive data on which to base the cost estimates for a replacement MLG. The parts cost must be obtained through SAFRAN.

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.

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:

2024–16–15 Airbus SAS: Amendment 39–22821; Docket No. FAA–2024–0223; Project Identifier MCAI–2023–00996–T.

(a) Effective Date

This airworthiness directive (AD) is effective October 30, 2024.

(b) Affected ADs

None.

(c) Applicability

This AD applies to all Airbus airplanes identified in paragraphs (c)(1) through (4) of this AD, certificated in any category.

- (1) Model A330–201, –202, –203, –223, and –243 airplanes.
- (2) Model A330–223F and –243F airplanes.
- (3) Model A330–301, –302, –303, –323, –342, –343, –841, and –941 airplanes.
- (4) Model A340–312 and –313 airplanes.

(d) Subject

Air Transport Association (ATA) of America Code 32, Landing Gear.

(e) Unsafe Condition

This AD was prompted by reports of quality non-conformity on main landing gear (MLG) axles where the high velocity oxygen fuel (HVOF) coating on the bearing journal runout areas had excessive coating compared to the drawing limits. The FAA is issuing this AD to address damage, cracking, or spalling of the protective HVOF coating and exposure of the base material, which could allow corrosion to develop. The unsafe condition, if not addressed, could result in a MLG axle failure, possibly resulting in a MLG collapse, with consequent damage to the airplane and injury to occupants.

(f) Compliance

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

(g) Requirements

Except as specified in paragraphs (h) and (i) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2023–0167, dated August 30, 2023 (EASA AD 2023–0167).

(h) Exceptions to EASA AD 2023–0167

(1) Where EASA AD 2023–0167 refers to its effective date, this AD requires using the effective date of this AD.

(2) Where paragraph (1) of EASA AD 2023–0167 specifies to inspect within 24 months after the part entry into service, this AD requires inspecting within 30 months after the part entry into service or 30 days after the effective date of this AD, whichever occurs later.

(3) Paragraph (3) of EASA AD 2023–0167 specifies “If, during any inspection as required by paragraph (1) of this AD, any discrepancy, as defined in the SB, is detected, before next flight, contact SAFRAN Landing Systems for approved corrective action instructions and, within the compliance time specified therein, accomplish those instructions accordingly. If no compliance time is identified in those instructions, accomplish the applicable corrective action(s) before next flight.” This AD, however, requires replacing that text with “If, during any inspection as required by paragraph (1) of this AD, any discrepancy, as defined in the SB, is detected, the discrepancy must be repaired before further flight using a method approved by the Manager, International Validation Branch, FAA; or EASA; Airbus SAS’s EASA Design Organization Approval (DOA); or SAFRAN Landing Systems’ DOA. If approved by the DOA, the approval must include the DOA-authorized signature.”

(4) This AD does not adopt the “Remarks” section of EASA AD 2023–0167.

(5) This AD requires replacing the text of Note 2 of EASA AD 2023–0167 with “Removal of an MLG or an assembly, including the bogie beam assembly, having an affected part installed from an aeroplane and subsequent reinstallation of that MLG or assembly, including the bogie beam assembly, on the same aeroplane, accomplished during a single maintenance visit, is not considered as installation as specified in paragraph (7) of this EASA AD.”

(6) Where the service information referenced in EASA AD 2023–0167 specifies to “remove the cover protection of the affected axle” prior to inspecting the affected part, this AD does not include that requirement.

(i) No Reporting Requirement

Although the service information referenced in EASA AD 2023–0167 specifies to submit certain information to the manufacturer, this AD does not include that requirement.

(j) Additional AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs):* The Manager, International

Validation 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 responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the International Validation Branch, mail it to the address identified in paragraph (k) of this AD. Information may be emailed to: 9-AVS-AIR-730-AMOC@faa.gov. Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(2) *Contacting the Manufacturer:* For any requirement in this AD to obtain instructions from a manufacturer, the instructions must be accomplished using a method approved by the Manager, International Validation Branch, FAA; or EASA; Airbus SAS’s EASA Design Organization Approval (DOA); or SAFRAN Landing System’s EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

(3) *Required for Compliance (RC):* Except as required by paragraphs (h)(6), (i), and (j)(2) of this AD, if any service information contains procedures or tests that are identified as RC, those procedures and tests must be done to comply with this AD; any procedures or tests that are not identified as RC are recommended. Those procedures and tests that are not identified as RC may be deviated from using accepted methods in accordance with the operator’s maintenance or inspection program without obtaining approval of an AMOC, provided the procedures and tests identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to procedures or tests identified as RC require approval of an AMOC.

(k) Additional Information

For more information about this AD, contact Vladimir Ulyanov, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 206–231–3229; email vladimir.ulyanov@faa.gov.

(l) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the service information listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this service information as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) AD 2023–0167, dated August 30, 2023.

(ii) [Reserved]

(3) For EASA AD 2023–0167, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; website easa.europa.eu. You may find this EASA AD on the EASA website at ad.easa.europa.eu.

(4) You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th St., Des Moines, WA. For information on the availability of this material at the FAA, call 206–231–3195.

(5) You may view this material at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, visit www.archives.gov/federal-register/cfr/ibr-locations or email fr.inspection@nara.gov.

Issued on August 6, 2024.

Peter A. White,

Deputy Director, Integrated Certificate Management Division, Aircraft Certification Service.

[FR Doc. 2024-21797 Filed 9-24-24; 8:45 am]

BILLING CODE 4910-13-P

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2024-1304; Project Identifier MCAI-2023-01134-T; Amendment 39-22822; AD 2024-16-16]

RIN 2120-AA64

Airworthiness Directives; Embraer S.A. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is superseding Airworthiness Directive (AD) 2020-25-07, which applied to certain Embraer S.A. Model EMB-550 and EMB-545 airplanes. AD 2020-25-07 required repetitive inspections of the flight deck side windows for any cracking or delamination, corrective action if necessary, and eventual replacement of the windows. Since the FAA issued AD 2020-25-07, additional part numbers were added to the installation prohibition list. This AD continues to require the actions in AD 2020-25-07, expands the list of affected parts, and prohibits the installation of affected parts, as specified in an Agência Nacional de Aviação Civil (ANAC) AD, which is incorporated by reference. The FAA is issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective October 30, 2024.

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of October 30, 2024.

ADDRESSES:

AD Docket: You may examine the AD docket at regulations.gov under Docket No. FAA-2024-1304; 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, the mandatory continuing airworthiness information

(MCAI), 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.

Material Incorporated by Reference:

- For ANAC material identified in this AD, contact National Civil Aviation Agency (ANAC), Aeronautical Products Certification Branch (GGCP), Rua Dr. Orlando Feirabend Filho, 230—Centro Empresarial Aquarius—Torre B—Andares 14 a 18, Parque Residencial Aquarius, CEP 12.246-190—São José dos Campos—SP, Brazil; telephone 55 (12) 3203-6600; email pac@anac.gov.br; website anac.gov.br/en/. You may find this material on the ANAC website sistemas.anac.gov.br/certificacao/DA/DAE.asp.

- You may view this material at the FAA, Airworthiness Products Section, Operational Safety Branch, 2200 South 216th Street, Des Moines, WA. For information on the availability of this material at the FAA, call 206-231-3195. It is also available at regulations.gov under Docket No. FAA-2024-1304.

FOR FURTHER INFORMATION CONTACT:

Hassan Ibrahim, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone 206-231-3653; email Hassan.M.Ibrahim@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2020-25-07, Amendment 39-21349 (85 FR 81385, December 16, 2020) (AD 2020-25-07). AD 2020-25-07 applied to certain Embraer S.A. Model EMB-550 and EMB-545 airplanes. AD 2020-25-07 required repetitive inspections of the flight deck side windows for any cracking or delamination, corrective action if necessary, and eventual replacement of the windows. The FAA issued AD 2020-25-07 to address cracks and delamination, which could cause the flight deck side windows to fail and lead to an in-flight depressurization event.

The NPRM published in the **Federal Register** on May 17, 2024 (89 FR 43336). The NPRM was prompted by AD 2020-04-01R02, effective November 2, 2023, issued by ANAC, which is the aviation authority for Brazil (ANAC AD 2020-04-01R02) (also referred to as the MCAI). The MCAI states that part number (P/N) NP-200402-7 and P/N NP-200402-8, made mandatory by the previous revisions of the MCAI, have

not had the expected effect on the fleet as premature cracks in the outer layer of windows with P/N NP-200402-7 and P/N NP-200402-8 have been found. These cracks may be undetected, and the inner layer may be subjected to unpredicted loads for several flights, which could result in window failure and subsequent in-flight depressurization events.

In the NPRM, the FAA proposed to continue to require the actions in AD 2020-25-07, expand the list of affected parts, and prohibit the installation of affected parts, as specified in ANAC AD 2020-04-01R02. The FAA is issuing this AD to address the unsafe condition on these products.

You may examine the MCAI in the AD docket at regulations.gov under Docket No. FAA-2024-1304.

Discussion of Final Airworthiness Directive

Comments

The FAA received no comments on the NPRM or on the determination of the cost to the public.

Additional Changes Made to This AD

The FAA revised paragraph (h)(5) of this AD to clarify that the 50 flight cycle grace period is “within 50 flight cycles after the effective date of this AD.” In the proposed AD, the FAA inadvertently omitted the wording “after the effective date of this AD.”

After the FAA issued the proposed AD, ANAC issued an Errata to ANAC AD 2020-04-01R02, effective November 2, 2023, to clarify the actions if an inspection is done and delamination or other damage which does not impact the ability to properly perform the inspection is found. As originally written, operators could have concluded a windshield needed to be replaced even if the only inspection finding was delamination in an area that did not impede the inspection. The FAA has revised paragraph (h)(3) of this AD to clarify the action for this condition.

Conclusion

This product has been approved by the aviation authority of another country and is approved for operation in the United States. Pursuant to the FAA’s bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI referenced above. The FAA reviewed the relevant data and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on this product. Except for minor editorial changes, and any other changes described previously, this AD is