



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2016-6896; Directorate Identifier 2016-NM-016-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; Airbus Airplanes**

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

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for all Airbus Model A318-111, and -112 airplanes, Model A319-111, -112, -113, -114, and -115 airplanes, Model A320-211, -212 and -214 airplanes, and Model A321-111, -112, -211, -212, and -213 airplanes. This proposed AD was prompted by a report of a production quality deficiency on the inner retainer installed on link assemblies of the engine mount, which could result in failure of the retainer. This proposed AD would require an inspection for, and replacement of, all non-conforming aft engine mount retainers. We are proposing this AD to detect and correct non-conforming retainers of the aft engine mount. This condition could result in the 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 and injury to persons on the ground.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <http://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: 202-493-2251.
- Mail: U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.
- Hand Delivery: Deliver to Mail address above between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For Airbus service information identified in this NPRM, 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](mailto:account.airworth-eas@airbus.com); Internet: <http://www.airbus.com>.

For Goodrich service information identified in this NPRM, contact Goodrich Corporation, Aerostructures, 850 Lagoon Drive, Chula Vista, CA 91910-2098; telephone: 619-691-2719; email: [jan.lewis@goodrich.com](mailto:jan.lewis@goodrich.com); Internet: <http://www.goodrich.com/TechPubs>.

You may view this referenced 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.

### **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-2016-6896; 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 proposed 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. Comments will be available in the AD docket shortly after receipt.

**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:**

#### **Comments Invited**

We invite you to send any written relevant data, views, or arguments about this proposed AD. Send your comments to an address listed under the ADDRESSES section. Include “Docket No. FAA-2016-6896; Directorate Identifier 2016-NM-016-AD” at the beginning of your comments. We specifically invite comments on the overall regulatory, economic, environmental, and energy aspects of this proposed AD. We will consider all

comments received by the closing date and may amend this proposed AD based on those comments.

We will post all comments we receive, without change, to <http://www.regulations.gov>, including any personal information you provide. We will also post a report summarizing each substantive verbal contact we receive about this proposed AD.

### **Discussion**

The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Airworthiness Directive 2016-0010R1, dated February 16, 2016 (referred to after this as the Mandatory Continuing Airworthiness Information, or “the MCAI”), to correct an unsafe condition for all Airbus Model A318-111, and -112 airplanes, Model A319-111, -112, -113, -114, and -115 airplanes, Model A320-211, -212, and -214 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, have been found broken. The results of the initial investigations highlighted that two different types of surface finish had been applied (respectively bright and dull material finishes), and that dull finish 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.

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

To address this potential unsafe condition, EASA issued AD 2013-0050

[[http://ad.easa.europa.eu/blob/easa\\_ad\\_2013\\_0050\\_superseded.pdf/AD\\_2013-0050\\_1](http://ad.easa.europa.eu/blob/easa_ad_2013_0050_superseded.pdf/AD_2013-0050_1)] [which corresponds to FAA AD 2014-14-06, Amendment 39-17901 (79 FR 42655, July 23, 2014)] to require a detailed inspection (DET) of the aft engine mount inner retainers and the replacement of all retainers with dull finish with retainers having a bright finish. Since that [EASA] AD was issued, inspection results showed that the main cause of crack initiation remains the vibration dynamic effect that affects both retainers, either with "dull" or "bright" surface finishes. The non-conforming "dull" surface's pitting is an aggravating factor. Consequently, EASA issued AD 2015-0021 [[http://ad.easa.europa.eu/blob/EASA\\_AD\\_2015\\_0021\\_superseded.pdf/AD\\_2015-0021\\_1](http://ad.easa.europa.eu/blob/EASA_AD_2015_0021_superseded.pdf/AD_2015-0021_1)] [which corresponds to FAA NPRM Docket No. FAA-2015-3632; Directorate Identifier 2015-NM-023-AD (80 FR 55798, September 7, 2015)], retaining the requirements of EASA AD 2013-0050, which was superseded, and requiring repetitive DET of all aft engine mount inner retainers and, depending on findings, their replacement.

Since that [EASA] AD was issued, a production quality deficiency was identified by Airbus and UTAS (formerly Goodrich Aerostructures, the engine mount retainer manufacturer) on the delivery of 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 SB A320-71-1070 providing a list of affected parts and applicable corrective actions.

Consequently, EASA issued [a new] AD \* \* \*, 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.

Since that [new EASA] AD was issued, AOT A71N011-15 was revised, removing errors and reducing the list of affected parts.

For the reason described above, this [EASA] AD is revised, adding reference to the revised AOT, and removing [EASA] AD appendixes, which content is included in the referenced Airbus documentation.

This [EASA] AD is still considered to be an interim action, pending development and availability of a final solution.

This proposed AD would require an inspection for, and replacement of, all non-conforming aft engine mount retainers. 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-2016-6896.

#### **Related Service Information under 1 CFR part 51**

We reviewed the following service information. This service information describes procedures for replacement of all non-conforming aft engine mount retainers.

- Airbus Service Bulletin A320-71-1070, dated November 23, 2015. This service information also describes procedures for an inspection for non-conforming aft engine mount retainers.
- Airbus Alert Operators Transmission (AOT) A71N011-15, Revision 01, dated February 1, 2016.
- Goodrich Service Bulletin RA32071-165, dated October 9, 2015.

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.

**FAA’s Determination and Requirements of this Proposed AD**

This product has been approved by the aviation authority of another country, and is approved for operation in the United States. Pursuant to our bilateral agreement with the State of Design Authority, we have been notified of the unsafe condition described in the MCAI and service information referenced above. We are proposing this AD because we evaluated all pertinent information and determined an unsafe condition exists and is likely to exist or develop on other products of these same type designs.

**Costs of Compliance**

We estimate that this proposed AD affects 959 airplanes of U.S. registry.

We estimate the following costs to comply with this proposed AD:

<b>Estimated costs</b>				
<b>Action</b>	<b>Labor cost</b>	<b>Parts cost</b>	<b>Cost per product</b>	<b>Cost on U.S. operators</b>
Inspection	4 work-hours X \$85 per hour = \$340	\$0	\$340	Up to \$326,060

We estimate the following costs to do any necessary replacements that would be required based on the results of the proposed inspection. We have no way of determining the number of airplanes that might need these replacements:

### On-condition costs

Action	Labor cost	Parts cost	Cost per product
Replacement	Up to 36 work-hours X \$85 per hour = \$3,060	\$10,000	Up to \$13,060

#### 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 proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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 this proposed regulation:

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.

**The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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):

**Airbus:** Docket No. FAA-2016-6896; Directorate Identifier 2016-NM-016-AD.

**(a) Comments Due Date**

We must receive comments by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**(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 A320-211, -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 a report of a production quality deficiency on the inner retainer installed on link assemblies of the engine mount, which could result in failure of the retainer. We are issuing this AD to detect and correct 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 and injury to persons on the ground.

**(f) Compliance**

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

**(g) Inspection and Replacement**

Within 2 months after the effective date of this AD, do an inspection to determine the part number of each engine mount inner retainer; and within 2 months after the effective date of this AD, replace each part that meets any of the criteria specified in paragraph (g)(1), (g)(2), or (g)(3) of this AD. Do the inspection in accordance with the service information specified in paragraph (h)(1) of this AD. Do the replacement in accordance with the service information specified in paragraph (h)(1), (h)(2), or (h)(3) of this AD. A review of airplane maintenance records is acceptable in lieu of the inspection required by this paragraph, if the part number of the engine mount inner retainer can be conclusively determined from that review.

(1) An aft engine mount having a serial number listed in table 1 of Airbus Alert Operators Transmission (AOT) A71N011-15, Rev 01, dated February 1, 2016.

(2) An engine mount inner retainer installed on an airplane between the first flight of the airplane or March 1, 2015 (whichever occurs later), and the effective date of this AD, and that can be identified by a purchase order (PO) listed in table 2 of Airbus AOT A71N011-15, Rev 01, dated February 1, 2016.

(3) An engine mount inner retainer installed on an airplane between the first flight of the airplane or March 1, 2015 (whichever occurs later), and the effective date of this AD, and that cannot be identified by a PO.

**(h) Service Information for Actions Required by Paragraph (g) of this AD**

Accomplish the replacement required by paragraph (g) of this AD in accordance with the service information specified in paragraph (h)(1), (h)(2), or (h)(3) of this AD.

(1) The Accomplishment Instructions of Airbus Service Bulletin A320-71-1070, dated November 23, 2015.

(2) Paragraph 4.2.2, "Requirements," of Airbus AOT A71N011-15, Revision 01, dated February 1, 2016.

(3) The Accomplishment Instructions of Goodrich Service Bulletin RA32071-165, dated October 9, 2015.

**(i) Credit for Previous Actions**

This paragraph provides credit for the applicable actions required by paragraph (g) of this AD, if those actions were performed before the effective date of this AD using Airbus AOT A71N011-15, Revision 01, dated February 1, 2016, which is not incorporated by reference in this AD.

**(j) Parts Installation Prohibition**

As of the effective date of this AD, no person may install any part that meets any of the criteria specified in paragraph (j)(1), (j)(2), (j)(3) of this AD on any airplane.

(1) An aft engine mount having a serial number listed in table 1 of Airbus AOT A71N011-15, Rev 01, dated February 1, 2016.

(2) An engine mount inner retainer delivered through a PO listed in table 2 of Airbus AOT A71N011-15, Rev 01, dated February 1, 2016.

(3) An engine mount inner retainer delivered through an unidentified PO.

**(k) 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.

**(l) 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.

**(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.

**(m) Related Information**

(1) Refer to Mandatory Continuing Airworthiness Information (MCAI) EASA AD 2016-0010R1, dated February 16, 2016, 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-2016-6896.

(2) 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](mailto:account.airworth-eas@airbus.com); Internet: <http://www.airbus.com>. For Goodrich 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](mailto: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.

Issued in Renton, Washington, on May 20, 2016.

Victor Wicklund,  
Acting Manager,  
Transport Airplane Directorate,  
Aircraft Certification Service.

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