



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2020-0413; Product Identifier 2017-SW-018-AD; Amendment 39-21258; AD 2020-20-02]**

**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 A109E, A109S, and AW109SP helicopters. This AD requires inspecting each fire extinguisher bottle for a crack. This AD was prompted by a report of a cracked fire extinguisher bottle. 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 certain documents 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, 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-2020-0413.

### **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-2020-0413; 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:** Eric Haight, Aviation Safety Engineer, Regulations and Policy Section, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy, Fort Worth, TX 76177; telephone 817-222-5110; [eric.haight@faa.gov](mailto:eric.haight@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 A109E, A109S, and AW109SP helicopters with a fire extinguisher bottle part number (P/N) 27300-1 installed. The

NPRM published in the *Federal Register* on April 23, 2020 (85 FR 22686). The NPRM proposed to require repetitively inspecting the weld beads of each fire extinguisher bottle P/N 27300-1 assembly for a crack. If there is a crack, the NPRM proposed to require replacing the fire extinguisher bottle before further flight. The NPRM also proposed to prohibit the installation of a fire extinguisher bottle P/N 27300-1 on any helicopter unless it has met the requirements of this AD. The proposed requirements were intended to detect a crack on a fire extinguisher bottle bypass outlet assembly, which could result in failure of the fire extinguishing system in the event of a fire in the engine area and subsequent loss of control of the helicopter.

The NPRM was prompted by EASA AD No. 2016-0261R1, dated February 13, 2020, issued by EASA, which is the Technical Agent for the Member States of the European Union, to correct an unsafe condition for Leonardo Model A109LUH, A109E, A109S, and AW109SP helicopters. EASA advises that a fractured bypass outlet assembly (assembly), which is a component of fire extinguishing bottle P/N 27300-1, was found during maintenance on a Model AW109SP helicopter. EASA states that this condition, if not detected and corrected, could affect the capability of the fire extinguishing system to extinguish a fire in the engine area, resulting in damage to the helicopter and injury to any occupants. To address this unsafe condition, the EASA AD requires repetitive inspections of the assembly, and if there is a crack, replacing the fire extinguisher bottle. Due to similarity of design, EASA advises other helicopter models may be subject to the same unsafe condition.

## **Comments**

The FAA gave the public the opportunity to participate in developing this final rule, but the FAA did not receive any comments on the NPRM or on the determination of the cost to the public.

## **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 of the information provided by EASA and determining the unsafe condition exists and is likely to exist or develop on other helicopters of the same type designs and that air safety and the public interest require adopting the AD requirements as proposed.

## **Interim Action**

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

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

The EASA AD applies to Model A109LUH helicopters; this AD does not as that model helicopter is not type certificated in the U.S.

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

The FAA reviewed Leonardo Helicopters Bollettino Tecnico (BT) No. 109EP-152 for Model A109E helicopters, BT No. 109S-073 for Model A109S helicopters, and BT No. 109SP-108 for Model AW109SP helicopters, all dated December 15, 2016. The FAA also reviewed Leonardo Helicopters Alert Service Bulletin No. 109S-073,

Revision A, dated November 23, 2018 for Model A109S helicopters. This service information contains procedures for inspecting the assembly for a crack and replacing the fire extinguishing bottle if there is a crack.

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 107 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 both assemblies requires about 2 work-hours, for an estimated cost of \$170 per helicopter and \$18,190 for the U.S fleet, per inspection cycle.

Replacing a fire extinguishing bottle requires about 3 work-hours and parts cost about \$6,432, for an estimated cost of \$6,687 per helicopter.

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 this 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):

**2020-20-02 Leonardo S.p.a.:** Amendment 39-21258; Docket No. FAA-2020-0413; Product Identifier 2017-SW-018-AD.

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

This AD applies to Leonardo S.p.a. Model A109E, A109S, and AW109SP helicopters, certificated in any category, with a fire extinguisher bottle part number (P/N) 27300-1 installed.

Note 1 to paragraph (a): Fire extinguisher bottle P/N 27300-1 may be installed as part of fire extinguisher kit P/N 109-0811-39-103, P/N 109-0811-39-107, or P/N 109-0811-39-109.

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

This AD defines the unsafe condition as a crack on a fire extinguisher bottle bypass outlet assembly. This condition could result in failure of the fire extinguishing system in the event of a fire in the engine area 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 25 hours time-in-service (TIS) and thereafter at intervals not to exceed 200 hours TIS, using a mirror and a light, inspect the weld beads of each fire extinguisher bottle bypass outlet assembly for a crack in the areas depicted in Figure 2 of Leonardo Helicopters Bollettino Tecnico (BT) No. 109EP-152, BT No. 109S-073, or BT No. 109SP-108, each dated December 15, 2016, or Alert Service Bulletin No. 109S-073 Revision A, dated November 23, 2018, as applicable to your model helicopter. Pay particular attention to each circled area. If there is a crack, before further flight, replace the fire extinguisher bottle.

(2) After the effective date of this AD, do not install a fire extinguisher bottle P/N 27300-1 on any helicopter unless it has been inspected as required by 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 Eric Haight, 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. 2016-0261R1, dated February 13, 2020. You may view the EASA AD on the Internet at <https://www.regulations.gov> in Docket No. FAA-2020-0413.

**(h) Subject**

Joint Aircraft Service Component (JASC) Code: 2620, Extinguishing 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. 109S-073, Revision A, dated November 23, 2018.

(ii) Leonardo Helicopters Bollettino Tecnico (BT) No. 109EP-152, dated December 15, 2016.

(iii) Leonardo Helicopters BT No. 109S-073, dated December 15, 2016.

(iv) Leonardo Helicopters BT No. 109SP-108, dated December 15, 2016.

(3) For service information identified in this AD, contact Leonardo, 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 18, 2020.

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

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