



## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

#### **14 CFR Part 39**

**[Docket No. FAA-2018-0309; Project Identifier 2018-SW-014-AD; Amendment 39-21456; AD 2021-05-13]**

**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 Leonardo S.p.a. (Leonardo) Model AW189 helicopters. This AD was prompted by two reported failures of the tail plane installation forward bolts (bolts). This AD requires inspecting the bolts and depending on the results of those inspections, removing certain parts from service or installing a tail plane retromod. This AD also requires torquing certain part-numbered nuts, inspecting bolts and nuts for wear, and depending on the results of those inspections, removing parts from service. 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:** 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 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.

### **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-2018-0309; 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, 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.

**FOR FURTHER INFORMATION CONTACT:** Scott Franke, Aviation Safety Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5178; email [scott.franke@faa.gov](mailto:scott.franke@faa.gov).

### **SUPPLEMENTARY INFORMATION:**

#### **Discussion**

The European Aviation Safety Agency (now European Union Aviation Safety Agency) (EASA), which is the Technical Agent for the Member States of the European Union, has issued EASA Emergency AD 2018-0047-E, dated February 28, 2018 (also referred to as the Mandatory Continuing Airworthiness Information, or the MCAI), to correct an unsafe condition for all Leonardo S.p.A. (formerly Finmeccanica S.p.A., AgustaWestland S.p.A.) Model AW189 helicopters. You may examine the MCAI in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0309.

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 Model AW189 helicopters. The NPRM published in the *Federal Register* on December 15, 2020 (85 FR 81160). The NPRM was prompted by two reported failures of the bolts. The NPRM proposed to require inspecting the bolts and depending on the results of those inspections, removing certain parts from service or installing a tail plane retromod. The NPRM also proposed to require torqueing certain part-numbered nuts, inspecting bolts and nuts for wear, and depending on the results of those inspections, removing parts from service.

The FAA is issuing this AD to address the failure of a bolt. This condition could result in reduced control of the helicopter. See the MCAI for additional background information.

### **Comments**

The FAA gave the public the opportunity to participate in developing this final rule. The FAA received no comments on the NPRM or on the determination of the cost to the public.

### **Conclusion**

The FAA reviewed the relevant data and determined that air safety and the public interest require adopting this final rule 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 Emergency Alert Service Bulletin No. 189-177, Revision A, dated February 28, 2018, which contains procedures for inspecting

each bolt and installing the tail plane retromod. This service information also contains procedures for repetitively verifying the torque of the associated nut part number (P/N) MS17825-7 (nut).

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.

#### **Other Related Service Information**

Leonardo Helicopters Service Bulletin No. 189-130, dated January 30, 2017, contains additional information about the subject of this AD.

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

The EASA AD requires repetitive torque checks at progressively increasing intervals, while this AD requires the repetitive torque check at intervals not to exceed 50 hours time-in-service (TIS). Since there is not enough field data at this time to substantiate progressively increasing the time between inspections up to 400 hours TIS, the FAA has determined an interval of 50 hours TIS is necessary. The FAA may take further rulemaking action to increase this interval should more data become available.

#### **Interim Action**

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

#### **Costs of Compliance**

The FAA estimates that this AD affects 4 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.

Inspecting the bolts before each flight takes about 0.25 work-hour, for an estimated cost of \$21 per helicopter and \$84 for the U.S. fleet per inspection cycle.

If required, installing a tail plane retromod would take about 12 work-hours and

parts would cost about \$5,500, for an estimated cost of \$6,520 per helicopter.

Inspecting and verifying the torque of the bolts and nuts takes about 1 work-hour, for an estimated cost of \$85 per helicopter and \$340 for the U.S. fleet per inspection cycle.

If required, replacing a bolt and nut would take about 1 work-hour and parts would cost about \$250, for an estimated cost of \$335 per replacement.

According to Leonardo's 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. Accordingly, the FAA has included all costs in its 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 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.

#### **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:

2021-05-13 **Leonardo S.p.a**: Amendment 39-21456; Docket No. FAA-2018-0309;

Project Identifier 2018-SW-014-AD.

#### **(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 AW189 helicopters, certificated in any category.

**(d) Subject**

Joint Aircraft Service Component (JASC) Code: 5510, Tail Stabilizer.

**(e) Unsafe Condition**

This AD was prompted by two reported failures of the tail plane installation forward bolts (bolts). The FAA is issuing this AD to address the failure of a bolt. This condition could result in reduced control of the helicopter.

**(f) Compliance**

Comply with this AD within the compliance times specified, unless already done.

**(g) Required Actions**

(1) For helicopters without a tail plane installation retromod part number (P/N) 8G5510P00511 (tail plane retromod) installed, before further flight and thereafter before each flight, inspect each forward attachment bolt (bolt) P/N 8G5510A06251 and 8G5510A05951 for a missing bolt head, breakage, and correct installation as depicted in Figure 12 of Leonardo Helicopters Emergency Alert Service Bulletin No. 189-177, Revision A, dated February 28, 2018 (EASB 189-177). If there is a missing bolt head, a broken bolt, or an incorrectly installed bolt, before further flight, remove the bolt from service and install the tail plane retromod by following the Accomplishment Instructions, Part II, paragraphs 3.1 through 3.33 of EASB 189-177, except you are not required to discard parts and where EASB 189-177 specifies contacting Leonardo PSE for corrective action, the action must be accomplished using a method approved by the Manager, International Validations Branch, FAA. The Manager's approval letter must specifically refer to this AD.

(2) For helicopters with a tail plane retromod installed in accordance with Leonardo Helicopters Service Bulletin No. 189-130, dated January 30, 2017, and for

helicopters with serial number 49046, 49053, 89008, 89009, 92007, or 92008, within 10 hours time-in-service (TIS) after the effective date of this AD, loosen and then torque each nut P/N MS17825-7 (nut) to 15 to 20 Nm (11 to 14.75 ft-lbs), and install a cotter pin and lockwire each nut on the adjustable rod assembly P/N 4F5510A00232, as depicted in Figure 7, Detail N Step 6.5 and Figure 9, Detail P Step 7.9 of EASB 189-177.

(3) Within 10 hours TIS after installing a tail plane retromod, within 10 hours TIS after complying with paragraph (g)(2) of this AD, or within 10 hours TIS after the effective date of this AD, whichever occurs later, and thereafter at intervals not to exceed 50 hours TIS, do the following:

(i) Determine the torque of each nut.

(ii) If the torque is less than 15 Nm (11 ft-lbs) or more than 20 Nm (14.75 ft-lbs), before further flight, remove the bolt and nut and inspect for wear. If there is any wear on the bolt or nut, before further flight, remove the bolt and nut from service.

**(h) 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 (i)(2) 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.



**(i) Related Information**

(1) The subject of this AD is addressed in European Aviation Safety Agency (now European Union Aviation Safety Agency) (EASA) Emergency AD 2018-0047-E, dated February 28, 2018. This EASA AD may be found in the AD docket on the Internet at <https://www.regulations.gov> by searching for and locating Docket No. FAA-2018-0309.

(2) For more information about this AD, contact Scott Franke, Aviation Safety Engineer, General Aviation & Rotorcraft Section, International Validation Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5178; email [scott.franke@faa.gov](mailto:scott.franke@faa.gov).

(3) Leonardo Helicopters Service Bulletin No. 189-130, dated January 30, 2017, which is not incorporated by reference, contains additional information about the subject of this AD.

(4) Service information identified in this AD that is not incorporated by reference is available at the addresses specified in paragraphs (j)(3) and (4) of this AD.

**(j) Material Incorporated by Reference**

(1) The Director of the Federal Register approved the incorporation by reference (IBR) 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) Leonardo Helicopters Emergency Alert Service Bulletin No. 189-177, Revision A, dated February 28, 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 material 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 February 24, 2021.

Gaetano A. Sciortino, Deputy Director for Strategic Initiatives,  
Compliance & Airworthiness Division,  
Aircraft Certification Service.

[FR Doc. 2021-05511 Filed: 3/16/2021 8:45 am; Publication Date: 3/17/2021]