



Airworthiness Directive

AD No.: 2023-0154R1

Issued: 19 July 2024

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:

AIRBUS HELICOPTERS

Type/Model designation(s):

AS 355 helicopters

Effective Date: Revision 1: 26 July 2024
Original issue: 03 August 2023

TCDS Number(s): EASA.R.146

Foreign AD: Not applicable

Revision: This AD revises EASA AD 2023-0154 dated 27 July 2023.

ATA 55 – Stabilizers – Vertical Upper Fin Assembly – Inspections

Manufacturer(s):

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

Applicability:

AS 355 E, AS 355 F, AS 355 F1, AS 355 F2, AS 355 N and AS 355 NP helicopters, all serial numbers.

Definitions:

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

The ASB: AH Emergency Alert Service Bulletin (ASB) AS355-05-00-0001.

Affected part: Upper fin assemblies, having Part Number as listed in 'ACCOMPLISHMENT PROCEDURE 1. APPLICABILITY' section of the ASB.

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:

An occurrence has been reported of finding a structural crack (not a complete failure) in the vertical attachment spar of the tail fin. This crack affects a different spar section than the one addressed in AH ASB AH AS355 ASB 05.00.76, to be checked as required by EASA AD 2024-0139.

This condition, if not detected and corrected, may lead to in-flight separation of the upper part of the vertical fin, possibly resulting in loss of control of the helicopter.

To address this potential unsafe condition, AH issued the ASB, as defined in this AD, to provide instructions for cleaning and inspection of the upper fin spar. Consequently, EASA published AD 2023-0154 requiring an initial cleaning and inspection of the external side around the two top screws of the upper fin spar, with subsequent repetitive inspections of the upper fin spar and, depending on findings, accomplishment of applicable corrective action(s).

Since that AD was issued, AH developed a reinforced upper fin assembly, issued the ASB AS355-55.00.18 at Revision 1, providing modification instructions, and revised the ASB accordingly; consequently, EASA issued AD 2024-0139 to require installation of the reinforced upper fin assembly.

For the reasons described above, this AD is revised to add reference to that modification, which constitutes terminating action for the repetitive inspections.

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

Required as indicated by this AD, unless the action(s) required by this AD have been already accomplished:

Inspections:

- (1) For Group 1 helicopters: Within 15 flight hours (FH) after 03 August 2023 [the effective date of the original issue of this AD], clean and inspect the right-hand (RH) external side around the two top screws of the upper fin spar in accordance with the instructions of section 4.1 the ASB.
- (2) Within 15 FH after the cleaning and the inspection, as required by paragraph (1) of this AD and, thereafter, at intervals not to exceed 15 FH, inspect the RH external side around the two top screws of the upper fin spar, using Option 1 or Option 2 as specified in the ASB, in accordance with the instructions of section 4.3 the ASB.

Inspection related to EASA AD 2024-0139:

- (3) For Group 1 helicopters: From 03 August 2023 [the effective date of the original issue of this AD], following the Rotorcraft Flight Manual (RFM) amendment as required by paragraph (1) or (2) of EASA AD 2024-0139, as applicable, it is allowed to exceed the temporary reduced Vne during a maintenance flight, provided that (see Note 1 of this AD) the following actions are accomplished:
 - (3.1) Before that maintenance flight, the RH external side around the two top screws of the upper fin spar passes an inspection using Option 1 or Option 2 as specified in the ASB in accordance with the instructions of the ASB.



- (3.2) The temporary reduced Vne exceedance during that maintenance flight is scheduled only as part of, and in accordance with the instructions of, any of the test conditions as listed in section 'COMPLIANCE: MANDATORY' (top of page 2) of the ASB.
- (3.3) Before next flight after that maintenance flight, inspect the RH external side around the two top screws of the upper fin spar, using Option 1 or Option 2 as specified in the ASB, in accordance with the instructions of the ASB.

Note 1: It is allowed to temporarily remove the RFM amendment and the placard, as required by paragraph (1) or (2) of EASA AD 2024-0139, as applicable, to allow maintenance flight(s) during which the temporarily reduced Vne may be exceeded, as described in paragraph (3) of this AD.

- (4) For Group 1 helicopters: From 03 August 2023 [the effective date of the original issue of this AD], if, following the RFM amendment as required by paragraph (1) or (2) of EASA AD 2024-0139, as applicable, the temporary reduced Vne is exceeded on a helicopter, except events as specified in paragraph (3) of this AD, before next flight following that exceedance, inspect the RH external side around the two top screws of the upper fin spar, using Option 1 or Option 2 as specified in the ASB, in accordance with the instructions of the ASB.

Corrective Action(s):

- (5) If, during the cleaning and the inspection as required by paragraph (1) of this AD, no crack is detected, concurrently with accomplishment of these actions, apply a mark with paint on the two top RH screw ends in accordance with the instructions of the ASB.
- (6) If, during any inspection as required by paragraphs (1) to (4) of this AD, as applicable, any crack is detected, before next flight, replace the upper fin in accordance with the instructions of the ASB.

Terminating Action(s):

- (7) Modification of helicopter by installing an upper fin assembly P/N 355A14-0522-1751 constitutes terminating action for the repetitive inspections as required by this AD for that helicopter (see Note 2 of this AD).

Note 2: Modification of an helicopter as described in paragraph (7) of this AD is required by paragraph (12) of EASA AD 2024-0139, in accordance with the instructions of AH ASB AS355-55.00.18 at Revision 1. After that modification, the helicopter is effectively considered a Group 2 helicopter.

Part(s) Installation:

- (8) For Group 2 helicopters: From 03 August 2023 [the effective date of the original issue of this AD], do not install an affected part on any helicopter.

Ref. Publications:

AH Emergency ASB AS355-05-00-0001 original issue (issue 001 in the ASB) dated 25 July 2023, or Revision 1 (issue 002 in the ASB) dated 09 July 2024.



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, the original issue of this AD was posted on 27 July 2023 as 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.
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.

