[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2024-2419; Project Identifier MCAI-2023-00366-R; Amendment 39-22992; AD 2025-06-04]

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 (Airbus) Model AS350B, AS350B1, AS350B2, AS350B3, AS350BA, AS350D, AS355E, AS355F, AS355F1, AS355F2, AS355N, AS355NP, EC130B4, and EC130T2 helicopters. This AD was prompted by a manufacturer assessment that determined additional actions are necessary to improve particle detection for main gearboxes (MGBs) with certain planet gear bearings installed. This AD requires repetitively inspecting the MGB bevel wheel and the MGB magnetic plug for particles and prohibits installing an affected MGB unless certain requirements are met. These actions are specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference. 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 under Docket No. FAA-2024-2419; 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 EASA AD, 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 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. 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-2024-2419.

FOR FURTHER INFORMATION CONTACT: Dan McCully, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (404) 474-5548; email: william.mccully@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 Model AS350B, AS350B1, AS350B2, AS350B3, AS350BA, AS350D, AS355E, AS355F, AS355F1, AS355F2, AS355N, AS355NP, EC130B4, and EC130T2 helicopters. The NPRM published in the *Federal Register* on November 5, 2024 (89 FR 87821). The NPRM was prompted by EASA AD 2023-0044, dated February 28, 2023, (EASA AD 2023-0044), issued by EASA, which is the Technical Agent for the Member States of the European Union. EASA advises that after a fleet design review for detection of particles in the MGB, it

was determined that additional maintenance actions are necessary to improve detection of particles in the MGB.

In the NPRM, the FAA proposed to require repetitively inspecting the MGB bevel wheel for the presence of particles, repetitively inspecting the MGB magnetic plug for particles, close monitoring of the MGB magnetic plug if it has particles, and replacing the epicyclic module if necessary. The NPRM also proposed to prohibit installing an affected MGB unless certain requirements are met. The FAA is issuing this AD to detect and correct the presence of particles in the MGB, which if not addressed, could result in reduced or loss of control of the helicopter.

You may examine EASA AD 2023-0044 in the AD docket at regulations.gov under Docket No. FAA-2024-2419.

Discussion of Final Airworthiness Directive

Comments

The FAA received no comments on the NPRM or on the determination of the costs.

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 EASA AD referenced above. The FAA reviewed the relevant data 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, this AD is adopted as proposed in the NPRM. None of the changes will increase the economic burden on any operator.

Material Incorporated by Reference under 1 CFR Part 51

EASA AD 2023-0044 requires repetitive borescope visual inspections of the bevel wheel of the affected MGB for particles, collecting and analyzing any found particles, and depending on the results, further actions, accomplishing corrective action in accordance with the ASB defined within, or contacting AH [Airbus Helicopters] for further corrective action. EASA AD 2023-0044 also requires accomplishing a borescope

visual inspection of the bevel wheel of the affected MGB for particles following the detection of any particles at the MGB magnetic plug during accomplishment of certain maintenance tasks and depending on the results, taking corrective action. Lastly, EASA AD 2023-0044 prohibits installing an affected MGB on any helicopter unless it is a serviceable part as defined within and certain 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.

Differences Between this AD and EASA AD 2023-0044

EASA AD 2023-0044 applies to Model AS350BB helicopters, whereas this AD does not because that model is not FAA-type certificated.

Where Note 1 in the material referenced in EASA AD 2023-0044 specifies the option of 1 mechanical technician and 1 crew member, for this AD, the pilot is only permitted to turn the tail rotor (b) because the other actions specified in the note must be accomplished by persons authorized under 14 CFR 43.3. Therefore, for the purpose of this AD, the owner/operator (pilot) may turn the tail rotor (b) and must enter compliance with the applicable paragraph of this AD in the helicopter maintenance records in accordance with 14 CFR 43.9(a) and 91.417(a)(2)(v). The pilot may perform this action because it only involves turning the tail rotor (b). This action can be performed equally well by a pilot or a mechanic. This action is an exception to the FAA's standard maintenance regulations.

This AD does not require complying with paragraph (2) of EASA AD 2023-0044. Instead, this AD requires repetitively inspecting the MGB magnetic plug for particles and, if there is any particle, accomplishing a borescope visual inspection, as specified in paragraphs (h)(6)(i) and (ii) of this AD.

Where the material referenced in EASA AD 2023-0044 specifies contacting Airbus Helicopters for a certain action, this AD requires accomplishing action in accordance with a method approved the FAA, EASA, or Airbus Helicopters' EASA Design Organization Approval.

Costs of Compliance

The FAA estimates that this AD affects 522 helicopters of U.S. Registry. Labor rates are estimated at $85 per work-hour. Based on these numbers, the FAA estimates the following costs to comply with this AD.

A repetitive visual borescope inspection of the MGB bevel wheel will take 1 work-hour for an estimated cost of $85 per helicopter and $44,370 for the U.S. fleet, per inspection cycle.

If necessary, collecting and performing a metallurgical analysis of the detected particles will take 6 work-hours for an estimated cost of $510 per helicopter, per analysis.

Repetitively inspecting the magnetic plugs of the MGB will take 1 work-hour for an estimated cost of $85 per helicopter and $44,370 for the U.S. fleet, per inspection cycle.

If required, close monitoring will take 2 work-hours for an estimated cost of $170 per helicopter, per close monitoring cycle.

Accomplishing a visual borescope inspection of the MGB bevel wheel as a result of an MGB magnetic plug inspection will take 1 work-hour for an estimated cost of $85 per helicopter.

If necessary, replacing an epicyclic module will take 56 work-hours and parts will cost $50,524 (overhauled) for an estimated cost of $55,284 per module.

If necessary, replacing a bevel reduction module will take 56 work-hours and parts will cost $18,500 (overhaled) for an estimated cost of $23,260 per module.

Certain corrective action could vary significantly from helicopter to helicopter. The FAA has no data to determine the costs to accomplish the corrective action.

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:

2025-06-04 Airbus Helicopters: Amendment 39-22992; Docket No. FAA-2024-2419; Project Identifier MCAI-2023-00366-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 all Airbus Helicopters Model AS350B, AS350B1, AS350B2, AS350B3, AS350BA, AS350D, AS355E, AS355F, AS355F1, AS355F2, AS355N, AS355NP, EC130B4, and EC130T2 helicopters, certificated in any category.

(d) Subject

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

(e) Unsafe Condition

This AD was prompted by an assessment performed by the manufacturer which determined that additional actions are necessary to improve particle detection for main gearboxes (MGBs) with certain part-numbered planet gear bearings installed. The FAA is issuing this AD to detect and correct particles in the MGB. The unsafe condition, if not addressed, could result in reduced or 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 2023-0044, dated February 28, 2023 (EASA AD 2023-0044).

(h) Exceptions to EASA AD 2023-0044

(1) Where EASA AD 2023-0044 defines "serviceable MGB" as "An affected MGB which has accumulated less than 330 flight hours (FH) since new (first installation on a helicopter), or since an overhaul, or since an inspection in accordance with the instructions of the ASB," this AD requires replacing that text with "An affected MGB which has accumulated less than 330 total hours time-in-service since new (zero total hours time-in-service), since last overhaul if an overhaul has been accomplished, or since last inspection and any specified corrective action in accordance with the instructions of the ASB if an inspection and any specified corrective action by following the instructions of the ASB have been accomplished."

(2) Where EASA AD 2023-0044 requires compliance in terms of flight hours, this AD requires using hours time-in-service (TIS).

(3) Where EASA AD 2023-0044 refers to its effective date, this AD requires using the effective date of this AD.

(4) Where Note 1 in the material referenced in paragraph (1) of EASA AD 2023-0044 specifies the option of 1 mechanical technician and 1 crew member, for this AD, the pilot is only permitted to turn the tail rotor (b). The owner/operator (pilot) holding at least a private pilot certificate may turn the tail rotor (b) and must enter compliance with paragraph (g) of this AD in the helicopter maintenance records in accordance with 14 CFR 43.9(a) and 91.417(a)(2)(v). The record must be maintained as required by 14 CFR 91.417, 121.380, or 135.43. All other actions specified in Note 1 in the material referenced in paragraph (1) of EASA AD 2023-0044 must be accomplished by persons authorized under 14 CFR 43.3.

(5) Where Note 2 in the material referenced in paragraph (1) of EASA AD 2023-0044 specifies contacting Airbus Helicopters for further instructions if the bottom of the radius (a6) of the bevel wheel (a3) or head screws (a4) (see Figure 2) are not clearly visible, this AD requires, before further flight, accomplishing action in accordance with a method approved by the FAA, EASA, or Airbus Helicopters' EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(6) Instead of complying with paragraph (2) of EASA AD 2023-0044, comply with the actions required by paragraphs (h)(6)(i) and (ii) of this AD.

(i) After the effective date of this AD, and within the compliance time intervals specified table 1 to paragraph (h)(6)(i) of this AD, visually inspect the MGB magnetic plug for particles.

Note 1 to paragraph (h)(6)(i): Aircraft Maintenance Manual (AMM) task 60-00-00, 6-2A, or AMM task 60-00-00, 6-2, or work card 60-00-00-602, as applicable, provides information regarding inspecting the MGB magnetic plug.

Table 1 to Paragraph (h)(6)(i)—MGB Magnetic Plug Inspections

Helicopter Model(s)	**Initial Compliance Times (after the effective date of this AD)**	**Interval Compliance Times (thereafter)**
AS350B, AS350B1, AS350BA, and AS350D	5 hours TIS	30 hours TIS

AS355E, AS355F, AS355F1, AS355F2, AS355N, and AS355NP	5 hours TIS	30 hours TIS
AS350B2 and AS350B3	10 hours TIS	100 hours TIS
EC130B4	5 hours TIS	150 hours TIS
EC130T2	5 hours TIS	150 hours TIS

(ii) If there is any particle as a result of any MGB magnetic plug inspection required by paragraph (h)(6)(i) of this AD, before further flight, borescope inspect the bevel wheel of the affected MGB for particles as required by paragraph (1) of EASA AD 2023-0044. If there is any particle as a result of the borescope inspection of the bevel wheel, before further flight, collect and analyze the particles as required by paragraph (3) of EASA AD 2023-0044.

(7) Where paragraph (3) of EASA AD 2023-0044 specifies "If, during any inspection as required by paragraph (1) or (2) of this AD," this AD requires replacing that text with "If, during any inspection as required by paragraph (1) of this AD."

(8) Where the material referenced in paragraph (3) of EASA AD 2023-0044 specifies performing a metallurgical analysis and contacting Airbus Helicopters if collected particles cannot be characterized with Work Card 20-08-01-601, this AD does not require contacting Airbus Helicopter but does require performing the metallurgical analysis.

(9) This AD does not allow the ferry flight provision specified in the material referenced in paragraph (3) of EASA AD 2023-0044; for this AD, refer to paragraph (j) of this AD.

(10) Where the material referenced in paragraph (3) of EASA AD 2023-0044 specifies contacting Airbus Helicopters if the damaged module cannot be identified, this AD requires, before further flight, accomplishing action in accordance with a method approved by the FAA, EASA, or Airbus Helicopters' EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature.

(11) Where paragraph (5) of EASA AD 2023-0044 states "to contact AH for corrective action(s) instructions, and within the compliance time specified therein, to accomplish those instructions accordingly," this AD requires replacing that text with

"accomplishing corrective actions in accordance with a method approved by the FAA, EASA, or Airbus Helicopters' EASA DOA. If approved by the DOA, the approval must include the DOA-authorized signature."

(12) Where paragraph (7) of EASA AD 2023-0044 states "since new (first installation a helicopter), or since an overhaul, or since an inspection in accordance with the instructions of the ASB, as applicable, and, thereafter, as required by this AD," this AD requires replacing that text with "since new (zero total hours time-in-service), or since last overhaul if an overhaul has been accomplished, or since last inspection and any specified corrective action in accordance with the instructions of the ASB if an inspection and any specified corrective action by following the instructions of the ASB have been accomplished, and thereafter as required by this AD."

(13) This AD does not adopt the "Remarks" section of EASA AD 2023-0044.

(i) No Reporting Requirement

Although the material referenced in EASA AD 2023-0044 specifies to submit certain information to the manufacturer, this AD does not require that action.

(j) Special Flight Permits

A special flight permit may be issued in accordance with 14 CFR 21.197 and 21.199 to permit a one-time, non-revenue flight to a location where the actions required by this AD can be accomplished. This flight must be performed with only essential flight crew.

(k) 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 (l) of this AD. Information may be emailed to: 9-AVS-AIR-730-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.

(l) Related Information

For more information about this AD, contact Dan McCully, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (404) 474-5548; email: william.mccully@faa.gov.

(m) 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 the AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) AD 2023-0044, dated February 28, 2023.

(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 the 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 March 28, 2025.

Paul R. Bernado,
Acting Director, Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2025-05781 Filed: 4/3/2025 8:45 am; Publication Date: 4/4/2025]