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## **DEPARTMENT OF TRANSPORTATION**

### **Federal Aviation Administration**

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

**[Docket No. FAA-2017-1173; Product Identifier 2017-SW-030-AD; Amendment 39-19131; AD 2017-25-17]**

**RIN 2120-AA64**

#### **Airworthiness Directives; Agusta S.p.A. Helicopters**

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

**ACTION:** Final rule; request for comments.

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**SUMMARY:** We are superseding airworthiness directive (AD) 2011-27-08 for Agusta S.p.A. (Agusta) Model A109S and AW109SP helicopters. AD 2011-27-08 required repetitively inspecting each elevator assembly for a crack. This new AD retains the initial inspection interval and adds a repetitive borescope inspection. This AD is prompted by the discovery of another crack on an elevator assembly since AD 2011-27-08 was issued. The actions of this AD are intended to prevent an unsafe condition on these helicopters.

**DATES:** This AD becomes effective January 4, 2018.

The Director of the Federal Register approved the incorporation by reference of certain documents listed in this AD as of January 4, 2018.

We must receive comments on this AD by February 20, 2018.

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

- Federal eRulemaking Docket: Go to <http://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 <http://www.regulations.gov> by searching for and locating Docket No. FAA-2017-1173; or in person at the Docket Operations Office 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 the Docket Operations Office (telephone 800-647-5527) is in the ADDRESSES section. 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, 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-2017-1173.

**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](mailto:david.hatfield@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

This AD is a final rule that involves requirements affecting flight safety, and we did not provide you with notice and an opportunity to provide your comments prior to it becoming effective. However, we invite you to participate in this rulemaking by submitting written comments, data, or views. We also invite 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. We will file in the docket all comments that we receive, as well as a report summarizing each substantive public contact with FAA personnel concerning this rulemaking during the comment period. We will consider all the comments we receive and may conduct additional rulemaking based on those comments.

### **Discussion**

We issued AD 2011-27-08 (77 FR 3382, January 24, 2012) (2011-27-08), for Agusta Model A109S and AW109SP helicopters with elevator assemblies, part number (P/N) 109-0200-02-601, 109-0200-02-801, 109-0200-02-602, 109-0200-02-802, 109-0200-02-803, or 109-0200-02-804 installed. AD 2011-27-08 required repetitively inspecting the left and right elevator assemblies for a crack and replacing the elevator assembly before further flight if there is a crack. AD 2011-27-08 was prompted by AD No. 2011-0150, dated August 9, 2011 (AD 2011-0150), issued by EASA, which is the Technical Agent for the Member States of the European Union, to correct an unsafe condition for Agusta Model A109S and AW109SP helicopters. EASA advised of a fracture of the left elevator assembly along the riveting of the upper skin to the fourth rib due to fatigue.

## **Actions Since AD 2011-27-08 Was Issued**

Since we issued AD 2011-27-08, EASA has issued Emergency AD No. 2017-0085-E, dated May 12, 2017 (EAD 2017-0085-E), which supersedes AD 2011-0150. EASA advises that since AD 2011-0150 was issued, another crack was found in an elevator assembly during a post-flight inspection on an A109S helicopter. EAD 2017-0085-E requires a one-time visual or dye-penetrant inspection of the elevator upper skin in the area of the fourth rib, and also requires drilling an access hole in each elevator and performing repetitive inspections of the internal areas with an endoscope. If there is a crack, EAD 2017-0085-E requires replacing the cracked elevator assembly or contacting Agusta for an approved repair.

Also, the FAA is in the process of updating Agusta's name change to Leonardo Helicopters S.p.A. on its FAA type certificate. Because this name change is not yet effective, this AD specifies Agusta.

## **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.

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

Leonardo Helicopters has issued Emergency Alert Service Bulletin (EASB) No. 109S-076 for Model A109S helicopters, and EASB No. 109SP-113 for Model AW109SP helicopters, both Revision A and dated May 12, 2017. Each EASB specifies procedures for visually inspecting the elevator assembly skin for a crack, adding an inspection hole to the elevator assembly, and inspecting the interior of the elevator assembly with an endoscope.

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 retains the initial visual inspection of AD 2011-27-08, but changes the compliance time to before further flight or before the elevator assembly exceeds 400 hours TIS, whichever occurs later.

The AD also requires, within 10 hours TIS or before the elevator assembly exceeds 400 hours TIS, whichever occurs later, drilling an access hole on the lower face of each elevator assembly and performing a borescope inspection of the internal areas of the elevator assembly leading edge and trailing edge longerons and upper web for a crack. If there is a crack, the AD requires replacing the elevator assembly before further flight. Lastly, this AD requires repeating the borescope inspection every 25 hours TIS.

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

The EASA AD allows a dye-penetrant inspection of the elevator assembly as an option, while this AD does not.

## **Costs of Compliance**

We estimate that this AD will affect 14 helicopters of U.S. Registry.

At an average labor rate of \$85 per hour, we estimate that operators may incur the following costs in order to comply with this AD. Inspecting the elevator assemblies with a magnifying glass will require 3 work-hours for a cost of \$255 per helicopter and \$3,570 for the U.S. fleet.

Drilling an access hole will require 1 work-hour and required parts cost would be minimal, for a cost of \$85 per helicopter and \$1,190 for the U.S. fleet.

Inspecting with a borescope will require 1 work-hour for a cost of \$85 per helicopter and \$1,190 for the U.S. fleet per inspection cycle.

If required, replacing a cracked elevator assembly will require 10 work-hours and required parts will cost \$23,905 for a cost per helicopter of \$24,755.

## **FAA's Justification and Determination of the Effective Date**

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 some of the corrective actions must be accomplished before further flight. Therefore, we find good cause that notice and opportunity for prior public comment are impracticable. In addition, for the reason stated above, we find that good cause exists 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.

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 products identified in this rulemaking action.

## **Regulatory Findings**

We 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;
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 removing Airworthiness Directive (AD) 2011-27-08, Amendment 39-16910 (77 FR 3382, January 24, 2012), and adding the following new AD:



FAA  
Aviation Safety

## AIRWORTHINESS DIRECTIVE

[www.faa.gov/aircraft/safety/alerts/](http://www.faa.gov/aircraft/safety/alerts/)  
[www.gpoaccess.gov/fr/advanced.html](http://www.gpoaccess.gov/fr/advanced.html)

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**2017-25-17 Agusta S.p.A.:** Amendment 39-19131; Docket No. FAA-2017-1173; Product Identifier 2017-SW-030-AD.

### (a) Applicability

This AD applies to Model A109S and AW109SP helicopters with elevator assemblies, part number (P/N) 109-0200-02-601, 109-0200-02-801, 109-0200-02-602, 109-0200-02-802, 109-0200-02-803, or 109-0200-02-804 installed, certificated in any category.

### (b) Unsafe Condition

This AD defines the unsafe condition as a fatigue crack on the elevator assembly. This condition could result in failure of the elevator, reduced maneuverability of the helicopter, and subsequent loss of control of the helicopter.

### (c) Affected ADs

This AD supersedes AD 2011-27-08, Amendment 39-16910 (77 FR 3382, January 24, 2012).

### (d) Effective Date

This AD becomes effective January 4, 2018.

### (e) 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.

### (f) Required Actions

(1) Before further flight or before the elevator assembly accumulates 400 hours time-in-service (TIS), whichever occurs later, inspect the left and right elevator upper skin along the 4th rib station rivet line from the leading edge to 200 mm aft with a 10X or higher power magnifying glass for a crack in the area depicted in Figure 1 of Leonardo Helicopters Emergency Alert Service Bulletin (EASB) No. 109S-076, Revision A, dated May 12, 2017 (EASB 109S-076), or EASB No. 109SP-113, Revision A, dated May 12, 2017 (EASB 109SP-113), as appropriate for your model helicopter. If there is a crack, before further flight, replace the elevator assembly.

(2) Within 10 hours TIS or before the elevator assembly accumulates 400 hours TIS, whichever occurs later:

(i) Drill a 19.05 mm access hole on the lower face of each elevator assembly as depicted in Figure 2 of EASB 109S-076 or EASB 109SP-113, as appropriate for your model helicopter. Apply Alodine or equivalent coating and epoxy polyamide primer to the hole surface.

(ii) Using a borescope, inspect the internal area of each elevator assembly for a crack along the leading edge and trailing edge longerons and upper web as depicted in Figure 3 of EASB 109S-076

or EASB 109SP-113, as appropriate for your model helicopter. If there is a crack, before further flight, replace the elevator assembly. Repeat this inspection at intervals not to exceed 25 hours TIS.

**(g) 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, 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.

**(h) Additional Information**

The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2017-0085-E, dated May 12, 2017. You may view the EASA AD on the internet at <http://www.regulations.gov> by searching for and locating it in Docket No. FAA-2017-1173.

**(i) Subject**

Joint Aircraft Service Component (JASC) Code: 5520 Elevator Structure.

**(j) 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. 109S-076, Revision A, dated May 12, 2017.

(ii) Leonardo Helicopters Emergency Alert Service Bulletin No. 109SP-113, Revision A, dated May 12, 2017.

(3) For Leonardo Helicopters 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 December 4, 2017.

Scott A. Horn,

Deputy Director for Regulatory Operations, Compliance & Airworthiness Division,  
Aircraft Certification Service.