



Airworthiness Directive

AD No.: 2021-0099

Issued: 09 April 2021

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:

AIRBUS HELICOPTERS

Type/Model designation(s):

AS 350 and AS 355 helicopters

Effective Date: 23 April 2021

TCDS Number(s): EASA.R.008 and EASA.R.146

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2020-0186 dated 20 August 2020.

ATA 55 – Stabilizers – Vertical Fin – Inspection

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 (s/n); and

AS 350 B3 helicopters, all s/n, except those that have embodied modification (MOD) 073148 in production.

Definitions:

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

The applicable ASB: AH AS350 Alert Service Bulletin (ASB) 05.00.90 and AS355 ASB 05.00.76, as applicable, at Revision 2 (published as single document).

Groups: Group 1 helicopters are all AS 355 E, AS 355 F, AS 355 F1, AS 355 F2, AS 355 N and AS 355 NP helicopters, and those AS 350 B3 helicopters that are pre-MOD 073148.

Group 2 helicopters are AS 350 B3 helicopters that embody MOD 073148 in accordance with the instructions of AH AS350 Service Bulletin (SB) 55.00.14 in service.



Reason:

During an unscheduled post-flight inspection of the tail cone area of an AS 355 NP helicopter, a crack was found in the spar of the upper fin, and the two front attachment screws of the fin were found fractured. The root cause of this event is still to be determined.

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.

Pre-MOD 073148 AS 350 B3 helicopters have a similar vertical fin configuration and are subject to comparable load levels, therefore, the same unsafe condition may develop on those helicopters.

To address this potential unsafe condition, AH issued AS350 ASB 05.00.90 and AS355 ASB 05.00.76 (original issue) and EASA published AD 2017-0114 to require repetitive visual inspections of the upper fin attachments screws and the fin spar, as well as repetitive cleaning and detailed inspections of the vertical fin attachments and, depending on findings, accomplishment of applicable corrective action(s). That AD also provided an optional terminating action modification for AS 350 B3 helicopters.

After that AD was published, AH issued AS350 ASB 05.00.90 and AS355 ASB 05.00.76 Revision 1 to reduce the visual inspection interval and optimize inspection instructions. Consequently, EASA issued AD 2020-0186, retaining the requirements of EASA AD 2017-0114, which was superseded, reducing the inspection interval for, and amending the instructions of, the visual inspections.

Since that AD was issued, recent analysis identified that AS 350 B3 helicopters modified through AS350 SB 55.00.14 may also be affected by fatigue damage previously accumulated with initial tail fin configuration, and AH issued the applicable ASB, as defined in this AD, accordingly.

For the reason described above, this AD retains the requirements of EASA AD 2020-0186, which is superseded, and expands the Applicability to include AS 350 B3 helicopters on which AH SB 55.00.14 has been embodied in service.

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

Required as indicated, unless accomplished previously:

Inspection(s) / Cleaning:

- (1) For Group 2 helicopters: Before exceeding 660 flight hours (FH) since embodiment of AS350 SB 55.00.14, or within 55 FH after the effective date of this AD, whichever occurs later, accomplish a visual inspection of the right-hand side of the vertical fin spar in accordance with the instructions of paragraph 3.B.2 of the applicable 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 660 FH, accomplish the cleaning and the detailed inspection of the vertical fin spar and vertical fin upper attachments in accordance with the instructions of paragraph 3.B.3 of the applicable ASB.



Table 1 – Initial Cleaning and Detailed Inspection (see Note 1 of this AD)

Group	FH Accumulated	Compliance Time
1	605 FH or less	Before exceeding 660 FH
	More than 605 FH	Within 165 FH after 12 July 2017 [the effective date of EASA AD 2017-0114]
2	605 FH or less	Before exceeding 660 FH
	More than 605 FH	Within 165 FH after the effective date of this AD

Note 1: Unless specified otherwise, the FH indicated in Table 1 of this AD for Group 1 helicopters are those accumulated by the helicopter on 12 July 2017 [the effective date of EASA AD 2017-0114], since first flight; unless specified otherwise, the FH indicated in Table 1 of this AD for Group 2 helicopters are those accumulated by the helicopter, on the effective date of this AD, since embodiment of AS350 SB 55.00.14.

(3) For Group 1 and Group 2 helicopters: Within 10 FH after the initial inspection and cleaning as required by paragraph (1) and (2) of this AD, and, thereafter, at intervals not to exceed 10 FH, accomplish a visual inspection of the right-hand side of the vertical fin spar in accordance with the instructions of paragraph 3.B.2 of the applicable ASB.

Corrective Action(s):

(4) If, during any inspection as required by paragraph (1), (2) or (3) of this AD, as applicable, discrepancies are detected, before next flight, contact AH for approved repair instructions and accomplish those instructions accordingly.

Credit:

(5) Inspections, cleaning and corrective action(s) on a helicopter, accomplished before the effective date of this AD in accordance with the instructions of AH AS350 ASB 05.00.90 or AS355 ASB 05.00.76 (single document) at original issue or Revision 1, as applicable, are acceptable to comply with the initial requirements of paragraphs (1), (2) and (3) of this AD for that helicopter.

Terminating Action:

(6) None.

Ref. Publications:

AH AS355 ASB 05.00.76 original issue dated 27 June 2017, Revision 1 dated 22 July 2020 and Revision 2 dated 04 March 2021.

AH AS350 ASB 05.00.90 original issue dated 27 June 2017, Revision 1 dated 22 July 2020 and Revision 2 dated 04 March 2021.

Eurocopter AS350 SB 55.00.14 original issue dated 08 February 2007, or Revision 01 dated 17 June 2009.

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. This AD was posted on 25 March 2021 as PAD 21-049 for consultation until 08 April 2021. 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](#). 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.

