



**[4910-13-P]**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2020-0258; Product Identifier 2018-SW-002-AD; Amendment 39-21250; AD 2020-19-07]**

**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 Leonardo S.p.a. Model AW169 helicopters. This AD requires modifying the weight on wheels (WoW) support installation on the main landing gear (MLG). This AD was prompted by a report that an inappropriately tightened WoW support could result in a rotation of the support and improper WoW switch performance. 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 <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0258.

### **Examining the AD Docket**

You may examine the AD docket on the Internet at <https://www.regulations.gov> in Docket No. FAA-2020-0258; 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 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:** Matt Fuller, AD Program Manager, Continued Operational Safety Branch, Airworthiness Products Section, General Aviation and Rotorcraft Unit, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5110; email [matthew.fuller@faa.gov](mailto:matthew.fuller@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 S.p.A. Model AW169 helicopters with

left-hand (LH) main landing gear (MLG) assembly, part number (P/N) 6F3210V00132 or P/N 6F3210V00133, with serial number (S/N) MN01 through MN84 inclusive, or right-hand (RH) MLG assembly, P/N 6F3210V00232 or P/N 6F3210V00233, with S/N MN01 to MN81, installed. The NPRM published in the *Federal Register* on March 16, 2020 (85 FR 14807). The NPRM proposed to require within 60 hours time-in-service (TIS), modifying the WoW support installation by:

- Performing a short circuit connection between pin 26 of connector J343 and pin N of connector J319.
- Cutting lockwire and disconnecting the WoW microswitch from the WoW support, removing from service nuts and bolts, and removing the WoW support from the MLG.
- Removing any paint, cleaning areas, and applying Alodine 1132 on cleaned surfaces.
- Applying a 10 mm wide strip of structural glue EA934 on the WoW support, reinstalling the WoW support on the MLG, adding a specified torque to the nut, and cleaning off excess glue.
- Curing the glue on the structures, performing a microswitch adjustment inspection for correct operation of the microswitch, and marking the MLG nameplate by adding the letter “B” at the end of the S/N. The NPRM also proposed prohibiting installing an affected LH or RH MLG assembly on any helicopter unless it has been modified in accordance with the proposed AD requirements.

The NPRM was prompted by EASA AD No. 2017-0255, dated December 22, 2017, 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 Helicopter Division, AgustaWestland) Model AW169 helicopters, with LH MLG assembly P/N 6F3210V00132 or P/N 6F3210V00133 and S/N MN01 to MN84 inclusive, and/or a RH MLG assembly P/N 6F3210V00232 or P/N 6F3210V00233 with S/N MN01 to MN81 inclusive installed, except those with an MLG modified per Magnaghi Aeronautica S.p.a. Service Bulletin SB-07-2017-AW169.

EASA advises that an in-service event revealed that an inappropriately tightened WoW support could result in a rotation of this support and improper WoW switch performance. EASA advises this condition, if not corrected, could result in degraded attitude stabilization, possibly resulting in reduced control of the helicopter. Accordingly, the EASA AD requires modification of the WoW support installation by introducing structural glue between the WoW support and the main fitting of the MLG.

Additionally, the FAA updated the name Leonardo S.p.A. Helicopters to Leonardo S.p.a. Helicopters in this final rule and updated the contact information to obtain service documentation.

### **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.

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

The EASA AD requires compliance within 60 hours TIS or 3 months, whichever occurs first, while this AD requires compliance within 60 hours TIS.

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

The FAA reviewed Leonardo Helicopters Alert Service Bulletin No. 169-047, Revision A, dated February 19, 2018, for Model AW169 helicopters. This service information specifies a WoW support bonding procedure on in-service helicopters by introducing structural glue between the WoW support P/N G1019/20-91 and the main fitting P/N G1019/20-MF 105 to prevent a potential rotation of the support.

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 that this AD affects 3 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.

Performing the short circuit connection, removing the WoW support from the MLG, removing any paint and cleaning areas, applying Alodine and a 10mm strip of structural glue, curing the glue, torqueing the nut, performing a microswitch adjustment,

and marking the MLG nameplate takes about 8 work-hours and parts cost about \$10 for an estimated cost of \$690 per helicopter and \$2,070 for the U.S. fleet.

### **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):

**2020-19-07 Leonardo S.p.a.:** Amendment 39-21250; Docket No. FAA-2020-0258; Product Identifier 2018-SW-002-AD.

**(a) Applicability**

This AD applies to Leonardo S.p.a. Model AW169 helicopters, certificated in any category, with left-hand (LH) main landing gear (MLG) assembly, part number (P/N) 6F3210V00132 or P/N 6F3210V00133, with serial number (S/N) MN01 through MN84 inclusive, or right-hand (RH) MLG assembly, P/N 6F3210V00232 or P/N 6F3210V00233, with S/N MN01 to MN81 inclusive, installed. This AD does not apply to helicopters with an MLG that has been modified in accordance with Magnaghi Aeronautica S.p.A. Service Bulletin No. SB-07-2017-AW169, Issue 5, dated

November 22, 2017. This AD does not apply to MLG that have a “B” on the end of the serial number.

**(b) Unsafe Condition**

This AD defines the unsafe condition as an improperly tightened weight on wheels (WoW) support resulting in a rotation of the support and improper WoW switch performance, which if not corrected could lead to degraded attitude stabilization, and subsequent loss of 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 60 hours time-in-service, modify the WoW support installation as follows:

(i) Perform a short circuit connection between pin 26 of connector J343 and pin N of connector J319.

(ii) Cut the lockwire that locks the WoW microswitch and disconnect the WoW microswitch from the WoW support as depicted in Figure 1 of Leonardo Helicopters Alert Service Bulletin No. 169-047, Revision A, dated February 19, 2018 (ASB 169-047).

(iii) Unscrew the nut and remove the washer and bolt. Remove from service the nut and bolt, but replace the washer.

(iv) Remove the WoW support from the MLG and remove any paint and clean areas where indicated by Figure 2 in ASB 169-047.

(v) Apply Alodine 1132 on cleaned areas of WoW support and landing gear strut leaving a 10 mm wide strip on the WoW support for structural glue EA934 application.

(vi) Apply a 10 mm wide strip of structural glue EA934 on the WoW support and install the WoW support on the MLG using a nut, bolt, and washer.

(vii) Torque the nut to 2.5 thru 3.5 Nm. Clean any excess glue and cure the glue on the structures for one hour at 60 °C/140 °F or eight days at room temperature (22 °C-26 °C/71.6 °F-78.8 °F).

(viii) Apply liquid jointing compound AMS-S-8802 Type 2 Class B, or equivalent, to the bolt and nut, as depicted in Figure 3 of ASB 169-047 and perform a microswitch adjustment for correct operation of the microswitch.

(ix) Mark the MLG nameplate by adding the letter “B” at the end of the S/N.

(x) Remove the short circuit connection between pin 26 of connector J343 and pin N of connector J319 as performed in paragraph (e)(1)(i) of this AD.

(2) After the effective date of this AD, do not install on any helicopter a LH or RH MLG assembly with a P/N and S/N listed in paragraph (a) of this AD unless it has been modified in accordance with the requirements of paragraph (e)(1) of this AD.

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

(1) The Manager, Rotorcraft Standards Branch, FAA, may approve AMOCs for this AD. Send your proposal to: Matt Fuller, AD Program Manager, Continued

Operational Safety Branch, Airworthiness Products Section, General Aviation and Rotorcraft Unit, 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) No. 2017-0255, dated December 22, 2017. You may view the EASA AD on the Internet at <https://www.regulations.gov> in Docket No. FAA-2020-0258.

**(h) Subject**

Joint Aircraft Service Component (JASC) Code: 3200, Landing Gear System.

**(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. 169-047, Revision A, dated February 19, 2018.

(ii) [Reserved]

(3) For Leonardo S.p.a. 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 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.

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

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