



[4910-13-P]

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2017-0103; Product Identifier 2016-SW-086-AD]**

**RIN 2120-AA64**

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

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

**ACTION:** Notice of proposed rulemaking (NPRM).

**SUMMARY:** We propose to adopt a new airworthiness directive (AD) for Agusta S.p.A.

Model AB139 and Model AW139 helicopters. This proposed AD would require inspecting the thickness of the tail gearbox (TGB) central housing (housing). This proposed AD is prompted by reports that the housing thickness does not conform to its type design. The actions of this proposed AD are intended to detect and correct an unsafe condition on these products.

**DATES:** We must receive comments on this proposed AD by [INSERT DATE 60 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER].

**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-2017-0103; 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 proposed AD, the European Aviation Safety Agency (EASA) AD, 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 proposed rule, contact Leonardo S.p.A., 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.

**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.

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

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 might result from adopting the proposals in this document. The most helpful comments reference a specific portion of the proposal, 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 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 proposed rulemaking. Before acting on this proposal, we will consider all comments we receive on or before the closing date for comments. We will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. We may change this proposal in light of the comments we receive.

### **Discussion**

EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD No. 2016-0246, dated December 13, 2016, to correct an unsafe condition for Leonardo S.p.A. (formerly Finmeccanica S.p.A. and Agusta S.p.A.) Model AB139 and Model AW139 helicopters.

EASA advises that the thickness of some sections of the housing do not conform to the type design. According to EASA, this condition, if not detected and corrected, could lead to premature cracks in the housing, resulting in failure of the tail gear rotor transmission and reduced control of the helicopter. The EASA AD consequently requires a one-time inspection to determine the thickness of the housing wall, and depending on the findings, replacing the housing or TGB assembly with an airworthy part.

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

#### **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 its AD. We are proposing this AD because we evaluated all known relevant information and determined that an unsafe condition is likely to exist or develop on other products of the same type design.

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

We reviewed Leonardo Bollettino Tecnico No. 139-274, dated September 14, 2016 (BT 139-274), which specifies procedures for a dimensional check of the housing or TGB to determine the thickness of the housing wall. For housings with fewer than 7,500 flight hours, BT 139-274 specifies compliance with the dimensional check by measurement during the next repair or overhaul, and replacing the housing if it does not meet its thickness requirement. For housings with 7,500 or more flight hours, BT 139-

274 specifies compliance with the dimensional check by ultrasonic inspection within 300 flight hours, and replacing the TGB if it does not meet its thickness requirement. BT 139-274 excludes certain serial-numbered housings from the applicability because they were inspected before delivery to customers.

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.

### **Proposed AD Requirements**

This proposed AD would require the following:

- If a housing has fewer than 7,500 hours time-in-service (TIS), before reaching 7,500 hours TIS, inspecting the housing wall to determine the thickness and replacing the housing if the thickness is less than 2.65 mm (0.104 inch).
- If a housing has 7,500 or more hours TIS, within 300 hours TIS, ultrasonic inspecting the TGB to determine the thickness and replacing the TGB if the thickness is less than 2.65 mm (0.104 inch).

### **Differences between this Proposed AD and the EASA AD**

If a housing has fewer than 7,500 hours TIS, the EASA AD requires a dimensional inspection of the housing wall at a helicopter's first return to a shop or service station for a TGB overhaul or repair after the EASA AD's effective date but no later than 7,500 hours TIS. This proposed AD would require such an inspection only before reaching 7,500 hours TIS.

## **Costs of Compliance**

We estimate that this proposed AD would affect 103 helicopters of U.S. Registry and that labor costs average \$85 per work-hour. Based on these estimates, we expect the following costs:

- Measuring the thickness of the housing would require .5 work-hour and no parts would be needed for a cost of \$43 per helicopter.
- Ultrasonic inspecting the thickness of the housing would require 2 work-hours and no parts would be needed for a cost of \$170 per helicopter.
- Replacing the TGB housing would require 5 work-hours, and parts would cost \$11,185 for a cost of \$11,610 per helicopter.

## **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 proposed AD would not have federalism implications under Executive Order 13132. This proposed AD would 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 this proposed regulation:

1. Is not a “significant regulatory action” under Executive Order 12866;
2. Is not a “significant rule” under the 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 proposed 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.

## **The Proposed Amendment**

Accordingly, under the authority delegated to me by the Administrator, the FAA proposes to amend 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):

**Agusta S.p.A.:** Docket No. FAA-2017-0103; Product Identifier 2016-SW-086-AD.

**(a) Applicability**

This AD applies to Agusta S.p.A. Model AB139 and Model AW139 helicopters, certificated in any category, with a tail gearbox (TGB) assembly part number (P/N) 3T6522A00239, 3T6522A00242, 3T6522A00243, or 3T6522A00246 that has a central housing P/N 3T6522A05144 or 3T6522A05146, all serial numbers except those listed in Table 1 of Leonardo Helicopters Bollettino Technico No. 139-274, dated September 14, 2016.

**(b) Unsafe Condition**

This AD defines the unsafe condition as nonconforming thickness in a section of a TGB central housing, which can lead to a crack in the TGB central housing. This condition could result in the failure of the tail gear rotor transmission and loss of helicopter control.

**(c) Comments Due Date**

We must receive comments by [INSERT DATE 60 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) For helicopters with a TGB central housing with less than 7,500 hours time-in-service (TIS), before accumulating 7500 hours TIS, measure the thickness of the central housing in accordance with the Compliance Instructions, Part I paragraphs 1 and 2, of Bollettino Tecnico No. 139-274, dated September 14, 2016 (BT 139-274). If the thickness is less than 2.65 mm (0.104 inch), replace the TGB central housing before further flight.

(2) For helicopters with a TGB central housing with 7500 or more hours TIS, within 300 hours TIS, ultrasonic inspect the TGB in accordance with the Compliance Instructions, Part II paragraphs 4 through 4.5 of BT 139-274. If the thickness is less than 2.65 mm (0.104 inch), replace the TGB before further flight.

(3) After the effective date of this AD, do not install a central housing P/N 3T6522A05144 or 3T6522A05146, all serial numbers except those listed in Table 1 of BT 139-274, on any helicopter unless it has passed inspection in accordance with paragraph (e)(1) of this AD.

**(f) Special Flight Permits**

Special flight permits are prohibited.

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

(1) The Manager, Safety Management Section, 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.

**(h) Additional Information**

The subject of this AD is addressed in European Aviation Safety Agency (EASA) AD No. 2016-0246, dated December 13, 2016. You may view the EASA AD on the Internet at <http://www.regulations.gov> in the AD Docket.

**(i) Subject**

Joint Aircraft Service Component (JASC) Code: 6720, Tail Rotor Control System.

Issued in Fort Worth, Texas, on September 11, 2017.

Lance T. Gant,

Director, Compliance & Airworthiness Division,  
Aircraft Certification Service.

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