Airworthiness Directive

AD No.: 2020-0021

Issued: 06 February 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 332 helicopters

Effective Date: 20 February 2020

TCDS Number(s): EASA.R.002

Foreign AD: Not applicable

Supersedure: This AD supersedes DGAC France AD F-2004-031 R1 (EASA approval 2005-2582) dated 30 March 2005.

ATA 64 – Tail Rotor – Tail Rotor Hub Pitch Control Rod – Inspection / Replacement

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

Applicability:
AS 332 C, AS 332 C1, AS 332 L and AS 332 L1 helicopters, all manufacturer serial numbers (MSN).

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

Affected TRH assembly: Tail rotor hub (TRH) assembly, having Part Number (P/N) 332A33-0001-05 or P/N 332A33-0001-06.

The ASB: AH AS 332 Alert Service Bulletin (ASB) 64.00.31.

Groups: Group 1 helicopters are those that have an affected TRH assembly installed. Group 2 helicopters are those that do not have an affected TRH assembly installed.

Reason:

In-flight occurrence of yaw control failure was reported as the result of a disconnection of TRH pitch control rod from the tail rotor servo-control. The subsequent investigation identified that this event had been caused by the seizure of the TRH pitch control rod bearing, which suffered from grease dissolving after its contamination by hydraulic fluid leaked from the tail rotor servo-control that came through the TRH assembly boot.

This condition, if not detected and corrected, could reduce the effectiveness of the pitch control of the tail rotor system, possibly resulting in reduced yaw control of the helicopter.

To address this unsafe condition, AH issued the ASB, as defined in this AD, and DGAC France issued AD F-2004-031 (later revised) to require repetitive inspections of the affected TRH assembly boot for presence of hydraulic leak and replacement of certain bearings of the affected TRH assembly pitch control rod.

Since that AD was issued, AH developed modification (MOD) 07 66205, introducing improved TRH assemblies, having P/N 332A33-0009-00 and P/N 332A33-0009-01, which incorporate new bearing with hydraulic fluid leak proof feature. AH MOD 07 66205 is available for installation during helicopter overhaul or repair accomplished by maintenance organisations authorised by AH.

For the reasons described above, this AD retains the requirements of DGAC France AD F-2004-031 R1, which is superseded, and introduces AH MOD 07 66205 as terminating action for the repetitive inspections required by this AD.

This AD also introduces some editorial changes, not affecting the required actions or compliance times.

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

Required as indicated, unless accomplished previously:

Inspection(s):

(1) Group 1 helicopters: Within 10 flight hours (FH) after 28 February 2004 [the effective date of DGAC France AD F-2004-031 at original issue] and, thereafter, at intervals not to exceed 10 FH, inspect the boot of each affected TRH assembly in accordance with the instructions of the ASB.

Corrective Action(s):

(2) If, during any inspection as required by paragraph (1) of this AD, any hydraulic leak is detected, within 25 FH after the detection of the leak, replace the pitch control rod bearing of the affected TRH assembly in accordance with the instructions of the ASB.

Replacement:

(3) Group 1 helicopters: For helicopters with a TRH assembly that, on 28 February 2004 [the effective date of DGAC France AD F-2004-031 at original issue] had accumulated less than 200 FH since installation of a servo-control following a hydraulic fluid leak at the TRH boot: Within 20 FH after 28 February 2004 [the effective date of DGAC France AD F-2004-031 at original issue] replace the pitch control rod bearing of the affected TRH assembly in accordance with the instructions of the ASB.

Terminating Action:

(4) Group 1 helicopters: Modification of a helicopter by installation of TRH assembly P/N 332A33-0009-00 or P/N 332A33-0009-01 by embodiment of AH MOD 07 66205 constitutes terminating action for the repetitive inspections as required by paragraph (1) of this AD for that helicopter, which effectively becomes a Group 2 helicopter, as defined in this AD, provided the helicopter remains in that configuration.

Part Installation:

(5) Group 1 and Group 2 helicopters: From 28 February 2004 [the effective date of the DGAC France AD F-2004-031 at original issue], it is allowed to install an affected TRH assembly on a helicopter as required by paragraph (5.1) or (5.2) of this AD, as applicable, and as required by paragraph (5.3) of this AD.

(5.1) The affected TRH assembly is new (never previously installed) or overhauled (never installed after overhaul).

(5.2) For the affected TRH assembly with FH already accumulated (previously installed), and having either service records indicating experience of hydraulic fluid leak at the TRH boot or having no reliable service records: Before installation of an affected TRH assembly on a helicopter, the pitch control rod bearing of the affected TRH assembly is replaced in accordance with the instructions of the ASB.

(5.3) Following installation, the affected TRH assembly is inspected as required by this AD.

Ref. Publications:

AH AS 332 ASB 64.00.31 original issue dated 07 March 2005, or Revision 1 dated 20 January 2014.

The use of later approved revisions of the above-mentioned document 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 07 January 2020 as PAD 20-001 for consultation until 04 February 2020. The Comment Response Document can be found in the EASA Safety Publications Tool, in the compressed (zipped) file attached to the record for this AD.

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.

5. For any question concerning the technical content of the requirements in this AD, please contact: https://keycopter.airbushelicopters.com, Technical Requests Management, or e-mail: support.technical-airframe.ah@airbus.com, or TechnicalSupport.Helicopters@airbus.com.