



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2024-0765; Project Identifier MCAI-2022-00981-R; Amendment 39-23106; AD 2025-16-08]

RIN 2120-AA64

Airworthiness Directives; Airbus Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all Airbus Helicopters Model EC 130 B4 and EC 130 T2 helicopters. This AD was prompted by the determination that fatigue cracks may develop at the root section of certain tail rotor blades (TRBs). This AD requires inspecting those TRBs and, depending on the results, replacing the TRB with a serviceable TRB. This AD also prohibits installing those TRBs unless certain actions are accomplished. The FAA is issuing this AD to address the unsafe condition on these products.

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

The Director of the Federal Register approved the incorporation by reference of a certain publication listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES:

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-2024-0765; 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 final rule, the mandatory continuing airworthiness information (MCAI), any comments received, and other information. The 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.

Material Incorporated by Reference:

- For European Union Aviation Safety Agency (EASA) material identified in this AD, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; phone: +49 221 8999 000; email: ADs@easa.europa.eu; website: easa.europa.eu. You may find the EASA material on the EASA website at ad.easa.europa.eu.

- You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Parkway, Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110. It is also available at regulations.gov under Docket No. FAA-2024-0765.

FOR FURTHER INFORMATION CONTACT: C. Jason Franklin, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (817) 222-5291; email: carl.j.franklin@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all Airbus Helicopters Model EC 130 B4 and EC 130 T2 helicopters. The NPRM published in the *Federal Register* on April 1, 2024 (89 FR 22356). The NPRM was prompted by EASA AD 2022-0150, dated July 21, 2022 (EASA AD 2022-0150) (also referred to as “the MCAI”), issued by EASA, which is the Technical Agent for the Member States of the European Union. The MCAI states that fatigue cracks may develop at the root section of certain part-numbered TRBs.

In the NPRM, the FAA proposed to require repetitively fluorescent penetrant inspecting those TRBs and, depending on the results, accomplishing corrective action. The FAA also proposed to prohibit installing those TRBs unless certain actions are accomplished. The FAA is issuing this AD to address fatigue cracks on a TRB, which if not addressed, could result in crack propagation, TRB failure, and consequent loss of control of the helicopter.

You may examine the MCAI in the AD docket at regulations.gov under Docket No. FAA-2024-0765.

Discussion of Final Airworthiness Directive

Comments

The FAA received comments from four commenters. The commenters were Air Medical Operators Association (AMOA), Air Methods, Airbus Helicopters, and Metro Aviation, Inc. The commenters requested changes regarding the repetitive fluorescent penetrant inspection (FPI) and inspector level requirements, and two commenters made remarks regarding differences between the FAA and EASA AD actions. The following presents the comments received on the NPRM and the FAA's response to each comment.

Comments Regarding Inspector Level Requirements

Air Methods, Airbus Helicopters, and Metro Aviation, Inc., requested the FAA change the proposed requirement for the inspection to be performed by a certified Level II or III inspector. Airbus Helicopters and Metro Aviation, Inc., stated that the Level II or Level III inspector requirement is burdensome and prohibitive to immediate operations. Air Methods requested the FAA explain this proposed requirement, which is not required by the Airbus Helicopters service information or EASA AD 2022-0150. Air Methods commented that a similar requirement was recently included in AD 2024-04-10, Amendment 39-22689 (89 FR 15431, March 4, 2024) (AD 2024-04-10), which resulted in the need for operators to immediately request FAA approval of an alternative method of compliance (AMOC) to avoid grounding the fleet due to unavailability of certified inspectors.

The FAA agrees and has removed paragraph (h)(3) from this final rule.

Comments Regarding FPI Requirements

All commenters requested the FAA remove the proposed requirement for FPIs instead of Die Penetrant Inspection (DPI) and instead adopt EASA AD 2022-0150 without restrictions. Metro Aviation, Inc., stated that it has successfully accomplished DPIs of the affected TRBs with no unsatisfactory findings. Metro Aviation, Inc. also noted that the FAA's proposal is inconsistent with past ADs, as AD 2021-10-25, Amendment 39-21558 (86 FR 29176, June 1, 2021) (AD 2021-10-25), requires DPI of the same part-numbered TRBs and a global AMOC approved for AD 2024-04-10 showed that DPI provided an acceptable level of safety. AMOA expressed concern about the

FAA's inconsistency and differences with the State of Design Authority as to the use of DPIs for cracks on certain TRBs. AMOA stated that the FAA did not explain what changed since the FAA issued AD 2021-10-25, which required the DPI method. AMOA further stated that it is unclear if the FAA followed its terms under the relevant bilateral agreement to accept the State of Design Authority's requirements and resolve differences.

The FAA agrees to remove paragraph (h)(3) of the proposed AD, which would have required an FPI instead of a DPI. However, FPI remains the preferred method of compliance for this AD. Dye penetrant inspection methods involve the use of either visible (colored) penetrant or fluorescent penetrant. Alert Service Bulletin (ASB) EC130-05A041 specifies to perform a DPI with a general reference to Airbus Standard Practices Manual (MTC) 20-02-09-101. MTC 20-02-09-101, Crack detection through dye-penetrant inspection, dated May 25, 2016, identifies Type I (fluorescent penetrant) as the type of penetrant to be used and states Type II (colored penetrant) should be only used for a cross-check once a crack has been detected or otherwise with approval from Airbus Helicopters. The FAA reminds operators of the airworthiness concern regarding liquid penetrant inspection discussed in FAA Special Airworthiness Information Bulletin (SAIB) CE-18-26R1, dated October 30, 2018 (SAIB CE-18-26R1). SAIB CE-18-26R1 explains the risks associated with using visible DPI methods, including the prohibition in American Society for Testing and Materials (ASTM) E1417 on the use of type 2 visible dye penetrant prior to the use of type 1 fluorescent penetrant on the same surface. SAIB CE-18-26R1 also advises of the importance of pre- and post-inspection cleaning to ensure proper detection of cracks. You can find SAIB CE-18-26R1 at [drs.gov](https://www.faa.gov/drs).

Additional Changes Made from the NPRM

The FAA added paragraph (k) of this AD to allow revising the maintenance or inspection program as an optional terminating action for the repetitive inspections. Since the FAA issued the NPRM, EASA revised AD 2022-0150 and issued EASA AD 2022-0150R1, dated July 10, 2024 (EASA AD 2022-0150R1). EASA AD 2022-0150R1 does not require repeating the DPI because Airbus Helicopters revised the airworthiness limitations section (ALS) of the aircraft maintenance manual to include the repetitive inspection requirements addressed by EASA AD 2022-0150. The FAA is considering

further rulemaking action to require incorporating the revised ALS into the existing maintenance manual or instructions for continued airworthiness and the existing maintenance or inspection program, as applicable, as terminating action for the repetitive inspections.

The FAA removed paragraph (h)(4) of the proposed AD, which replaced the text “affected parts” with “serviceable parts,” since this exception is not necessary.

The FAA revised paragraph (j) of the proposed AD, which would have prohibited special flight permits if there were a crack in the TRB, to instead prohibit all special flight permits. The TRB is a critical component of the helicopter, and flight in exceedance of the compliance threshold of this AD, as well as flight with a crack in the TRB, should not be permitted.

Conclusion

These products have been approved by the aviation authority of another country and are approved for operation in the United States. Pursuant to the FAA’s bilateral agreement with this State of Design Authority, it has notified the FAA of the unsafe condition described in the MCAI referenced above. The FAA reviewed the relevant data, considered the comments received, and determined that air safety requires adopting this AD as proposed. Accordingly, the FAA is issuing this AD to address the unsafe condition on these products. Except for minor editorial changes and other changes described previously, this AD is adopted as proposed in the NPRM. None of the changes increase the economic burden on any operator.

Related AD

AD 2021-10-25 applies to certain Airbus Helicopters Model EC 130 B4 and EC 130 T2 helicopters. AD 2021-10-25 was prompted by EASA AD 2020-0187, dated August 21, 2020. The FAA issued AD 2021-10-25 to address geometrical non-conformities of the TRBs, which could lead to crack initiation and consequent blade failure and possible loss of control of the helicopter. AD 2021-10-25 requires cleaning the TRBs, visual and dye penetrant inspections for cracks in the TRBs, a dimensional inspection to verify conformity of the TRB, and corrective actions if necessary. AD 2021-10-25 and this AD require a DPI of the same TRB part-numbers for the same

helicopter models. However, AD 2021-10-25 requires performing a DPI of the drain holes, whereas this AD requires performing a DPI of the area surrounding the drain holes.

Material Incorporated by Reference under 1 CFR Part 51

The FAA reviewed EASA AD 2022-0150, which specifies procedures for repetitive DPIs on certain part-numbered TRBs for cracking and, depending on the results, replacing the TRB with a serviceable TRB. Also, EASA AD 2022-0150 prohibits installing certain TRBs on any helicopter unless its requirements are met.

This material 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.

Costs of Compliance

The FAA estimates that this AD affects 275 helicopters of U.S. Registry. Labor rates are estimated at \$85 per hour. Based on these numbers, the FAA estimates the following costs to comply with this AD.

Inspecting a TRB takes 1 work-hour for an estimated cost of up to \$850 per helicopter (up to 10 affected TRBs per helicopter) and \$233,750 for the U.S. fleet. If required, replacing a TRB takes 4 work-hours and parts cost \$4,175 for an estimated cost of \$4,515 per TRB.

Revising the maintenance or inspection program as an optional terminating action, if done, takes 1 work-hour, for an estimated cost of \$85 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.

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

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.

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:

2025-16-08 Airbus Helicopters: Amendment 39-23106; Docket No. FAA-2024-0765; Project Identifier MCAI-2022-00981-R.

(a) Effective Date

This airworthiness directive (AD) is effective [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(b) Affected ADs

None.

(c) Applicability

This AD applies to Airbus Helicopters Model EC 130 B4 and EC 130 T2 helicopters, certificated in any category.

(d) Subject

Joint Aircraft Service Component (JASC) Code: 6410, Tail Rotor Blades.

(e) Unsafe Condition

This AD was prompted by the determination that fatigue cracks may develop at the root section of a tail rotor blade (TRB). The FAA is issuing this AD to address fatigue cracks on a TRB. The unsafe condition, if not addressed, could result in crack propagation, TRB failure, and consequent loss of control of the helicopter.

(f) Compliance

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

(g) Requirements

Except as specified in paragraphs (h) and (i) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency AD 2022-0150, dated July 21, 2022 (EASA AD 2022-0150).

(h) Exceptions to EASA AD 2022-0150

(1) Where EASA AD 2022-0150 requires compliance in terms of flight hours, this AD requires using hours time-in-service.

(2) Where EASA AD 2022-0150 refers to its effective date, this AD requires using the effective date of this AD.

(3) This AD does not adopt the “Remarks” section of EASA AD 2022-0150.

(i) No Reporting Requirement

Although the service information referenced in EASA AD 2022-0150 specifies to submit certain information to the manufacturer, this AD does not include that requirement.

(j) Special Flight Permit

Special flight permits are prohibited.

(k) Optional Terminating Action

Revising the Airworthiness Limitations section of your existing helicopter

maintenance manual or instructions for continued airworthiness and your existing approved maintenance or inspection program, as applicable, to include the repetitive inspections in paragraph (g) of this AD is terminating action for the repetitive inspections required by this AD.

(l) Alternative Methods of Compliance (AMOCs)

(1) The Manager, International Validation Branch, 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 International Validation Branch, send it to the attention of the person identified in paragraph (m) of this AD and email to: AMOC@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.

(m) Additional Information

For more information about this AD, contact C. Jason Franklin, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (817) 222-5291; email: carl.j.franklin@faa.gov.

(n) Material Incorporated by Reference

(1) The Director of the Federal Register approved the incorporation by reference of the material listed in this paragraph under 5 U.S.C. 552(a) and 1 CFR part 51.

(2) You must use this material as applicable to do the actions required by this AD, unless this AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) AD 2022-0150, dated July 21, 2022.

(ii) [Reserved]

(3) For EASA material identified in this AD, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; phone: +49 221 8999 000; email: ADs@easa.europa.eu; website: easa.europa.eu. You may find this EASA material on the EASA website at ad.easa.europa.eu.

(4) You may view this material at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Parkway, Room 6N-321, Fort Worth, TX 76177. For information on the availability of this material at the FAA, call (817) 222-5110.

(5) You may view this material at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, visit www.archives.gov/federal-register/cfr/ibr-locations or email fr.inspection@nara.gov.

Issued on August 1, 2025.

Steven W. Thompson,
Acting Deputy Director, Compliance & Airworthiness Division,
Aircraft Certification Service.
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