



Airworthiness Directive

AD No.: 2019-0160

Issued: 05 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 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):

AW189 helicopters

Effective Date: 12 July 2019

TCDS Number(s): EASA.R.510

Foreign AD: Not applicable

Supersedure: None

ATA 64 – Tail Rotor – Tail Rotor Dampers – Inspection

Manufacturer(s):

Leonardo S.p.A., formerly Finmeccanica Helicopter Division, AgustaWestland

Applicability:

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

Definitions:

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

Affected part: Tail rotor (TR) dampers, having Part Number (P/N) 4F6420V00254, all serial numbers (s/n) up to s/n LK1229 inclusive, except those that are marked with 'R' on its s/n, and except those that have accumulated 150 flight hours (FH) or more since first installation on a helicopter and that have continuously been installed for 12 months or more.

Serviceable part: A TR damper that is not an affected part.

The SB: Leonardo AW189 Emergency Alert Service Bulletin (SB) 189-226.

Groups: Group 1 helicopters are those that have an affected part installed. Group 2 helicopters are those that do not have an affected part installed.



Reason:

Occurrences were reported of major leakage of hydraulic fluid in the TR dampers installed on AW189 helicopters. Based on the evaluation of the parts returned from service, it was determined that the leakage events occurred on new parts or those that had accumulated few FH.

This condition, if not detected and corrected, could degrade the performance of the TR damper and, in case of multiple TR damper hydraulic leakage, cause TR damage, possibly resulting in loss of control of the helicopter.

To address this potential unsafe condition, Leonardo issued the SB to increase the frequency of the TR dampers fluid level visual inspection.

For the reasons described above, this AD requires repetitive visual inspections of the hydraulic fluid level of each affected part and, depending on findings, replacement of an affected part with a serviceable part. This AD also provides a terminating action and, additionally, requires a ground run following installation of an affected TR damper.

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

Required as indicated, unless accomplished previously:

Visual Inspection:

- (1) Group 1 helicopters: Within 10 FH after the effective date of this AD and, thereafter, at intervals not to exceed 10 FH, visually inspect the hydraulic fluid level of each affected part in accordance with the instructions of Part I of the SB.

Corrective action:

- (2) If, during any inspection as required by paragraph (1) of this AD, any discrepancy is detected, before next flight, replace the affected part in accordance with the instructions of Part I of the SB.

Terminating Action:

- (3) When an affected part reaches the end criteria as specified in Table 1 of this AD, as applicable, the repetitive visual inspections as required by paragraph (1) of this AD for that affected part can be terminated.

Table 1 – Terminating Action

TR Damper Condition (on the effective date of this AD)	End Criteria
Less than 150 FH since first installation and continuously installed for less than 12 months	150 FH since first installation by the affected part and 10 months after the effective date of this AD
Less than 150 FH since first installation and continuously installed for 12 months or more	150 FH since first installation by the affected part
150 FH or more since first installation and continuously installed for less than 12 months	10 months after the effective date of this AD



Part Installation:

- (4) For Group 1 and Group 2 helicopters: From the effective date of this AD, installation of an affected part on a helicopter is allowed, provided that, before next flight after installation, a ground run of 30 minutes is accomplished on that helicopter, and that, following the ground run, the affected part is inspected as required by paragraph (1) of this AD.

Ref. Publications:

Leonardo Emergency Alert SB AW 189-226 original issue 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.
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: PSE_AW189.MBX.AW@leonardocompany.com.

