



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2019-1020; Product Identifier 2019-SW-076-AD; Amendment 39-21147; AD 2020-13-02]

RIN 2120-AA64

Airworthiness Directives; Leonardo S.p.A. Helicopters

AGENCY: Federal Aviation Administration (FAA), Department of Transportation (DOT).

ACTION: Final rule; request for comments.

SUMMARY: The FAA is adopting a new airworthiness directive (AD) for certain Leonardo S.p.A. Model A119 and AW119 MKII helicopters. This AD requires inspecting for movement and the tightening torque of the tail rotor (T/R) plug, the installation of the outboard and inboard faces of the T/R duplex bearing, and the condition of the T/R plug threads, nut threads, and T/R duplex bearing. Depending on the inspection results, this AD requires removing parts from service, reassembling the T/R duplex assembly, and reporting information. This AD also prohibits installing a T/R duplex bearing unless it has been inspected. This AD was prompted by findings from a preliminary investigation of a Model AW119 MKII helicopter accident. The actions of this AD are intended to address an unsafe condition on these products.

DATES: This AD becomes effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The Director of the Federal Register approved the incorporation by reference of a certain document listed in this AD as of [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

The FAA must receive comments on this AD by [INSERT DATE 45 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

ADDRESSES: You may send comments by any of the following methods:

- Federal eRulemaking Docket: Go to <https://www.regulations.gov>. Follow the online instructions for sending your comments electronically.
- Fax: 202-493-2251.
- Mail: Send comments to the U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590-0001.
- Hand Delivery: Deliver to the “Mail” address between 9 a.m. and 5 p.m., Monday through Friday, except Federal holidays.

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-2019-1020; 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 AD, the European Union Aviation Safety Agency (EASA) AD, any service information that is incorporated by reference, 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 service information identified in this final rule, contact Leonardo S.p.A.

Helicopters, 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 <https://www.leonardocompany.com/en/home>. You may view the referenced service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177. It is also available on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2019-1020.

FOR FURTHER INFORMATION CONTACT: David Hatfield, Aviation Safety Engineer, Safety Management Section, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5110; email david.hatfield@faa.gov.

SUPPLEMENTARY INFORMATION:

Comments Invited

This AD is a final rule that involves requirements affecting flight safety, and the FAA did not provide you with notice and an opportunity to provide your comments prior to it becoming effective. However, the FAA invites you to participate in this rulemaking by submitting written comments, data, or views. The FAA also invites comments relating to the economic, environmental, energy, or federalism impacts that resulted from adopting this AD. The most helpful comments reference a specific portion of the AD, explain the reason for any recommended change, and include supporting data. To ensure the docket does not contain duplicate comments, commenters should send only one copy of written comments, or if comments are filed electronically, commenters should submit them only one time. The FAA will file in the docket all comments received, as well as a

report summarizing each substantive public contact with FAA personnel concerning this rulemaking during the comment period. The FAA will consider all the comments received and may conduct additional rulemaking based on those comments.

Discussion

EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA Emergency AD No. 2019-0194-E, dated August 9, 2019, to correct an unsafe condition for Leonardo S.p.A. Helicopters, formerly Finmeccanica S.p.A., AgustaWestland S.p.A., Agusta S.p.A.; and AgustaWestland Philadelphia Corporation, formerly Agusta Aerospace Corporation, Model A119 and AW119MKII helicopters with a serial number (S/N) up to 14966 inclusive, except S/N 14950, 14957, and 14961 through 14963 inclusive. According to EASA, preliminary investigation of a Model AW119 MKII helicopter accident identified a disassembled connection between the yaw control input lever and the rotating input shaft, partial presence of spalling on the T/R duplex bearing inner races, and missing plug and related lockwire. EASA states an investigation to determine the root cause of the occurrence is in progress. EASA advises that this condition, if not corrected, could lead to functional failure of the T/R pitch change mechanism, resulting in loss of control of the helicopter.

As a precautionary measure and pending further information from the investigation, Leonardo S.p.A. issued Leonardo Helicopters Emergency Alert Service Bulletin No. 119-100, dated August 7, 2019 (EASB 119-100), to provide inspection instructions and improved installation procedures for the T/R duplex bearing.

Accordingly, the EASA AD requires inspecting the T/R pitch change mechanism and installation of additional locking wire. The EASA AD also requires repetitive

inspections of the duplex bearing and, depending on findings, corrective actions. EASA states its AD is considered an interim action and further AD action may follow.

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 of the unsafe condition described in its AD. The FAA is issuing this AD after evaluating all information provided by EASA and determining the unsafe condition exists and is likely to exist or develop on other helicopters of these same type designs.

Related Service Information Under 1 CFR part 51

The FAA has reviewed EASB 119-100 which specifies a one-time inspection of the tightening torque of T/R plug part number (P/N) 129-0160-45-103. This service information also specifies a repetitive inspection for correct installation of the inboard and outboard faces of T/R duplex bearing P/N 129-0160-11-103, for damage to the threads of the T/R plug and nut P/N MS17825-7, and of the T/R duplex bearing for roughness, ease of rotation, and presence of brinelling, spalling, chipping, and flaking or traces of overheating of bearing balls, and general damage to races.

This service information 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.

AD Requirements

- This AD requires, within 10 hours time-in-service (TIS), inspecting for movement and the tightening torque of the T/R plug.

- If there is no movement and the tightening torque is at least 30.5 Nm, this AD requires installing lockwire before further flight. Thereafter, within 50 hours TIS, this AD requires inspecting for presence of the P/N and S/N markings of the outboard and inboard faces of T/R duplex bearing, inspecting the T/R duplex bearing for rough rotation, brinelling, spalling, chipping, flaking, evidence of overheated bearing balls, and damage to the races, and inspecting for damaged threads of the T/R plug and nut.

- If there is any movement or the tightening torque is less than 30.5 Nm, this AD requires inspecting for presence of the P/N and S/N markings of the outboard and inboard faces of T/R duplex bearing, inspecting the T/R duplex bearing for rough rotation, brinelling, spalling, chipping, flaking, evidence of overheated bearing balls, and damage to the races, and inspecting for damaged threads of the T/R plug and nut before further flight.

- If the P/N and S/N markings are visible on the outboard or inboard face of the T/R duplex bearing; the T/R duplex bearing has any rough rotation, brinelling, spalling, chipping, flaking, evidence of overheated bearing balls, or damage to the races; or if the nut has any damaged threads, this AD requires removing the T/R duplex bearing, internal spacer, external spacer, bearing liner assembly, and T/R control rod from service before further flight.

- If the T/R plug or nut has any damaged threads, this AD requires removing the affected part from service before further flight.

- After inspecting, this AD requires assembling and installing the T/R duplex assembly by following related service information procedures.

- This AD also requires reporting inspection results to Leonardo Helicopters if

there is any T/R plug movement or if its tightening torque is not at least 30.5 Nm and any parts that must be removed from service.

- This AD also prohibits installing a T/R duplex bearing on any helicopter unless it has been inspected.

Differences between this AD and the EASA AD

The EASA AD requires repeating the inspection of the T/R duplex bearing installation and the condition of the T/R duplex bearing, plug threads, and nut threads at any installation or disassembly of the T/R duplex bearing, whereas this AD does not because it could be difficult to track. The EASA AD requires inspecting the tightening torque of the T/R plug in the range of 30.5-33.9 Nm, whereas this AD requires inspecting the tightening torque of the T/R plug to a minimum of 30.5 Nm instead. The EASA AD requires inspecting the threads of nut P/N MS17825-7 for damage, but does not state what to do if the threads have damage. This AD requires inspecting for damage to the threads of the nut indicated by uneven threads, missing threads, or cross-threading, and if the nut has any damaged threads, removing the nut from service. The EASA AD also requires repeating the inspection of the T/R duplex bearing installation and the condition of the T/R duplex bearing, plug threads, and nut threads every 200 hours TIS, whereas this AD does not. The FAA plans to publish a notice of proposed rulemaking to give the public an opportunity to comment on this long-term requirement.

Interim Action

The FAA considers this AD to be an interim action. If final action is later identified, the FAA might consider further rulemaking.

Regulatory Flexibility Act

The requirements of the Regulatory Flexibility Act (RFA) do not apply when an agency finds good cause pursuant to 5 U.S.C. 553 to adopt a rule without prior notice and comment. Because FAA has determined that it has good cause to adopt this rule without notice and comment, RFA analysis is not required.

Costs of Compliance

The FAA estimates that this AD affects 93 helicopters of U.S. Registry. Labor costs are estimated at \$85 per work-hour. Based on these numbers, the FAA estimates that operators may incur the following costs in order to comply with this AD.

Inspecting the tightening torque of the T/R plug takes about 0.5 work-hour for an estimated cost of \$43 per helicopter and \$3,999 for the U.S. fleet.

Inspecting for correct installation of the outboard and inboard faces of the T/R duplex bearing and the condition of the T/R plug threads, nut threads, and T/R duplex bearing takes about 2 work-hours for an estimated cost of \$170 per helicopter.

Assembling and installing the T/R duplex bearing assembly takes about 2 work-hours for an estimated cost of \$170. If required, the parts for replacing the T/R duplex bearing, internal spacer, external spacer, bearing liner assembly, and T/R control rod cost about \$4,200, and parts for replacing the T/R plug cost about \$171.

If required, reporting information takes about 1 work-hour for an estimated cost of \$85 per instance.

According to Leonardo Helicopters' service information, some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. The FAA does not control warranty coverage by Leonardo Helicopters.

Accordingly, the FAA has included all costs in this 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 a 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 currently valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, Federal Aviation Administration, 10101 Hillwood Parkway, Fort Worth, TX 76177-1524.

FAA's Justification and Determination of the Effective Date

Section 553(b)(3)(B) of the Administrative Procedure Act (5 U.S.C.) authorizes agencies to dispense with notice and comment procedures for rules when the agency, for "good cause" finds that those procedures are "impracticable, unnecessary, or contrary to the public interest." Under this section, an agency, upon finding good cause, may issue a final rule without seeking comment prior to the rulemaking.

An unsafe condition exists that requires the immediate adoption of this AD without providing an opportunity for public comments prior to adoption. The FAA has

found that the risk to the flying public justifies waiving notice and comment prior to adoption of this rule because there are required corrective actions that must be completed within 10 hours TIS and 50 hours TIS, a time period of up to 2 months based on the average flight-hour utilization rate of these helicopters. Therefore, notice and opportunity for prior public comment are impracticable and contrary to public interest pursuant to 5 U.S.C. 553(b)(3)(B). In addition, for the reasons stated above, the FAA finds that good cause exists pursuant to 5 U.S.C. 553(d) for making this amendment effective in less than 30 days.

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 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, I certify that this AD:

- (1) Is not a “significant regulatory action” under Executive Order 12866, and
- (2) Will not affect intrastate aviation in Alaska.

List of Subjects in 14 CFR Part 39

Air transportation, Aircraft, Aviation safety, Incorporation by reference, Safety.

Adoption of 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):

2020-13-02 Leonardo S.p.A.: Amendment 39-21147; Docket No. FAA-2019-1020;

Product Identifier 2019-SW-076-AD.

(a) Applicability

This AD applies to Leonardo S.p.A. Model A119 and AW119 MKII helicopters, certificated in any category, with a tail rotor (T/R) duplex bearing part number (P/N) 129-0160-11-103 (T/R duplex bearing).

(b) Unsafe Condition

This AD defines the unsafe condition as structural failure of the T/R assembly, possibly due to an incorrect installation. This condition could result in loss of T/R pitch change control and subsequent loss of control of the helicopter.

(c) Effective Date

This AD becomes effective [INSERT DATE 15 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

(d) Compliance

You are responsible for performing each action required by this AD within the specified compliance time unless it has already been accomplished prior to that time.

(e) Required Actions

(1) Within 10 hours time-in-service (TIS), remove the lockwire that secures the T/R plug P/N 129-0160-45-103 (T/R plug) to the bearing liner assembly P/N 109-0135-16-101 (bearing liner assembly). Without loosening the T/R plug first, inspect the tightening torque of the T/R plug by increasing the torque up to 30.5 Nm and inspect for any movement the moment torque is applied.

(i) If there is no movement and the tightening torque is at least 30.5 Nm, before further flight, install lockwire by following the Accomplishment Instructions, part I, paragraph 4, of Leonardo Helicopters Emergency Alert Service Bulletin No. 119-100, dated August 7, 2019 (EASB 119-100).

(ii) If there is any movement or the tightening torque is less than 30.5 Nm, before further flight, comply with paragraph (e)(2) of this AD.

(2) Within 50 hours TIS, unless required before further flight by paragraph

(e)(1)(ii) of this AD, inspect to determine whether the P/N and serial number (S/N) are visible on the outboard and inboard faces of the T/R duplex bearing by following the Accomplishment Instructions, part II, paragraphs 4 through 13 (except paragraphs 9.1, 13.1, and 13.2), of EASB 119-100. Instead of the excluded steps, do the following:

Note 1 to paragraph (e)(2) of this AD: You are not required to discard parts and you may use equivalent tooling to that identified in EASB 119-100.

(i) If the P/N and S/N markings are visible on the outboard or inboard face of the T/R duplex bearing, before further flight, remove from service the T/R duplex bearing, internal spacer P/N 129-0160-43-101 (internal spacer), external spacer P/N 129-0160-44-101 (external spacer), bearing liner assembly, and T/R control rod P/N 109-0135-02-101 (T/R control rod).

(ii) If the P/N and S/N markings are not visible on the inboard face of the T/R duplex bearing, before further flight, inspect the T/R duplex bearing, T/R plug, and nut by following the Accomplishment Instructions, part II, paragraphs 14 and 15 (but not paragraphs 15.1 through 15.2), of EASB 119-100. For purposes of this inspection, damage to the races may be indicated by non-movement of the inner race, movement of the outer race, deformation, roughness, or incorrect installation; and damage to the threads of the T/R plug and nut may be indicated by uneven threads, missing threads, or cross-threading.

(A) If the T/R duplex bearing has any rough rotation, brinelling, spalling, chipping, flaking, evidence of overheated bearing balls, or damage to the races, before further flight, remove from service the T/R duplex bearing, the internal spacer, the external spacer, the bearing liner assembly, and the T/R control rod.

(B) If the T/R plug or nut has any damaged threads, before further flight, remove from service the affected part.

(C) Reassemble the T/R duplex bearing assembly by following the Accomplishment Instructions, part II, paragraphs 16 through 31, of EASB 119-100.

(3) If the T/R plug had any movement or its tightening torque was not at least 30.5 Nm in paragraph (e)(1)(ii) of this AD or if any parts were required to be removed as a result of the inspections required by paragraph (e)(2) of this AD, within 10 days after completing the inspection, report the information in Appendix 1 to this AD by email to aw109.mbx.aw@leonardocompany.com.

(4) As of the effective date of this AD, do not install a T/R duplex bearing P/N 129-0160-11-103 on any helicopter unless you have complied with the requirements in paragraph (e)(2) of this AD.

(f) Special Flight Permits

Special flight permits are prohibited.

(g) Paperwork Reduction Act Burden Statement

A federal agency may not conduct or sponsor, and a person is not required to respond to, nor shall a person be subject to a 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 currently valid OMB Control Number. The OMB Control Number for this information collection is 2120-0056. Public reporting for this collection of information is estimated to be approximately 1 hour per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of

information. All responses to this collection of information are mandatory. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden to: Information Collection Clearance Officer, Federal Aviation Administration, 10101 Hillwood Parkway, Fort Worth, TX 76177-1524.

(h) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Safety Management Section, Rotorcraft Standards Branch, FAA, may approve AMOCs for this AD. Send your proposal to: David Hatfield, Aviation Safety Engineer, Safety Management Section, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5110; email 9-ASW-FTW-AMOC-Requests@faa.gov.

(2) For operations conducted under a 14 CFR part 119 operating certificate or under 14 CFR part 91, subpart K, the FAA suggests that you notify your principal inspector, or lacking a principal inspector, the manager of the local flight standards district office or certificate holding district office, before operating any aircraft complying with this AD through an AMOC.

(i) Additional Information

The subject of this AD is addressed in European Union Aviation Safety Agency (EASA) Emergency AD No. 2019-0194-E, dated August 9, 2019. You may view the EASA AD on the Internet at <https://www.regulations.gov> by searching for and locating it in Docket No. FAA-2019-1020.

(j) Subject

Joint Aircraft Service Component (JASC) Code: 6400, Tail Rotor System.

(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 the AD specifies otherwise.

(i) Leonardo Helicopters Emergency Alert Service Bulletin No. 119-100, dated August 7, 2019.

(ii) [Reserved]

(3) For Leonardo Helicopters service information identified in this AD, contact Leonardo S.p.A. Helicopters, 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 <https://www.leonardocompany.com/en/home>.

(4) You may view this service information at 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 fedreg.legal@nara.gov, or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Appendix 1 to AD 2020-13-02

Report the following information by email to aw109.mbx.aw@leonardocompany.com.

(Leonardo Helicopters Emergency Alert Service Bulletin No. 119-100, dated August 7, 2019.)

- (1) Date of Inspection:
- (2) Helicopter Model and Serial Number:
- (3) Total hours time-in-service (TIS) on the aircraft:
- (4) Total hours TIS on the T/R duplex bearing:
- (5) Total hours TIS since last overhaul of the T/R gearbox assembly:
- (6) Describe in detail any information and findings and, if possible, provide photos.

Issued on June 10, 2020.

Lance T. Gant, Director,
Compliance & Airworthiness Division,
Aircraft Certification Service.

[FR Doc. 2020-13440 Filed: 6/22/2020 8:45 am; Publication Date: 6/23/2020]