



## Airworthiness Directive

**AD No.:** 2017-0139R1

**Issued:** 23 July 2018

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) 216/2008 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 66 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 (EC) 216/2008, Article 14(4) exemption].

### Design Approval Holder's Name:

LEONARDO S.p.A.

### Type/Model designation(s):

AW189 helicopters

**Effective Date:** Revision 1: 30 July 2018  
Original issue: 18 August 2017

**TCDS Number(s):** EASA.R.510

**Foreign AD:** Not applicable

**Revision:** This AD revises EASA AD 2017-0139 dated 04 August 2017.

## ATA 53 – Fuselage – Underbelly Tank Fuel Sump Electrical Bonding – Modification

### Manufacturer(s):

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

### Applicability:

AW189 helicopters, serial numbers 89001, 89003, 89004, and 92001 to 92006 inclusive.

### Reason:

During a review of the underbelly fuel tank system, installed on extended range helicopters, a safety issue was identified related to the electrical bonding installed on the fuel sump plate. The underbelly tank fuel sumps and the fuel sump covers are bonded to the external helicopter skin in the same location. In case of a lightning strike, a fraction of the electrical current may be diverted inside the sump plate and therefore flowing into the electrical wiring, connected to the components installed inside the fuel tanks.

This condition, if not corrected, could, under certain conditions, create an ignition source in the fuel tank vapour space, possibly resulting in a fuel tank fire or explosion.

To address this potential unsafe condition, Leonardo S.p.A. Helicopters issued Alert Service Bulletin (SB) 189-100 to provide instructions for modification of the electrical bonding of the underbelly fuel tank sumps by replacing and re-routing the existing copper straps with bonding cables and EASA issued AD 2017-0139 to require modification of the underbelly fuel tank bonding.



After that AD was issued, Leonardo S.p.A. Helicopters developed an additional (optional) modification to improve the installation and published SB 189-197 accordingly. This modification restores the helicopter to the original approved design specification and therefore provides equivalent safety to the requirements of AD 2017-0139.

This AD is revised to recognise that accomplishment of Leonardo S.p.A. Helicopters SB 189-197 on a helicopter is acceptable to remain compliant with the requirement of this AD.

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

Required as indicated, unless accomplished previously:

#### **Modification:**

Within 300 flight hours after 18 August 2017 [the effective date of this AD at original issue], modify the underbelly fuel tanks sumps in accordance with the instructions of Leonardo S.p.A. Helicopters Alert SB 189-100. Subsequent modification of a helicopter in accordance with the instructions of Leonardo S.p.A. Helicopters SB 189-197 is acceptable to remain compliant with the requirements of this AD.

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

Leonardo S.p.A. Helicopters Alert SB 189-100 original issue, dated 13 July 2017.

Leonardo S.p.A. Helicopters SB 189-197 original issue, dated 20 July 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 original issue of this AD was posted on 17 July 2017 as PAD 17-096 for consultation until 31 July 2017. 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](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: [PSE\\_AW189.MBX@leonardocompany.com](mailto:PSE_AW189.MBX@leonardocompany.com).

