



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2023-2231; Project Identifier MCAI-2022-01623-R]

RIN 2120-AA64

Airworthiness Directives; Leonardo S.p.a. 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 all Leonardo S.p.a. Model AB412 and AB412 EP helicopters. This proposed AD was prompted by reports of cracks in the lateral mounts of the main transmission support case. This proposed AD would require repetitive visual inspections and fluorescent penetrant inspections (FPI) and, depending on the results, corrective action, as specified in a European Union Aviation Safety Agency (EASA) AD, which is proposed for incorporation by reference. 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 [regulations.gov](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.

AD Docket: You may examine the AD docket at [regulations.gov](https://www.regulations.gov) under Docket No. FAA-

2023-2231; 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.

Material Incorporated by Reference:

- For EASA material that is identified in this NPRM, contact Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet easa.europa.eu. You may find the EASA material on the EASA website 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. The EASA material is also available at regulations.gov under Docket No. FAA-2023-2231.

Other Related Service Information: For Bell Helicopter service information identified in this NPRM, contact Bell Textron, Inc., P.O. Box 482, Fort Worth, TX 76101; phone 1-450-437-2862 or 1-800-363-8023; fax 1-450-433-0272; email productsupport@bellflight.com; or at bellflight.com/support/contact-support.

FOR FURTHER INFORMATION CONTACT: Sungmo Cho, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (781) 238-7241; email: sungmo.d.cho@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-2023-2231; Project Identifier MCAI-2022-01623-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 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 Sungmo Cho, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (781) 238-7241; email: sungmo.d.cho@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.

Background

EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2022-0258, dated December 20, 2022 (EASA AD 2022-0258), to correct an unsafe condition on all Leonardo S.p.A. Model AB212, AB412, and AB412EP helicopters.

This proposed AD was prompted by reports of cracks in the lateral mounts of the main transmission support case. Such cracking is usually caused by excessive corrosion of the surface under a washer and originates from a washer attachment screw threaded hole. Cracking can occur at the upper or lower surfaces of the lateral mount. This condition, if not detected and corrected, could lead to loss of load carrying capabilities of the main transmission, possibly resulting in loss of control of the helicopter. You may

examine EASA AD 2022-0258 in the AD docket at regulations.gov under Docket No. FAA-2023-2231.

Related Service Information Under 1 CFR Part 51

EASA AD 2022-0258 requires repetitive visual inspections and FPIs of the main transmission support case and, depending on the findings, corrective action. Corrective actions include repairing or replacing the main transmission support case hardware including screws, washers, or case bushings, repairing the lateral mounts, or replacing the main transmission support case.

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.

Other Related Service Information

The FAA also reviewed Bell Helicopter Component Repair and Overhaul Manual (CR&O) BHT-412-CR&O Chapter 63, paragraphs 63-57 Transmission Main Support Case - Inspection and 63-58 Transmission Main Support Case - Repair, Revision 12, dated February 28, 2020. This service information specifies procedures for inspecting and repairing the main transmission support case.

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 the unsafe condition described previously is likely to exist or develop on other helicopters of these same type designs.

Proposed AD Requirements in this NPRM

This proposed AD would require accomplishing the actions specified in EASA AD 2022-0258, described previously, as incorporated by reference, except for any differences identified as exceptions in the regulatory text of this proposed AD and except as discussed under "Differences Between this Proposed AD and the EASA AD."

Explanation of Required Compliance Information

In the FAA's ongoing efforts to improve the efficiency of the AD process, the FAA developed a process to use some civil aviation authority (CAA) ADs as the primary source of information for compliance with requirements for corresponding FAA ADs. The FAA has been coordinating this process with manufacturers and CAAs. As a result, the FAA proposes to incorporate EASA AD 2022-0258 by reference in the FAA final rule. This proposed AD would, therefore, require compliance with EASA AD 2022-0258 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 EASA AD 2022-0258 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 EASA AD 2022-0258. Service information referenced in EASA AD 2022-0258 for compliance will be available at regulations.gov under Docket No. FAA-2023-2231 after the FAA final rule is published.

Differences Between this Proposed AD and the EASA AD

EASA AD 2022-0258 applies to Model AB212 helicopters, whereas this proposed AD would not because that model is not FAA type-certificated.

The service information referenced in EASA AD 2022-0258 specifies contacting Product Support Engineering for possible repairs regarding corrosion or pitting in the case bushings that exceeds allowable limits, whereas this proposed AD would require repair done in accordance with a method approved by the FAA, EASA, or Leonardo S.p.a. Helicopters' EASA Design Organization Approval.

Where EASA AD 2022-0258 requires performing an FPI, this proposed AD would require that the FPI be performed by a Level II or Level III inspector certified in the FAA-acceptable standards for nondestructive inspection personnel.

Costs of Compliance

The FAA estimates that this AD, if adopted as proposed, would affect 69 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 proposed AD.

Visually inspecting the main transmission support case would take about 2 work-hours for an estimated cost of \$170 per helicopter and \$11,730 for the U.S. fleet, per inspection cycle. Performing an FPI of the main transmission support case would take about 2 work-hours for an estimated cost of \$170 per helicopter and \$11,730 for the U.S. fleet, per inspection cycle.

The FAA has no way of determining the costs pertaining to necessary repairs that are required to be done. Replacing the transmission support case assembly hardware parts including screws, washers, and case bushings would take about 2 work-hours and parts would cost up to \$4,000 per helicopter for an estimated cost of up to \$4,170 per helicopter. Replacing the main transmission support case would take up to about 47 work-hours and parts would cost about \$120,000 for an estimated cost of \$123,995 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

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 adding the following new airworthiness directive:

Leonardo S.p.a.: Docket No. FAA-2023-2231; Project Identifier MCAI-2022-01623-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 AD applies to Leonardo S.p.a. Model AB412 and AB412 EP helicopters, certificated in any category.

(d) Subject

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

(e) Unsafe Condition

This AD was prompted by reports of cracks in the lateral mounts of the main transmission support case. The FAA is issuing this AD to detect and address cracking of the main transmission support case. The unsafe condition, if not addressed, could result in the loss of load carrying capabilities of the main transmission and subsequent 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 2022-0258, dated December 20, 2022 (EASA AD 2022-0258).

(h) Exceptions to EASA AD 2022-0258

(1) Where EASA AD 2022-0258 refers to its effective date, this AD requires using the effective date of this AD.

(2) Where the service information referenced in EASA AD 2022-0258 specifies contacting Product Support Engineering for possible repairs regarding corrosion or pitting in a case bushing that exceeds allowable limits, this AD requires repair done in accordance with a method approved by the Manager, International Validation Branch, FAA; or EASA; or Leonardo S.p.a. Helicopters' EASA Design Organization Approval (DOA). If approved by the DOA, the approval must include the DOA-authorized signature.

(3) Where paragraphs (3) and (4) of EASA AD 2022-0258 require replacing a component, this AD requires removing the component from service.

(4) Where paragraph (5) of EASA AD 2022-0258 requires replacing the main transmission support case, this AD requires removing the main transmission support case assembly from service.

(5) Where paragraph (2) of EASA AD 2022-0258 requires accomplishing a fluorescent penetrant inspections (FPI) of the main transmission support case, this AD requires that FPI be accomplished by a Level II or Level III inspector certified in the FAA-acceptable standards for nondestructive inspection personnel.

Note 1 to paragraph (h)(5): Advisory Circular 65-31B contains examples of FAA-acceptable Level II and Level III qualification standards criteria for inspection personnel doing nondestructive test inspections.

(6) This AD does not adopt the “Remarks” section of EASA AD 2022-0258.

(i) 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, mail it to the address identified in paragraph (j) of this AD or email to: 9-AVS-AIR-730-AMOC@faa.gov. If mailing information, also submit information by email.

(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.

(j) Related Information

For more information about this AD, contact Sungmo Cho, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; phone: (781) 238-7241; email: sungmo.d.cho@faa.gov.

(k) Material Incorporated by Reference

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

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

(i) European Union Aviation Safety Agency (EASA) AD 2022-0258, dated December 20, 2022.

(ii) [Reserved]

(3) For EASA AD 2022-0258, contact EASA, Konrad-Adenauer-Ufer 3, 50668 Cologne, Germany; telephone +49 221 8999 000; email ADs@easa.europa.eu; Internet easa.europa.eu. You may find the EASA material on the EASA website 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 November 29, 2023.

Victor Wicklund,
Deputy Director, Compliance & Airworthiness Division,
Aircraft Certification Service.
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