**[4910-13-P]**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2019-1015; Product Identifier 2018-SW-104-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; Airbus Helicopters**

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

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

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

**DATES:** The FAA must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** You may send comments by any of the following methods:

- Federal eRulemaking Docket: Go to https://www.regulations.gov. Follow the online instructions for sending your comments electronically.

- Fax: 202-493-2251.

- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.

- Hand Delivery: Deliver to the "Mail" address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

**Examining the AD Docket**

You may examine the AD docket on the Internet at https://www.regulations.gov by searching for and locating 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 proposed AD, the European Aviation Safety Agency (EASA) AD, the economic evaluation, any comments received, and other information. The street address for Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

For service information identified in this proposed 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 review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

**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:

### Comments Invited

The FAA invites you to participate in this rulemaking by submitting written comments, data, or views. The FAA also invites comments relating to the economic, environmental, energy, or federalism impacts that might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit only one time.

The FAA will file in the docket all comments that the FAA receives, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, the FAA will consider all comments the FAA receives on or before the closing date for comments. The FAA will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. The FAA may change this proposal in light of the comments the FAA receives.

### Discussion

EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD No. 2018-0260, dated December 3, 2018 (EASA AD 2018-0260), 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 AS332L2 helicopters could also be affected by the same installation condition. Investigations determined that the life limits in the Airworthiness Limitations Sections for the screws and fittings are valid if an "add-on penalty factor" is applied. Based on these findings, EASA issued EASA AD No. 2017-0133 dated July 27, 2017, and then superseded that AD with EASA AD No. 2017-0189, dated September 22, 2017, for Model AS 332 L2 and EC 225 LP helicopters to address this condition.

Airbus Helicopter subsequently performed testing on Model AS 332 C, AS 332 C1, AS 332 L, and AS 332 L1 helicopters due to design similarities, and determined a life limit reduction of the MGB suspension bar fittings and screws was necessary for these model helicopters. Accordingly, EASA AD 2018-0260 was issued for these model helicopters to require determining the accumulated service life of the affected parts and to introduce new life limits.

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.

**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 proposing this AD after evaluating all known relevant information and determining that

an unsafe condition is likely to exist or develop on other products of the same type design.

**Related Service Information**

The FAA reviewed Airbus Helicopters Alert Service Bulletin No. AS332-01.00.90, Revision 0, dated November 11, 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.

**Proposed AD Requirements**

This proposed AD would require, within 50 hours TIS, reviewing the helicopter records to determine the total hours TIS of the MGB suspension bar right-hand side (RH) rear fitting part number (P/N) 330A22-2702-07 and of the MGB suspension bar left-hand side (LH) rear fitting P/N 330A22-2702-06. This proposed AD would initially require removing from service the RH rear fitting and its bolts P/N 330A22-0135-20 and the LH rear fitting and its bolts P/N 330A22-0135-20 based on the accumulated total hours TIS of the fittings and other conditions. Thereafter, this proposed AD would 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." This proposed AD would also require removing from service the front bolts P/N 330A22-0134-20 during each Major Inspection "G."

**Differences between this Proposed AD and the EASA AD**

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

**Interim Action**

The FAA considers this proposed 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.

**Costs of Compliance**

The FAA estimates that this proposed AD affects 14 helicopters of U.S. Registry. Labor costs are estimated at $85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this proposed AD.

Determining the total hours TIS of the rear MGB fittings would take 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 would take about 8 work-hours and parts would cost about $12,937, for an estimated cost of $13,617 per replacement cycle.

Replacing a set of four MGB attachment bolts would take about 4 work-hours and parts would cost about $224, for an estimated cost of $564 per replacement cycle.

Replacing a LH rear MGB fitting would take about 8 work-hours and parts would 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 products identified in this rulemaking action.

**Regulatory Findings**

The FAA 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, I certify this proposed regulation:

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.

The FAA prepared an economic evaluation of the estimated costs to comply with this proposed 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.

**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 Helicopters:** Docket No. FAA-2019-1015; Product Identifier 2018-SW-104-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) Comments Due Date**

The FAA must receive comments by [INSERT DATE 60 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)(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 11, 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 review the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

(2) The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2018-0260, dated December 3, 2018. You may view the EASA AD on the Internet at https://www.regulations.gov in the AD Docket.

**(h) Subject**

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

Issued in Fort Worth, Texas, on November 29, 2019.

Lance T. Gant,

Director, Compliance & Airworthiness Division,
Aircraft Certification Service.

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