



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-0126; Project Identifier MCAI-2020-00266-R]

RIN 2120-AA64

Airworthiness Directives; Airbus Helicopters Deutschland GmbH (AHD)

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 Deutschland GmbH (AHD) Model MBB-BK 117 D-2 helicopters. This proposed AD was prompted by a report of a broken Titanium (Ti) bolt. This proposed AD would require removing certain Ti-bolts from service and prohibit installing these Ti-bolts in a critical area. The FAA is proposing this AD to address the unsafe condition on these products.

DATES: The FAA must receive comments on this proposed AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments, using the procedures found in 14 CFR 11.43 and 11.45, by any of the following methods:

- Federal eRulemaking Portal: Go to <https://www.regulations.gov>. Follow the instructions for submitting comments.
- Fax: (202) 493-2251.
- Mail: 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 Mail address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

For service information identified in this NPRM, 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. For information on the availability of this material at the FAA, call (817) 222-5110.

Examining the AD Docket

You may examine the AD docket at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0126; 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 NPRM, the European Union Aviation Safety Agency (EASA) AD, any comments received, and other information. The street address for Docket Operations is listed above.

FOR FURTHER INFORMATION CONTACT: Matt Fuller, AD Program Manager, General Aviation & Rotorcraft Unit, Airworthiness Products Section, Operational Safety 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 send any written relevant data, views, or arguments about this proposal. Send your comments to an address listed under ADDRESSES. Include “Docket No. FAA-2021-0126; Project Identifier MCAI-2020-00266-R” at the beginning of your comments. The most helpful comments reference a specific portion of the

proposal, explain the reason for any recommended change, and include supporting data. The FAA will consider all comments received by the closing date and may amend this proposal because of those comments.

Except for Confidential Business Information (CBI) as described in the following paragraph, and other information as described in 14 CFR 11.35, the FAA will post all comments received, without change, to <https://www.regulations.gov>, including any personal information you provide. The agency will also post a report summarizing each substantive verbal contact received about this NPRM.

Confidential Business Information

CBI is commercial or financial information that is both customarily and actually treated as private by its owner. Under the Freedom of Information Act (FOIA) (5 U.S.C. 552), CBI is exempt from public disclosure. If your comments responsive to this NPRM contain commercial or financial information that is customarily treated as private, that you actually treat as private, and that is relevant or responsive to this NPRM, it is important that you clearly designate the submitted comments as CBI. Please mark each page of your submission containing CBI as “PROPIN.” The FAA will treat such marked submissions as confidential under the FOIA, and they will not be placed in the public docket of this NPRM. Submissions containing CBI should be sent to Matt Fuller, AD Program Manager, General Aviation & Rotorcraft Unit, Airworthiness Products Section, Operational Safety Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email matthew.fuller@faa.gov. Any commentary that the FAA receives which is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Background

EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD No. 2019-0258, dated October 18, 2019, to correct an

unsafe condition for Airbus Helicopters Deutschland GmbH (AHD), formerly Eurocopter Deutschland GmbH, Model MBB-BK117 D-2 helicopters. EASA advises of a report of a broken Ti-bolt. Subsequent investigation revealed that an improper heat treatment process was accomplished on a batch of Ti-bolts, which can lead to hydrogen embrittlement. Hydrogen embrittlement can make high-strength bolts susceptible to stress corrosion, pitting, and failure.

EASA states that this condition, if not detected and corrected, could lead to failure of an affected Ti-bolt installed in a critical location, possibly resulting in reduced control of the helicopter. Accordingly, the EASA AD requires a one-time inspection for Ti-bolt part number (P/N) EN3740-060022F marked with manufacturer monogram “D” or with an illegible manufacturer monogram installed on the aft connection of the tail rotor ball bearing control (ball bearing control) and, depending on findings, contacting AHD for corrective action. The EASA AD also prohibits the (re)installation of these Ti-bolts.

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 about 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 helicopters of the same type design.

Related Service Information Under 1 CFR part 51

The FAA reviewed Airbus Helicopters Alert Service Bulletin (ASB) No. ASB MBB-BK117 D-2-00A-001, Revision 1, dated October 16, 2019 (ASB MBB-BK117 D-2-00A-001 Rev 1), which specifies replacing each Ti-bolt P/N EN3740-060022F that is marked with manufacturer monogram “D” or if the manufacturer monogram cannot be identified with an airworthy Ti-bolt in both locations of the aft connection of ball bearing

control and both HF antenna bracket locations.

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 removing any Ti-bolt P/N EN3740-060022F marked with manufacturer monogram “D” or with an illegible manufacturer monogram installed on the aft connection of the ball bearing control from service. This proposed AD would also prohibit installing an affected Ti-bolt on the aft connection of the ball bearing control of any helicopter.

Differences between this Proposed AD and the EASA AD

The EASA AD applies to Model MBB-BK117 D-2 helicopters and requires inspecting for Ti-bolt P/N EN3740-060022F marked with manufacturer monogram “D” or with an illegible manufacturer monogram installed on the aft connection of the ball bearing control. This proposed AD applies to Model MBB-BK 117 D-2 helicopters with a Ti-bolt P/N EN3740-060022F marked with manufacturer monogram “D” or with an illegible manufacturer monogram installed on the aft connection of the ball bearing control instead. The EASA AD requires contacting AHD for approved instructions if an affected Ti-bolt is found, whereas this proposed AD would require removing an affected Ti-bolt from service instead.

Costs of Compliance

The FAA estimates that this AD if adopted as proposed, would affect 29 helicopters of U.S. Registry. Labor rates are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates that operators may incur the following costs in order to comply with this proposed AD.

Replacing a Ti-bolt would take about 2 work-hours and parts would cost about \$100 for an estimated cost of \$270 per Ti-bolt.

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) Would not affect intrastate aviation in Alaska, and
- (3) Would 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.

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:

Airbus Helicopters Deutschland GmbH (AHD): Docket No. FAA-2021-0126; Project Identifier MCAI-2020-00266-R.

(a) Comments Due Date

The FAA must receive comments on this airworthiness directive (AD) by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This airworthiness directive (AD) applies to Airbus Helicopters Deutschland GmbH (AHD) Model MBB-BK 117 D-2 helicopters, certificated in any category, with a Titanium (Ti) bolt part number EN3740-060022F marked with manufacturer monogram “D” or with an illegible manufacturer monogram, installed on the aft connection of the tail rotor ball bearing control.

(d) Subject

Joint Aircraft System Component (JASC) Codes: 1430, Fasteners; and 6720, Tail
Rotor Control System.

(e) Unsafe Condition

This AD defines the unsafe condition as a Ti-bolt with hydrogen embrittlement. This condition could result in failure of the tail rotor ball bearing control Ti-bolt and subsequent loss of tail rotor control.

(f) Compliance

Comply with this AD within the compliance times specified, unless already done.

(g) Required Actions

(1) Within 50 hours time-in-service or 3 months, whichever occurs first, remove any Ti-bolt identified in paragraph (c) of this AD, located on the aft connection of the tail rotor ball bearing rod end (item 5) and at the input lever (item 2) as shown in Figure 1 to Airbus Helicopters Alert Service Bulletin (ASB) No. ASB MBB-BK117 D-2-00A-001, Revision 1, dated October 16, 2019, from service.

(2) As of the effective date of this AD, do not install a Ti-bolt identified in paragraph (c) of this AD on the aft connection of the tail rotor ball bearing control of any helicopter.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Strategic Policy Rotorcraft Section, 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 manager of the certification office, send it to the attention of the person identified in paragraph (i)(1) of this AD. Information may be emailed to: 9-ASW-FTW-AMOC-Requests@faa.gov.

(2) 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.

(i) Related Information

(1) For more information about this AD, contact Matt Fuller, AD Program Manager, General Aviation & Rotorcraft Unit, Airworthiness Products Section, Operational Safety Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email matthew.fuller@faa.gov.

(2) 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. For information on the availability of this material at the FAA, call (817) 222-5110.

(3) The subject of this AD is addressed in European Union Aviation Safety Agency (EASA) AD No. 2019-0258, dated October 18, 2019. You may view the EASA AD on the Internet at <https://www.regulations.gov> in the AD Docket.

Issued on February 22, 2021

Gaetano A. Sciortino Deputy Director for Strategic Initiatives
Compliance & Airworthiness Directive,
Aircraft Certification Service.

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