



DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2023-1207; Project Identifier MCAI-2022-00925-R; Amendment 39-22533; AD 2023-17-07]

RIN 2120-AA64

Airworthiness Directives; Leonardo S.p.a. Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for all Leonardo S.p.a. Model A119 and AW119 MKII helicopters. This AD was prompted by a report of an electrical failure of a starter-generator caused by a ruptured drive shaft. This AD requires visually inspecting the drive shaft of an affected starter-generator and depending on the results, performing a dye penetrant inspection. Depending on the results of the dye penetrant inspection, this AD requires replacing the starter-generator, as specified in a European Union Aviation Safety Agency (EASA) AD, which is incorporated by reference (IBR). 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-2023-1207; 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, 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 incorporated by reference in this final rule, 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 at ad.easa.europa.eu.

- You may view this 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. The EASA material is also available at regulations.gov under Docket No. FAA-2023-1207.

Other Related Service Information: For Leonardo Helicopters service information identified in this final rule, contact Leonardo S.p.A., Emanuele Bufano, Head of Airworthiness, Viale G. Agusta 520, 21017 C. Costa di Samarate (Va) Italy; telephone (+39) 0331-225074; fax (+39) 0331-229046; or at customerportal.leonardocompany.com/en-US/. You may also view this service information at the FAA contact information under Material Incorporated by Reference above.

FOR FURTHER INFORMATION CONTACT: Hal Jensen, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone (303) 342-1080; email hal.jensen@faa.gov.

SUPPLEMENTARY INFORMATION:

Background

EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2022-0148, dated July 14, 2022 (EASA AD 2022-0148), to correct an unsafe condition for Leonardo S.p.A. Model A119 and AW119MKII helicopters.

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part 39 by adding an AD that would apply to all Leonardo S.p.a. Model A119 and

AW119 MKII helicopters. The NPRM published in the *Federal Register* on June 9, 2023 (88 FR 37810). The NPRM was prompted by a report of an electrical failure of a starter-generator, caused by a ruptured drive shaft, which was not detected by the generator control unit and caused partial loss of battery power. The NPRM proposed to require visually inspecting the drive shaft of an affected starter-generator and depending on the results, performing a dye penetrant inspection. Depending on the results of the dye penetrant inspection, the NPRM proposed to require replacing the starter-generator, as specified in EASA AD 2022–0148. The FAA is issuing this AD to prevent electrical failure of the starter-generator, which could result in complete loss of electrical power and subsequent loss of control of the helicopter.

Discussion of Final Airworthiness Directive

Comments

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

Conclusion

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 of the unsafe condition described in its AD. 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 helicopters.

Related Service Information under 1 CFR Part 51

EASA AD 2022-0148 requires a one-time inspection of the drive shaft of the affected starter-generator and, depending on findings, replacing the affected part with a serviceable part as defined therein. EASA AD 2022-0148 also requires reporting the inspection results (including no findings) to Leonardo and implementing improved removal and reinstallation procedures for the starter-generator.

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 ADDRESSES.

Other Related Service Information

The FAA reviewed Leonardo Helicopters Alert Service Bulletin No. 119-121, dated June 21, 2022. This service information specifies procedures for performing visual and dye penetrant inspections and for replacing a starter-generator.

Differences Between this AD and the EASA AD

Service information referenced in EASA AD 2022-0148 does not specify a compliance time to proceed with subsequent procedures if there is misalignment or if the alignment is not clear, whereas this AD requires proceeding with those subsequent procedures before further flight.

Service information referenced in EASA AD 2022-0148 specifies contacting LH [Leonardo Helicopters] spare management to send a starter-generator directly to an authorized repair station for repair and sending a starter-generator directly to an authorized repair station for repair, whereas this AD does not require those actions.

EASA AD 2022-0148 specifies reporting inspection results to Leonardo, whereas this AD does not.

Costs of Compliance

The FAA estimates that this AD affects 136 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.

Visually inspecting a starter-generator drive shaft will take about 1 work-hour for an estimated cost of \$85 per helicopter and \$11,560 for the U.S. fleet.

If required, dye-penetrant inspecting a starter-generator drive shaft will take about 3 work-hours for an estimated cost of \$255 per helicopter.

If required, replacing a starter-generator will take about 2 work-hours and parts will cost about \$11,500 for an estimated cost of \$11,670 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:

AD 2023-17-07 Leonardo S.p.a.: Amendment 39-22533; Docket No. FAA-2023-1207; Project Identifier MCAI-2022-00925-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 Leonardo S.p.a. Model A119 and AW119 MKII helicopters, certificated in any category.

(d) Subject

Joint Aircraft Service Component (JASC) Code: 2435, Starter-Generator.

(e) Unsafe Condition

This AD was prompted by a report of an electrical failure of a starter-generator that was caused by a ruptured drive shaft. The failure was not detected by the generator control unit and caused partial loss of battery power. The FAA is issuing this AD to prevent electrical failure of the starter-generator, possibly due to incorrect installation or removal. The unsafe condition, if not addressed, could result in complete loss of electrical power 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 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 EASA AD 2022-0148, dated July 14, 2022 (EASA AD 2022-0148).

(h) Exceptions to EASA AD 2022-0148

(1) Where EASA AD 2022-0148 refers to its effective date, this AD requires using the effective date of this AD.

(2) Where EASA AD 2022-0148 requires compliance in terms of flight hours, this AD requires using hours time-in-service.

(3) Where paragraph (1) of EASA AD 2022-0148 states to, “inspect the drive shaft;” for this AD, replace that text with, “inspect the drive shaft for misalignment and a crack.”

(4) Where the service information referenced in EASA AD 2022-0148 specifies to proceed with subsequent procedures if there is misalignment or if the alignment is not clear; for this AD, proceed with those subsequent procedures before further flight.

(5) Where the service information referenced in EASA AD 2022-0148 states, “with reference to Annex A, perform a liquid penetrant inspection of the drive-shaft, in order to detect the presence of eventual cracks;” for this AD, replace that text with “With reference to Annex A, perform a dye penetrant inspection of the drive-shaft in order to detect any cracks.”

(6) Where the service information referenced in paragraph (1) of EASA AD 2022-0148 specifies contacting LH [Leonardo Helicopters] spare management to send a starter-generator directly to an authorized repair station for repair and sending the starter-generator to an authorized repair station for repair, this AD does not require those actions.

(7) Where paragraphs (2) and (4) of EASA AD 2022-0148 state, “Part II of the ASB;” for this AD, replace that text with, “AMP Data Modules 19-A-24-30-04-00A-520A-A, Starter Generator-Remove Procedure and 19-A-24-30-04-00A-720A-A, Starter Generator-Install Procedure, each Issue 001 and dated May 24, 2021. Except where AMP Data Module 19-A-24-30-04-00A-520A-A Starter Generator-Remove Procedure specifies discarding parts, for this AD, remove those parts from service.”

(8) This AD does not require paragraph (3) of EASA AD 2022-0148.

(9) This AD does not adopt the “Remarks” section of EASA AD 2022-0148.

(i) No Reporting Requirement

Although the service information referenced in EASA AD 2022-0148 specifies to submit certain information to the manufacturer, this AD does not include that requirement.

(j) Special Flight Permit

Special flight permits may be issued in accordance with 14 CFR 21.197 and 21.199, provided they are restricted to visual flight rules (VFR) with night operations prohibited and no passengers are onboard.

(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) 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 Hal Jensen, Aviation Safety Engineer, FAA, 1600 Stewart Avenue, Suite 410, Westbury, NY 11590; telephone (303) 342-1080; email hal.jensen@faa.gov.

(m) 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 the AD specifies otherwise.

(i) European Union Aviation Safety Agency (EASA) AD 2022-0148, dated July 14, 2022.

(ii) [Reserved]

(3) For EASA AD 2022–0148, 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 at
ad.easa.europa.eu.

(4) You may view this 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.

(5) You may view this service information that is incorporated by reference at the National Archives and Records Administration (NARA). For information on the availability of this material at NARA, email: fr.inspection@nara.gov, or go to: www.archives.gov/federal-register/cfr/ibr-locations.html.

Issued on August 22, 2023.

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

[FR Doc. 2023-21065 Filed: 9/26/2023 8:45 am; Publication Date: 9/27/2023]