



Emergency Airworthiness Directive

AD No.: 2018-0252-E

Issued: 21 November 2018

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):

AW169 and AW189 helicopters

Effective Date: 22 November 2018

TCDS Number(s): EASA.R.509, EASA.R.510

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2018-0250-E dated 19 November 2018.

ATA 64 – Tail Rotor – Tail Rotor Flight Control System – Inspection

Manufacturer(s):

Leonardo S.p.A. Helicopters, formerly Finmeccanica S.p.A., AgustaWestland S.p.A.

Applicability:

AW169 helicopters, all serial numbers (s/n); and
AW189 helicopters, all s/n.

Definitions:

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

The initial ASB: Leonardo Emergency Alert Service Bulletin (ASB) 169-120 and ASB 189-213, as applicable.

The ASB: Leonardo Emergency ASB 169-125 and ASB 189-214, as applicable.

The applicable DM: Leonardo AW169 Aircraft Maintenance Publication (AMP) Data Module (DM) 69-A-64-31-00-00A-31AB-A or AW189 AMP DM 89-A-64-31-00-00A-31AA-A, as applicable.

The UTAS SB: UTC Aerospace Systems (UTAS) SB 67-0006.



Reason:

An accident occurred on an AW169 helicopter, the root cause of which is still under investigation. While the helicopter was on a take-off phase at low forward speed, a loss of yaw control has been observed.

As a precautionary measure, Leonardo issued ASB 169-120 for AW169 helicopters to provide inspection instructions to check correct installation of the tail rotor (TR) servo-actuator and, subsequently, ASB 189-213 with the same instructions for AW189 helicopters, since these have a TR flight control system of similar design to AW169 helicopters.

The incorrect installation of the TR servo-actuator, if not detected and corrected, depending on the flight condition, could possibly result in loss of control of the helicopter.

EASA issued AD 2018-0241-E to require a one-time visual inspection of the TR servo-actuator installation and, depending on findings, accomplishment of applicable corrective action(s). This AD also required reporting of inspection results to Leonardo.

Since that AD was issued, building on further information, EASA issued AD 2018-0250-E, retaining the requirements of EASA AD 2018-0241-E, which was superseded, and requiring a precautionary one-time inspection of the TR duplex bearing and, depending on findings, accomplishment of applicable corrective action(s). That AD allowed the applicable DM to be used to accomplish the inspection of the TR duplex bearing.

Since that AD was issued, Leonardo published the ASB, which incorporate the UTAS SB, providing further instructions for inspections of the TR duplex bearing.

For the reasons described above, this AD partially retains the requirements of AD 2018-0250-E, which is superseded, requires inspection and breakaway torque check of the TR duplex bearing, inspection and reinstallation of the TR servo-actuator castellated nut and, depending on findings, accomplishment of applicable corrective action(s). This AD also defines conditions for installation of TR servo-actuators.

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

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

Required as indicated, unless accomplished previously:

Partial restatement of Requirements of EASA AD 2018-0250-E:**Inspection:**

- (1) Within 5 flight hours (FH) or 24 hours, whichever occurs first after 09 November 2018 [the effective date of EASA AD 2018-0241-E], visually inspect the TR servo-actuator installation in accordance with the instructions of the initial ASB.

Corrective Action(s):

- (2) If, during the inspection as required by paragraph (1) of this AD, any damage or other finding is identified, before next flight, contact Leonardo for approved instructions and accomplish those instructions accordingly.



- (3) If, during the inspection as required by paragraph (1) of this AD, no damage or other finding is identified, or following corrective action(s) as required by paragraph (2) of this AD, as applicable, before next flight, apply a paint mark on the nut from the rod end to the hinge bracket element in accordance with the instructions of the initial ASB.

Reporting:

- (4) Within 7 days after the inspection as required by paragraph (1) of this AD, where no damage or other finding is identified, report the inspection results to Leonardo.

New Requirements of this AD:

Inspections:

- (5) Within 5 FH or 24 hours, whichever occurs first after the effective date of this AD, accomplish the actions as required by paragraphs (5.1), (5.2) and (5.3) of this AD:
- (5.1) Inspect the TR duplex bearing in accordance with the accomplishment instructions - Part I of the ASB.
- (5.2) Accomplish a breakaway torque check of the TR duplex bearing in accordance with the accomplishment instructions - Part II of the ASB.
- (5.3) Accomplish an inspection and reinstallation of the TR servo-actuator castellated nut in accordance with the accomplishment instructions - Part III of the ASB.

Corrective Action(s):

- (6) If, during the inspections as required by paragraph (5.1) or (5.2) of this AD, as applicable, any finding, as identified in the ASB is detected, accomplish the actions as required by paragraphs (6.1), (6.2) and (6.3) of this AD:
- (6.1) Before next flight, replace the TR duplex bearing in accordance with the instructions of the ASB.
- (6.2) Before next flight, contact Leonardo for additional approved instructions, as applicable, and accomplish those instructions accordingly.
- (6.3) Within 7 days after the inspection, send the TR duplex bearing, removed as required by paragraph (6.1) of this AD, to Leonardo for in-shop inspection, in accordance with the instructions of the ASB.
- (7) If, during the inspection and reinstallation, as required by paragraph (5.3) of this AD, any finding, as identified in the ASB, is detected, before next flight, contact Leonardo for approved instructions and accomplish those instructions accordingly.

Credit:

- (8) Inspections of the TR duplex bearing already accomplished on a helicopter after 05 November 2018 (for AW169 helicopters) or after 06 November 2018 (for AW189 helicopters) in accordance with the instructions of the applicable DM, are acceptable to comply with the requirement of paragraph (5.1) of this AD for that helicopter.



Reporting:

- (9) Within 7 days after the inspections as required by paragraph (5) of this AD, where no finding, as identified in the ASB, is detected, report to Leonardo the inspection results, as identified in the ASB.

Part Installation:

- (10) From the effective date of this AD, it is allowed to install a TR servo-actuator having part number 6F6730V00331 on a helicopter, provided it passed inspection in accordance with the instructions of the UTAS SB.

Ref. Publications:

Leonardo S.p.A. Emergency ASB 169-120 original issue dated 05 November 2018.

Leonardo S.p.A. Emergency ASB 189-213 original issue dated 06 November 2018.

Leonardo S.p.A. Emergency ASB 169-125 original issue dated 21 November 2018.

Leonardo S.p.A. Emergency ASB 189-214 original issue dated 21 November 2018.

Leonardo AW169 AMP DM 69-A-64-31-00-00A-31AB-A.

Leonardo AW189 AMP DM 89-A-64-31-00-00A-31AA-A.

UTAS SB 67-0006 original issue dated 21 November 2018.

The use of later approved revisions of the above-mentioned documents 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 Safety Information Section, Certification Directorate. E-mail: 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 & Licenses DPT, Via Giovanni Agusta 520, 21017 Cascina Costa di Samarate (VA) –



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