

Airworthiness Directive

AD No.: 2023-0214

Issued: 11 December 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 M.L.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 M.L.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):

EC 130 T2 helicopters

Effective Date: 18 December 2023

TCDS Number(s): EASA.R.008

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2023-0028 dated 01 February 2023.

ATA 53 – Fuselage – Tail Rotor Drive Shaft / Rear Transmission Bearing Support – Inspections / Modification

Manufacturer(s):

Airbus Helicopters (AH), formerly Eurocopter

Applicability:

EC 130 T2 helicopters, all serial numbers on which AH modification 074581 has been embodied in production.

Definitions:

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

The ASB: AH Emergency Alert Service Bulletin (ASB) EC130-05A039 Revision 5.

The modification ASB: AH ASB EC130-53A049.

Reason:

An occurrence was reported of degradation of the rear transmission shaft bearing support on an EC 130 T2 helicopter, where it was determined that all attachment rivets of the transmission shaft bearing support were sheared.

This condition, if not detected and corrected, could lead to failure of the tail rotor drive shaft and subsequent loss of yaw control of the helicopter.

To address this potential unsafe condition, as a precautionary measure, AH issued Emergency ASB EC130-05A039 original issue to provide inspection instructions. Consequently, EASA published AD 2021-0235-E to require repetitive visual inspections of the rivets on the rear transmission shaft bearing support and of the local structure for presence of cracks and, depending on findings, accomplishment of applicable corrective action(s).

After that AD was published, an additional occurrence was reported of loose rivet heads on the outside face of the tail boom corner support. To address this occurrence, AH issued Emergency ASB EC130-05A039 Revision 1 to provide additional inspection instructions, and EASA published AD 2021-0283-E, retaining the requirements of EASA AD 2021-0235-E, which was superseded, and additionally requiring visual inspections of the rivet heads on the outside face of the tail boom corner support. That AD also required the reporting of inspection findings to AH.

After that AD was issued, no further reports were received of missing, loose or sheared rivets, or cases of cracks. This, in addition to flight tests accomplished by AH, allowed an extension of the inspection interval. To reflect that, AH published Emergency ASB EC130-05A039 Revision 2 and EASA issued AD 2021-0283R1.

After that AD was issued, it was identified that on some helicopters, a finishing paint was applied on the gutter, which could prevent the detection of cracks. Consequently, AH published the ASB EC130-05A039 Revision 3, providing instructions to determine if any paint is present, and, depending on findings, its removal, and EASA issued AD 2023-0028, superseding AD 2021-0283R1 and requiring a one-time inspection for the presence of paint, and its removal, if found to be applied.

Since that AD was issued, AH developed a modification to reinforce the bearing support of the tail rotor drive shaft (TRDS) and published the modification ASB. That modification allows to simplify the inspection procedure and to extend the repetitive inspections interval, and AH published accordingly the ASB, as defined in this AD.

For the reasons described above, this AD retains the requirements of EASA AD 2023-0028, which is superseded, and additionally requires the TRDS modification.

This AD is still considered an interim action and further AD action may follow.

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

Required as indicated, unless accomplished previously:

Repetitive Inspections:

- (1) Before next flight or within 7 days after 01 November 2021 [the effective date of EASA AD 2021-0235-E], whichever occurs first, and, thereafter, at intervals not to exceed 10 flight hours (FH), inspect the rivets on the rear transmission upper and lower bearing support and the local structure in accordance with the instructions of Section 3 of the ASB.



- (2) Within 10 FH or 7 days after 21 December 2021 [the effective date of the original issue of EASA AD 2021-0283], whichever occurs first, and thereafter, at intervals not to exceed 10 FH, inspect the rivet heads of the rear bearing support (located under the Teflon tape previously installed – see Note 1 of this AD) on the left-hand and right-hand sides in accordance with the instructions of Section 3 of the ASB.

Note 1: The ASB, prior to the initial inspection as required by paragraph (2) of this AD, provides instructions to remove the Teflon tape from the tail boom.

Inspection:

- (3) Within the compliance times specified in Table 1 of this AD, as applicable, inspect the area specified in the section 3.B.2.d. of the ASB to determine if paint has been applied on it.

Table 1 – Paint Inspection and Removal

Helicopter Configuration (on 15 February 2023 [the effective date of EASA AD 2023-0028])	Compliance Times
Not yet inspected per AH Emergency ASB EC130-05A039 (at any revision)	Within 10 FH or 7 days, whichever occurs first after 15 February 2023 [the effective date of EASA AD 2023-0028]
Already inspected per AH Emergency ASB EC130-05A039 (at any revision)	Before exceeding 10 FH since latest inspection accomplished before 15 February 2023 [the effective date of EASA AD 2023-0028]

Corrective Actions:

- (4) If, during any inspection as required by paragraph (1) or (2) of this AD, as applicable, any crack is visible, before next flight, contact AH to obtain approved repair instructions, and within the compliance time(s) specified therein, accomplish those instructions accordingly.
- (5) If, during any inspection as required by paragraph (1) or (2) of this AD, as applicable, no crack is visible, but any rivet is found missing, loose or sheared, and with the rivet hole not in accordance with diameter, or pitch, or edge distance, as specified in the ASB, before next flight, contact AH to obtain approved repair instructions, and within the compliance time(s) specified therein, accomplish those instructions accordingly.
- (6) If, during any inspection as required by paragraph (1) or (2) of this AD, as applicable, no crack is visible, but any rivet is found missing, loose or sheared, and with the rivet hole in accordance with diameter, and pitch, and edge distance, as specified in the ASB, before next flight, replace each affected rivet in accordance with the instructions of Section 3 of the ASB.
- (7) If, during the inspection as required by paragraph (3) of this AD, any paint is detected, as identified in the ASB, within the compliance times specified in Table 1 of this AD, as applicable, accomplish the actions as specified in, and in accordance with the instructions of, the ASB.



Modification:

- (8) Within 660 FH or 24 months, whichever occurs first after the effective date of this AD, modify the helicopter by reinforcing the TRDS bearing support in accordance with the instructions of the modification ASB. After the modification, the inspection interval, as required by paragraphs (1) and (2) of this AD, can be extended to 50 FH, and the inspection as required by paragraph (1) of this AD, can be limited to the rivets on the rear transmission upper bearing support and the local structure.

Reporting:

- (9) If, during any inspection as required by paragraph (1) or (2) of this AD, as applicable, any rivet is found missing, loose or sheared, and the rivet hole is in accordance with diameter, and pitch, and edge distance, as specified in the ASB, within 30 days after each rivet replacement, as required by paragraph (6) of this AD, report the results to AH. This can be done in accordance with the instructions of the ASB.

Credit:

- (10) Inspection(s) and corrective action(s) accomplished on a helicopter before the effective date of this AD in accordance with the instructions of AH Emergency ASB EC130-05A039 original issue, or Revision 1, Revision 2, Revision 3 or Revision 4 are acceptable to comply with the initial requirements of paragraphs (1), (2), (3), (6) and (7) of this AD, as applicable, for that helicopter.

Terminating Action(s):

- (11) None.

Ref. Publications:

AH Emergency ASB EC130-05A039 original issue dated 27 October 2021, or Revision 1 dated 16 December 2021, or Revision 2 dated 09 February 2022, or Revision 3 dated 30 January 2023, or Revision 4 dated 15 March 2023, or Revision 5 dated 07 December 2023.

AH ASB EC130-53A049 original issue dated 27 July 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 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.

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