



[4910-13-P]

DEPARTMENT OF TRANSPORTATION

Federal Aviation Administration

14 CFR Part 39

[Docket No. FAA-2020-0554; Product Identifier 2016-SW-088-AD; Amendment 39-21245; AD 2020-19-04]

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 AB139 and AW139 helicopters. This AD requires removing certain main gearbox (MGB) input modules from service. This AD was prompted by the discovery that a batch of duplex bearings, which are installed on the MGB input modules, are defective. 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].

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 this service information

at the FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177. For information on the availability of this material at the FAA, call 817-222-5110.

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-2020-0554; 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, and other information. The 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: Rao Edupuganti, Aviation Safety Engineer, Regulations and Policy Section, Rotorcraft Standards Branch, FAA, 10101 Hillwood Pkwy., Fort Worth, TX 76177; telephone 817-222-5110; email rao.edupuganti@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 AB139 and AW139 helicopters with certain serial-numbered MGB input modules part number (P/N) 3K6320A00135 or P/N 3K6320A00136 installed. The NPRM published in the *Federal Register* on June 8, 2020 (85 FR 35018). The NPRM proposed to require removing the affected MGB input modules from service and prohibit installing the affected MGB input modules. The

proposed requirements were intended to address defective duplex bearings on MGB input modules, which could result in damage including corrosion and cracking, which could result in excessive heat of the input module duplex ball bearing inner race and subsequent loss of engine power and loss of helicopter control.

The NPRM was prompted by EASA AD No. 2016-0255R1, dated January 17, 2017 (EASA AD 2016-0255R1), issued by EASA, which is the Technical Agent for the Member States of the European Union, to correct an unsafe condition for Leonardo (formerly Finmeccanica S.p.A., AgustaWestland Philadelphia Corporation, Agusta Aerospace Corporation) Model AB139 and AW139 helicopters with certain serial-numbered MGB input modules P/N 3K6320A00135 or P/N 3K6320A00136 installed. EASA advises that the supplier of a batch of duplex bearings installed on MGB input modules reported that the bearings were defective, due to a quality control issue. This condition, if not detected or corrected, could lead to damage of the input module duplex ball bearing inner race, possibly resulting in loss of engine power and reduced control of the helicopter. Accordingly, EASA AD 2016-0255R1 requires removing the affected MGB input modules from service.

Comments

The FAA gave the public the opportunity to participate in developing this final rule. The FAA received one comment in support of 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 about the unsafe condition described in its AD. The FAA is

issuing this AD after evaluating all known relevant information and determining that an unsafe condition is likely to exist or develop on other helicopters of the same type designs.

Differences Between this AD and the EASA AD

The EASA AD requires returning affected parts and sending information to Leonardo; however, this AD does not.

Related Service Information

The FAA reviewed Leonardo Helicopters Bollettino Tecnico No. 139-303, dated September 20, 2016, which specifies replacing certain duplex bearings on MGB left-hand and right-hand input modules on Model AB139 and AW139 helicopters.

Costs of Compliance

The FAA estimates that this AD affects 71 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.

Replacing one input module takes about 60 work-hours and parts cost about \$84,847 for an estimated cost of \$89,947 per input module. Replacing two input modules takes about 100 work-hours and parts cost about \$169,694 for an estimated cost of \$178,194 per two input modules.

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 products 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):

2020-19-04 Leonardo S.p.a.: Amendment 39-21245; Docket No. FAA-2020-0554;
Product Identifier 2016-SW-088-AD.

(a) Applicability

This AD applies to Leonardo S.p.a. Model AB139 and AW139 helicopters, certified in any category, with main gearbox (MGB) input module part number (P/N) 3K6320A00135 with serial number (S/N) KHI-200 or P/N 3K6320A00136 with an S/N listed in Table 1 to this paragraph installed.

P/N 3K6320A00136 MGB Input Modules (S/N)					
KHI-395	KHI-E82	KHI-E87	KHI-E88	KHI-E89	KHI-E90
KHI-E91	KHI-E92	KHI-E94	KHI-E98	KHI-F01	KHI-F04
KHI-F07	KHI-F11	KHI-F13	KHI-F15	KHI-F16	KHI-F22
KHI-F23	KHI-F26	KHI-F27	KHI-F29	KHI-F31	KHI-F34
KHI-F35	KHI-F39	KHI-F40	KHI-F45	KHI-F46	KHI-F51
KHI-F53	KHI-F55	KHI-F58	KHI-F59	KHI-F60	KHI-F63
KHI-F74	KHI-F75	KHI-F87	KHI-F92	KHI-F93	KHI-F96
KHI-G09	KHI-G10	KHI-G15	KHI-G18	KHI-G19	KHI-G21
KHI-G25	KHI-G26	KHI-G31	KHI-G32	KHI-G35	KHI-G38
KHI-G39	KHI-G41	KHI-G44	KHI-G56	KHI-G58	KHI-G60
KHI-G62	KHI-G63	KHI-G65	KHI-G68	KHI-G70	KHI-G71
KHI-G72	KHI-G76	KHI-G77	KHI-G79	KHI-G81	

Table 1 to Paragraph (a)

(b) Unsafe Condition

This AD defines the unsafe condition as defective duplex bearings on MGB input modules, due to a quality control issue. This condition could result in damage including corrosion and cracking, which could result in excessive heat of the input module duplex ball bearing inner race and subsequent loss of engine power and loss of helicopter control.

(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) If the P/N and S/N of both MGB input modules are listed in paragraph (a) of this AD, within 300 hours time-in-service (TIS), remove from service each MGB input module.

(2) If the P/N and S/N of only one MGB input module are listed in paragraph (a) of this AD, within 1,200 hours TIS, remove from service that MGB input module.

(3) After the effective date of this AD, do not install an MGB input module with a P/N and S/N listed in paragraph (a) of this AD on any helicopter.

(f) Alternative Methods of Compliance (AMOCs)

(1) The Manager, Rotorcraft Standards Branch, FAA, may approve AMOCs for this AD. Send your proposal to: Rao Edupuganti, 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

(1) Leonardo Helicopters Bollettino Tecnico No. 139-303, dated September 20, 2016, which is not incorporated by reference, contains additional information about the subject of this AD. For 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>. You may view a copy of the service information at the FAA, Office of the Regional Counsel, Southwest Region, 10101 Hillwood Pkwy, Room 6N-321, Fort Worth, TX 76177.

(2) The subject of this AD is addressed in European Aviation Safety Agency (now European Union Aviation Safety Agency) (EASA) AD No. 2016-0255R1, dated January 17, 2017. You may view the EASA AD on the internet at <https://www.regulations.gov> in Docket No. FAA-2020-0554.

(h) Subject

Joint Aircraft Service Component (JASC) Code: 6320, Rotor Drive-Gearbox.

Issued on September 3, 2020.

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

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