



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2018-0737; Product Identifier 2017-SW-096-AD; Amendment 39-19661; AD 2019-12-06]

RIN 2120-AA64

Airworthiness Directives; Leonardo S.p.A. Helicopters

AGENCY: Federal Aviation Administration (FAA), DOT.

ACTION: Final rule.

SUMMARY: We are adopting a new airworthiness directive (AD) for Leonardo S.p.A. (type certificate previously held by Finmeccanica S.p.A., AgustaWestland S.p.A.) Model AW139 helicopters. This AD requires inspecting and altering the number 1 driveshaft (driveshaft). This AD was prompted by reports of scratches that were found on the driveshaft. 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, 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 <https://www.leonardocompany.com/en/home>. 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-2018-0737.

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-2018-0737; 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 (EASA) AD, any incorporated-by-reference service information, the economic evaluation, 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: 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.

SUPPLEMENTARY INFORMATION:

Discussion

On August 27, 2018, at 83 FR 43561, the Federal Register published our notice of proposed rulemaking (NPRM), which proposed to amend 14 CFR part 39 by adding an AD that would apply to Model AW139 helicopters, serial numbers 31499, 31504, 31507,

31509, 31512, 31518, 31519, 31524, 31529, 31533, 31535 through 31564, 31567, 31569, 31570, 31589, 41363, 41368 through 41370, 41372 through 41375, 41378, 41381, and 41384, with a tunnel assembly part number (P/N) 3G7130A13431 installed. The NPRM proposed to require repetitively inspecting the driveshaft tube P/N 3G6510A00832 for a scratch and indentation. If there is a scratch or indentation, the NPRM proposed to require, before further flight, repairing the driveshaft tube and performing a depth check of the repaired area. Depending on the repaired area depth, the NPRM proposed to require replacing the driveshaft tube and altering the rear exhaust module and tunnel assembly before further flight or performing an eddy current inspection of the tube for a crack. If there is a crack, the NPRM proposed to require replacing the driveshaft tube and altering the rear exhaust module and tunnel assembly before further flight. The NPRM also proposed to require altering the rear exhaust module and tunnel assembly, if not previously done as a result of the inspections, and re-identifying the tunnel assembly P/N after it is altered, which would be terminating action for the repetitive inspections. The proposed requirements were intended to prevent a crack in the driveshaft, failure of the tail rotor drive system, and subsequent loss of control of the helicopter.

The NPRM was prompted by AD No. 2017-0011, dated January 25, 2017, issued by EASA, which is the Technical Agent for the Member States of the European Union, to correct an unsafe condition for certain serial-numbered Leonardo S.p.A. (formerly Finmeccanica S.p.A, AgustaWestland S.p.A.) Model AW139 helicopters. EASA advises of several helicopters found with scratches on the driveshaft P/N 3G6510A01132 and that an investigation determined only helicopters equipped with rear exhaust module assembly P/N 3G7810A00431 and tunnel assembly P/N 3G7130A13431 are affected.

According to EASA, the scratches resulted from insufficient clearance between the driveshaft and the rear exhaust module and tunnel assemblies. EASA further advises that if not corrected, these scratches could lead to a crack in the driveshaft, failure of the tail rotor drive system, and subsequent reduced control of the helicopter.

Comments

We gave the public the opportunity to participate in developing this AD, but we 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 our bilateral agreement with the European Union, EASA, has notified us of the unsafe condition described in its 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 the same type designs.

Related Service Information Under 1 CFR part 51

We reviewed Leonardo Helicopters Bollettino Tecnico No. 139-465, Revision A, dated January 25, 2017, which contains procedures for visual and eddy-current inspections of the driveshaft. This service information also contains procedures for modifying the exhaust module and tunnel assembly.

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

We estimate that this AD affects 55 helicopters of U.S. Registry. We estimate that operators may incur the following costs in order to comply with this AD. Labor costs are estimated at \$85 per work-hour.

Inspecting, repairing, and eddy-current inspecting the driveshaft tube requires about 6 work-hours, and required parts cost is minimal, for a cost of \$510 per helicopter and \$28,050 for the U.S. fleet per inspection cycle. Altering the rear exhaust module and tunnel assembly requires about 20 work-hours, and required parts cost \$1,500, for a cost of \$3,200 per helicopter and \$176,000 for the U.S. fleet.

According to Leonardo Helicopter's service information some of the costs of this AD may be covered under warranty, thereby reducing the cost impact on affected individuals. We do not control warranty coverage by Leonardo Helicopters. Accordingly, we have included all costs in our 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.

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 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.

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 adding the following new airworthiness directive (AD):

2019-12-06 **Leonardo S.p.A. (Type Certificate Previously Held by Finmeccanica S.p.A, AgustaWestland S.p.A.):** Amendment 39-19661; Docket No. FAA-2018-0737; Product Identifier 2017-SW-096-AD.

(a) Applicability

This AD applies to Model AW139 helicopters, serial numbers 31499, 31504, 31507, 31509, 31512, 31518, 31519, 31524, 31529, 31533, 31535 through 31564, 31567, 31569, 31570, 31589, 41363, 41368 through 41370, 41372 through 41375, 41378, 41381, and 41384, with a tunnel assembly part number (P/N) 3G7130A13431 installed, certificated in any category.

(b) Unsafe Condition

This AD defines the unsafe condition as a crack in a tail rotor driveshaft. This condition could result in failure of the tail rotor drive system 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 30 hours time-in-service (TIS) and thereafter at intervals not to exceed 100 hours TIS, inspect the number 1 driveshaft tube shaft, P/N 3G6510A00832, for a scratch and indentation in the area depicted in Figure 1 of Leonardo Helicopters Bollettino Tecnico No. 139-465, Revision A, dated January 25, 2017 (BT 139-465). If there is a scratch or indentation, before further flight:

(i) Repair the tube shaft in accordance with the Compliance Instructions, Part I, paragraphs 7.1 through 7.3, of BT 139-465.

(ii) Measure the depth of the repaired areas as depicted in Figure 2 of BT 139-465.

(A) If the depth of the reworked area is 0.2 mm (0.079 inch) or less, eddy-current inspect the driveshaft for a crack as described in the Compliance Instructions, Annex A, of BT 139-465. If there is a crack, before further flight, replace the driveshaft, alter the rear exhaust module, and alter and re-identify the tunnel assembly in accordance with the Compliance Instructions, Part II, paragraphs 7 through 12, of BT 139-465.

(B) If the depth of the reworked area is more than 0.2 mm (0.079 inch), before further flight, replace the driveshaft, alter the rear exhaust module, and alter and re-identify the tunnel assembly in accordance with the Compliance Instructions, Part II, paragraphs 7 through 12, of BT 139-465.

(2) Within 300 hours TIS, unless already accomplished as required by paragraph (e)(1)(ii) of this AD, alter the rear exhaust module and alter and re-identify the tunnel assembly in accordance with the Compliance Instructions, Part II, paragraphs 7 through 12, of BT 139-465.

(f) Special Flight Permits

Special flight permits are prohibited.

(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. 2017-0011, dated January 25, 2017. You may view the EASA AD on the internet at <http://www.regulations.gov> in Docket No. FAA-2018-0737.

(i) Subject

Joint Aircraft Service Component (JASC) Code: 6510 Tail Rotor Driveshaft.

(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 Bollettino Tecnico No. 139-465, Revision A, dated January 25, 2017.

(ii) [Reserved]

(3) For Leonardo S.p.A. 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 <https://www.leonardocompany.com/en/home>.

(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 June 13, 2019.

James A. Grigg,

Acting Deputy Director for Regulatory Operations,
Compliance & Airworthiness Division,

Aircraft Certification Service.

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