



Airworthiness Directive

AD No.: 2020-0186

Issued: 20 August 2020

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: 03 September 2020

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

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2017-0114 dated 28 June 2017.

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) 07.3148 in production, or AS350 Service Bulletin (SB) 55.00.14 (any revision) in service.

Definitions:

The applicable ASB: AH AS350 Alert Service Bulletin (ASB) 05.00.90 and AS355 ASB 05.00.76, as applicable, at Revision 1 (published as single document).

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 07.3148 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) to provide inspection instructions for the upper fittings and the area of the fin spar, where crack initiation has been observed so far. Consequently, EASA issued 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.

Since that AD was issued, results of further analysis showed that the visual inspection interval needed to be reduced. The inspection instructions were also optimized and AH issued the ASB, as defined in this AD, accordingly.

For the reason described above, this AD retains the requirements of EASA AD 2017-0114, which is superseded, reducing the inspection interval for, and amending the instructions of, the visual inspections.

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

Required as indicated, unless accomplished previously:

Visual Inspection(s):

- (1) Within 55 flight hours (FH) after the effective date of this AD, or since the last inspection accomplished in accordance with the instructions of paragraph 3.B.2 of the applicable ASB at original issue, whichever occurs later, 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.

Cleaning / Detailed Inspection(s):

- (2) Within the compliance time specified in Table 1 of this AD, and, thereafter, at intervals not to exceed 660 FH, accomplish the cleaning and a 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)

FH Accumulated	Compliance Time
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]

Note 1: Unless specified otherwise, the FH indicated in Table 1 of this AD are those accumulated on 12 July 2017 [the effective date of EASA AD 2017-0114], by the helicopter since first flight.



Corrective Action(s):

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

Credit:

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

Optional Modification:

- (5) Modification of an AS 350 B3 helicopter in accordance with the instructions of Eurocopter AS350 SB 55.00.14 (MOD 07.3148) is an acceptable alternative method to comply with the requirements of this AD, provided that, prior to modification, the affected structure is determined to be crack-free.

Terminating Action:

- (6) Modification of an AS 350 B3 helicopter as specified in paragraph (5) of this AD constitutes terminating action for the repetitive inspections as required by this AD for that helicopter.

Ref. Publications:

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

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

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. 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 Programming and Continued Airworthiness 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.

