



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2020-0411; Product Identifier 2018-SW-061-AD; Amendment 39-21254; AD 2020-19-11]**

**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 certain Leonardo S.p.a. (Leonardo) Model A119 and AW119 MKII helicopters. This AD requires repetitive borescope inspections of the tail rotor gearbox (TGB) and depending on the inspection results, removing the TGB from service. This AD was prompted by reports of corrosion on the internal surface of the 90-degree TGB output shaft. The actions of this AD are intended to address an 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 document listed in this AD as of [INSERT DATE 35 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**ADDRESSES:** 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 <http://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0411.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <http://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0411; 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 Aviation Safety Agency (now 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 U.S. Department of Transportation, Docket Operations, M-30, West Building Ground Floor, Room W12-140, 1200 New Jersey Avenue SE, Washington, DC 20590.

**FOR FURTHER INFORMATION CONTACT:** Rao Edupuganti, Aviation Safety Engineer, Regulations and Policy Section, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5110; email [rao.edupuganti@faa.gov](mailto:rao.edupuganti@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Discussion**

The FAA issued a notice of proposed rulemaking (NPRM) to amend 14 CFR part

39 by adding an AD that would apply to Leonardo Model A119 and AW119 MKII helicopters with 90-degree TGB part number (P/N) 109-0440-06-101 or P/N 109-0440-06-105 having serial number 167, 169 through 172 inclusive, 215 through 225 inclusive, 227, 230, 232, 233, AW268, K3, K16, M47, or L29, installed. The NPRM published in the *Federal Register* on April 24, 2020 (85 FR 22970). The NPRM proposed to require within 25 hours time-in-service (TIS) or 3 months, whichever comes first, and thereafter at intervals not to exceed 100 hours TIS or 6 months, whichever occurs first, borescope inspecting the internal surface of the 90-degree TGB output shaft for corrosion. Depending on the inspection results, the NPRM proposed to require removing the TGB from service before further flight. The proposed requirements were intended to prevent corrosion on the internal surface of the 90-degree TGB output shaft, failure of the 90-degree TGB output shaft, and reduced control of the helicopter.

The NPRM was prompted by EASA AD No. 2018-0156, dated July 24, 2018 (EASA AD 2018-0156), issued by EASA, which is the Technical Agent for the Member States of the European Union, 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 90-degree TGB P/N 109-0440-06-101 or P/N 109-0440-06-105 having serial number 167, 169 through 172 inclusive, 215 through 225 inclusive, 227, 230, 232, 233, AW268, K3, K16, M47, or L29, installed. EASA advises of two reported occurrences of corrosion on the internal surface of the 90-degree TGB shaft installed on Model A119 helicopters. Further analysis identified a specific

batch of parts that may be susceptible to similar conditions. Due to design similarity, Model AW119MKII helicopters are also affected.

EASA states that this condition, if not detected and corrected, could lead to failure of the tail rotor, possibly resulting in reduced control of the helicopter. Accordingly, the EASA AD requires performing repetitive endoscope inspections on the internal surface of the 90-degree TGB output shaft for corrosion and depending on the findings, replacing the TGB. EASA further states EASA AD 2018-0156 is considered an interim action and further AD action may follow.

### **Comments**

The FAA gave the public the opportunity to participate in developing this AD, but the FAA did not receive any comments on the NPRM.

### **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 and that air safety and the public interest require adopting the AD requirements as proposed except for minor editorial changes. The FAA has determined that these minor changes are consistent with the intent that was proposed in the NPRM for addressing the unsafe condition and do not add any additional burden upon the public than was already proposed in the NPRM.

## **Related Service Information Under 1 CFR part 51**

The FAA reviewed Leonardo Helicopters Alert Service Bulletin No. 119-090, dated July 23, 2018, for Model A119 and AW119MKII helicopters, which contains procedures for conducting an endoscope inspection of the internal surface of the 90-degree TGB output shaft for corrosion. This service information also specifies replacing the TGB if corrosion is found.

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.

### **Costs of Compliance**

The FAA estimates this AD affects 96 helicopters of U.S. Registry. The FAA estimates that operators may incur the following costs in order to comply with this AD. Labor costs are estimated at \$85 per work-hour.

Borescope inspecting the 90-degree TGB output shaft takes about 3 work-hours for an estimated cost of \$255 per helicopter and \$24,480 for the U.S. fleet per inspection cycle.

Replacing a (overhauled) TGB takes about 18 work-hours and parts cost about \$49,000 (overhauled) for an estimated cost of \$50,530 per helicopter.

According to Leonardo's service information, some of the costs of this proposed AD may be covered under warranty, thereby reducing the cost impact on affected individuals. The FAA does not control warranty coverage by Leonardo. Accordingly, the FAA has included all costs in the cost estimate.

## **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 helicopters 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.

### **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):

**2020-19-11 Leonardo S.p.a.:** Amendment 39-21254; Docket No. FAA-2020-0411;  
Product Identifier 2018-SW-061-AD.

#### **(a) Applicability**

This AD applies to Leonardo S.p.a. Model A119 and AW119 MKII helicopters, certificated in any category, with 90-degree tail rotor gearbox (TGB) part number (P/N) 109-0440-06-101 or 109-0440-06-105 having serial number 167, 169 through 172 inclusive, 215 through 225 inclusive, 227, 230, 232, 233, AW268, K3, K16, M47, or L29, installed.

#### **(b) Unsafe Condition**

This AD defines the unsafe condition as corrosion on the internal surface of the 90-degree TGB output shaft. This condition could result in failure of the 90-degree TGB output shaft and reduced control of the helicopter.

**(c) Effective Date**

This AD becomes effective [INSERT DATE 35 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 25 hours time-in-service (TIS) or 3 months, whichever occurs first, and thereafter at intervals not to exceed 100 hours TIS or 6 months, whichever occurs first, borescope inspect the entire internal surface of the 90-degree TGB output shaft for corrosion. Refer to Figure 3 of Leonardo Helicopters Alert Service Bulletin No. 119-090, dated July 23, 2018, for a depiction of the entry point for the borescope. If there is corrosion, before further flight, remove from service the TGB.

(2) After the effective date of this AD, do not install on any helicopter any 90-degree TGB P/N 109-0440-06-101 or 109-0440-06-105 that has serial number 167, 169 through 172 inclusive, 215 through 225 inclusive, 227, 230, 232, 233, AW268, K3, K16, M47, or L29, unless the actions required by paragraph (e)(1) of this AD have been done.

**(f) Alternative Methods of Compliance (AMOCs)**

(1) The Manager, Rotorcraft Standards Branch, FAA, may approve AMOCs for this AD. Send your proposal to: Rao Edupuganti, Aviation Safety Engineer, Regulations and Policy 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.

**(g) Additional Information**

The subject of this AD is addressed in European Aviation Safety Agency (now European Union Aviation Safety Agency) (EASA) AD No. 2018-0156, dated July 24, 2018. You may view the EASA AD on the Internet at <https://www.regulations.gov> in Docket No. FAA-2020-0411.

**(h) Subject**

Joint Aircraft Service Component (JASC) Code: 62 Tail Rotor Gearbox.

**(i) 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 Alert Service Bulletin No. 119-090, dated July 23, 2018.

(ii) [Reserved]

(3) For 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 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 [fedreg.legal@nara.gov](mailto:fedreg.legal@nara.gov), or go to: <https://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued on September 9, 2020.

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

[FR Doc. 2020-20750 Filed: 9/21/2020 8:45 am; Publication Date: 9/22/2020]