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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2018-0165; Product Identifier 2017-NM-122-AD; Amendment 39-19342; AD 2018-16-02]

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 all Airbus SAS Model A318-111 and -112 airplanes, Model A319-111, -112, -113, -114, and -115 airplanes, Model A320-211, -212, -214, and -216 airplanes, and Model A321-111, -112, -211, -212, and -213 airplanes. This AD was prompted by a report of a production quality deficiency on the inner retainer installed on link assemblies of the aft engine mount, which could result in failure of the retainer. This AD requires modifying and re-identifying the aft engine mount assemblies. We are issuing this AD to address the unsafe condition on these products.

DATES: This AD is effective September 13, 2018.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of September 13, 2018.

ADDRESSES: For Airbus SAS service information identified in this final rule, contact Airbus SAS, Airworthiness Office–EIAS, Rond-Point Emile Dewoitine No: 2, 31700 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 44 51; email account.airworth-eas@airbus.com; internet <http://www.airbus.com>.

For Goodrich Aerospace service information identified in this final rule, contact Goodrich Corporation, Aerostructures, 850 Lagoon Drive, Chula Vista, CA 91910-2098; phone: 619-691-2719; email: jan.lewis@goodrich.com; internet: <http://www.goodrich.com/TechPubs>.

You may view this referenced 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-2018-0165.

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-2018-0165; 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 Docket Operations, 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; telephone 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 all Airbus SAS Model A318-111 and -112 airplanes, Model A319-111, -112, -113, -114, and -115 airplanes, Model A320-211, -212, -214, and -216 airplanes, and Model A321-111, -112, -211, -212, and -213 airplanes. The NPRM published in the Federal Register on March 9, 2018 (83 FR 10411). The NPRM was prompted by a report of a production quality deficiency on the inner retainer installed on link assemblies of the aft engine mount, which could result in failure of the retainer. The NPRM proposed to require modifying and re-identifying the aft engine mount assemblies.

We are issuing this AD to address non-conforming retainers of the aft engine mount. This condition could result in loss of the locking feature of the nuts of the inner and outer pins; loss of the pins will result in the aft mount engine link no longer being secured to the aft engine mount, possibly resulting in damage to the airplane.

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2017-0251, dated December 15, 2017 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for all Airbus SAS Model A318-111 and -112 airplanes, Model A319-111, -112, -113, -114, and -115 airplanes, Model A320-211, -212, -214, and -216 airplanes, and Model A321-111, -112, -211, -212, and -213 airplanes. The MCAI states:

During in-service inspections, several aft engine mount inner retainers, fitted on aeroplanes equipped with CFM56-5A/5B engines, were found broken. Investigation identified that the main cause of crack initiation was the vibration dynamic effect that affects the retainers, and that the “dull” surface finish pitting is an aggravating factor when compared with the “bright” surface finishing.

This condition, if not detected and corrected, could lead to in-flight loss of an aft engine mount link, possibly resulting in damage to the aeroplane and/or injury to persons on the ground.

To address this potential unsafe condition, Airbus issued Alert Operators Transmission (AOT) A71N001-12 (later revised) and EASA issued AD 2013-0050 [which corresponds to FAA AD 2014-14-06, Amendment 39-17901 (79 FR 42655, July 23, 2014)], later superseded by EASA AD 2015-0021 [which corresponds to FAA AD 2016-14-09, Amendment 39-18590 (81 FR 44989, July 12, 2016) (“AD 2016-14-

09”)], requiring repetitive detailed inspections (DET) of all aft engine mount inner retainers and, depending on findings, their replacement.

After EASA AD 2015-0021 was issued, a production quality deficiency was identified by Airbus and Goodrich Aerostructures, the engine mount retainer manufacturer, on the inner retainer, Part Number (P/N) 238-0252-505, installed in the three link assemblies of the engine mount fitted on CFM56-5A/5B engines. Airbus issued AOT A71N011-15 and Service Bulletin (SB) A320-71-1070, providing a list of affected parts and applicable corrective actions.

Consequently, EASA issued AD 2016-0010 (later revised), retaining the requirements of EASA AD 2015-0021, which was superseded, and in addition requiring the identification and replacement of all non-conforming aft engine mount inner retainers [EASA AD 2016-0010 R1 corresponds to FAA AD 2017-04-10, Amendment 39-18805 (82 FR 11791, February 27, 2017) (“AD 2017-04-10”)].

After that [EASA] AD was issued, a new engine mount retainer was developed by Goodrich Aerostructures to improve the retainer efficiency. For retrofit purposes, Goodrich Aerostructures issued SB RA32071-164, and Airbus issued SB A320-71-1071, providing instructions to modify and re-identify the engine mount assemblies as instructed in the Goodrich Aerostructures SB. Subsequently, it was observed that, on aeroplanes equipped with certain engines fitted with a Turbine Rear Frame (TRF) with 4 lugs configuration, the installation of the new engine mount retainers can lead to interference, and Goodrich Aerostructures revised SB RA32071-164, providing instructions not to install the new engine retainers on affected engines. Airbus SB A320-71-1071 is expected to be revised accordingly. For engines fitted with a TRF with 4 lugs, a new installation (potentially requiring different engine mount retainers) is being developed by Goodrich Aerospace and Airbus.

Consequently, EASA issued AD 2017-0138, retaining the requirements of EASA AD 2016-0010R1, which was superseded, and, except for aeroplanes equipped with engines fitted with a TRF with 4 lugs configuration, requiring modification and identification of aft engine mount assemblies as terminating action for the repetitive inspections of the retainers. That [EASA] AD also included additional instructions applicable to installation of engines fitted with a TRF with 4 lugs configuration.

Since EASA AD 2017-0138 was issued, it was determined that installation of new engine mount assemblies must not be allowed for some specific engine configurations, and that installation of Goodrich Aerostructures SB RA32071-164 alone can be referred to, in order to accomplish the terminating action as required by that [EASA] AD.

For the reason described above, this [EASA] AD retains the requirements of EASA AD 2017-0138, which is superseded, adds reference to Goodrich Aerostructures SB RA32071-164 * * *, and introduces new requirement for aeroplanes equipped with engines fitted with a TRF with 4 lugs configuration.

This AD does not supersede AD 2017-04-10. Rather, we have determined that a stand-alone AD is more appropriate to address the changes in the MCAI. This AD requires modifying and re-identifying the aft engine mount assemblies. Accomplishment of the required actions terminates the repetitive detailed inspections required by paragraph (l) of AD 2016-14-09, and serve as a method of compliance for the requirements of paragraph (g) of AD 2017-04-10. 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-2018-0165.

Comments

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

Support for the NPRM

Air Line Pilots Association, International (ALPA) supported the intent of the NPRM.

Request To Refer to Current Revision of Service Information

Airbus SAS noted that it issued Service Bulletin A320-71-1071, Revision 01, dated October 17, 2017, and requested that this revision of the service bulletin be included in the final rule. The original issue of Service Bulletin A320-71-1071, dated November 8, 2016, was referred to in the proposed AD.

We agree with the commenter's request. Airbus Service Bulletin A320-71-1071, Revision 01, dated October 17, 2017, clarifies certain notes and references but makes no substantive changes to Airbus Service Bulletin A320-71-1071, dated November 8, 2016, as proposed in the NPRM. Furthermore, while Airbus Service Bulletin A320-71-1071, Revision 01, dated October 17, 2017, expands the effectivity, the applicability of this AD has not been changed. We have revised the preamble of this final rule and paragraph (h) of this AD to include Airbus Service Bulletin A320-71-1071, Revision 01, dated October 17, 2017. We have also added paragraph (n) to this AD to provide credit for actions done prior to the effective date of this AD using the original issue of Airbus Service Bulletin A320-71-1071, dated November 8, 2016. We redesignated subsequent paragraphs accordingly.

Conclusion

We reviewed the relevant data, considered the comments 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 A320-71-1071, Revision 01, dated October 17, 2017. Goodrich Aerostructures has issued Service Bulletin RA32071-164, Revision 1, dated July 19, 2017. The service information describes procedures for modifying and re-identifying the aft engine mount retainer assembly. These documents are distinct since they apply to different airplane models in different configurations.

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

Estimated Costs

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
Modification and re-identification	20 work-hours × \$85 per hour = \$1,700	\$3,152	\$4,852	\$2,426,000

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 to the Director of the System Oversight Division.

Regulatory Findings

We determined that 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):



FAA
Aviation Safety

AIRWORTHINESS DIRECTIVE

www.faa.gov/aircraft/safety/alerts/
www.gpoaccess.gov/fr/advanced.html

2018-16-02 Airbus SAS: Amendment 39-19342; Docket No. FAA-2018-0165; Product Identifier 2017-NM-122-AD.

(a) Effective Date

This AD is effective September 13, 2018.

(b) Affected ADs

This AD affects AD 2016-14-09, Amendment 39-18590 (81 FR 44989, July 12, 2016) (“AD 2016-14-09”); and AD 2017-04-10, Amendment 39-18805 (82 FR 11791, February 27, 2017) (“AD 2017-04-10”).

(c) Applicability

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

- (1) Model A318-111 and -112 airplanes.
- (2) Model A319-111, -112, -113, -114, and -115 airplanes.
- (3) Model A320-211, -212, -214, and -216 airplanes.
- (4) Model A321-111, -112, -211, -212, and -213 airplanes.

(d) Subject

Air Transport Association (ATA) of America Code 71, Powerplant.

(e) Reason

This AD was prompted by a report of a production quality deficiency on the inner retainer installed on link assemblies of the aft engine mount, which could result in failure of the retainer. We are issuing this AD to address non-conforming retainers of the aft engine mount. This condition could result in loss of the locking feature of the nuts of the inner and outer pins; loss of the pins will result in the aft mount engine link no longer being secured to the aft engine mount, possibly resulting in damage to the airplane.

(f) Compliance

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

(g) Definitions

(1) For the purpose of this AD: A Group 1 airplane has an aft engine mount assembly installed, having a part number (P/N) identified as “Old P/N” in figure 1 to paragraphs (g)(1), (h), (i), (j), (k), and (l) of this AD. A Group 2 airplane does not have any aft engine mount assembly installed having

a part number identified as “Old P/N” in figure 1 to paragraphs (g)(1), (h), (i), (j), (k), and (l) of this AD.

Figure 1 to paragraphs (g)(1), (h), (i), (j), (k), and (l) of this AD –

Part re-identification

Old P/N	New P/N
238-0230-11	238M0230-11
238-0230-15	238M0230-15
238-0230-5	238M0230-5
642-2300-3	642-2300-11

(2) For the purpose of this AD, a 4-lugs engine is a CFM56-5A1, CFM56-5A3, CFM56-5A4, CFM56-5A4/F, CFM56-5A5, or CFM56-5A5/F engine, fitted with a turbine rear frame (TRF) having a part number as identified in figure 2 to paragraph (g)(2) of this AD.

Figure 2 to paragraph (g)(2) of this AD – TRF with 4-lugs configuration

Part Number
336-031-615-0
336-031-617-0
336-031-618-0
336-031-621-0
336-031-650-0
336-031-651-0
336-031-652-0
336-031-653-0
336-031-660-0
336-031-661-0
336-031-662-0
336-031-663-0
336-031-670-0
336-031-671-0
336-031-672-0
336-031-673-0
336-031-640-0
336-031-642-0

(h) Modification

For Group 1 airplanes: Within 48 months after the effective date of this AD, except for 4-lugs engines, modify the aft engine mount assembly, having a part number identified as “Old P/N” in figure 1 to paragraphs (g)(1), (h), (i), (j), (k), and (l) of this AD, and re-identify it with the corresponding part number identified as “New P/N” in figure 1 to paragraphs (g)(1), (h), (i), (j), (k), and (l) of this AD, in accordance with the Accomplishment Instructions of Airbus Service Bulletin

(i) Other Acceptable Method of Compliance

Replacement on an airplane of each aft engine mount assembly, identified as “Old P/N” in figure 1 to paragraphs (g)(1), (h), (i), (j), (k), and (l) of this AD, with a corresponding aft engine mount assembly, identified as “New P/N” in figure 1 to paragraphs (g)(1), (h), (i), (j), (k), and (l) of this AD, is an acceptable method to comply with the requirements of paragraph (h) of this AD for that airplane.

(j) Identification of Certain Airplanes That Do Not Have Affected Parts

An airplane on which Airbus Modification 158435 has been embodied in production and on which it can be positively determined that no aft engine mount assembly, identified as “Old P/N” in figure 1 to paragraphs (g)(1), (h), (i), (j), (k), and (l) of this AD, is installed, is considered a Group 2 airplane. A review of airplane maintenance records is acceptable to make this determination, if it can be conclusively determined that no aft engine mount assembly identified as “Old P/N” in figure 1 to paragraphs (g)(1), (h), (i), (j), (k), and (l) of this AD is installed. Group 2 airplanes are not affected by the requirements of paragraph (h) of this AD.

(k) Parts Installation Prohibition

(1) For Group 1 airplanes: Do not install an aft engine mount assembly identified as “Old P/N” in figure 1 to paragraphs (g)(1), (h), (i), (j), (k), and (l) of this AD on any airplane after modification of the airplane as required by paragraph (h) of this AD, or after any replacement specified in paragraph (i) of this AD.

(2) For Group 2 airplanes: As of the effective date of this AD, do not install an aft engine mount assembly identified as “Old P/N” in figure 1 to paragraphs (g)(1), (h), (i), (j), (k), and (l) of this AD on any airplane.

(3) For airplanes equipped with a 4-lugs engine (left-hand (LH) or right-hand (RH) side): As of the effective date of this AD, do not modify any aft engine mount assembly identified as “Old P/N” in figure 1 to paragraphs (g)(1), (h), (i), (j), (k), and (l) of this AD, as required by paragraph (h) of this AD, and do not install on an affected engine pylon (LH or RH) any aft engine mount assembly identified as “New P/N” in figure 1 to paragraphs (g)(1), (h), (i), (j), (k), and (l) of this AD.

(l) 4-Lugs Engine Installation

(1) From the effective date of this AD, it is allowed to install or reinstall a 4-lugs engine on an airplane (LH or RH) provided that the airplane is equipped with an aft engine mount assembly identified as “Old P/N” in figure 1 to paragraphs (g)(1), (h), (i), (j), (k), and (l) of this AD on the affected engine pylon (LH or RH).

(2) For airplanes equipped with a 4-lugs engine (LH or RH), and on which, prior to the effective date of this AD, an aft engine mount assembly identified as “New P/N” in figure 1 to paragraphs (g)(1), (h), (i), (j), (k), and (l) of this AD has been installed on the affected engine pylon (LH or RH), or on which the aft engine part assembly has been modified as specified in paragraph (h) of this AD: Within 30 days after the effective date of this AD, obtain repair instructions using a method approved by the Manager, International Section, Transport Standards Branch, FAA; or the European Aviation Safety Agency (EASA); or Airbus's EASA Design Organization Approval (DOA), and accomplish those instructions accordingly. If approved by the DOA, the approval must include the DOA-authorized signature.

(m) Terminating Action and Method of Compliance

(1) Modification of an airplane as required by paragraph (h) of this AD, or as specified in paragraph (i) of this AD, constitutes terminating action for the repetitive detailed inspections required by paragraph (l) of AD 2016-14-09 for that airplane.

(2) Modification of an airplane as required by paragraph (h) of this AD, or as specified in paragraph (i) of this AD, is a method of compliance with the requirements of paragraph (g) of AD 2017-04-10 for that airplane.

(n) Credit for Previous Actions

This paragraph provides credit for the actions specified in paragraph (h) of this AD, if those actions were performed before the effective date of this AD using Airbus Service Bulletin A320-71-1071, dated November 8, 2016, and the actions were not performed on 4-lugs engines.

(o) 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 (q)(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 EASA; or Airbus SAS' EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

(3) Required for Compliance (RC): 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.

(p) Special Flight Permits

Special flight permits, as described in Section 21.197 and Section 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199), are not allowed.

(q) Related Information

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2017-0251 dated December 15, 2017, 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-2018-0165.

(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; telephone 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 (r)(3) and (r)(5) of this AD.

(r) 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 A320-71-1071, Revision 01, dated October 17, 2017.

(ii) Goodrich Aerostructures Service Bulletin RA32071-164, Revision 1, dated July 19, 2017.

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

(4) For Goodrich Aerospace service information identified in this AD, contact Goodrich Corporation, Aerostructures, 850 Lagoon Drive, Chula Vista, CA 91910-2098; phone: 619-691-2719; email: jan.lewis@goodrich.com; internet: <http://www.goodrich.com/TechPubs>.

(5) 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.

(6) 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 July 23, 2018.

James Cashdollar,
Acting Director, System Oversight Division,
Aircraft Certification Service.