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#### DEPARTMENT OF TRANSPORTATION

### **Federal Aviation Administration**

**14 CFR Part 39** 

[Docket No. FAA-2013-1028; Directorate Identifier 2013-NM-068-AD; Amendment 39-17901; AD 2014-14-06]

RIN 2120-AA64

**Airworthiness Directives; Airbus Airplanes** 

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

**ACTION:** Final rule.

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**SUMMARY:** We are adopting a new airworthiness directive (AD) for all Airbus Model A318-111 and -112 airplanes; Model A319-111, -112, -113, -114, and -115 airplanes; Model A320-111, -211, -212, and -214 airplanes; and Model A321-111, -112, -211, -212, and -213 airplanes. This AD was prompted by reports of broken aft engine mount retainers. This AD requires inspecting the aft engine mount retainers for surface finish, and for cracks and failure, and replacement if necessary. We are issuing this AD to prevent failure of retainer brackets of the aft engine mount and consequent 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.

**DATES:** This AD becomes effective August 27, 2014.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of August 27, 2014.

ADDRESSES: You may examine the AD docket on the Internet at

http://www.regulations.gov/#!docketDetail;D=FAA-2013-1028; or in person at the Docket Management Facility, U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC.

For Airbus service information identified in this AD, contact Airbus, Airworthiness Office—EIAS, 1 Rond Point Maurice Bellonte, 31707 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 Corporation service information identified in this AD, contact Goodrich Corporation, Aerostructures, 850 Lagoon Drive, Chula Vista, CA 91910-2098; telephone 619-691-2719; email jan.lewis@goodrich.com; Internet http://www.goodrich.com/TechPubs.

You may view this service information at the FAA, Transport Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.

**FOR FURTHER INFORMATION CONTACT:** Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1405; fax 425-227-1149.

#### 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 Model A318-111 and -112 airplanes; Model A319-111, -112, -113, -114, and -115 airplanes; Model A320-111, -211, -212, and -214 airplanes; and Model A321-111, -112, -211, -212, and -213 airplanes. The NPRM published in the Federal Register on December 18, 2013 (78 FR 76572).

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA Airworthiness Directive 2013-0050, dated March 5, 2013 (referred to after this as the Mandatory Continuing Airworthiness Information, or "the MCAI"), to correct an unsafe condition for the specified products. The MCAI states:

During in-service inspections, several aft engine mount retainers, fitted on aeroplanes equipped with CFM56-5/5B engines, have been found broken.

The results of the investigations highlight that two different types of surface finish have been applied (respectively bright and dull material finishes), and that dull finish adversely affects the strength of the retainer with regard to fatigue properties of the part.

The pins which attach the engine link to the aft mount are secured by two nuts, which do not have a self-locking feature; this function is provided by the retainer brackets. In case of failure of the retainer bracket, the locking feature of the nuts of the inner and outer pins is lost; as a result, these nuts could subsequently become loose.

In case of full loss of the nuts, there is the potential to also lose the pins, in which case the aft mount link will no longer be secured to the aft engine mount. The same locking feature is used for the three link assemblies of the aft mount.

For the reasons described above, this [EASA] AD requires a one-time detailed visual inspection (DVI) of the aft engine mount to identify the affected dull finish retainers [and for cracks and failure] and replace these [retainers] with serviceable retainers. This [EASA] AD also prohibits installation of any dull finish aft engine mount retainers.

You may examine the MCAI in the AD docket on the Internet at http://www.regulations.gov/#!documentDetail;D=FAA-2013-1028-0002.

#### **Comments**

We gave the public the opportunity to participate in developing this AD. We have considered the comment received. The following presents the comment received on the NPRM (78 FR 76572, December 18, 2013) and the FAA's response to the comment.

## **Request To Add Certain Retainer Brackets**

Mr. Michael Raphael stated that understanding of the issue (cracking or failure of the aft engine mount retainer) has changed since the preliminary discovery with dull brackets, and that bright brackets have been detected with the same issue. Mr. Raphael explained that vibration is the root cause, and the dull surface finish (with pitting) is a potential aggravating factor. Mr. Raphael also stated that EASA and its airplane type certificate holder are preparing a "phase 2 containment" that is based on the latest technical findings.

We infer that the commenter wants us to add brackets with the bright surface finish to this AD. We acknowledge that potential concerns with the bright brackets have been identified and are being investigated. However, we disagree to delay this final rule, since we have determined that an unsafe condition exists and that expanding the applicability of this AD to include retainer brackets with a bright surface finish would require additional rulemaking. We find that delaying this action would be inappropriate in light of the identified unsafe condition. Once we complete a thorough risk assessment of brackets with a bright surface, we might consider additional rulemaking. We have not changed this final rule in this regard.

## **Changes to This Final Rule**

We have revised paragraphs (i)(2) and (j) of this final rule by removing the term "serviceable." These changes are made to avoid ambiguity and misinterpretation of type of finish on the replacement retainer. We do not want operators to polish affected retainers as a method of compliance with this final rule.

## "Contacting the Manufacturer" Paragraph in This AD

Since late 2006, we have included a standard paragraph titled "Airworthy Product" in all MCAI ADs in which the FAA develops an AD based on a foreign authority's AD.

The MCAI or referenced service information in an FAA AD often directs the owner/operator to contact the manufacturer for corrective actions, such as a repair. Briefly, the Airworthy Product paragraph allowed owners/operators to use corrective actions provided by the manufacturer if those actions were FAA-approved. In addition, the paragraph stated that any actions approved by the State of Design Authority (or its delegated agent) are considered to be FAA-approved.

In the NPRM (78 FR 76572, December 18, 2013), we proposed to prevent the use of repairs that were not specifically developed to correct the unsafe condition, by requiring that the repair approval provided by the State of Design Authority or its delegated agent specifically refer to this FAA AD. This change was intended to clarify the method of compliance and to provide operators with better visibility of repairs that are specifically developed and approved to correct the unsafe condition. In addition, we proposed to change the phrase "its delegated agent" to include a design approval holder (DAH) with State of Design Authority design organization approval (DOA), as applicable, to refer to a DAH authorized to approve required repairs for the proposed AD.

No comments were provided to the NPRM (78 FR 76572, December 18, 2013) about these proposed changes. However, a comment was provided for another NPRM, Directorate Identifier 2012-NM-101-AD (78 FR 78285, December 26, 2013), in which the commenter stated the following: "The proposed wording, being specific to repairs, eliminates the interpretation that Airbus messages

are acceptable for approving minor deviations (corrective actions) needed during accomplishment of an AD mandated Airbus service bulletin."

This comment has made the FAA aware that some operators have misunderstood or misinterpreted the Airworthy Product paragraph to allow the owner/operator to use messages provided by the manufacturer as approval of deviations during the accomplishment of an AD-mandated action. The Airworthy Product paragraph does not approve messages or other information provided by the manufacturer for deviations to the requirements of the AD-mandated actions. The Airworthy Product paragraph only addresses the requirement to contact the manufacturer for corrective actions for the identified unsafe condition and does not cover deviations from other AD requirements. However, deviations to AD-required actions are addressed in 14 CFR 39.17, and anyone may request the approval for an alternative method of compliance to the AD-required actions using the procedures found in 14 CFR 39.19.

To address this misunderstanding and misinterpretation of the Airworthy Product paragraph, we have changed that paragraph and retitled it "Contacting the Manufacturer." This paragraph now clarifies that for any requirement in this AD to obtain corrective actions from a manufacturer, the action must be accomplished using a method approved by the FAA, the European Aviation Safety Agency (EASA), or Airbus's EASA DOA.

The Contacting the Manufacturer paragraph also clarifies that, if approved by the DOA, the approval must include the DOA-authorized signature. The DOA signature indicates that the data and information contained in the document are EASA-approved, which is also FAA-approved. Messages and other information provided by the manufacturer that do not contain the DOA-authorized signature approval are not EASA-approved, unless EASA directly approves the manufacturer's message or other information.

This clarification does not remove flexibility previously afforded by the Airworthy Product paragraph. Consistent with long-standing FAA policy, such flexibility was never intended for required actions. This is also consistent with the recommendation of the Airworthiness Directive Implementation Aviation Rulemaking Committee to increase flexibility in complying with ADs by identifying those actions in manufacturers' service instructions that are "Required for Compliance" with ADs. We continue to work with manufacturers to implement this recommendation. But once we determine that an action is required, any deviation from the requirement must be approved as an alternative method of compliance.

Other commenters to the NPRM discussed previously, Directorate Identifier 2012-NM-101-AD (78 FR 78285, December 26, 2013), pointed out that in many cases the foreign manufacturer's service bulletin and the foreign authority's MCAI might have been issued some time before the FAA AD. Therefore, the DOA might have provided U.S. operators with an approved repair, developed with full awareness of the unsafe condition, before the FAA AD is issued. Under these circumstances, to comply with the FAA AD, the operator would be required to go back to the manufacturer's DOA and obtain a new approval document, adding time and expense to the compliance process with no safety benefit.

Based on these comments, we removed the requirement that the DAH-provided repair specifically refer to this AD. Before adopting such a requirement, the FAA will coordinate with affected DAHs and verify they are prepared to implement means to ensure that their repair approvals consider the unsafe condition addressed in this AD. Any such requirements will be adopted through the normal AD rulemaking process, including notice-and-comment procedures, when appropriate. We also have decided not to include a generic reference to either the "delegated agent" or "DAH with State of Design Authority design organization approval," but instead we have provided the specific delegation approval granted by the State of Design Authority for the DAH in the Contacting the Manufacturer paragraph of this AD.

#### **Conclusion**

We reviewed the relevant data, considered the comment received, and determined that air safety and the public interest require adopting this AD 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 (78 FR 76572, December 18, 2013) for correcting the unsafe condition; and
- Do not add any additional burden upon the public than was already proposed in the NPRM (78 FR 76572, December 18, 2013).

### **Costs of Compliance**

We estimate that this AD affects 851 airplanes of U.S. registry.

We also estimate that it will take about 3 work-hours per inspection cycle (for two engines) per product to comply with the basic requirements of this AD. The average labor rate is \$85 per work-hour. Based on these figures, we estimate the cost of this AD on U.S. operators to be \$217,005 per inspection cycle (for two engines), or \$255 per inspection cycle per product (for two engines).

In addition, we estimate that any necessary follow-on actions will take about 1 work-hour and require parts costing \$10,000, for a cost of \$10,085 per engine. We have no way of determining the number of aircraft that might need these 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. 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.

## **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.

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

You may examine the AD docket on the Internet at http://www.regulations.gov/#!docketDetail;D=FAA-2013-1028; or in person at the Docket Management Facility between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

The AD docket contains this AD, the regulatory evaluation, any comments received, and other information. The street address for the Docket Operations office (telephone 800-647-5527) is in the ADDRESSES section.

# 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):

# **AIRWORTHINESS DIRECTIVE**



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

**2014-14-06 Airbus:** Amendment 39-17901. Docket No. FAA-2013-1028; Directorate Identifier 2013-NM-068-AD.

#### (a) Effective Date

This AD becomes effective August 27, 2014.

#### (b) Affected ADs

None.

## (c) Applicability

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

- (1) Airbus Model A318-111 and -112 airplanes.
- (2) Airbus Model A319-111, -112, -113, -114, and -115 airplanes.
- (3) Airbus Model A320-111, -211, -212, and -214 airplanes.
- (4) Airbus 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 reports of broken aft engine mount retainers. We are issuing this AD to prevent failure of retainer brackets of the aft engine mount and consequent 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.

#### (f) Compliance

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

#### (g) Inspection

Within 3 months after the effective date of this AD: Do a detailed inspection of the aft engine mount retainers for surface finish (dull or bright), and for cracks and failure, in accordance with Section 4.2.2, "Inspection Requirements," of Airbus Alert Operators Transmission (AOT) A71N001-12, Rev. 2, dated February 27, 2013, except as specified in paragraph (h) of this AD.

## (h) Exception to Paragraph (g) of This AD

The actions required by paragraph (g) of this AD are not required to be done on airplanes with manufacturer serial numbers 4942 and higher, provided a review of maintenance records verifies that no aft engine mount retainers have been replaced since first flight of the airplane.

# (i) Repetitive Inspection and Retainer Replacement for Dull Finish Retainers

If, during the detailed inspection required by paragraph (g) of this AD, any installed dull finish aft engine mount retainer is found without cracks and not failed: Do the actions specified in paragraphs (i)(1) and (i)(2) of this AD.

- (1) Within 25 flight cycles after doing the actions required by paragraph (g) of this AD: Repeat the detailed inspection specified in paragraph (g) of this AD.
- (2) Within 50 flight cycles after doing the first detailed inspection specified in paragraph (g) of this AD: Replace all dull finish retainers with new retainers, in accordance with Section 4.2.3.1, "Replacement Procedure," of Airbus AOT A71N001-12, Rev. 2, dated February 27, 2013.

## (j) Replacement of Cracked or Failed Retainers

If, during any detailed inspection specified in paragraph (g) of this AD, any installed aft engine mount retainer is found cracked or failed: Before further flight, replace all affected aft engine mount retainers with new retainers, in accordance with Section 4.2.3, "Replacement Procedure," of Airbus AOT A71N001-12, Rev. 2, dated February 27, 2013.

## (k) Parts Prohibition

As of the effective date of this AD, no person may install any aft engine mount retainer with a dull finish on any airplane. The instructions of Airbus AOT A71N001-12, Rev. 2, dated February 27, 2013; or the Accomplishment Instructions of Goodrich Service Bulletin RA32071-146, Rev. 2, dated July 26, 2012; may be used to verify the correct finish of the part.

#### (1) Credit for Previous Actions

This paragraph provides credit for actions required by paragraphs (g), (i), and (j) of this AD, if those actions were performed before the effective date of this AD using Airbus AOT A71N001-12, Rev. 1, dated August 9, 2012, which is not incorporated by reference in this AD.

#### (m) Other FAA AD Provisions

The following provisions also apply to this AD:

(1) Alternative Methods of Compliance (AMOCs): The Manager, International Branch, ANM-116, Transport Airplane Directorate, 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 Branch, send it to ATTN: Sanjay Ralhan, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, WA 98057-3356; telephone 425-227-1405; fax 425-227-1149. 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. The AMOC approval letter must specifically reference this AD.

(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 Branch, ANM-116, Transport Airplane Directorate, FAA; or the European Aviation Safety Agency (EASA); or Airbus's EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

## (n) Special Flight Permits

Special flight permits may be issued in accordance with sections 21.197 and 21.199 of the Federal Aviation Regulations (14 CFR 21.197 and 21.199) to operate the airplane to a location where the airplane can be modified (if the operator elects to do so), provided no dull finish aft engine mount retainers that are cracked or have failed are installed.

## (o) Related Information

- (1) Refer to Mandatory Continuing Airworthiness Information (MCAI) European Aviation Safety Agency Airworthiness Directive 2013-0050, dated March 5, 2013, for related information. This MCAI may be found in the AD docket on the Internet at http://www.regulations.gov/#!documentDetail;D=FAA-2013-1028-0002.
- (2) Service information identified in this AD that is not incorporated by reference may be viewed at the addresses specified in paragraphs (p)(3), (p)(4), and (p)(5) of this AD.

## (p) 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 Alert Operators Transmission A71N001-12, Rev. 2, dated February 27, 2013. The first page of this document contains the document number, revision, and date; no other page of this document contains this information.
  - (ii) Goodrich Service Bulletin RA32071-146, Rev. 2, dated July 26, 2012.
- (3) For Airbus service information identified in this AD, contact Airbus, Airworthiness Office—EIAS, 1 Rond Point Maurice Bellonte, 31707 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 Corporation 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 Airplane Directorate, 1601 Lind Avenue SW., Renton, WA. For information on the availability of this material at the FAA, call 425-227-1221.
- (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 Renton, Washington, on July 3, 2014. Dionne Palermo, Acting Manager, Transport Airplane Directorate, Aircraft Certification Service.