



Airworthiness Directive

AD No.: 2023-0064

Issued: 20 March 2023

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 350, EC 130, AS 355, AS 365 and SA 365 helicopters

Effective Date: 03 April 2023

TCDS Number(s): EASA.R.008, EASA.R.105 and EASA.R.146

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2021-0048 dated 16 February 2021.

ATA 62 – Main Rotor – Pitch Rod Upper Links – Marking / Inspection

Manufacturer(s):

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

Applicability:

AS 350 B, AS 350 BA, AS 350 BB, AS 350 B1, AS 350 B2, AS 350 B3, AS 350 D, EC 130 B4 and EC 130 T2 helicopters, all serial numbers (s/n);

AS 355 E, AS 355 F, AS 355 F1, AS 355 F2, AS 355 N and AS 355 NP helicopters, all s/n; and

SA 365 C1, SA 365 C2, SA 365 C3, SA 365 N, SA 365 N1, AS 365 N2 and AS 365 N3 helicopters, all s/n.

Definitions:

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

The ASB: AH Alert Service Bulletin (ASB) AS350-05.01.01, ASB EC130-05A037, ASB AS355-05.00.85, ASB SA365-05.34 and ASB AS365-05.00.82, as applicable.

Affected part: Pitch rod lever axis attachment screws having Part Number (P/N) 350A31-1873-20.



The modification SB: AH Service Bulletin (SB) AS350-62.00.46, AH SB AS355-62.00.41, AH SB EC130-62-020, AH SB AS365-62.00.28 and AH SB SA365-62.01, as applicable.

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. A helicopter that has modification (mod) DA07.62C75B or mod EC07.60008 embodied, is a Group 2 helicopter, provided no affected part has been installed on that helicopter in service.

Reason:

An occurrence was reported where increased vibration was experienced by the crew of an AS 365 helicopter during flight. Subsequent investigation determined a total loss of tightening torque of one screw connecting the main rotor (MR) pitch rod to the horn of its upper link, which led to abnormal wear of the screw and consequent increased vibrations coming from the MR control chain to the pilot's flight controls. The MR pitch rod upper link installation is identical on AS 350, EC 130, AS 355, SA 365 and AS 365 helicopters.

This condition, if not corrected, could lead to loss of one or more MR pitch rod upper links, possibly resulting in loss of control of the helicopter.

To address this potential unsafe condition, AH issued the ASB to introduce alignment markings on the MR pitch rod upper links to visualise any rotation of the screw, washer or nut due to loss of torque. The ASB also provides instructions for inspection of the MR pitch rod upper links. Consequently, EASA published AD 2021-0048 to require application of alignment markings on, and repetitive inspections of, the MR pitch rod upper links and, depending on findings, accomplishment of applicable corrective action(s). The repetitive inspections could be aligned with the regular MR visual inspections.

Since that AD was published, AH designed a new pitch rod lever axis attachment screw, and issued the modification SB, as defined in this AD, for in-service embodiment.

For the reason described above, this AD retains the requirements of EASA AD 2021-0048, which is superseded, introduces an optional modification that constitutes terminating action for the repetitive inspections, and prohibits (re)-installation of affected parts.

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

Required as indicated, unless accomplished previously:

Markings:

- (1) For Group 1 helicopters: Within the compliance time as specified in Table 1 of this AD, apply markings on the screw, washer, nut and horn on both sides of each MR pitch rod upper link in accordance with the instructions of Section 3.B.2.a of the ASB.



Table 1 – Markings

| Helicopter Model | Compliance Time after 02 March 2021, [the effective date of EASA AD 2021-0048] |
|---|---|
| SA 365 C1, SA 365 C2, SA 365 C3, SA 365 N, SA 365 N1, AS 365 N2, AS 365 N3 | Within 100 flight hours (FH) |
| AS 350 B, AS 350 BA, AS 350 BB, AS 350 B1, AS 350 B2, AS 350 B3, AS 350 D EC 130 B4 and EC 130 T2 AS 355 E, AS 355 F, AS 355 F1, AS 355 F2, AS 355 N, AS 355 NP | Within 150 FH |

Inspections:

- (2) For Group 1 helicopters: Within 10 FH after applying the markings as required by paragraph (1) of this AD and, thereafter, at intervals not to exceed 10 FH, accomplish a visual inspection of the two alignment markings on each MR pitch rod upper link in accordance with the instructions of Section 3.B.2.b of the ASB.

Corrective Action(s):

- (3) If, during any inspection as required by paragraph (2) of this AD, the markings on one or both sides of a MR pitch rod upper link are found misaligned, before next flight, accomplish the applicable corrective action(s) on that upper link in accordance with the instructions of Section 3.B.2.c of the ASB.
- (4) Modification of a helicopter in accordance with the instructions of the modification SB is an acceptable alternative method to comply with the corrective actions requirement of paragraph (3) of this AD for that helicopter.

Terminating Action(s):

- (5) Accomplishment on a helicopter of the applicable corrective action(s), as specified in paragraph (3) of this AD, does not constitute terminating action for the repetitive marking inspections, as required by paragraph (2) of this AD for that helicopter.
- (6) Modification of a helicopter in accordance with the instructions of the modification SB, constitutes terminating action for the repetitive marking inspections, as required by paragraph (2) of this AD for that helicopter.

Part(s) Installation:

- (7) Do not install an affected part on any helicopter, as required by paragraph (7.1) or (7.2) of this AD, as applicable:

(7.1) For Group 1 helicopters: After modification of the helicopter as specified in paragraph (4) of this AD.



(7.2) For Group 2 helicopters: From the effective date of this AD.

Ref. Publications:

AH ASB AS350-05.01.01 original issue dated 09 February 2021, or Revision 1 dated 15 March 2023.
 AH ASB EC130-05A037 original issue dated 09 February 2021, or Revision 1 dated 15 March 2023.
 AH ASB AS355-05.00.85 original issue dated 09 February 2021, or Revision 1 dated 24 March 2021, or Revision 2 dated 15 March 2023.

AH ASB SA365-05.34 original issue dated 09 February 2021, or Revision 1 dated 15 March 2023.
 AH ASB AS365-05.00.82 original issue dated 09 February 2021, or Revision 1 dated 15 March 2023.

AH SB AS350-62.00.46 original issue dated 15 March 2023.
 AH SB AS355-62.00.41 original issue dated 15 March 2023.
 AH SB EC130-62-020 original issue dated 15 March 2023.

AH SB AS365-62.00.28 original issue dated 15 March 2023.
 AH SB SA365-62.01 original issue dated 15 March 2023.

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 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 (Technical Support) at:
 Airbus World - Technical Request Management: <https://airbusworld.helicopters.airbus.com>,
 E-mail: support.technical-dyncomp.ah@airbus.com.

