



**[4910-13-P]**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2017-0619; Product Identifier 2016-SW-093-AD; Amendment 39-19408; AD 2018-19-08]**

**RIN 2120-AA64**

**Airworthiness Directives; Leonardo S.p.A. (Type Certificate Previously Held by Finmeccanica S.p.A., AgustaWestland S.p.A) Helicopters**

**AGENCY:** Federal Aviation Administration (FAA), DOT.

**ACTION:** Final rule.

**SUMMARY:** We are adopting a new airworthiness directive (AD) for Leonardo S.p.A. (Leonardo) Model AW189 helicopters. This AD requires inspecting the tail gearbox (TGB) fitting for a crack. This AD was prompted by a report of a crack on a TGB fitting that was found during a scheduled inspection. The actions of this AD are intended to prevent 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, Matteo Ragazzi, Head of Airworthiness, Viale G. Agusta 520, 21017

C. Costa di Samarate (Va) Italy; telephone +39-0331-711756; fax +39-0331-229046; or at <http://www.leonardocompany.com/-/bulletins>. You may review 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-2017-0619.

### **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-2017-0619; 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 (EASA) AD, any incorporated-by-reference service information, the economic evaluation, any comments received, and other information. The street address for Docket Operations (phone: 800-647-5527) 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:** Matt Fuller, Senior Aviation Safety Engineer, Safety Management Section, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone (817) 222-5110; email [matthew.fuller@faa.gov](mailto:matthew.fuller@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Discussion**

On February 21, 2018, at 83 FR 7423, the Federal Register published our notice of proposed rulemaking (NPRM), which proposed to amend 14 CFR part 39 by adding an

AD that would apply to AgustaWestland S.p.A (now Leonardo) Model AW189 helicopters with tail assembly part number (P/N) 8G5350A00131 installed. The NPRM proposed to require inspecting the TGB fitting for a crack. The proposed requirements were intended to detect a crack on a TGB fitting, which could reduce the tail assembly's ability to sustain loads from the TGB and the tail rotor and result in loss of helicopter control.

The NPRM was prompted by AD No. 2016-0177, dated September 8, 2016, issued by EASA, which is the Technical Agent for the Member States of the European Union, to correct an unsafe condition for Leonardo (formerly Finmeccanica S.p.A. and AgustaWestland S.p.A.) Model AW189 helicopters with a tail assembly P/N 8G5350A00131. EASA advises that a crack was detected on the TGB fitting P/N 4F5350A04152 during a scheduled inspection of an AW189 helicopter. EASA advises that this condition, if not detected and corrected, could lead to crack propagation up to a critical length. This condition could reduce the assembly's ability to sustain loads from the TGB and tail rotor, possibly resulting to reduced helicopter control. The EASA AD consequently requires repetitive inspections of the fitting and replacing the fitting, depending on the inspections' outcome. EASA considers these actions to be interim and that further AD action may follow.

After the NPRM was published, the FAA updated AgustaWestland S.p.A's (AgustaWestland) name to Finmeccanica S.p.A. and then to Leonardo on its FAA type certificate. This name change is reflected in this AD.

## **Comments**

We gave the public the opportunity to participate in developing this AD. The following presents the comment received on the NPRM and the FAA's response.

One commenter requested that the AD also require an inspection of the tail rotor, tail boom, and rotor mast. The commenter does not provide any technical support for this request.

We disagree. The actions requested by the commenter are not necessary to correct the unsafe condition. We have made no changes to the rule portion of this AD.

## **FAA's Determination**

These helicopters have been approved by the aviation authority of Italy and are approved for operation in the United States. Pursuant to our bilateral agreement with Italy, EASA, its technical representative, has notified us of the unsafe condition described in the EASA AD. We are issuing this AD because we evaluated all information provided by EASA and determined 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.

## **Interim Action**

We consider this AD to be an interim action. The design approval holder is expected to develop a modification that will address the unsafe condition identified in this AD. Once this modification is developed, approved, and available, we might consider additional rulemaking.

## **Differences Between this AD and the EASA AD**

The EASA AD requires you to provide a compliance record and return parts to

Leonardo Helicopters if a crack is found on the fitting, and this AD does not.

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

Leonardo has issued Bollettino Tecnico No. 189-114, dated September 6, 2016 (BT), which specifies inspecting the TGB fitting within 30 flight hours or 1 month from the receipt of the BT, whichever comes first, and then at intervals not to exceed 150 flight hours. If a crack is found, the BT requires replacing the TGB fitting.

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**

We estimate that this AD affects 4 helicopters of U.S. Registry and that labor costs average \$85 per work-hour. Based on these estimates, we expect the following costs:

- Inspecting the TGB fitting requires 4 work-hours and no parts for a cost per helicopter of \$340 and \$1,360 for the U.S. fleet each inspection cycle.
- Replacing the TGB fitting requires 48 work-hours and parts cost \$30,000 for a cost of \$34,080 per helicopter.

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. We do not control warranty coverage by Leonardo Helicopters. Accordingly, we have included all costs in our 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.

We are 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) Is not a "significant rule" under DOT Regulatory Policies and Procedures (44 FR 11034, February 26, 1979);
- (3) Will not affect intrastate aviation in Alaska to the extent that it justifies making a regulatory distinction; and

(4) 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.

We prepared an economic evaluation of the estimated costs to comply with this AD and placed it in the AD docket.

#### **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):

2018-19-08 **Leonardo S.p.A. (Type Certificate Previously Held by Finmeccanica S.p.A., AgustaWestland S.p.A.) Helicopters:** Amendment 39-19408; Docket No. FAA-2017-0619; Product Identifier 2016-SW-093-AD.

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

This AD applies to Leonardo S.p.A. (Type Certificate Previously Held by Finmeccanica S.p.A., AgustaWestland S.p.A.) Model AW189 helicopters, certificated in any category, with tail assembly part number 8G5350A00131 installed.

**(b) Unsafe Condition**

This AD defines the unsafe condition as a crack on a tail gearbox fitting. This condition could reduce the tail assembly's ability to sustain loads from the tail rotor gearbox (TGB) and the tail rotor and result in loss of helicopter control.

**(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**

Within 30 hours time-in-service (TIS) and thereafter at intervals not to exceed 150 hours TIS, clean and inspect the TGB fitting for a crack in the areas depicted in Figure 1 of Leonardo Bollettino Tecnico No. 189-114, dated September 6, 2016. If there is a crack, replace the TGB fitting before further flight.

**(f) 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: Matt Fuller, Senior 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, we suggest 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 (EASA) AD No. 2016-0177, dated September 8, 2016. You may view the EASA AD on the Internet at <http://www.regulations.gov> by searching for and locating it in Docket No. FAA-2017-0619.

**(h) Subject**

Joint Aircraft Service Component (JASC) Code: 6520, 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 Bollettino Tecnico No. 189-114, dated September 6, 2016.

(ii) Reserved.

(3) For service information identified in this AD, contact Leonardo S.p.A. Helicopters, Matteo Ragazzi, Head of Airworthiness, Viale G. Agusta 520, 21017 C. Costa di Samarate (Va) Italy; telephone +39-0331-711756; fax +39-0331-229046; or at <http://www.leonardocompany.com/-/bulletins>.

(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, call (202) 741-6030, or go to:

<http://www.archives.gov/federal-register/cfr/ibr-locations.html>.

Issued in Fort Worth, Texas, on September 6, 2018.

Lance T. Gant,

Director, Compliance & Airworthiness Division,  
Aircraft Certification Service.

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