



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2021-0379; Project Identifier MCAI-2021-00068-R]

RIN 2120-AA64

Airworthiness Directives; Airbus Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Notice of proposed rulemaking (NPRM).

SUMMARY: The FAA proposes to supersede Airworthiness Directive (AD) 2016-12-51, which applies to all Airbus Helicopters Model AS332L2 and Model EC225LP helicopters. AD 2016-12-51 prohibits all further flight of Model AS332L2 and Model EC225LP helicopters. AD 2016-12-51 was prompted by an accident in which the main rotor hub detached from the main gearbox (MGB). Since the FAA issued AD 2016-12-51, the design approval holder has developed procedures that address failure of the main rotor system. This proposed AD would require replacing certain second stage planet gear assemblies, removing certain epicyclic modules, installing a full flow magnetic plug (FFMP), revising the existing rotorcraft flight manual (RFM) for your helicopter, repetitively inspecting the MGB particle detectors, repetitively inspecting the MGB oil filter and oil cooler, and corrective action if necessary, as specified in a European Union Aviation Safety Agency (EASA) AD, which is proposed for incorporation by reference (IBR). The actions specified in the proposed AD would terminate the flight prohibition. 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.

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

For material that is proposed for IBR in this AD, contact the EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may find this IBR material on the EASA website at <https://ad.easa.europa.eu>. You may view this material 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. It is also available in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0379.

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-2021-0379; 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, 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 FURTHER INFORMATION CONTACT: Mahmood Shah, Aviation Safety Engineer, Fort Worth ACO Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5538; email mahmood.g.shah@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-2021-0379; Project Identifier MCAI-2021-00068-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 proposal.

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 Mahmood Shah, Aviation Safety Engineer, Fort Worth ACO Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5538; email mahmood.g.shah@faa.gov. Any commentary that the FAA receives that is not specifically designated as CBI will be placed in the public docket for this rulemaking.

Discussion

The FAA issued AD 2016-12-51, Amendment 39-18578 (81 FR 43479, July 5, 2016) (AD 2016-12-51), which applies to all Airbus Helicopters Model AS332L2 and EC225LP helicopters. AD 2016-12-51 prohibits all further flight of Airbus Helicopters Model AS332L and EC225LP helicopters. The FAA issued AD 2016-12-51 to address an accident involving an EC225LP helicopter in which the main rotor hub detached from the MGB. The Airbus Helicopters Model AS332L2 helicopter has a similar design to the affected Model EC225LP helicopter, therefore, this model may be subject to the unsafe condition revealed on the Model EC225LP helicopter.

Actions Since AD 2016-12-51 Was Issued

Since the FAA issued AD 2016-12-51, the design approval holder has developed procedures that address failure of the main rotor system. These procedures terminate the flight prohibition required by AD 2016-12-51. In addition, after AD 2016-12-51 was issued, the FAA issued an Alternate Means of Compliance (AMOC) letter dated September 7, 2017, which addressed the flight prohibition required by paragraph (e) of AD 2016-12-51. The AMOC letter lifted the flight prohibition and allowed operation of the affected helicopter models provided the conditions specified in the AMOC letter were followed, which include repetitive inspections that have no terminating action. This proposed AD includes terminating action for certain repetitive inspections.

The EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2017-0134R2, dated April 16, 2020 (EASA AD 2017-

0134R2) (also referred to as the Mandatory Continuing Airworthiness Information, or the MCAI), to correct an unsafe condition for all Airbus Helicopters Model AS332L2 and EC225LP helicopters.

This proposed AD was prompted by an accident involving a Model EC225LP helicopter in which the main rotor hub detached from the MGB. The FAA is proposing this AD to address failure of the main rotor system, which would result in loss of control of the helicopter. See the MCAI for additional background information.

Related Service Information Under 1 CFR Part 51

EASA AD 2017-0134R2 references procedures for replacing certain second stage planet gear assemblies with serviceable parts; removing certain epicyclic modules from service; modifying the helicopter by installing an FFMP; revising the RFM to prohibit MGB particle burning in-flight; repetitively inspecting the FFMP and MGB particle detectors for metal particles, analyzing any metal particles that are found, and corrective action; and repetitively inspecting the MGB oil filter and oil cooler for particles and corrective action. The corrective actions include replacing an affected MGB with a serviceable MGB. EASA AD 2017-0134R2 also provides terminating action for certain repetitive inspections.

Airbus Helicopters has issued Emergency Alert Service Bulletin EC225 05A049, Revision 6, dated July 25, 2017; and Emergency Alert Service Bulletin AS 332 05.01.07, Revision 6, dated July 27, 2017. The service information specifies procedures for, among other things, replacing the MGB.

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.

FAA’s Determination and Requirements of this Proposed AD

These products have been approved by the aviation authority of another country, and are approved for operation in the United States. Pursuant to the bilateral agreement with the State of Design Authority, the FAA has been notified of the unsafe condition described in the MCAI referenced above. The FAA is proposing this AD after evaluating all the relevant information and determining the unsafe condition described previously is likely to exist or develop in other products of these same type designs.

Proposed AD Requirements

This proposed AD would require accomplishing the actions specified in EASA AD 2017-0134R2 described previously, as incorporated by reference, except for any differences identified as exceptions in the regulatory text of this AD and except as discussed under “Differences Between this Proposed AD and the MCAI.”

Explanation of Required Compliance Information

In the FAA’s ongoing efforts to improve the efficiency of the AD process, the FAA initially worked with Airbus and EASA to develop a process to use certain EASA ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. The FAA has since coordinated with other manufacturers and civil aviation authorities (CAAs) to use this process. As a result, EASA AD 2017-0134R2 will be incorporated by reference in the FAA final rule. This proposed AD would, therefore, require compliance with EASA AD 2017-0134R2 in its entirety, through that incorporation, except for any differences identified as exceptions in the regulatory text of this proposed AD. Using common terms that are the same as the heading of a particular section in the EASA AD does not mean that operators need comply only with that section. For example, where the AD requirement refers to “all required actions and compliance times,” compliance with this AD requirement is not limited to the section titled “Required Action(s) and Compliance Time(s)” in the EASA

AD. Service information specified in EASA AD 2017-0134R2 that is required for compliance with EASA AD 2017-0134R2 will be available on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0379 after the FAA final rule is published.

Differences Between this Proposed AD and the MCAI

Although the service information referenced in EASA AD 2017-0134R2 specifies to return affected planetary gear assemblies to the manufacturer for module overhaul, this proposed AD does not include that requirement.

Although the service information referenced in EASA AD 2017-0134R2 specifies that retrofit of the planet gear of the MGB can only be done by Airbus Helicopters or Airbus Helicopters approved repair centers, this proposed AD does not include that requirement.

EASA AD 2017-0134R2 requires operators to “inform all flight crews” of revisions to the RFM, and thereafter to “operate the helicopter accordingly.” However, this AD would not specifically require those actions.

FAA regulations require pilots to follow the procedures in the existing RFM including all updates. 14 CFR 91.9 requires that no person may operate a civil aircraft without complying with the operating limitations specified in the RFM. Therefore, including a requirement in this AD to operate the airplane according to the revised RFM would be redundant and unnecessary. Further, compliance with such a requirement in an AD would be impracticable to demonstrate or track on an ongoing basis; therefore, a requirement to operate the airplane in such a manner would be unenforceable.

Interim Action

The FAA considers this proposed AD interim action. If final action is later identified, the FAA might consider further rulemaking then.

Costs of Compliance

The FAA estimates that this proposed AD affects 28 helicopters of U.S. registry.

The FAA estimates the following costs to comply with this proposed AD:

Estimated costs for required actions*

Action	Labor cost	Parts cost	Cost per product	Cost on U.S. operators
New proposed actions	Up to 6 work-hours X \$85 per hour = \$510	\$0	Up to \$510	Up to \$14,280

*Table does not include estimated costs for reporting.

The FAA estimates that it would take about 1 work-hour per product to comply with the proposed reporting requirement in this proposed AD. The average labor rate is \$85 per hour. Based on these figures, the FAA estimates the cost of reporting the inspection results on U.S. operators to be \$2,380, or \$85 per product.

The FAA estimates the following costs to do any necessary on-condition actions that would be required based on the results of any required actions. The FAA has no way of determining the number of helicopters that might need these on-condition actions:

Estimated costs of on-condition actions

Labor cost	Parts cost	Cost per product
40 work-hours X \$85 per hour = \$3,400	\$295,000	\$298,400

According to the manufacturer, some or all of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected operators. The FAA does not control warranty coverage for affected operators. As a result, the FAA has included all known costs in the cost estimate.

Paperwork Reduction Act

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to penalty for failure to comply with a collection

of information subject to the requirements of the Paperwork Reduction Act unless that collection of information displays a current valid OMB control number. The control number for the collection of information required by this proposed AD is 2120-0056. The paperwork cost associated with this proposed AD has been detailed in the Costs of Compliance section of this document and includes time for reviewing instructions, as well as completing and reviewing the collection of information. Therefore, all reporting associated with this proposed AD is mandatory. Comments concerning the accuracy of this burden and suggestions for reducing the burden should be directed to Information Collection Clearance Officer, Federal Aviation Administration, 10101 Hillwood Parkway, Fort Worth, TX 76177-1524.

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 above, 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:

a. Removing Airworthiness Directive 2016-12-51, Amendment 39-18578 (81 FR 43479, July 5, 2016); and

b. Adding the following new airworthiness directive:

Airbus Helicopters: Docket No. FAA-2021-0379; Project Identifier MCAI-2021-00068-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

This AD replaces AD 2016-12-51, Amendment 39-18578 (81 FR 43479, July 5, 2016 (AD 2016-12-51)).

(c) Applicability

This AD applies to all Airbus Helicopters Model AS332L2 and EC225LP helicopters, certificated in any category.

(d) Subject

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

(e) Reason

This AD was prompted by an accident involving a Model EC225LP helicopter in which the main rotor hub detached from the main gearbox. The FAA is issuing this AD to address failure of the main rotor system, which would result in 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 paragraph (h) of this AD: Comply with all required actions and compliance times specified in, and in accordance with, European Union Aviation Safety Agency (EASA) AD 2017-0134R2, dated April 16, 2020 (EASA AD 2017-0134R2).

(h) Exceptions to EASA AD 2017-0134R2

(1) Where EASA AD 2017-0134R2 refers to the effective dates specified in paragraphs (h)(1)(i) through (v) of this AD, this AD requires using the effective date of this AD.

(i) The effective date of EASA AD 2017-0134R2.

(ii) October 13, 2016 (the effective date of EASA AD 2016-0199, dated October 7, 2016).

(iii) March 20, 2017 (the effective date of EASA AD 2017-0050-E, dated March 17, 2017).

(iv) June 30, 2017 (the effective date of EASA AD 2017-0111, dated June 23, 2017).

(v) August 1, 2017 (the effective date of EASA AD 2017-0134, dated July 27, 2017).

(2) The “Remarks” section of EASA AD 2017-0134R2 does not apply to this AD.

(3) Where any service information referred to in EASA AD 2017-0134R2 specifies to discard certain parts after they have been removed from the helicopter, this AD requires removing those parts from service.

(4) Where paragraph (2) of EASA AD 2017-0134R2 specifies to replace a part before exceeding the applicable “new service life limit,” this AD requires removing that part from service.

(5) Where any service information referred to in EASA AD 2017-0134R2 specifies to return certain parts to the manufacturer, including for overhaul, after they have been removed from the helicopter, this AD does not include that requirement.

(6) Where EASA AD 2017-0134R2 refers to flight hours (FH), this AD requires using hours time-in-service.

(7) Where any service information referred to in EASA AD 2017-0134R2 specifies to perform a metallurgical analysis and contact the manufacturer if unsure about the characterization of the particles collected, this AD does require characterization of the particles collected, however this AD does not require contacting the manufacturer to determine the characterization of the particles collected.

(8) Where EASA AD 2017-0134R2 requires actions during each “after last flight” of the day (ALF) inspection, this AD requires those actions before the first flight of each day.

(9) Where any service information referred to in EASA AD 2017-0134R2 specifies to do the actions identified in paragraphs (h)(9)(i) through (iv) of this AD, this AD does not include those requirements.

(i) Watch a video for removing the grease from the full flow magnetic plug (FFMP), using a cleaning agent, and collecting particles.

(ii) Return affected planetary gear assembly to the manufacturer for module overhaul.

(iii) Contact the approved repair station/Airbus Helicopters if the reason for a repair to an epicyclic module is unknown and inform/contact Airbus Helicopters.

(iv) Contact the approved repair station/Airbus Helicopters depending on who performed the last overhaul (RG) to determine if a repair has been done on the second stage planet gears since new.

(10) Where any service information referred to in EASA AD 2017-0134R2 specifies that retrofit of the planet gear of the main gearbox (MGB) can only be done by Airbus Helicopters or Airbus Helicopters approved repair centers, this AD does not require that the retrofit of the planet gear be done only by Airbus Helicopters or Airbus Helicopters approved repair centers. For this AD the retrofit can also be done by an FAA-approved repair station.

(11) Where paragraph (5) of EASA AD 2017-0134R2 specifies accomplishing the FFMP additional work within 3 months after August 1, 2017, this AD requires accomplishing the FFMP additional work within 4 months after the effective date of this AD.

(12) Where paragraph (6) of EASA AD 2017-0134R2 specifies to “inform all flight crews and, thereafter, operate the helicopter accordingly,” this AD does not require those actions.

(13) Where any service information referred to in EASA AD 2017-0134R2 specifies that if any 16NCD13 particles are found you are to take a 1-liter sample of oil and send it to the manufacturer, this AD does not require those actions.

(14) Where any service information referred to in EASA AD 2017-0134R2 specifies “Do not resume flights until corrective action(s) are agreed by Airbus Helicopters,” or to contact Airbus Helicopters before resuming flights “if further particles are collected during the close monitoring period,” for this AD, you must repair before further flight using a method specified in paragraph (h)(14)(i) or (ii) of this AD.

(i) In accordance with FAA approved procedures.

(ii) In accordance with the procedures specified in Appendix 4.A., Particle Analysis, of Airbus Helicopters Emergency Alert Service Bulletin EC225 05A049, Revision 6, dated July 25, 2017; or Emergency Alert Service Bulletin AS 332 05.01.07, Revision 6, dated July 27, 2017, as applicable, except as required by paragraphs (h)(5), (7), and (13) of this AD.

(15) Where the service information identified in EASA AD 2017-0134R2 specifies to report inspection results to Airbus Helicopters, for this AD, report the inspection results at the applicable time specified in paragraph (h)(15)(i) or (ii) of this AD.

(i) If the inspection was done on or after the effective date of this AD: Submit the report within 30 days after the date of the inspection.

(ii) If the inspection was done before the effective date of this AD: Submit the report within 30 days after the effective date of this AD.

(i) Credit for Previous Actions

(1) This paragraph provides credit for the actions specified in paragraph (4) of EASA AD 2017-0134R2, if those actions were performed before the effective date of this

AD using Airbus Helicopters Emergency Alert Service Bulletin AS332 ASB 63.00.83 or EC225 ASB 63A030, both Revision 1, both dated October 7, 2016.

(2) Corrective action(s) for the inspections required by paragraphs (8) and (10) of EASA AD 2017-0134R2 accomplished on a helicopter before the effective date of this AD, in accordance with Paragraph 3.B. and Appendix 4.A. of the Accomplishment Instructions of the applicable Airbus Helicopters service information specified in paragraphs (i)(2)(i) through (viii) of this AD, as applicable, are acceptable to comply with the requirements of paragraph (11) of EASA AD 2017-0134R2 for that helicopter, but only for the corrective actions for the inspections required by paragraphs (8) and (10) of EASA AD 2017-0134R2.

(i) Emergency Alert Service Bulletin AS332 ASB 05.01.07, Revision 2, dated October 7, 2016.

(ii) Emergency Alert Service Bulletin AS332 ASB 05.01.07, Revision 3, dated February 25, 2017.

(iii) Emergency Alert Service Bulletin AS332 ASB 05.01.07, Revision 4, dated March 17, 2017.

(iv) Emergency Alert Service Bulletin AS332 ASB 05.01.07, Revision 5, dated June 23, 2017.

(v) Emergency Alert Service Bulletin EC225 05A049, Revision 2, dated October 7, 2016.

(vi) Emergency Alert Service Bulletin EC225 05A049, Revision 3, dated February 25, 2017.

(vii) Emergency Alert Service Bulletin EC225 05A049, Revision 4, dated March 17, 2017.

(viii) Emergency Alert Service Bulletin EC225 05A049, Revision 5, dated June 23, 2017.

(j) Special Flight Permit

Special flight permits, as described in 14 CFR 21.197 and 21.199, are prohibited.

(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 (1)(2) 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

(1) For EASA AD 2017-1034R2, contact the EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet www.easa.europa.eu. You may find this EASA AD on the EASA website at <https://ad.easa.europa.eu>. You may view this material 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.

This material may be found in the AD docket on the Internet at

<https://www.regulations.gov> by searching for and locating Docket No. FAA-2021-0379.

(2) For more information about this AD, contact Mahmood Shah, Aviation Safety Engineer, Fort Worth ACO Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5538; email mahmood.g.shah@faa.gov.

Issued on May 21, 2021.

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

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