



## Airworthiness Directive

**AD No.:** 2021-0044R1

**Issued:** 12 May 2022

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, or Annex Vb Part ML.A.301, as applicable, 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 Annex Vb Part ML.A.303, as applicable] 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):**

AB139 and AW139 helicopters

**Effective Date:** Revision 1: 19 May 2022  
Original Issue: 12 February 2021

**TCDS Number(s):** EASA.R.006

**Foreign AD:** Not applicable

**Revision:** This AD revises EASA AD 2021-0044 dated 05 February 2021.

### ATA 24 – Electrical Power – Overhead Panel – 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:**

AB139 and AW139 helicopters, serial numbers (s/n) as identified in Appendix 1 of this AD.

**Definitions:**

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

**The ASB:** Leonardo Alert Service Bulletin (ASB) 139-661.

**Groups:** Group 1 helicopters are those that are identified by s/n in Table 1 of Appendix 1 of this AD. Group 2 helicopters are those that are identified by s/n in Table 2 of Appendix 1 of this AD.

**Reason:**

An occurrence was reported of smoke and fire in the cockpit of an AW139 helicopter. The results of the initial technical investigation identified that the event was caused by a short circuit inside the overhead panel, due to chafing of electrical wiring.



This condition, if not detected and corrected, could lead to damaged electrical wiring, possibly resulting in a fire in the overhead panel and consequent loss of control of the helicopter.

To address this potential unsafe condition, Leonardo issued the ASB 139-661 (original issue) to provide instructions for inspecting the overhead panel cable harnesses, anchor nuts, screws and supports, to detect chafing. Consequently, EASA issued AD 2021-0044 to require, for certain helicopters, an initial one-time detailed inspection (DET) and, for all helicopters, repetitive inspections of the wiring inside the overhead panel, and, depending on findings, accomplishment of applicable corrective action(s).

Since that AD was issued, Leonardo introduced an improved configuration of the overhead panel, featuring the installation of blind anchor nuts, which minimises the risk of chafing between the harnesses and panel fasteners. For helicopters that have this improved configuration embodied in production, the repetitive inspections of the wiring are no longer necessary.

For the reason described above, this AD is revised to reduce the Applicability.

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

Required as indicated, unless accomplished previously:

#### **Inspection(s):**

- (1) For Group 1 helicopters: Within 25 flight hours (FH) after 12 February 2021 [the effective date of the original issue of this AD], accomplish a DET inside the overhead panel in accordance with the instructions of Part I of the ASB.
- (2) For Group 1 and Group 2 helicopters: Within the compliance time specified in Table 1 of this AD, as applicable, and, thereafter, at intervals not to exceed 300 FH or 12 months, whichever occurs first, accomplish a DET inside the overhead panel in accordance with the instructions of Part II of the ASB.

Table 1 – Paragraph (2) Initial Inspection

<b>Group</b>	<b>Compliance Time</b>
1	Within 300 FH or 12 months, whichever occurs first after the inspection as required by paragraph (1) of this AD
2	Within 300 FH or 12 months, whichever occurs first after 12 February 2021 [the effective date of the original issue of this AD]



**Corrective Action(s):**

- (3) If, during the inspection as required by paragraph (1) this AD, any discrepancy is detected as specified in the ASB, before next flight, accomplish the applicable corrective action(s), including application of a white protective tape on the anchor nuts, in accordance with the instructions of Part I of the ASB.
- (4) If, during the inspection as required by paragraph (1) this AD, no discrepancy is detected as specified in the ASB, before next flight, apply a white protective tape on the anchor nuts in accordance with the instructions of Part I of the ASB.
- (5) If, during any inspection as required by paragraph (2) of this AD, any discrepancy is detected as specified in the ASB, before next flight, accomplish the applicable corrective action(s) in accordance with the instructions of Part II of the ASB.

**Terminating Action:**

- (6) None.

**Reporting:**

- (7) Within 30 days after each DET as required by paragraph (1) or (2) of this AD, as applicable, report the results to Leonardo, when discrepancies are detected.

**Ref. Publications:**

Leonardo S.p.A. Helicopters ASB 139-661 original issue dated 04 February 2021 and Revision B dated 09 May 2022.

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 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](#). This may include reporting on the same or similar components, other than those covered by the design to which this AD applies, if the same unsafe condition can exist or may develop on an aircraft with those components installed. Such components may be installed under an FAA Parts Manufacturer Approval (PMA), Supplemental Type Certificate (STC) or other modification.



5. For any question concerning the technical content of the requirements in this AD, please contact: Leonardo S.p.A. Helicopters. E-mail: [cse.aw139.AW@leonardocompany.com](mailto:cse.aw139.AW@leonardocompany.com).



## Appendix 1

Table 1 - Group 1 Helicopters

<b>s/n</b>	<b>Except s/n</b>
31005 to 31927 inclusive	31789, 31792, 31800, 31803, 31814, 31836, 31899, 31900, 31901, 31902, 31903, 31907, 31916, 31917, 31919, 31921 and 31924
41001 to 41576 inclusive	41562, 41563 and 41574
41801 to 41806 inclusive	

Table 2 - Group 2 Helicopters

<b>s/n</b>
31789, 31792, 31800, 31803, 31814, 31836, 31899, 31900 to 31903 inclusive, 31907, 31916, 31917, 31919, 31921, 31924, 31928 to 31976 inclusive and 31999
41562, 41563, 41574 and 41577 to 41583 inclusive
41807 to 41810 inclusive

