



Airworthiness Directive

AD No.: 2019-0039

Issued: 20 February 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: 06 March 2019

TCDS Number(s): EASA.R.510

Foreign AD: Not applicable

Supersedure: None

ATA 71 – Powerplant – Engine Drain D1 Assembly – Modification

Manufacturer(s):

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

Applicability:

AW189 helicopters, serial number (s/n) 49007 to 49053 inclusive, s/n 49055 and 49057, s/n 89001 to 89010 inclusive, and s/n 92001 to 92010 inclusive.

Definitions:

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

Affected D1 drain: Engine combustion chamber D1 drain assemblies, having Part Number (P/N) 8G7170A00111.

The SB: Leonardo Service Bulletin (SB) 189-200.

Reason:

During a planned maintenance inspection on an AW189 helicopter, it was found that a number of fairleads that support the engine combustion chamber D1 drain hose showed evidence of heat damage. The cause of this heat damage was identified as excessive temperature reached by the drain tube that can be in excess of 200°C. The heat damage does not impair the structural strength of the fairleads, or that of the D1 drain pipe. However, the analysis confirmed that for the right-hand (RH) installation, in case the RH engine is operated in the One Engine Inoperative (OEI) rating,



the D1 drain pipe could transfer so much heat to the nearby fuel system vent pipe, that its internal surface temperature would exceed the auto-ignition temperature for fuel.

This condition, if not corrected, could lead to undetected fire ignition in the fuel tank bay with consequent loss of the helicopter.

To address this unsafe condition, Leonardo developed a modification, introducing a new design of the D1 drain assembly P/N 8G7170P00111, which includes a new drain route confined to the engine bay only. Leonardo published the SB to provide instructions for embodiment of this modification on in-service helicopters.

For the reason described above, this AD requires a modification to replace the affected D1 drain assembly.

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

Required as indicated, unless accomplished previously:

Modification:

Within 200 flight hours after the effective date of this AD, modify the helicopter by installing the engine combustion chamber D1 drain assembly P/N 8G7170P00111 in accordance with the instructions of the SB.

Ref. Publications:

Leonardo S.p.A. SB 189-200 original issue dated 24 January 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. This AD was posted on 04 February 2019 as PAD 19-016 for consultation until 18 February 2019. No comments were received during the consultation period.
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,
E-mail: PSE_AW189.MBX.AW@leonardocompany.com.

