AIRWORTHINESS DIRECTIVES; AIRBUS HELICOPTERS

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for Airbus Helicopters Model AS332C, AS332C1, AS332L, and AS332L1 helicopters. This AD requires determining the accumulated hours time-in-service (TIS) of certain part-numbered main gearbox (MGB) suspension bar attachment fittings (fittings) and bolts, and establishes new life limits. This AD was prompted by the outcome of tests and analyses performed by Airbus Helicopters. The actions of this AD are intended to address an unsafe condition on these products.

DATES: This AD is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: For service information identified in this final rule, contact Airbus Helicopters, 2701 N. Forum Drive, Grand Prairie, TX 75052; telephone 972-641-0000 or 800-232-0323; fax 972-641-3775; or at https://www.airbus.com/helicopters/services/technical-support.html. You may view the
referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177.

Examining the AD Docket

You may examine the AD docket on the Internet at https://www.regulations.gov in Docket No. FAA-2019-1015; 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 AD, the European Union Aviation Safety Agency (previously European Aviation Safety Agency) (EASA) AD, any comments received, and other information. The street address for Docket Operations is 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: Matt Fuller, Senior Aviation Safety Engineer, Safety Management Section, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5110; email matthew.fuller@faa.gov.

SUPPLEMENTARY INFORMATION:

Discussion

On December 9, 2019, at 84 FR 67246, the Federal Register published the FAA’s notice of proposed rulemaking (NPRM), which proposed to amend 14 CFR part 39 by adding an AD that would apply to Airbus Helicopters Model AS332C, AS332C1, AS332L, and AS332L1 helicopters, with an MGB suspension bar right-hand side (RH) rear fitting part number (P/N) 330A22-2702-07 and bolt P/N 330A22-0135-20, MGB suspension bar left-hand side (LH) rear fitting P/N 330A22-2702-06 and bolt...
P/N 330A22-0135-20, or MGB suspension bar front bolt P/N 330A22-0134-20 installed. The NPRM proposed to require within 50 hours TIS, reviewing the helicopter records to determine the total hours TIS of the MGB suspension bar RH and LH rear fittings. The NPRM also proposed to require removing from service the RH rear fitting and its bolts and the LH rear fitting and its bolts based on the accumulated total hours TIS of the fittings and other conditions. Thereafter, the NPRM proposed to require removing from service the RH rear fitting and its bolts at intervals not to exceed 1,470 hours TIS, removing from service the LH rear fitting at intervals not to exceed 13,600 hours TIS, and removing from service the LH rear bolts during each Major Inspection “G.” Finally, the NPRM proposed to require removing from service the front bolts during each Major Inspection “G.”

The proposed requirements were intended to prevent structural failure of the MGB suspension bar fittings and bolts, possibly resulting in detachment of the MGB suspension bars.

The NPRM was prompted by EASA AD No. 2018-0260, dated December 3, 2018, issued by EASA, which is the Technical Agent for the Member States of the European Union, to correct an unsafe condition for Airbus Helicopters (formerly Eurocopter, Eurocopter France, Aerospatiale) Model AS 332 C, AS 332 C1, AS 332 L, and AS 332 L1 helicopters. From review of reported Model EC 225 LP data, EASA advises that the installation of the MGB upper deck fittings of the three MGB suspension bars could lead to tightening torque loss on the fittings’ attachment screws (bolts). Due to design similarities, Model AS 332 C, AS 332 C1, AS 332 L, and AS 332 L1 helicopters
could also be affected by the same installation condition. Investigations determined that a life limit reduction of the MGB suspension bar fittings and screws was necessary for these model helicopters.

EASA states that this condition, if not corrected, could lead to structural failure of the MGB suspension bar fittings and screws, possibly resulting in detachment of the MGB suspension bars. Accordingly, the EASA AD requires determining the accumulated service life of the affected parts and introduced new life limits.

Comments

The FAA gave the public the opportunity to participate in developing this AD, but the FAA did not receive any comments on the NPRM.

FAA’s Determination

These helicopters have been approved by EASA and are approved for operation in the United States. Pursuant to the FAA’s bilateral agreement with the European Union, EASA has notified the FAA of the unsafe condition described in its AD. The FAA is issuing this AD after evaluating all information provided by EASA and determining 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.

Interim Action

The FAA considers this AD to be an interim action. The design approval holder is currently developing a modification that will address the unsafe condition identified in this AD. Once this modification is developed, approved, and available, the FAA might consider additional rulemaking.
Differences Between this AD and the EASA AD

The EASA AD allows an option for the first MGB RH rear fitting replacement to inspect torque and specifies different replacement compliance times based on the torque inspection results, whereas this AD does not.

Related Service Information

The FAA reviewed Airbus Helicopters Alert Service Bulletin No. AS332-01.00.90, Revision 0, dated November 21, 2018. This service information specifies determining the accumulated hours TIS of certain part-numbered rear MGB suspension bar fittings and screws. This service information further specifies criteria to determine the initial replacement compliance time of those parts and a new life limit for those parts thereafter. This service information also establishes a life limit for the front MGB attachment screws.

Costs of Compliance

The FAA estimates that this AD affects 14 helicopters of U.S. Registry. The FAA estimates that operators may incur the following costs in order to comply with this AD. Labor costs are estimated at $85 per work-hour.

Determining the total hours TIS of the rear MGB fittings takes about 0.5 work-hour for an estimated cost of $43 per helicopter and $602 for the U.S. fleet.

Replacing a rear MGB fitting and its set of four bolts takes about 8 work-hours and parts cost about $12,937, for an estimated cost of $13,617 per replacement cycle.

Replacing a set of four MGB attachment bolts takes about 4 work-hours and parts cost about $224, for an estimated cost of $564 per replacement cycle.
Replacing a LH rear MGB fitting takes about 8 work-hours and parts cost about $12,713, for an estimated cost of $13,393 per replacement cycle.

**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.

The FAA is 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. Will not affect intrastate aviation in Alaska, and
3. 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):


   **(a) Applicability**

   This AD applies to Airbus Helicopters Model AS332C, AS332C1, AS332L, and AS332L1 helicopters, certificated in any category, with a main gearbox (MGB) suspension bar right-hand side (RH) rear attachment fitting (fitting) part number (P/N) 330A22-2702-07 and bolt P/N 330A22-0135-20, MGB suspension bar left-hand side (LH) rear fitting P/N 330A22-2702-06 and bolt P/N 330A22-0135-20, or MGB suspension bar front bolt P/N 330A22-0134-20 installed.
(b) Unsafe Condition

This AD defines the unsafe condition as MGB suspension bar fittings and bolts remaining in service beyond their fatigue life. This condition could result in failure of an MGB attachment assembly, detachment of an MGB suspension bar, and subsequent loss of helicopter control.

(c) Effective Date

This AD becomes effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(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

(1) Within 50 hours time-in-service (TIS), review records to determine the total hours TIS of each MGB suspension bar RH and LH rear fitting.

   (i) For any RH rear fitting that has accumulated 1,470 or more total hours TIS, before further flight, remove from service the RH rear fitting and its bolts.

   (ii) For any RH rear fitting that has accumulated less than 1,470 total hours TIS, remove from service the RH rear fitting and its bolts before the fitting accumulates 1,470 total hours TIS.

   (iii) For any LH rear fitting that has accumulated 13,600 or more total hours TIS, before further flight, remove from service the LH rear fitting and its bolts.
(iv) For any LH rear fitting that has accumulated less than 13,600 total hours TIS:

(A) If a Major Inspection “G” has not been completed since the LH rear fitting has been installed, remove from service the LH rear bolts during the next Major Inspection “G” inspection; or

Note 1 to paragraph (e)(1)(iv)(A) of this AD: Major Inspection “G” (7,500 hours TIS between overhauls) is defined in Maintenance Manual MET 05-29-00-601.

(B) If a Major Inspection “G” has been completed since the LH rear fitting has been installed, before further flight, remove from service the LH rear bolts; and

(C) Remove from service the LH rear fitting before the fitting accumulates 13,600 total hours TIS.

(2) Thereafter following paragraph (e)(1) of this AD, remove from service any RH rear fitting and its bolts at intervals not to exceed 1,470 hours TIS, remove from service any LH rear fitting at intervals not to exceed 13,600 hours TIS, and remove from service any LH rear bolts during each Major Inspection “G.”

(3) During the next Major Inspection “G,” remove from service the MGB suspension bar front bolts. Thereafter, remove from service the front bolts during each Major Inspection “G.”

(f) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Section, Rotorcraft Standards Branch, FAA, may approve AMOCs for this AD. Send your proposal to: Matt Fuller, Senior Aviation Safety Engineer, Safety Management Section, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5110; email 9-ASW-FTW-AMOC-Requests@faa.gov.
(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, the FAA suggests 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**

(1) Airbus Helicopters Alert Service Bulletin No. AS332-01.00.90, Revision 0, dated November 21, 2018, which is not incorporated by reference, contains additional information about the subject of this AD. For service information identified in this AD, contact Airbus Helicopters, 2701 N Forum Drive, Grand Prairie, TX 75052; telephone 972-641-0000 or 800-232-0323; fax 972-641-3775; or at https://www.airbus.com/helicopters/services/technical-support.html. You may view the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy., Room 6N-321, Fort Worth, TX 76177.

(h) Subject

Joint Aircraft Service Component (JASC) Code: 6320 Main Rotor Gearbox.

Issued on March 27, 2020.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.
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