



## Airworthiness Directive

**AD No.:** 2019-0174

**Issued:** 18 July 2019

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EU) 2018/1139 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 129 of that Regulation.

This AD issued in accordance with Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (EU) 1321/2014 Annex I, Part M.A.301, the continuing airworthiness of an aircraft shall be ensured by accomplishing any applicable ADs. Consequently, no person may operate an aircraft to which an AD applies, except in accordance with the requirements of that AD, unless otherwise specified by the Agency [Regulation (EU) 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [Regulation (EU) 2018/1139, Article 71 exemption].

**Design Approval Holder's Name:** LEONARDO S.p.A.  
**Type/Model designation(s):** AB139 and AW139 helicopters

**Effective Date:** 01 August 2019

**TCDS Number(s):** EASA.R.006

**Foreign AD:** Not applicable

**Supersedure:** This AD supersedes EASA AD 2019-0036 dated 15 February 2019.

### ATA 63 – Main Rotor Drive – Main Gearbox Bearing Lock-Nut – Replacement

#### Manufacturer(s):

Leonardo S.p.A. Helicopters, formerly Finmeccanica S.p.A, AgustaWestland S.p.A., Agusta S.p.A.; and AgustaWestland Philadelphia Corporation, formerly Agusta Aerospace Corporation

#### Applicability:

AB139 and AW139 helicopters, all serial numbers (s/n).

#### Definitions:

For the purpose of this AD, the following definitions apply:

**Affected part:** Main gearboxes (MGB), having a Part Number (P/N) as specified in the SB, except those listed by s/n in Table 1 of the SB and those marked with the SB number.

**Serviceable part:** Any MGB that is not an affected part.

**The SB:** Leonardo Alert Service Bulletin (SB) 139-567 Revision A.

#### Reason:

An occurrence was reported, where, during non-destructive testing accomplished as a part of MGB overhaul activity, a cracked MGB bearing lock-nut P/N 3G6320A09151 was found. This bearing lock-nut, the purpose of which is to keep planetary gears in position, was installed on an MGB removed from service for its second scheduled overhaul.



This condition, if not corrected, could lead to failure of the MGB planetary gears, possibly resulting in loss of control of the helicopter.

To address this potential unsafe condition, Leonardo issued Alert SB 139-567 with instructions for MGB bearing lock-nut P/N 3G6320A09151 replacement. Consequently, EASA published AD 2019-0036 to require accomplishment of removal of the affected MGB from the helicopter, and a one-time replacement of the bearing lock-nut installed on the affected MGB.

Since that AD was published, an additional occurrence of a cracked MGB bearing lock-nut P/N 3G6320A09151 was reported. Prompted by that event, Leonardo issued the SB with reduced compliance times.

For the reason described above, this AD retains the requirements of EASA AD 2019-0036, which is superseded, and reduces the compliance time.

### Required Action(s) and Compliance Time(s):

Required as indicated, unless accomplished previously:

#### Replacement:

- (1) Within the compliance times specified in Table 1 of this AD, remove the affected part from the helicopter and replace the bearing lock-nut P/N 3G6320A09151 in accordance with the instructions of the SB.

Table 1 – MGB Bearing Lock-nut Replacement

Landings accumulated (on the effective date of this AD)	Compliance Times
Less than 28 000 landings	Within 2 000 landings after accumulating 28 000 landings or during next MGB overhaul, whichever occurs first
28 000 landings or more	Within 2 000 landings, or during next MGB overhaul, whichever occurs first after the effective date of this AD

Note 1: Unless specified otherwise, the landings indicated in Table 1 of this AD are those accumulated by an affected part since first installation on a helicopter.

- (2) If the number of landings accumulated by an affected part is unknown, the number of flight hours accumulated by that part must be multiplied by six (6) to determine the applicable compliance times in Table 1 of this AD for the action required by paragraph (1) of this AD.
- (3) Installation on a helicopter of a serviceable MGB, as defined in this AD, is an acceptable method to comply with the requirement of paragraph (1) of this AD for that helicopter.

#### Credit:

- (4) Replacement of the bearing lock-nut P/N 3G6320A09151 on an affected part, accomplished before the effective date of this AD in accordance with the instructions of Leonardo Alert SB



139-567 at original issue, is an acceptable to comply with the bearing lock-nut P/N 3G6320A09151 replacement required by paragraph (1) of this AD for that affected part.

**Part Installation:**

- (5) From the effective date of this AD, it is allowed to install on any helicopter an affected part, provided the MGB has not exceeded 28 000 landings and that, following installation, the bearing lock-nut P/N 3G6320A09151 of that MGB is replaced as required by paragraph (1) of this AD.

**Ref. Publications:**

Leonardo S.p.A. Helicopters SB 139-567 original issue dated 14 February 2019, or Revision A dated 05 July 2019.

The use of later approved revisions of the above-mentioned document is acceptable for compliance with the requirements of this AD.

**Remarks:**

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.
2. Based on the required actions and the compliance time, EASA have decided to issue a Final AD with Request for Comments, postponing the public consultation process until after publication.
3. Enquiries regarding this AD should be referred to the EASA Programming and Continued Airworthiness Information Section, Certification Directorate. E-mail: [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu).
4. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this AD, and which may occur, or have occurred on a product, part or appliance not affected by this AD, can be reported to the [EU aviation safety reporting system](#).
5. For any question concerning the technical content of the requirements in this AD, please contact: Leonardo S.p.A. Helicopters. E-mail: [cse.aw139.AW@leonardocompany.com](mailto:cse.aw139.AW@leonardocompany.com).

