DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2024-0766; Project Identifier MCAI-2023-00711-T; Amendment 39-22963; AD 2025-04-05]

RIN 2120-AA64

Airworthiness Directives; Airbus SAS Airplanes

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is superseding Airworthiness Directive (AD) 2023-11-08, which applied to all Airbus SAS Model A330-841 and -941 airplanes. AD 2023-11-08 required maintenance actions, including a high-pressure valve (HPV) seal integrity test, repetitive replacement of the HPV clips, revision of the existing airplane flight manual (AFM), and implementation of updates to the FAA-approved operator's minimum equipment list (MEL). This AD was prompted by the determination that the replacement intervals required by AD 2023-11-08 must be reduced to address the unsafe condition. This AD continues to require the actions in AD 2023-11-08. This AD also reduces the HPV clip replacement intervals, requires an additional revision of the existing AFM for certain airplanes, and limits the installation of HPV clips, 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 [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 under Docket No. FAA-2024-0766; 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 the EASA material, 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 at regulations.gov under Docket No. FAA-2024-0766.

FOR FURTHER INFORMATION CONTACT: Dan Rodina, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone 206-231-3225; email dan.rodina@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to supersede AD 2023-11-08, Amendment 39-22454 (88 FR 38384, June 13,

2023) (AD 2023-11-08). AD 2023-11-08 applied to all Airbus SAS Model A330-841 and -941 airplanes. AD 2023-11-08 required maintenance actions, including an HPV seal integrity test, repetitive replacement of the HPV clips, revision of the existing AFM, and implementation of updates to the FAA-approved operator's MEL. The FAA issued AD 2023-11-08 to address a leaking HPV that may expose the pressure regulating valve (PRV), which is installed downstream from the HPV, to high pressure, possibly damaging the PRV itself and preventing its closure. The unsafe condition, if not addressed, could result in high pressure and temperatures in the duct downstream from the PRV, with possible duct burst, damage to several systems, and consequent loss of control of the airplane.

The NPRM published in the *Federal Register* on March 28, 2024 (89 FR 21450). The NPRM was prompted by AD 2023-0111, dated May 26, 2023 (EASA AD 2023-0111), issued by EASA, which is the Technical Agent for the Member States of the European Union. EASA AD 2023-0111 stated that it has been determined that the interval for the HPV clip replacement must be based also on flight cycles accumulated by the HPV clip (i.e., the interval must be reduced), and that additional instructions, applicable depending on the bleed monitoring computer (BMC) software (SW) configuration, have been identified (i.e., an additional revision of the existing AFM is necessary for certain airplanes).

In the NPRM, the FAA proposed to continue to require the actions in AD 2023-11-08, as specified in EASA AD 2023-0111. The NPRM also proposed to reduce the HPV clip replacement intervals, require an additional revision of the existing AFM for certain airplanes, and limit the installation of HPV clips, as specified in EASA AD 2023-0111.

Since the FAA issued the NPRM, EASA superseded AD 2023-0111 and issued EASA AD 2023-0111R1, dated May 28, 2024 (EASA AD 2023-0111R1) (also referred

to as the MCAI), to provide relief from certain requirements for certain Airbus SAS Model A330-841 and -941 airplanes. The MCAI states, after issuance of EASA AD 2023-0111, Airbus released a modification that introduces the BMC SW 5.0 standard, a service bulletin that provides retrofit instructions, and an alert operators transmission that specifies the effectivity of its instructions depending on the installed BMC SW. The MCAI also states that the BMC SW 5.0 standard supports improved monitoring features, which allow a relaxation of the maintenance requirements, operational procedures, and limitations required by EASA AD 2023-0111.

The FAA reviewed the MCAI and determined it provides relief for airplanes that are equipped with BMC SW 5.0 or a later FAA-approved SW standard. The FAA also determined the requirements of the MCAI have not changed for airplanes that are not equipped with BMC SW 5.0 or a later FAA-approved SW standard. In addition, the MCAI adds an optional terminating action for the HPV seal integrity test for Group 1 airplanes (airplanes that are equipped with BMC SW 4.0) and specifies that after following the terminating action (modification of the airplane), the airplane is considered a Group 2 airplane. Therefore, the FAA has revised this AD to adopt the requirements of the MCAI except for any differences identified as exceptions in the regulatory text of this AD.

The FAA is issuing this AD to address these products. You may examine the MCAI in the AD docket at regulations.gov under Docket No. FAA-2024-0766.

Discussion of Final Airworthiness Directive

Comments

The FAA received a comment from the Air Line Pilots Association, International (ALPA) who supported the NPRM without change.

The FAA received an additional comment from one individual. The following presents the comment received on the NPRM and the FAA’s response to that comment.

Request to Explain What Prompted the Proposed AD

An individual requested the FAA explain what inspired the agency to create the proposed AD. The commenter did not request any change to the proposed AD.

The FAA is issuing this AD to supersede AD 2023-11-08, which was prompted by reports of leaking bleed system HPVs, likely due to HPV clip failure and sealing ring damage. A leaking HPV may expose the PRV to high pressure, possibly damaging the PRV itself and preventing its closure. This unsafe condition, if not addressed, could result in high pressure and temperatures in the duct downstream from the PRV, with possible duct burst, damage to several systems, and consequent loss of control of the airplane. In the preamble to AD 2023-11-08, the FAA stated the AD was considered an interim action and anticipated further action. After issuing AD 2023-11-08, EASA superseded AD 2022-0227, dated November 24, 2022 (which corresponds to AD 2023-11-08) and issued EASA AD 2023-0111, dated May 26, 2023, to require additional actions. Following review of EASA AD 2023-0111, dated May 26, 2023, the FAA determined that additional actions are required to address the unsafe condition. This AD does so by reducing the replacement interval for the HPV clip and requiring additional applicable instructions depending on the BMC software configuration. This AD is also considered an interim action, and further AD action may follow. As previously stated, this AD also incorporates the changes specified in EASA AD 2023-0111R1. The FAA has not changed this AD as a result of this comment.

Additional Change Made to This AD

The FAA has added paragraph (h)(4) to this AD to explain that where EASA AD 2023-0111R1 refers to "02 June 2023 [the effective date of the original issue of this AD]," this AD requires using the effective date of this AD. The FAA has also redesignated subsequent paragraphs accordingly.

The exception in paragraph (h)(5) of the proposed AD (referred to as paragraph (h)(6) in this AD) stated that informing all flightcrews of AFM revisions and dispatch limitations is not required by the AD because those actions are already required by FAA regulations. The exception referenced the relevant regulations for AFMs (14 CFR 91.9, 91.505, and 121.137). The FAA has revised paragraph (h)(6) of this AD to also reference the relevant regulations for MELs (14 CFR 121.628(a)(2) and (5)) that address dispatch limitations.

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.

Related Material Under 1 CFR Part 51

EASA AD 2023-0111R1 specifies procedures for the following actions:

• For airplanes with BMC SW 4.0 or 4.1, a revision of the Limitations section of the existing AFM, and for all airplanes, removal of the previously required limitations.

• For airplanes with BMC SW 4.0 or 4.1, implementation of the instructions of the master minimum equipment list (MMEL) update on the basis of which the operator's MEL must be amended with new provisions and procedures for Air Conditioning Pack, Engine Bleed Air Supply System, Engine Bleed IP (Intermediate Pressure) Check Valve, and Engine Bleed HP Valve; and cancellation of the dispatch restrictions.

• For airplanes with BMC SW 4.1, a seal integrity test of each HPV, and for airplanes with BMC SW 4.0, repetitive seal integrity tests of each HPV; and corrective actions (including replacement of the HPV, a detailed inspection of the wing bellow on engine 1(2), and replacement of any damaged or deformed wing bellow).

EASA AD 2023-0111R1 describes the following maintenance instructions for airplanes with BMC SW 4.0 or 4.1, among other actions, to be accomplished following certain faults or failures:

• HPV troubleshooting procedure and additional maintenance actions after any Class 1 maintenance message associated to an HPV fault and corrective actions (including replacement of the HPV or wing bellow).

• HPV seal integrity test and the additional maintenance actions after any Class 1 or Class 2 maintenance message associated to a PRV fault and corrective actions (including replacement of the HPV and PRV, a detailed inspection of the wing bellow on engine 1(2), and replacement of any damaged or deformed wing bellow).

• A visual (borescope) inspection of the engine bleed air system (EBAS) to detect signs of foreign object debris (FOD), including metallic debris in the butterfly valve and dents or damage of the flaps of the intermediate pressure check valve (IPCV), and dents and missing segments in the PRV, the header of the high pressure/intermediate pressure (HP/IP) duct, the y-duct, and the pylon ducts after any failure of an HPV clip and/or any of the HPV butterfly sealing rings, and corrective actions (including removing FOD and replacing the IPCV or PRV).

• A seal integrity test of each HPV after any takeoff or go-around accomplished with “packs OFF” or “APU bleed ON” or “engine bleed OFF” and corrective actions (including replacement of the HPV, a detailed inspection of the wing bellow on engine 1(2), and replacement of any damaged or deformed wing bellow).

• Additional actions to be performed for any Class 1 maintenance message associated with an HPV fault.

EASA AD 2023-0111R1 also specifies procedures for the following actions:

• For all airplanes, initial and repetitive replacement of each HPV clip with a new HPV clip.

• For airplanes with BMC SW 4.0 or 4.1, a report to Airbus of any failure detected during accomplishment of any seal integrity test, maintenance action, or visual inspection.

EASA AD 2023-0111R1 also specifies the following:

• For airplanes with BMC SW 4.0, modification (update to BMC SW 4.1) of the airplane terminates the repetitive seal integrity tests of each HPV.

• For all airplanes, an HPV clip may be installed on an airplane provided it is a new clip, and that following installation, it is replaced according to the referenced service information.

• For all airplanes, an HPV may be installed on an airplane provided it is a serviceable HPV, and that following installation, the HPV clips of that HPV are replaced with new clips according to the referenced service information.

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.

Interim Action

The FAA considers that this is an AD interim action. The FAA anticipates that further AD action will follow.

Costs of Compliance

The FAA estimates that this AD affects 27 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
Retained actions from AD 2023-11-08	14 work-hours X $85 per hour = $1,190	Up to $28	Up to $1,218	Up to $32,886
New actions	1 work-hour X $85 per hour = $85	$0	$85	$2,295

The FAA estimates the following costs to do any necessary on-condition actions that are 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

Labor cost	Parts cost	Cost per product
Up to 19 work-hours X $85 per hour = Up to $1,615	Up to $114,742	Up to $116,357

The FAA has received no definitive data on which to base the cost estimates for the maintenance actions specified in this AD.

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(f), 40113, 44701.

§ 39.13 [Amended]

2. The FAA amends § 39.13 by:

a. Removing Airworthiness Directive (AD) 2023-11-08, Amendment 39-22454 (88 FR 38384, June 13, 2023); and

b. Adding the following new AD:

2025-04-05 Airbus SAS: Amendment 39-22963; Docket No. FAA-2024-0766; Project Identifier MCAI-2023-00711-T.

(a) Effective Date

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

(b) Affected ADs

This AD replaces AD 2023-11-08, Amendment 39-22454 (88 FR 38384, June 13, 2023) (AD 2023-11-08).

(c) Applicability

This AD applies to all Airbus SAS Model A330-841 and -941 airplanes, certificated in any category.

(d) Subject

Air Transport Association (ATA) of America Code 36, Pneumatic.

(e) Unsafe Condition

This AD was prompted by reports of leaking bleed system high pressure valves (HPV), likely due to HPV clip failure and sealing ring damage, and by the determination that the replacement intervals required by AD 2023-11-08 must be reduced to address the unsafe condition. The FAA is issuing this AD to address a leaking HPV that may expose the pressure regulating valve (PRV), which is installed downstream from the HPV, to high pressure, possibly damaging the PRV itself and preventing its closure. The unsafe condition, if not addressed, could result in high pressure and temperatures in the duct downstream from the PRV, with possible duct burst, damage to several systems, and consequent loss of control of the airplane.

(f) Compliance

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

(g) Requirements

Except as specified in paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2023-0111R1, dated May 28, 2024 (EASA AD 2023-0111R1).

(h) Exceptions to EASA AD 2023-0111R1

(1) Where EASA AD 2023-0111R1 refers to "05 September 2022 [the effective date of EASA AD 2022-0181]," this AD requires using September 15, 2022 (the effective date of AD 2022-19-05, Amendment 39-22174 (87 FR 54870, September 8, 2022)).

(2) Where paragraph (19) of EASA AD 2023-0111R1 refers to "08 December 2022 (the effective date of EASA AD 2022-0227)," this AD requires using the effective date of this AD.

(3) Where paragraph (21) of EASA AD 2023-0111R1 refers to "08 December 2022 (the effective date of EASA AD 2022-0227)," this AD requires using July 18, 2023 (the effective date of AD 2023-11-08).

(4) Where EASA AD 2023-0111R1 refers to "02 June 2023 [the effective date of the original issue of this AD]," this AD requires using the effective date of this AD.

(5) Where EASA AD 2023-0111R1 refers to its effective date, this AD requires using the effective date of this AD.

(6) Where paragraphs (1), (2), (3), and (7) of EASA AD 2023-0111R1 specify to inform all flightcrews of airplane flight manual (AFM) revisions and dispatch limitations, and thereafter operate the airplane accordingly, this AD does not require those actions, as those actions are already required by existing FAA regulations (see 14 CFR 91.9, 91.505, and 121.137 for AFM requirements and 14 CFR 121.628(a)(2) and (5) for minimum equipment list requirements).

(7) This AD does not adopt the reporting requirements of paragraph (23) of EASA AD 2023-0111R1.

(8) This AD does not adopt the "Remarks" section of EASA AD 2023-0111R1.

(i) Additional AD Provisions

The following provisions also apply to this AD:

(1) *Alternative Methods of Compliance (AMOCs):* 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 responsible Flight Standards Office, as appropriate. If sending information directly to the manager of the Continued Operational Safety Branch, send it to the attention of the person identified in paragraph (j) of this AD and email to: AMOC@faa.gov.

(i) Before using any approved AMOC, notify your appropriate principal inspector, or lacking a principal inspector, the manager of the responsible Flight Standards Office.

(ii) AMOCs approved previously for AD 2023-11-08 are approved as AMOCs for the corresponding provisions of EASA AD 2023-0111R1 that are required by paragraph (g) of this AD.

(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, AIR-520, Continued Operational Safety Branch, FAA; or EASA; or Airbus SAS's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(3) *Required for Compliance (RC):* Except as required by paragraph (i)(2) of this AD, if any material referenced in EASA AD 2023-0111R1 contains paragraphs that are labeled as RC, the instructions in RC paragraphs, including subparagraphs under an RC paragraph, must be done to comply with this AD; any paragraphs, including

subparagraphs under those paragraphs, that are not identified as RC are recommended. The instructions in paragraphs, including subparagraphs under those paragraphs, 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 instructions identified as RC can be done and the airplane can be put back in an airworthy condition. Any substitutions or changes to instructions identified as RC require approval of an AMOC.

(j) Additional Information

For more information about this AD, contact Dan Rodina, Aviation Safety Engineer, FAA, 2200 South 216th St., Des Moines, WA 98198; telephone 206-231-3225; email dan.rodina@faa.gov.

(k) Material Incorporated by Reference

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

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

(i) European Union Aviation Safety Agency (EASA) AD 2023-0111R1, dated May 28, 2024.

(ii) [Reserved]

(3) 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.

(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 February 13, 2025.

Suzanne Masterson,
Deputy Director, Integrated Certificate Management Division,
Aircraft Certification Service.
[FR Doc. 2025-03293 Filed: 2/27/2025 8:45 am; Publication Date: 2/28/2025]