



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2023-1218; Project Identifier MCAI-2022-01025-A; Amendment 39-22536; AD 2023-17-10]

RIN 2120-AA64

Airworthiness Directives; Vulcanair S.p.A. Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Vulcanair S.p.A. Model V1.0 airplanes. This 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 identifies the unsafe condition as corrosion on the lower fuselage truss. This AD requires a detailed visual inspection of the right-hand (RH) and left-hand (LH) lower rear attachments of the fuselage truss for corrosion, a tactile inspection of the lower rear attachments for missing sealant, and a general visual inspection of the lower fuselage truss welded pipes for corrosion and the related rivets for missing stems and, depending on findings, additional inspections and actions (including a tap test) and applicable corrective actions. 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].

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES:

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No.FAA-2023-1218; 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 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 service information identified in this final rule, contact Vulcanair S.p.A., via G. Pascoli, 7, 80026 Casoria (NA), Italy; phone: +39 081 5918111; email: info@vulcanair.com; website: support.vulcanair.com.

- You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (817) 222-5110. It is also available at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-1218.

FOR FURTHER INFORMATION CONTACT: John DeLuca, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (516) 228-7369; email: john.p.deluca@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 certain Vulcanair S.p.A. Model V1.0 airplanes. The NPRM published in the *Federal Register* on June 27, 2023 (88 FR 41510). The NPRM was prompted by AD 2022-0155, dated August 1, 2022 (referred to after this as the MCAI), issued by the European Union Aviation Safety Agency (EASA), which is the

Technical Agent for the Member States of the European Union. The MCAI states that there have been reports of corrosion on the lower fuselage truss on two Vulcanair Model V1.0 airplanes. Missing sealant or missing rivet stems were determined to be the root cause of corrosion by allowing water ingress into the lower fuselage truss. In both reported cases, corrosion was externally visible, having penetrated the thickness of the pipes. However, corrosion could be present inside the pipes and remain undetected without proper inspection. This condition, if not detected and corrected, could result in loss of control of the airplane.

In the NPRM, the FAA proposed to require a detailed visual inspection of the RH and LH lower rear attachments of the fuselage truss for corrosion, a tactile inspection of the lower rear attachments for missing sealant, and a general visual inspection of the lower fuselage truss welded pipes for corrosion and the related rivets for missing stems and, depending on findings, additional inspections and actions (including a tap test) and applicable corrective actions. The FAA is issuing this AD to address the unsafe condition on these products. The unsafe condition, if not addressed, could result in loss of control of the airplane.

You may examine the MCAI in the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2023-1218.

Discussion of Final Airworthiness Directive

Comments

The FAA received no comments on the NPRM or on the determination of the costs.

Conclusion

These products have been approved by the aviation authority of another country and are 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 these products. This AD is adopted as proposed in the NPRM.

Related Service Information under 1 CFR Part 51

The FAA reviewed Vulcanair S.p.A. Service Bulletin No. VA-22, Revision 0, dated June 15, 2022 (Vulcanair SB VA-22). This service information specifies procedures for inspections of the lower fuselage truss for corrosion, missing sealant, and missing rivet stems; and, in case of findings, additional inspections and actions to detect corrosion, including a tap test and raising the airplane nose. This service information specifies to contact Vulcanair for corrective actions.

This service information is reasonably available because the interested parties have access to it through their normal course of business or by the means identified in ADDRESSES.

Differences Between this AD and the MCAI

Although Vulcanair SB VA-22, which is referenced in the MCAI, specifies that “in case of doubts, raise the aircraft nose and audibly detect the presence of corrosion residues inside the fuselage truss,” this AD does not require that action.

Paragraph (1) of the MCAI states to “accomplish a general visual and tactile inspection of the right-hand (RH) and left-hand (LH) lower rear attachments of the fuselage truss” in accordance with the instructions of Part A of Vulcanair SB VA-22. However, step 14, Part A, of Vulcanair SB VA-22 specifies to do a detailed visual inspection. In email communication between EASA and the FAA, EASA clarified that this should be a detailed visual inspection performed in accordance with the procedures specified in Vulcanair SB VA-22; therefore, this AD requires a detailed visual inspection of the RH and LH lower rear attachments of the fuselage truss for corrosion.

The MCAI requires contacting the manufacturer for approved corrective action instructions if any corrosion is found on the lower fuselage truss. This AD requires contacting either the Manager, International Validation Branch, FAA; or EASA; or Vulcanair’s EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

Costs of Compliance

The FAA estimates that this AD affects 17 airplanes of U.S. registry.

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

Estimated costs

Action	Labor Cost	Parts Cost	Cost per product	Cost on U.S. operators
Detailed visual inspection and tactile inspection of the RH and LH lower rear attachments, and a general visual inspection of the pipes	8 work-hours x \$85 per hour = \$680	\$0	\$680	\$11,560

The FAA estimates the following costs to do any necessary actions that would be required based on the results of the required inspections.

On-condition costs

Action	Labor Cost	Parts Cost	Cost per product
Remove sealant and detailed inspection of inner face of longitudinal tubes connected to lower rear attachments	4 work-hours x \$85 per hour = \$340	\$0	\$340

Action	Labor Cost	Parts Cost	Cost per product
Detailed visual inspection and tap test of the lower fuselage truss pipes	4 work-hours x \$85 per hour = \$340	\$0	\$340
Installation of plug P/N 5034-011 on RH and LH lower rear attachments	0.50 work-hour x \$85 per hour = \$42.50	\$130	\$172.50

The corrective action instructions that may be needed as a result of these inspections could vary significantly from airplane to airplane. The FAA has no data to determine the costs to accomplish those corrective actions or the number of airplanes that might need these corrective actions.

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:

2023-17-10 Vulcanair S.p.A.: Amendment 39-22536; Docket No. FAA-2023-1218;

Project Identifier MCAI-2022-01025-A.

(a) Effective Date

This airworthiness directive (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 Vulcanair S.p.A. Model V1.0 airplanes, serial numbers (S/Ns) 1001 through 1034 inclusive, except S/Ns 1008 and 1019, certificated in any category.

(d) Subject

Joint Aircraft System Component (JASC) Code 5311, Fuselage Main, Frame.

(e) Unsafe Condition

This AD was prompted by 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 identifies the unsafe condition as corrosion on the lower fuselage truss. The FAA is issuing this AD to address the unsafe condition. The unsafe condition, if not addressed, could result in loss of control of the airplane.

(f) Compliance

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

(g) Required Actions

Within 100 hours time-in-service or 12 months after the effective date of this AD, whichever occurs first, do a detailed visual inspection of the right-hand (RH) and left-hand (LH) lower rear attachments of the fuselage truss for corrosion, a tactile inspection of the RH and LH lower rear attachments of the fuselage truss for missing sealant, a general visual inspection of the pipes on the lower fuselage truss for corrosion, and a general visual inspection of the pipes on the lower fuselage truss for rivets with missing stems, in accordance with steps 13 and 14 of Part A, in Part 2, Work Procedure, of Vulcanair S.p.A. Service Bulletin No. VA-22, Revision 0, dated June 15, 2022 (Vulcanair SB VA-22).

(1) If, during the inspections required by the introductory text of paragraph (g) of this AD, no missing sealant and no corrosion of the LH and RH lower rear attachments are detected, and no corrosion and no missing rivet stems of the lower fuselage truss pipes are detected, before further flight, install part number (P/N) 5034-011 plugs on both the RH and LH rear attachments, in accordance with step 16 of Part A, in Part 2, Work

Procedure, of Vulcanair SB VA-22. After installation of the plugs, no further action is required by this AD.

(2) If, during the inspections required by the introductory text of paragraph (g) of this AD, corrosion, missing sealant, or missing rivet stems are detected, before further flight, do the following as applicable:

(i) If corrosion or missing sealant is detected during the detailed visual inspection or tactile inspection of the RH and LH lower rear attachments, remove any sealant, and do a detailed visual inspection for corrosion in accordance with step 26 of Part B, in Part 2, Work Procedure, of Vulcanair SB VA-22.

(ii) If corrosion or missing rivet stems are detected during the general visual inspection of the lower fuselage truss pipes, do a detailed visual inspection and tap test for corrosion in accordance with steps 27 and 28 of Part B, in Part 2, Work Procedure, of Vulcanair SB VA-22.

(3) If, during any inspection required by paragraph (g)(2) of this AD, any corrosion is detected on the lower fuselage truss, before further flight, contact the Manager, International Validation Branch, FAA; or European Union Aviation Safety Agency (EASA); or Vulcanair's EASA Design Organization Approval (DOA) for corrective action instructions and do the corrective actions. If approved by the DOA, the approval must include the DOA-authorized signature.

(4) If, during the inspections required by paragraph (g)(2) of this AD, no corrosion is detected, before further flight, apply sealant on rivets with absent stems, restore as necessary the sealant inside the RH and LH lower rear attachments, and install plugs P/N 5034-011 on both the RH and LH rear attachments, in accordance with the instructions in steps 31 and 32 of Part B, in Part 2, Work Procedure, of Vulcanair SB VA-22.

(h) Special Flight Permits

Special flight permits are prohibited.

(i) 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 local Flight Standards District Office, as appropriate. If sending information directly to the manager of the International Validation Branch, mail it to the address identified in paragraph (j)(2) of this AD or email to: 9-AVS-AIR-730-AMOC@faa.gov. If mailing information, also submit information by email. 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) Additional Information

(1) Refer to EASA AD 2022-0155, dated August 1, 2022, for related information. This EASA AD may be found in the AD docket at regulations.gov under Docket No. FAA-2023-1218.

(2) For more information about this AD, contact John DeLuca, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (516) 228-7369; email: john.p.deluca@faa.gov.

(k) 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 the AD specifies otherwise.

(i) Vulcanair S.p.A. Service Bulletin No. VA-22, Revision 0, dated June 15, 2022.

(ii) [Reserved]

(3) For service information identified in this AD, contact Vulcanair S.p.A., via G. Pascoli, 7, 80026 Casoria (NA), Italy; phone: +39 081 5918111; email: info@vulcanair.com; website: support.vulcanair.com.

(4) You may view this service information at the FAA, Airworthiness Products Section, Operational Safety Branch, 901 Locust, Kansas City, MO 64106. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: fr.inspection@nara.gov, or go to: www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on September 18, 2023.

Victor Wicklund, Deputy Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

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