European Union Aviation Safety Agency

Airworthiness Directive

AD No.: 2017-0089R1

Issued: 23 June 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, AS 355 and EC 130 helicopters

Effective Date: Revision 1: 30 June 2020
Original issue: 31 May 2017

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

Foreign AD: Not applicable

Revision: This AD revises EASA AD 2017-0089 dated 17 May 2017.

ATA 62– Main Rotor – Main Rotor Mast Upper Bearing – Lubrication / Main Rotor Mast Jet Oil Hose – Inspection

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

Applicability:
AS 350 B, AS 350 BA, AS 350 BB, AS 350 B1, AS 350 B2, AS 350 B3 and AS 350 D helicopters,
AS 355 E, AS 355 F, AS 355 F1, AS 355 F2, AS 355 N and AS 355 NP helicopters, and
EC 130 B4 and EC 130 T2 helicopters, all serial numbers.

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

Affected part: Main Rotor (MR) mast jet oil hoses, having Part Number (P/N) 704A34-412-015 and marked with a manufacturing date of second trimester of 2017 (2T17) or previous.

Serviceable part: MR mast jet oil hoses that are not an affected part; or an affected part, identified by an "X" behind the P/N on its metal identification plate.

The applicable ASB: AH Emergency Alert Service Bulletin E-(ASB) AS350-62.00.39, EASB AS355-62.00.36 and EASB EC130-62A015, as applicable (published as a single document).

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Reason:

During unscheduled maintenance on an AS 350 BA helicopter, an affected part was found blocked. Both hose ends are subject to brazing as part of the manufacturing process. The investigation revealed that blockage was due to the presence of solder at the upper end of the hose. The obstruction of the hose was complete and as a consequence, the MR mast upper bearing was not lubricated by the direct oil jet. Reduced lubrication, or absence thereof, is not indicated to the flight crew.

This condition, if not detected and corrected, could lead to degradation of MR mast bearings, possibly resulting in loss of MR transmission function and consequent loss of control of the helicopter.

Prompted by this occurrence, AH published the applicable ASB to provide inspection instructions. Consequently, EASA published AD 2017-0089 to require a one-time inspection of each affected hose and, depending on findings, replacement with a serviceable hose and removal and inspection of the MR mast assembly. That AD also required inspection of parts, prior to installation.

Since that AD was issued, the hose manufacturer implemented a new acceptance test procedure and demonstrated that all parts produced after 2T17 have been checked before delivery and are considered serviceable, as defined in this AD. AH have revised the applicable ASB accordingly, now at Revision 02, to introduce the proper definition of the affected parts.

For the reasons described above, this AD is revised to better define the affected parts and serviceable parts.

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

Required as indicated, unless accomplished previously:

Inspection(s):

(1) Within 30 flight hours (FH) or 30 days, whichever occurs first after 31 May 2017 [the effective date of the original AD], remove the upper terminal of the affected part and inspect the affected part in accordance with the instructions of the applicable ASB.

(2) If, during the inspection as required by paragraph (1) of this AD, oil presence is detected in the visible part of the inside of the affected part, within 30 FH after 31 May 2017 [the effective date of the original AD], accomplish obstruction tests of the affected part in accordance with the instructions of paragraph 3.B.3 and (depending on findings) 3.B.4 of the applicable ASB.

Corrective Action(s):

(3) If, during the inspection as required by paragraph (1) of this AD, or during any obstruction test as required by paragraph (2) of this AD, as applicable, the affected part is determined to be obstructed, before next flight, replace the affected part with a serviceable part in accordance with the instructions of ASB, remove the MR mast assembly from service, contact AH for approved corrective action instructions and accomplish those instructions accordingly.

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Parts Installation:

(4) From 31 May 2017 [the effective date of the original AD], do not install an affected part on a helicopter, unless, prior to installation, it has passed obstructions tests in accordance with the instructions of paragraph 3.B.3 and 3.B.4 of the applicable ASB.

Ref. Publications:

Airbus Helicopters EASB AS350-62.00.39 original issue dated 15 May 2017, or Revision 01 dated 19 May 2017, or Revision 02 dated 25 June 2019.

Airbus Helicopters EASB AS355-62.00.36 original issue dated 15 May 2017, or Revision 01 dated 19 May 2017, or Revision 02 dated 25 June 2019.

Airbus Helicopters EASB EC130-62A015 original issue dated 15 May 2017, or Revision 01 dated 19 May 2017, or Revision 02 dated 25 June 2019.

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 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: Airbus Helicopters – Aéroport de Marseille Provence, 13725 Marignane Cedex, France
Telephone: +33 (4) 42 85 97 97, Fax: +33 (4) 42 85 99 66,
E-mail: support.technical-airframe.ah@airbus.com,
Web portal: https://keycopter.airbushelicopters.com > Technical Requests Management

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