Emergency Airworthiness Directive

AD No.: 2021-0123-E

Issued: 07 May 2021

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:

AIRBUS HELICOPTERS

Type/Model designation(s):

AS 350 helicopters

Effective Date: 11 May 2021

TCDS Number(s): EASA.R.008

Foreign AD: Not applicable

Supersedure: None

ATA 29 – Hydraulic Power – Tail Rotor Load Compensator – Functional Check / Modification

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Manufacturer(s):

Airbus Helicopters (AH), formerly Eurocopter, Eurocopter France, Aerospatiale

Applicability:

AS 350 B, AS 350 B2, AS 350 B3 and AS 350 BA helicopters, serial numbers 1241, 1525, 1601, 1708, 1825, 1910, 1973, 2056, 2072, 2361, 2394, 3170, 3223, 3479, 3789, 9005, 9010 and 9035.

Definitions:

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

The modification ASB: Eurocopter AS350 Alert Service Bulletin (ASB) 29.00.07.

The ASB: AH AS350 Emergency ASB 29.00.23.

Reason:

To limit the possibility of a load unbalance in the flight controls after cutting off the hydraulic assistance in the event of a failure, Eurocopter issued the modification ASB to provide instructions to modify the electrical wiring of the hydraulic system. That modification was required by DGAC France AD F-2004-089 (EASA approval 2004-6365). Following a recent occurrence, the investigation results determined that the modification as specified in the modification ASB was wrongly

embodied on certain helicopters, due to using an inadequate retrofit kit. Consequently, a wiring non-conformity led to de-energize the solenoid of the tail rotor (TR) load compensator when the "HYD" cut-off switch was activated.

This condition, if not corrected, could lead to loss of hydraulic power in TR control during application of the emergency procedure for loss of main rotor (MR) hydraulic, or during hydraulic off training when the "HYD" cut-off switch is activated, possibly resulting in loss of control of the helicopter.

To address this potential unsafe condition, AH issued the ASB, as defined in this AD, providing instructions for a functional check of the "HYD" cut-off switch and, depending on findings, to accomplish corrective actions.

For the reasons described above, this Emergency AD prohibits hydraulic off training as specified in Flight Manual Supplement (FMS) SUP.7, requires a one-time functional check and, depending on findings, correction of the modification.

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

Required as indicated, unless accomplished previously:

Operational Restriction:

(1) From the effective date of this AD, do not perform any training of in-flight hydraulic off as specified in FMS SUP.7. This can be accomplished by inserting a placard with that statement in the cockpit, in full view of the pilots.

Functional Check:

(2) Within 15 flight hours (FH) or 7 days, whichever occurs first after effective date of this AD, accomplish a functional check on the MR and TR servo actuators solenoids in accordance with the instructions of section 3.B.2 of the ASB.

Corrective Action:

(3) If, during the functional check as required by paragraph (2) of this AD, discrepancies are detected as identified in the ASB, before next flight, modify the helicopter in accordance with the instructions of the modification ASB, using a retrofit kit provided by AH.

Modification:

(4) Unless already done as required by paragraph (3) of this AD, within 150 FH after the inspection required by paragraph (2) of this AD or within 150 FH after the effective date of this AD, whichever occurs later, modify the helicopter in accordance with the instructions of the modification ASB, using a retrofit kit provided by AH.

Cancellation of Operational Restriction:

(5) After a helicopter passes (no discrepancies found) the functional check as required by paragraph (2) of this AD, or after correction of a helicopter as required by paragraph (3) of this AD, or after modification of a helicopter as required by paragraph (4) of this AD, as applicable, the operational restriction as imposed by paragraph (1) of this AD is no longer required and any related/relevant placard can be removed from that helicopter.

Ref. Publications:

AH AS350 ASB 29.00.23 original issue dated 04 May 2021.

Eurocopter AS350 ASB 29.00.07 original issue dated 14 April 2004.

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. 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: Airbus Helicopters Customer Support, Telephone +33 (0)4.42.85.97.89, Fax + 33 (0)4.42.85.99.66, E-mail: Airframe.Technical-Support@airbus.com, Keycopter Technical Request Management: TechnicalSupport.Helicopters@airbus.com.