



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2018-0019; Product Identifier 2017-SW-074-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 AS332L2 and EC225LP helicopters. This proposed AD would require determining the accumulated hours time-in-service (TIS) of certain part-numbered main gearbox (MGB) suspension bar attachment bolts and fittings, applying a life limit add-on factor, and inspecting the torque of certain MGB suspension bar attachment nuts. This proposed AD is prompted by a report of torque loss on an MGB suspension bar bolt. 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-2018-0019; 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 received, 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 received 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 received.

Discussion

EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD No. 2017-0189, dated September 22, 2017, to correct an unsafe condition for Airbus Helicopters (formerly Eurocopter, Eurocopter France, Aerospatiale) Model AS 332 L2 and EC 225 LP helicopters. Following 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 pins (bolts). Due to design similarities, Model AS 332 L2 helicopters could also be affected by the same installation condition. An investigation determined that the life limits in the Airworthiness Limitations Sections for the pins and fittings are valid if an "add-on penalty factor" is applied.

EASA states that this condition, if not corrected, could lead to structural failure of the MGB suspension bar attachment pins or fittings. Accordingly, the EASA AD requires applying the add-on penalty factor to the flight hours to re-calculate the life limits and replacing an affected part before exceeding its life limit.

EASA further advises that Airbus Helicopters' initial service information contained an error that may have resulted in the installation of pins or fittings using an incorrect torque value. As a result, the EASA AD also requires replacing pins if an incorrect torque value was applied and reporting the information to Airbus Helicopters.

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 Under 1 CFR part 51

The FAA reviewed Airbus Helicopters Emergency Alert Service Bulletin (EASB) No. 01.00.86 for Model AS332 helicopters and Airbus Helicopters EASB No. 04A013

for Model EC225LP helicopters, both Revision 1 and dated August 25, 2017. This service information specifies applying an add-on factor to the flying hours logged by the pins and fittings and replacing them if the service life limit (SLL) is exceeded. If an incorrect tightening torque value was applied to the pins, the service information specifies replacing the pins and contacting Airbus Helicopters.

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.

Proposed AD Requirements

This proposed AD would require for Airbus Helicopters Model AS332L2 and EC225LP helicopters, within 30 hours time-in-service (TIS) and thereafter following each flight, re-calculating the life limit accumulated by each front bolt part number (P/N) 332A22-1613-21 or 332A22-1613-20 and rear bolt P/N 332A22-1614-20 by applying an add-on factor listed in the applicable service information. If the bolt meets or exceeds its life limit, also known as SLL, this proposed AD would require removing the bolt from service before further flight.

For Model AS332L2 helicopters, within 30 hours TIS and thereafter following each flight, this proposed AD would require re-calculating the life limit accumulated by the front attachment fitting P/N 332A22-1623-01, rear left hand attachment fitting P/N 332A22-1624-02 or 332A22-1624-04, and rear right hand attachment fitting P/N 332A22-1624-03 or 332A22-1624-05 by applying an add-on factor listed in the applicable service information. If the fitting meets or exceeds its life limit, this proposed AD would require removing the fitting from service before further flight.

For Model AS332L2 helicopters, within 150 hours TIS (without applying an add-on-factor), this proposed AD would require inspecting the torque of each MGB suspension bar fitting front and rear nut. If the torque on any nut is higher than the maximum allowable limit, the proposed AD would require removing the nut and its bolt from service before further flight. If the torque on any nut is lower than the minimum allowable limit, this proposed AD would require tightening the nut before further flight and removing the nut and its bolt from service within 150 hours TIS.

Differences between this Proposed AD and the EASA AD

The EASA AD allows an optional 150 hours TIS extension to the life limit of an affected fitting for Model AS 332 L2 helicopters by performing dye-penetrant inspections. This AD does not allow this option. For Model AS 332 L2 helicopters, the EASA AD requires replacing pins (bolts) that are replacement pins installed before the AD's effective date with an incorrect torque value applied. This AD requires inspecting the torque for each nut for Model AS332L2 helicopters instead and depending on the outcome, removing the nut and its bolt from service.

Costs of Compliance

The FAA estimates that this proposed AD affects 23 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 adjusted life limit for the bolts and fittings would take about 0.5 work-hour for an estimated cost of \$43 per helicopter and \$989 for the U.S. fleet. Replacing a bolt would take about 4 work-hours and parts would cost about \$89 for an estimated cost of \$429 per bolt.

There are no costs of compliance for replacing a fitting and inspecting, and if necessary tightening, the torque for Model AS332L2 helicopters by this proposed AD because there are no Model AS332L2 helicopters on the U.S. Registry.

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-2018-0019; Product Identifier 2017-SW-074-AD.

(a) Applicability

This AD applies to Airbus Helicopters Model AS332L2 and EC225LP helicopters, certificated in any category, with a main gearbox (MGB) suspension bar front attachment bolt (bolt) part number (P/N) 332A22-1613-21 or 332A22-1613-20, MGB suspension bar rear bolt P/N 332A22-1614-20, MGB suspension bar front attachment fitting (fitting) P/N 332A22-1623-01, MGB suspension bar rear left hand

fitting P/N 332A22-1624-02 or 332A22-1624-04, or MGB suspension bar rear right hand fitting P/N 332A22-1624-03 or 332A22-1624-05 installed.

(b) Unsafe Condition

This AD defines the unsafe condition as MGB suspension bar bolts and fittings remaining in service beyond their fatigue life and loose MGB suspension bar bolts or fittings, which could result in structural failure of the MGB suspension bar and 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 30 hours time-in-service (TIS), review records to determine the total hours TIS of each MGB suspension bar bolt.

(i) Determine the life limit of each bolt by applying the hours TIS by the add-on factor listed in Table No. 1 of Airbus Helicopters Emergency Alert Service Bulletin No. 01.00.86, Revision 1, dated August 25, 2017 (EASB 01.00.86), or Airbus Helicopters Emergency Alert Service Bulletin No. 04A013, Revision 1, dated August 25, 2017, as applicable to your model helicopter.

Note 1 to paragraph (e)(1)(i) of this AD: Airbus Helicopters refers to bolts as “pins.”

(A) Before further flight, remove from service any bolt that has reached or exceeded its life limit.

(B) For each bolt that has not exceeded its life limit, continue to calculate and record the life limit on its component history card or equivalent record by applying the add-on factor each time the helicopter accumulates hours TIS, and remove from service any bolt before reaching its life limit.

(ii) Thereafter following paragraph (e)(1)(i) of this AD, continue to calculate and record the life limit of each bolt on its component history card or equivalent record by applying the add-on factor each time the helicopter accumulates hours TIS and remove from service any bolt before reaching its life limit.

(2) For Model AS332L2 helicopters, within 30 hours TIS, review records to determine the total hours TIS of each MGB suspension bar fitting.

(i) Determine the life limit of each fitting by applying the hours TIS by the add-on factor listed in Table No. 1 of EASB 01.00.86.

(A) Before further flight, remove from service any fitting that has reached or exceeded its life limit.

(B) For each fitting that has not exceeded its life limit, continue to calculate and record the life limit on its component history card or equivalent record by applying the add-on factor each time the helicopter accumulates hours TIS, and remove from service any fitting before reaching its life limit.

(ii) Thereafter following paragraph (e)(2)(i) of this AD, continue to calculate and record the life limit of each fitting on its component history card or equivalent record by

applying the add-on factor each time the helicopter accumulates hours TIS and remove from service any fitting before reaching its life limit.

(3) For Model AS332L2 helicopters, within 150 hours TIS (without the add-on factor), inspect the torque of each MGB suspension bar attachment front and rear nut. The allowable torque for each front nut is 602-663 lbf. in (6.8-7.5 daN.m) and the allowable torque for each rear nut is 337-398 lbf. in (3.8-4.5 daN.m).

(i) If the torque on any nut is higher than the maximum allowable torque stated in paragraph (e)(3) of this AD, before further flight, remove from service the bolt and nut.

(ii) If the torque on any nut is lower than the minimum allowable torque value stated in paragraph (e)(3) of this AD, before further flight, tighten the nut to the allowable torque stated in paragraph (e)(3) of this AD. Within 150 hours TIS (without the add-on factor), remove from service any bolt and nut that were tightened as required by this paragraph.

(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

The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2017-0189, dated September 22, 2017. 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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