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DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2013-0353; Directorate Identifier 2008-SW-029-AD; Amendment 39-17545; AD 2013-16-07]

RIN 2120-AA64

Airworthiness Directives; Eurocopter France Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for certain Eurocopter France (Eurocopter) Model AS332C, AS332L, AS332L1, AS332L2, and EC225LP helicopters to require inspecting for the presence of blind holes in the tail gearbox (TGB) attachment fittings, and, if they are missing, installing an additional washer under the head of the attachment bolt until the attachment fitting is replaced with an airworthy attachment fitting. This AD was prompted by the discovery of interference between the TGB aft attachment bolt and the structure fitting, caused by a manufacturing anomaly that omitted the blind hole required for proper fit of the attachment bolt. This condition, if not detected and corrected, could result in insufficient tightening of the TGB casing, damage to the TGB attachment, cracking under the attachment bolt, and loss of the TGB, resulting in loss of control of the helicopter.

DATES: This AD is effective September 24, 2013.

The Director of the Federal Register approved the incorporation by reference of certain documents listed in this AD as of September 24, 2013.

ADDRESSES: For service information identified in this AD, contact American Eurocopter Corporation, 2701 N Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <http://www.eurocopter.com/techpub>. You may review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 2601 Meacham Blvd., Room 663, Fort Worth, Texas 76137.

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, any incorporated-by-reference service information, the foreign authority's AD, the economic evaluation, any comments received, and other information. The street address for the Docket Operations Office (phone: 800-647-5527) is U.S. Department of Transportation, Docket Operations Office, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE., Washington, DC 20590.

FOR FURTHER INFORMATION CONTACT: Gary Roach, Aviation Safety Engineer, Regulations and Policy Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, TX 76137; telephone (817) 222-5110; email gary.b.roach@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

On April 22, 2013, at 78 FR 23686, the Federal Register published our notice of proposed rulemaking (NPRM), which proposed to amend 14 CFR part 39 to include an AD that would apply to Eurocopter Model AS332C, AS332L, AS332L1, AS332L2, and EC225LP helicopters, serial numbers (S/N) up to and including 2680 and S/N 9000 through 9009. The NPRM proposed to require inspecting for the presence of blind holes in the TGB attachment fittings, and, if they are missing, installing an additional washer under the head of the attachment bolt until the attachment fitting is replaced with an airworthy attachment fitting. The proposed requirements were intended to prevent insufficient tightening of the TGB casing, damage to the TGB attachment, cracking under the attachment bolt, and loss of the TGB, resulting in loss of control of the helicopter.

The NPRM was prompted by AD No. F-2007-027, dated January 2, 2008 (F-2007-027), issued by the Direction Générale de L'Aviation Civile France (DGAC), the aviation authority for France. DGAC issued F-2007-027 to correct an unsafe condition for certain Eurocopter AS332 series and EC225 LP helicopters. The DGAC advises that during a scheduled maintenance check, a helicopter was discovered to have interference between the threaded section of the aft attachment bolt and the structure fitting. The interference is because of a manufacturing anomaly in the fittings that omitted the blind hole for bolt clearance in the structure fitting. Interference from this missing blind hole does not permit correct axial tightening of the TGB casing, even if the correct torque load is applied to the attachment bolt. Insufficient tightening of the bolt can damage the TGB attachment and initiate a crack under the head of the attachment bolt. This condition, if not corrected, could result in loss of the TGB and subsequent loss of control of the helicopter.

Comments

We gave the public the opportunity to participate in developing this AD, but we received no comments on the NPRM (78 FR 23686, April 22, 2013).

FAA's Determination

These helicopters have been approved by the aviation authority of France and are approved for operation in the United States. Pursuant to our bilateral agreement with France, DGAC, which is the production oversight authority for France, has notified us of the unsafe condition described in its AD. We are issuing this AD because we evaluated all information provided by the DGAC and determined the unsafe condition exists and is likely to exist or develop on other helicopters of these same type designs and that air safety and the public interest require adopting the AD requirements as proposed.

Related Service Information

Eurocopter has issued one Emergency Alert Service Bulletin (EASB), Revision 1, dated January 4, 2008, with four different numbers. EASB No. 53.01.58 is for the Model AS332 series helicopters; EASB No. 53.00.58 is for the Model AS532 series helicopters, which are not FAA type certificated; EASB No. 53A012 is for the Model EC225LP helicopter; and EASB No. 53A011 is for the Model EC 725AP helicopter, which is not FAA type certificated. The EASB specifies inspecting the forward and aft attachment fittings for proper depth of the bolt holes. If the bolt holes are less than the minimum depth, the EASB specifies checking the condition of the bolt. If there are no signs of chafing or contact, the EASB calls for adding an additional washer to the bolt and reinstalling the bolt in the TGB attachment fitting. If there are signs of chafing or contact, the EASB requires replacing the bolt with an airworthy bolt and two washers. The DGAC classified this EASB as mandatory and issued F-2007-027 to ensure the continued airworthiness of these helicopters.

Costs of Compliance

We estimate that this AD affects six helicopters of U.S. registry. Based on an average estimated labor cost of \$85 per work-hour, we estimate the following costs:

- Inspecting the TGB for the presence of a blind hole requires 0.50 work-hour for a labor cost of about \$43. No parts are needed, so the cost totals \$43 per helicopter, or \$258 for the fleet.
- Replacing bolts and adding a second washer if needed requires 0.50 work-hour for a labor cost of about \$43. Parts cost about \$200 for three replacement bolts and the washers for a total cost of \$243 per helicopter.
- Replacing the TGB attachment fitting with an airworthy fitting requires 40 work-hours for a labor cost of \$3,400. Parts cost about \$1,921 for a total cost of \$5,321 per helicopter.

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 helicopters identified in this rulemaking action.

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 DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
- (3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; 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 an economic evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

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):



2013-16-07 Eurocopter France Helicopters: Amendment 39-17545; Docket No. FAA-2013-0353; Directorate Identifier 2008-SW-029-AD.

(a) Applicability

This AD applies to Eurocopter France (Eurocopter) models AS332C, AS332L, AS332L1, AS332L2, and EC225LP helicopters, serial numbers (S/N) up to and including 2680 and S/N 9000 through 9009, certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as interference between the tail gearbox (TGB) attachment bolt and the structure fitting. This condition could result in insufficient tightening of the TGB casing, damage to the TGB attachment, cracking under the attachment bolt, loss of the TGB and consequently, loss of helicopter control.

(c) Effective Date

This AD becomes effective September 24, 2013.

(d) Compliance

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(e) Required Actions

Within 50 hours time-in-service (TIS):

(1) Inspect the TGB aft attachment fitting to measure the dimension for a blind hole as follows:
(i) Remove the TGB attachment bolt (c) but retain washer (d) as depicted in Detail A, Figure 1, of Eurocopter Emergency Alert Service Bulletin (EASB) No. 53.01.58 and EASB No. 53A012, both Revision 1, and both dated January 4, 2008.

(ii) Use a depth gauge to measure dimension "x" between the top face of the washer (d) and the bottom of aft fitting (a) as depicted in Detail A, Figure 1, of the EASB.

(2) If the measurement is equal to or greater than 81 mm, then the blind hole is present. Install the TGB attachment bolt (c) with its washer (d) as depicted in Detail A, Figure 1, of EASB No. 53.01.58 or No. 53A012. Lock with lockwire.

(3) If the measurement is less than 81 mm, then the blind hole is missing. Inspect the end of the threaded section of bolt (c) for chafing or a contact mark, as depicted in Area 1, Figure 1, of the EASB.

(i) If there is no chafing and no contact marks, install bolt (c) with washer (d) and additional washer (2) as depicted in Detail B, Figure 1, of EASB No. 53.01.58 or No. 53A012.

(ii) If there is chafing or a contact mark, replace the TGB attachment bolt (c) with an airworthy bolt and install with washer (d) and additional washer (2) as depicted in Detail B, Figure 1, of EASB No. 53.01.58 or No. 53A012. Lock with lockwire.

(iii) Within the next 825 hours TIS, replace the TGB aft attachment fitting with an airworthy attachment fitting.

(4) Inspect the right and left attachment points of the TGB forward attachment to measure the dimension for a blind hole, as follows:

(i) Remove both TGB attachment bolts (c) but retain washers (d), as depicted in Detail A, Figure 2, of EASB No. 53.01.58 or No. 53A012.

(ii) Use a depth gauge to measure dimension "x" between the top face of washer (d) and the bottom of forward fitting (b) at the right and left attachment points, as depicted in Detail A, Figure 2, of EASB No. 53.01.58 or No. 53A012.

(5) If both measurements are equal to or greater than 81 mm, then the blind hole is present. Install TGB attachment bolt (c) with its washer (d), as depicted in Detail A, Figure 2, of EASB No. 53.01.58 or No. 53A012. Lock with lockwire.

(6) If one or both measurements are less than 81 mm, then the blind hole is missing. Inspect the end of the threaded section of each bolt (c) for chafing or a contact mark, as depicted in Area 1, Figure 2 of EASB No. 53.01.58 or No. 53A012.

(i) If there is no chafing and no contact marks, for each attachment point, install bolt (c) with washer (d) and additional washer (2), as depicted in Detail B, Figure 2, of EASB No. 53.01.58 or No. 53A012.

(ii) If there is chafing or a contact mark, replace each the TGB attachment bolt (c) with an airworthy bolt and install bolt (1) with washer (d) and additional washer (2), as depicted in Detail B, Figure 2, of EASB No. 53.01.58 or No. 53A012. Lock with lockwire.

(iii) Within the next 825 hours TIS, replace the TGB forward attachment fitting with an airworthy attachment fitting.

(f) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Group, FAA, may approve AMOCs for this AD. Send your proposal to: Gary Roach, Aviation Safety Engineer, Regulations and Policy Group, Rotorcraft Directorate, FAA, 2601 Meacham Blvd., Fort Worth, TX 76137; telephone (817) 222-5110; email gary.b.roach@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, we suggest that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office, before operating any aircraft complying with this AD through an AMOC.

(g) Additional Information

The subject of this AD is addressed in the Direction Générale de L'Aviation Civile (DGAC) France AD No F-2007-027, dated January 2, 2008. You may view the DGAC AD in the AD Docket on the Internet at <http://www.regulations.gov>.

(h) Subject

Joint Aircraft Service Component (JASC) Code: 6520, Tail Rotor Gearbox.

(i) 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) Eurocopter EASB No. 53.01.58, Revision 1, dated January 4, 2008.

(ii) Eurocopter EASB No. 53A012, Revision 1, dated January 4, 2008.

Note 1 to paragraph (i)(2): Eurocopter EASB No. 53.01.58 and No. 53A012, both Revision 1, and both dated January 4, 2008, are co-published as one document along with Eurocopter EASB No. 53.00.58 and No. 53A011, also both Revision 1, and both dated January 4, 2008, which are not incorporated by reference in this AD.

(3) For Eurocopter service information identified in this AD, contact American Eurocopter Corporation, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone (972) 641-0000 or (800) 232-0323; fax (972) 641-3775; or at <http://www.eurocopter.com/techpub>.

(4) You may view this service information that is incorporated by reference in the AD Docket on the Internet at <http://www.regulations.gov>.

(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 Fort Worth, Texas, on July 31, 2013.

Lance T. Gant,
Acting Directorate Manager, Rotorcraft Directorate,
Aircraft Certification Service.