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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0335; Directorate Identifier 2012-NM-187-AD; Amendment 39-17549; AD 2013-16-11]

RIN 2120-AA64

Airworthiness Directives; Airbus 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 Model A330-300, A340-200, and A340-300 series airplanes. This AD was prompted by a determination that ballscrew rupture could occur on certain trimmable horizontal stabilizer actuators (THSAs). This AD requires repetitive THSA ballscrew shaft integrity tests, and replacement if necessary. We are issuing this AD to detect and correct ballscrew rupture, which, along with corrosion on the ballscrew lower splines, may lead to loss of transmission of THSA torque loads from the ballscrew to the tie-bar and consequent THSA blowback, which could result in loss of control of the airplane.

DATES: This AD becomes effective September 27, 2013.

The Director of the Federal Register approved the incorporation by reference of certain publications listed in this AD as of September 27, 2013.

ADDRESSES: You may examine the AD docket on the Internet at http://www.regulations.gov or in person at the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC.

FOR FURTHER INFORMATION CONTACT: Vladimir Ulyanov, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone (425) 227-1138; fax (425) 227-1149.

SUPPLEMENTARY INFORMATION:

Discussion

We issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 to include an AD that would apply to the specified products. The NPRM was published in the Federal Register on May 2, 2013 (78 FR 25664). The NPRM proposed to correct an unsafe condition for the specified products. The European Aviation Safety Agency (EASA), which is the Technical Agent for the Member States of the European Community, has issued EASA AD 2012-0210, dated October 11, 2012 (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:

> Since the issuance of EASA AD 2012-0061 which addresses the corrosion identified in service on THSA [part number] P/N 47147-500 and P/N 47147-700 at the level of the ballscrew lower splines, further analyses have been conducted to determine the need for any additional action.
>
> The ballscrew lower splines are not loaded in normal operation, only in case of ballscrew rupture. Analysis results have shown that such rupture could happen during the current inspection interval imposed by the Maintenance Review Board Report (MRBR), task 274000-12.
>
> Corrosion on the lower splines, in case of ballscrew rupture, may lead to loss of transmission of THSA torque loads from the ballscrew to the tie-bar and consequent THSA blowback, which could result in loss of control of the aeroplane.
>
> For the reasons described above, this [EASA] AD requires reduction of the check interval of MRBR task 274000-12.

Required actions include repetitive THSA ballscrew shaft integrity tests. Corrective actions include replacement of the THSA. You may obtain further information by examining the MCAI in the AD docket.

Comments

We gave the public the opportunity to participate in developing this AD. We received no comments on the NPRM (78 FR 25664, May 2, 2013) or on the determination of the cost to the public.

Conclusion

We reviewed the available data and determined that air safety and the public interest require adopting this AD as proposed–except for minor editorial changes. We have determined that these minor changes:

- Are consistent with the intent that was proposed in the NPRM (78 FR 25664, May 2, 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 25664, May 2, 2013).

Costs of Compliance

We estimate that this AD affects 30 products of U.S. registry. We also estimate that it takes 7 work-hours 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 the AD on U.S. operators to be $17,850, or $595 per product.

In addition, we estimate that any necessary follow-on actions take about 8 work-hours and require parts costing up to $722,556, for a cost of up to $723,236 per product. We have no way of determining the number of products that may 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.

We prepared a regulatory evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

Examining the AD Docket

You may examine the AD docket on the Internet at http://www.regulations.gov; or in person at the Docket Operations office between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays. The AD docket contains this AD, the MCAI, 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 AD:

2013-16-11 Airbus: Amendment 39-17549. Docket No. FAA-2013-0335; Directorate Identifier 2012-NM-187-AD.

(a) Effective Date

This airworthiness directive (AD) becomes effective September 27, 2013.

(b) Affected ADs

None.

(c) Applicability

This AD applies to Airbus Model A330-301, -302, -303, -321, -322, -323, -341, -342, and -343 airplanes; and Model A340-211, -212, -213, -311, -312, and -313 airplanes; certificated in any category; all manufacturer serial numbers; if fitted with a trimmable horizontal stabilizer actuator (THSA) having part number (P/N) 47147-500 or P/N 47147-700.

(d) Subject

Air Transport Association (ATA) of America Code 27, Flight Controls.

(e) Reason

This AD was prompted by a determination that ballscrew rupture could occur on certain THSAs. We are issuing this AD to detect and correct ballscrew rupture, which, along with corrosion on the ballscrew lower splines, may lead to loss of transmission of THSA torque loads from the ballscrew to the tie-bar and consequent THSA blowback, which could result in loss of control of the airplane.

(f) Compliance

You are responsible for having the actions required by this AD performed within the compliance times specified, unless the actions have already been done.

(g) Repetitive Integrity Tests

At the later of the times specified in paragraph (g)(1) or (g)(2) of this AD, as applicable, do a THSA ballscrew shaft integrity test, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-27-3191, dated June 7, 2012; or Airbus Mandatory Service Bulletin A340-27-4186, dated June 7, 2012; as applicable. Repeat the integrity test thereafter at intervals not to exceed 12,000 flight hours or 4,400 flight cycles, whichever occurs first.

(1) At the latest of the times specified in paragraph (g)(1)(i), (g)(1)(ii), or (g)(1)(iii) of this AD.

(i) Within 12,000 flight hours since the airplane's first flight; or

(ii) Within 12,000 flight hours since the most recent THSA ballscrew shaft integrity test was done as specified in maintenance review board report (MRBR) Task 274000-12; or

(iii) Within 12,000 flight hours since the most recent THSA ballscrew shaft integrity test was done, as specified in Airbus Mandatory Service Bulletin A330-27-3179 or Airbus Mandatory Service Bulletin A340-27-4175, as applicable. (These service bulletins specify testing in case of type II or type III findings).

(2) Within 1,000 flight hours after the effective date of this AD, but without exceeding the latest of the times specified in paragraph (g)(2)(i), (g)(2)(ii), or (g)(2)(iii) of this AD.

(i) 16,000 flight hours since the airplane's first flight.

(ii) 16,000 flight hours since the most recent THSA ballscrew shaft integrity test was done, as specified in MRBR task 274000-12.

(iii) 16,000 flight hours since the most recent THSA ballscrew shaft integrity test was done, as specified in Airbus Mandatory Service Bulletin A330-27-3179, or Airbus Mandatory Service Bulletin A340-27-4175, as applicable. (These service bulletins specify testing in case of type II or type III findings).

(h) Replacement

If the result from any test required by paragraph (g) of this AD is not correct, as specified in the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-27-3191, dated June 7, 2012; or Airbus Mandatory Service Bulletin A340-27-4186, dated June 7, 2012; as applicable: Before further flight, replace the THSA with a serviceable THSA, in accordance with the Accomplishment Instructions of Airbus Mandatory Service Bulletin A330-27-3191, dated June 7, 2012; or Airbus Mandatory Service Bulletin A340-27-4186, dated June 7, 2012; as applicable. Replacement of a THSA, as required by this paragraph, with a THSA having P/N 47147-500 or P/N 47147-700, is not terminating action for the repetitive tests required by paragraph (g) of this AD.

(i) 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: Vladimir Ulyanov, Aerospace Engineer, International Branch, ANM-116, Transport Airplane Directorate, FAA, 1601 Lind Avenue SW., Renton, Washington 98057-3356; telephone (425) 227-1138; 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) Airworthy Product: For any requirement in this AD to obtain corrective actions from a manufacturer or other source, use these actions if they are FAA-approved. Corrective actions are considered FAA-approved if they are approved by the State of Design Authority (or their delegated agent). You are required to assure the product is airworthy before it is returned to service.

(j) Related Information

Refer to Mandatory Continuing Airworthiness Information European Aviation Safety Agency Airworthiness Directive 2012-0210, dated October 11, 2012, for related information, which can be found in the AD docket on the internet at http://www.regulations.gov.

(k) 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 the AD specifies otherwise.

(i) Airbus Mandatory Service Bulletin A330-27-3191, dated June 7, 2012.

(ii) Airbus Mandatory Service Bulletin A340-27-4186, dated June 7, 2012.

(3) For service information identified in this AD, contact Airbus SAS, Airworthiness Office–EAL, 1 Rond Point Maurice Bellonte, 31707 Blagnac Cedex, France; telephone +33 5 61 93 36 96; fax +33 5 61 93 45 80; email airworthiness.A330-A340@airbus.com; Internet http://www.airbus.com.

(4) You may review copies of the 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.

(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 Renton, Washington, on August 1, 2013.

Jeffrey E. Duven,

Acting Manager, Transport Airplane Directorate,

Aircraft Certification Service.