



## Emergency Airworthiness Directive

**AD No.:** 2019-0194-E

**Issued:** 09 August 2019

Note: This Emergency 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 is 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):**

A119 and AW119MKII helicopters

**Effective Date:** 13 August 2019

**TCDS Number(s):** EASA.R.005

**Foreign AD:** Not applicable

**Supersedure:** None

### ATA 64 – Tail Rotor – Tail Rotor Duplex Bearing and Plug – Inspection

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**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:**

A119 and AW119MKII helicopters, manufacturer serial numbers (s/n) up to 14966 inclusive, except s/n 14950, s/n 14957 and s/n 14961 to 14963 inclusive.

**Definitions:**

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

**The EASB:** Leonardo Emergency Alert Service Bulletin (EASB) 119-100.

**Affected duplex bearing:** Tail rotor (TR) duplex bearing Part Number (P/N) 129-0160-11-103.

**Affected plug:** Plug P/N 129-0160-45-103 installed on a TR duplex bearing.

**Reason:**

Preliminary investigation of an AW119 MKII accident identified disassembled connection between the yaw control input lever and the rotating input shaft, partial presence of spalling on inner races



of the affected duplex bearings and missing plug and related lock wire. The investigation to determine the root cause of these occurrences is in progress.

This condition, if not detected and corrected, could lead to functional failure of the TR pitch change mechanism, resulting in loss of control of the helicopter.

As a precautionary measure and pending further information from the technical investigation in progress, Leonardo S.p.A. issued the EASB, providing inspection instructions and improved installation procedures applicable to TR duplex bearing.

For the reasons above, this AD requires inspection of the TR pitch change mechanism, installation of additional locking wire. This AD also requires repetitive inspections of the affected duplex bearing and, depending on findings, corrective actions.

This AD is considered an interim action and further AD action may follow.

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

Required as indicated, unless accomplished previously:

#### **Inspection / Additional Locking Wire Installation:**

- (1) Within 10 flight hours (FH) or 30 days, whichever occurs first after the effective date of this AD, inspect the the tightening torque of the affected plug and install an additional locking wire in accordance with the instructions of Part I of the EASB.
- (2) Within 50 FH or 6 months, whichever occurs first after the effective date of this AD and, thereafter, during each 200 FH inspection or at any (re)installation / disassembly of the affected duplex bearing, as applicable, inspect the affected duplex bearing, its corresponding locking nut and affected plug in accordance with the instructions of Part II of the EASB.

#### **Corrective Action(s):**

- (3) If, during any inspection as required by paragraph (1) or (2) of this AD, any discrepancies are detected, as defined in the EASB, before next flight, accomplish all the applicable corrective actions in accordance with the instructions of the EASB.

#### **Terminating Action:**

- (4) None.

#### **Parts Installation:**

- (5) From the effective date of this AD, it is allowed to install a TR duplex bearing installation P/N 109 0135-01 or P/N 109-0136-03 on a helicopter, provided that the affected duplex bearing is inspected before next flight after that installation and, depending on findings, corrected in accordance with the instructions of Part II of the EASB.

#### **Ref. Publications:**

Leonardo EASB 119-100 original issue dated 07 August 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. The results of the safety assessment have indicated the need for immediate publication and notification, without the full consultation process.
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, Customer Support & Services, Product Support Engineering DPT, E-mail: [aw109.mbx.aw@leonardocompany.com](mailto:aw109.mbx.aw@leonardocompany.com).

