Airworthiness Directive

AD No.: 2011-0164R2

Issued: 15 September 2017

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) 216/2008 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 66 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 (EC) 216/2008, Article 14(4) exemption].

Design Approval Holder's Name:
AIRBUS HELICOPTERS

Type/Model designation(s):
AS 350 and AS 355 helicopters

Effective Date: Revision 2: 15 September 2017
Revision 1: 28 February 2017
Original issue: 14 September 2011

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

Foreign AD: Not applicable

Revision: This AD revises EASA AD 2011-0164R1 dated 14 February 2017.

ATA 67 – Rotors Flight Control – Tail Rotor Control Stop Screws – Inspection

Manufacturer(s):
Airbus Helicopters (formerly Eurocopter, Eurocopter France, Aerospatiale)

Applicability:
AS 350 B, AS 350 BA, AS 350 BB, AS 350 B1, AS 350 B2, AS 350 B3 and AS 350 D helicopters, all serial numbers (s/n), if equipped with an Autopilot (AP), and AS350 B3 helicopters, all s/n, without an AP installed, but embodying modification (mod) 073252; and

AS 355 E, AS 355 F, AS 355 F1, AS 355 F2, AS 355 N and AS 355 NP helicopters, all s/n, if equipped with an AP, and AS 355 N and AS 355 NP helicopters, all s/n, without an AP installed, but embodying mod 071908.

Reason:
During take-off with a sling load, the pilot of an AS 350 B3 helicopter noticed that one of the yaw stops had been reached before its usual position. The subsequent inspection revealed that a nut of the tail rotor control stop was loose and that the corresponding tail rotor control stop screw was out of adjustment.

This condition, if not detected and corrected, can lead to the loss of adjustment of the affected stop and consequently limit yaw authority, possibly resulting in loss of control of the helicopter.

To address this potential unsafe condition, Eurocopter published Alert Service Bulletin (ASB) AS350-05.00.64 and ASB AS355-05.00.59, providing inspection instructions.

Consequently, EASA issued AD 2011-0164 to require repetitive inspections of the tail rotor control stop screws and, depending on findings, adjustment.

Since that AD was issued, following further analysis and design activities performed by Airbus Helicopters (AH), it was determined that the inspection interval could be extended from 110 flight hours (FH) to 165 FH. AH also developed, for certain helicopters, a modification (mod 074602) that would delete the need for repetitive inspections. ASB AS350-67.00.61 Revision 2 and ASB AS355-67.00.42 Revision 2 were issued for in-service implementation of this modification.

Consequently, AD 2011-0164 was revised to extend the inspection interval, and to introduce an optional modification, valid only for post-mod 072295 helicopters, that constitutes terminating action for the repetitive inspections as required by this AD.

Since EASA AD 2011-0164R1 was issued, some inconsistencies were found when applying the instructions for terminating actions. Prompted by these reports, AH revised ASB AS350-67.00.61 and ASB AS355-67.00.42 (now at Revision 3) to cope with specific helicopter configurations.

For the reason described above, this AD is revised to include reference to the revised ASBs, clarifying the affected helicopters (see Note 1 of this AD), which also determines the applicability of the terminating action modification. This AD also extends the compliance time for initial inspection, consistent with the content of ASB AS350-05.00.64 and ASB AS355-05.00.59 at Revision 2.

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

Required as indicated, unless accomplished previously:

Note 1: Eurocopter (now AH) ASB AS350-05.00.64 and ASB AS355-05.00.59 (any revision) are collectively referred to as 'the applicable ASB' in this AD. Revision 2 of the applicable ASB contains, in chapter 1.A.1, pictures to facilitate identification of the affected helicopter configuration(s). Helicopters without tail rotor control stop screws are not affected by this AD.

Initial Inspection:

(1) Within 165 FH after 14 September 2011 [the effective date of the original issue of this AD], inspect the tail rotor control stop screws in accordance with the instructions of paragraph 3.B.2 of the applicable ASB.

Corrective Action(s):

(2) If, during the inspection as required by paragraph (1) of this AD, discrepancies are detected, before next flight, adjust the stops and, thereafter, mark a line of paint on the screw/nut assembly, in accordance with the instructions of paragraph 3.B.2 of the applicable ASB.

If, during the inspection as required by paragraph (1) of this AD, no discrepancies are detected, before next flight, mark a line of paint on the screw/nut assembly, in accordance with the instructions of paragraph 3.B.2 of the applicable ASB.

Repetitive Inspection(s):

(3) Within 165 FH after the inspection as required by paragraph (1) of this AD, and, thereafter, at intervals not to exceed 165 FH, inspect the red paint lines on the screw and nut for alignment, in accordance with the instructions of paragraph 3.B.3 of the applicable ASB.

Corrective Action(s):

(4) If, during any inspection as required by paragraph (3) of this AD, discrepancies are detected, before next flight, remove the red paint marks, adjust the stops and mark a new line of paint on the screw/nut assembly, in accordance with the instructions of paragraph 3.B.2 of the applicable ASB, as applicable to helicopter model.

Terminating Action:

(5) Corrective action(s) on a helicopter, as required by paragraph (4) of this AD, does not constitute terminating action for the repetitive inspections as required by paragraph (3) of this AD for that helicopter.

(6) Modification (mod 074602) of an affected helicopter (see Note 1 of this AD) in accordance with the instructions of AH ASB AS350-67.00.61, or ASB AS355-67.00.42, as applicable, at original issue, or Revision 2, or Revision 3, constitutes terminating action for the repetitive inspections as required by paragraph (3) of this AD for that helicopter.

(7) DELETED.

Ref. Publications:

Airbus Helicopters ASB AS350-05.00.64 original issue dated 30 August 2011, or Revision 1 dated 18 June 2015, or Revision 2 dated 25 January 2017.

Airbus Helicopters ASB AS355-05.00.59 original issue dated 30 August 2011, or Revision 1 dated 18 June 2015, or Revision 2 dated 25 January 2017.

Airbus Helicopters ASB AS350-67.00.61 original issue dated 18 June 2015, or Revision 2 dated 25 January 2017, or Revision 3 dated 04 September 2017.

Airbus Helicopters ASB AS355-67.00.42 original issue dated 18 June 2015, or Revision 2 dated 25 January 2017, or Revision 3 dated 04 September 2017.

The use of later approved revisions of these 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 Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.

4. For any question concerning the technical content of the requirements in this AD, please contact: Airbus Helicopters – Aéroport de Marseille Provence, 13725 Marignane Cedex, France
Telephone: +33 (4) 42 85 97 97, Fax: +33 (4) 42 85 99 66,
Web portal: https://keycopter.airbushelicopters.com Technical Requests Management.
E-mail: support.technical-hydraulics.ah@airbus.com