



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2018-0705; Product Identifier 2018-NM-077-AD;**

**Amendment 39-19546; AD 2019-01-07]**

**RIN 2120-AA64**

**Airworthiness Directives; Airbus SAS Airplanes**

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

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for certain Airbus SAS Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes. This AD was prompted by a report that during removal of left-hand (LH) gear rib 5, four failed fasteners were discovered. This AD requires a one-time ultrasonic inspection of the LH and right-hand (RH) wing rib 5-to-rear spar attachments for cracked or failed fasteners, and if necessary, a detailed inspection of the gear rib 5 and spar web for cracks and damage; a rotating probe test of the gear rib and spar web bolt holes for cracks and damage; reaming the gear rib and the spar web bolt holes; and replacement of cracked or failed fasteners. We are 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:** For service information identified in this final rule, contact Airbus SAS, Airworthiness Office – EIAS, Rond-Point Emile Dewoitine No: 2, 31700 Blagnac Cedex, France; phone: +33 5 61 93 36 96; fax: +33 5 61 93 44 51; email: account.airworth-eas@airbus.com; Internet: <http://www.airbus.com>. You may view this service information at the FAA, Transport Standards 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 on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0705.

#### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0705; 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 regulatory evaluation, any comments received, and other information. The address for Docket Operations (phone: 800-647-5527) 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.

**FOR FURTHER INFORMATION CONTACT:** Sanjay Ralhan, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3223.

## **SUPPLEMENTARY INFORMATION:**

### **Discussion**

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to certain Airbus SAS Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes. The NPRM published in the Federal Register on August 9, 2018 (83 FR 39377). The NPRM was prompted by a report that during removal of LH gear rib 5, four failed fasteners were discovered. The NPRM proposed to require a one-time ultrasonic inspection of the LH and RH wing rib 5-to-rear spar attachments for cracked or failed fasteners, and if necessary, a detailed inspection of the gear rib 5 and spar web for cracks and damage; a rotating probe test of the gear rib and spar web bolt holes for cracks and damage; reaming the gear rib and the spar web bolt holes; and replacement of cracked or failed fasteners.

We are issuing this AD to address cracked or failed (broken) fasteners (bolts) of the rib 5-to-rear spar attachment, which could lead to reduced structural integrity of the wing.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2018-0102, dated April 27, 2018 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for certain Airbus SAS Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes. The MCAI states:

During removal of the left hand (LH) rib 5, two of the fasteners (bolts) attaching the rib to the wing inner rear spar were found to have failed and two more failed during their removal. Two of the bolts were found separated from the

bolt shanks when the overcoat sealant was being removed, and the other two bolt heads broke away during removal.

This condition, if not detected and corrected, could reduce the structural integrity of the wing.

To address this possible unsafe condition, Airbus issued [Service Bulletin] SB A320-57-1167 to provide inspection instructions. After that SB was issued, a potential manufacturing issue was identified on early production A321 [airplanes] concerning reports of fasteners “jamming” during installation on spar assemblies. A process change was introduced in production line, and SB A320-57-1167 was revised, changing the affected population to include all A321 aeroplanes delivered before the introduction of that process change.

For the reasons described above, this [EASA] AD requires a one-time special detailed [ultrasonic] inspection (SDI) of the wing rib 5-to-rear spar attachments, both LH and right hand (RH) wings, [and if necessary, a detailed inspection of the gear rib 5 and spar web for cracks and damage (cracks along the length of the bolt or broken bolt), a rotating probe test of the gear rib and spar web bolt holes for cracks and damage (cracks in the bolt holes), reaming the gear rib and the spar web bolt holes] and, depending on findings, accomplishment of a repair [replacement of cracked or failed (broken) fasteners (bolts)]. This [EASA] AD also requires the reporting of findings.

You may examine the MCAI in the AD docket on the Internet at

<http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0705.

## **Comments**

We gave the public the opportunity to participate in developing this final rule. The following presents the comment received on the NPRM and the FAA’s response to each comment.

## **Request to Include Revised Service Information**

American Airlines (AAL) requested that we include Airbus Service Bulletin A320-57-1167, Revision 02, dated August 14, 2018, as the required source of service

information for the proposed AD. AAL pointed out that the revised service information was issued to add defueling/access procedures in case of findings during the inspection. AAL also mentioned that including the later revised service information would reduce the number of future alternative method of compliance (AMOC) approval requests.

We agree with the commenter's request. We have included Airbus Service Bulletin A320-57-1167, Revision 02, dated August 14, 2018, in this AD. We have determined that no additional work is required for compliance (RC) for airplanes that have accomplished the actions specified in Airbus Service Bulletin A320-57-1167, Revision 01, dated January 16, 2018. We have added paragraph (j) to this AD to provide credit for actions done before the effective date of this AD in accordance with Revision 01 of the referenced service information. We have also redesignated subsequent paragraphs accordingly.

### **Conclusion**

We reviewed the relevant data, considered the comment received, and determined that air safety and the public interest require adopting this final rule with the changes described previously and minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM for addressing the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM.

We also determined that these changes will not increase the economic burden on any operator or increase the scope of this final rule.

## Related Service Information under 1 CFR part 51

Airbus SAS has issued Service Bulletin A320-57-1167, Revision 02, dated August 14, 2018. This service information describes procedures for a one-time special detailed (ultrasonic) inspection of the LH and RH wing rib 5-to-rear spar attachments for cracked or failed (broken) fasteners (bolts), and if necessary, a detailed inspection of the gear-rib-5 and spar web for cracks and damage (cracks along the length of the bolt or broken bolt); a rotating probe test of the gear rib and spar web bolt holes for cracks and damage (cracks in the bolt holes); reaming the gear rib and the spar web bolt holes; and replacement of the cracked or damaged (broken) fasteners (bolts).

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 the ADDRESSES section.

### Costs of Compliance

We estimate that this AD affects 29 airplanes of U.S. registry. We estimate the following costs to comply with this AD:

#### Estimated costs for required actions<sup>[\*]</sup>

Labor cost	Parts cost	Cost per product	Cost on U.S. operators
16 work-hours × \$85 per hour = \$1,360	\$0	\$1,360	\$39,440

\* Table does not include estimated costs for reporting/revising the maintenance or inspection program.

We estimate that it would take about 1 work-hour per product to comply with the reporting requirement in this AD. The average labor rate is \$85 per hour. Based on these figures, we estimate the cost of reporting the inspection results on U.S. operators to be \$2,465, or \$85 per product.

We estimate the following costs to do any necessary on-condition actions that would be required based on the results of any required actions. We have no way of determining the number of aircraft that might need these on-condition actions:

**Estimated costs of on-condition actions<sup>[\*]</sup>**

<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>
20 work-hours × \$85 per hour = \$1,700	\$0	\$1,700

\* Table does not include estimated costs for reporting.

**Paperwork Reduction Act**

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB control number. The control number for the collection of information required by this AD is 2120-0056. The paperwork cost associated with this AD has been detailed in the Costs of Compliance section of this document and includes time for reviewing instructions, as well as completing and reviewing the collection of information. Therefore, all reporting associated with this AD is mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at 800 Independence Ave., SW, Washington, DC 20591, ATTN: Information Collection Clearance Officer, AES-200.

**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.

This AD is issued in accordance with authority delegated by the Executive Director, Aircraft Certification Service, as authorized by FAA Order 8000.51C. In accordance with that order, issuance of ADs is normally a function of the Compliance and Airworthiness Division, but during this transition period, the Executive Director has delegated the authority to issue ADs applicable to transport category airplanes and associated appliances to the Director of the System Oversight Division.

### **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) Is not a “significant rule” under the DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979),

(3) Will not affect intrastate aviation in Alaska, and

(4) 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.

**Adoption of 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 (AD):

**2019-01-07 Airbus SAS:** Amendment 39-19546; Docket No. FAA-2018-0705; Product Identifier 2018-NM-077-AD.

**(a) Effective Date**

This 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 Airbus SAS Model A321-111, -112, -131, -211, -212, -213, -231, and -232 airplanes, certificated in any category, as identified in Airbus Service Bulletin A320-57-1167, Revision 02, dated August 14, 2018.

**(d) Subject**

Air Transport Association (ATA) of America Code 57, Wings.

**(e) Reason**

This AD was prompted by a report that during removal of left-hand (LH) gear rib 5, four failed fasteners (bolts attaching the gear rib to the wing inner rear spar) were discovered. We are issuing this AD to address cracked or failed (broken) fasteners (bolts) of the rib 5-to-rear spar attachment, which could lead to reduced structural integrity of the wing.

**(f) Compliance**

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

**(g) Inspection of the Rib 5-to-Rear Spar Attachment Fasteners (Bolts)**

Within 30 months after the effective date of this AD, do a special detailed (ultrasonic) inspection of the LH and right-hand (RH) wing rib 5-to-rear spar attachment fasteners (bolts) for cracked or failed (broken) fasteners (bolts), in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-57-1167, Revision 02, dated August 14, 2018.

**(h) Replacement of Cracked or Failed Fasteners (Bolts)**

If any cracked or failed (broken) fastener (bolt) is found during any inspection required by paragraph (g) of this AD, before further flight, do the actions specified in paragraphs (h)(1), (h)(2), (h)(3), and (h)(4) of this AD, as applicable.

(1) Do a detailed inspection of the gear rib 5 and spar web for cracks and damage (cracks along the length of the bolt or broken bolt), in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-57-1167, Revision 02, dated August 14, 2018. If any crack or damage is found during any inspection required by this paragraph, before further flight, obtain corrective actions approved by the Manager, International Section, Transport Standards Branch, FAA; or the European Aviation Safety Agency (EASA); or Airbus SAS's EASA Design Organization Approval (DOA); and accomplish the corrective actions within the compliance time specified therein. If approved by the DOA, the approval must include the DOA-authorized signature.

(2) If no cracks or damage are found during any inspection required by paragraph (h)(1) of this AD: Do a rotating probe test of the gear rib and spar web bolt holes for cracks and damage (cracks in the bolt holes), in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-57-1167, Revision 02, dated August 14, 2018. If any crack or damage is found during any inspection required by this paragraph, before further flight, obtain corrective actions approved by the Manager, International Section, Transport Standards Branch, FAA; or EASA; or Airbus SAS's EASA DOA; and accomplish the corrective actions within the compliance time

specified therein. If approved by the DOA, the approval must include the DOA authorized signature.

(3) If no cracks or damage are found during any inspection required by paragraph (h)(2) of this AD: Ream the gear rib and the spar web bolt holes, in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-57-1167, Revision 02, dated August 14, 2018. If an oversize larger than 0.794 millimeter (0.0313 inch) is required, before further flight, obtain corrective actions approved by the Manager, International Section, Transport Standards Branch, FAA; or EASA; or Airbus SAS's EASA DOA; and accomplish the corrective actions within the compliance time specified therein. If approved by the DOA, the approval must include the DOA authorized signature.

(4) Replace any cracked or failed fasteners (bolts) in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-57-1167, Revision 02, dated August 14, 2018.

**(i) Reporting**

Within 90 days after the special detailed inspection required by paragraph (g) of this AD, or within 30 days after the effective date of this AD, whichever occurs later, report the inspection results (both positive and negative) to Airbus SAS in accordance with the Accomplishment Instructions of Airbus Service Bulletin A320-57-1167, Revision 02, dated August 14, 2018. If operators have reported findings as part of obtaining any corrective actions approved by the EASA DOA, operators are not required to report those findings as specified in this paragraph.

**(j) Credit for Previous Actions**

This paragraph provides credit for actions required by paragraphs (g), (h), and (i) of this AD, if those actions were performed before the effective date of this AD using Airbus Service Bulletin A320-57-1167, Revision 01, dated January 16, 2018.

**(k) Paperwork Reduction Act Burden Statement**

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a penalty for failure to comply with a collection of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB Control Number. The OMB Control Number for this information collection is 2120–0056. Public reporting for this collection of information is estimated to be approximately 1 hour per response, including the time for reviewing instructions, completing and reviewing the collection of information. All responses to this collection of information are mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to the FAA at: 800 Independence Ave. SW, Washington, DC 20591, Attn: Information Collection Clearance Officer, AES–200.

**(l) Other FAA AD Provisions**

The following provisions also apply to this AD:

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

Section, send it to the attention of the person identified in paragraph (m)(2) of this AD. Information may be emailed to: 9-ANM-116-AMOC-REQUESTS@faa.gov. 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.

(2) *Contacting the Manufacturer*: For any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or the EASA; or Airbus SAS'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 paragraph (i) of this AD, if any service information contains procedures or 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.

**(m) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2018-0102, dated April 27, 2018, for related information. This MCAI may be found

in the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0705.

(2) For more information about this AD, contact Sanjay Ralhan, Aerospace Engineer, International Section, Transport Standards Branch, FAA, 2200 South 216th St., Des Moines, WA 98198; phone and fax: 206-231-3223.

(3) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (n)(3) and (n)(4) of this AD.

**(n) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) 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) Airbus Service Bulletin A320-57-1167, Revision 02, dated August 14, 2018.

(ii) [Reserved]

(3) For service information identified in this AD, contact Airbus SAS, Airworthiness Office – EIAS, Rond-Point Emile Dewoitine No: 2, 31700 Blagnac Cedex, France; phone: +33 5 61 93 36 96; fax: +33 5 61 93 44 51; email: [account.airworth-eas@airbus.com](mailto:account.airworth-eas@airbus.com); Internet: <http://www.airbus.com>.

(4) You may view this service information at the FAA, Transport Standards 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 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, call 202-741-6030, or go to:

<http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Des Moines, Washington, on January 10, 2019.

Jeffrey E. Duven,  
Director,  
System Oversight Division,  
Aircraft Certification Service.

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