



**[4910-13-P]**

**DEPARTMENT OF TRANSPORTATION**

**Federal Aviation Administration**

**14 CFR Part 39**

**[Docket No. FAA-2020-0554; Product Identifier 2016-SW-088-AD]**

**RIN 2120-AA64**

**Airworthiness Directives; Leonardo S.p.a. Helicopters**

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

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

**SUMMARY:** The FAA proposes to adopt a new airworthiness directive (AD) for Leonardo S.p.a. (Leonardo) Model AB139 and AW139 helicopters. This proposed AD would require removing certain main gearbox (MGB) input modules from service. This proposed 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 proposed AD are intended to address an unsafe condition on these products.

**DATES:** The FAA must receive comments on this proposed AD by [INSERT DATE 45 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 <https://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 <https://www.regulations.gov> by searching for and locating Docket No. FAA-2020-0554; 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 (now European Union Aviation Safety Agency) (EASA) AD, any comments received, and other information. The street address for Docket Operations is listed above. Comments will be available in the AD docket shortly after receipt.

For service information identified in this proposed 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 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:** 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](mailto:rao.edupuganti@faa.gov).

## **SUPPLEMENTARY INFORMATION:**

### **Comments Invited**

The FAA invites you to participate in this rulemaking by submitting written comments, data, or views. The FAA also invites 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.

The FAA will file in the docket all comments received, as well as a report summarizing each substantive public contact with FAA personnel concerning this proposed rulemaking. Before acting on this proposal, the FAA will consider all comments received on or before the closing date for comments. The FAA will consider comments filed after the comment period has closed if it is possible to do so without incurring expense or delay. The FAA may change this proposal in light of the comments received.

### **Discussion**

EASA, which is the Technical Agent for the Member States of the European Union, has issued EASA AD 2016-0255R1, dated January 17, 2017 (EASA AD 2016-0255R1) 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 part-

number (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.

### **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 proposing 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.

### **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.

### **Proposed AD Requirements**

This proposed AD would require compliance with certain procedures described in the manufacturer's service bulletin. For helicopters with one affected MGB input module installed, this proposed AD would require the affected MGB input module to be removed from service within 1200 hours time-in-service (TIS). For helicopters with two affected

MGB input modules installed, this proposed AD would require both affected MGB input modules to be removed from service within 300 hours TIS.

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

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

### **Costs of Compliance**

The FAA estimates that this proposed AD would affect 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 would require about 60 work-hours for an estimated cost of \$5,100 and parts would cost about \$84,847 for an estimated cost of \$89,947 per helicopter.

Replacing two input modules would require about 100 work-hours for an estimated cost of \$8,500 and parts would cost about \$169,694 for an estimated cost of \$178,194 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.

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**

The FAA 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. 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.

### **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):

**Leonardo S.p.a.:** 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.

<b>P/N 3K6320A00136 MGB Input Modules (S/N)</b>					
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) Comments Due Date**

The FAA must receive comments by [INSERT DATE 45 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, Safety Management Section, 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**

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 the AD Docket.

**(h) Subject**

Joint Aircraft Service Component (JASC) Code: 6320, Rotor Drive - Gearbox.  
Issued on June 1, 2020.

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

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