Airworthiness Directive

AD No.: 2017-0159

Issued: 25 August 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 355 helicopters

Effective Date: 08 September 2017
TCDS Number(s): EASA.R.146
Foreign AD: Not applicable
Supersedure: None

ATA 65 – Tail Rotor Drive – Fan Assembly – Inspection

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

Applicability:
AS 355 E, AS 355 F, AS 355 F1, AS 355 F2 and AS 355 N helicopters, all serial numbers.

Reason:
Two occurrences were reported on AS 355 military operated rotorcraft, in which the main gearbox (MGB) oil cooler fan bearing, installed on the tail rotor (TR) drive shaft, experienced significant degradation. Investigation has not yet determined the cause of this failure, but it was determined that, due to design commonality, this may also occur on other AS 355 helicopters.

This condition, if not detected and corrected, could lead to loss of MGB and engine oil cooling function and loss of rear transmission, possibly resulting in loss of control of the helicopter.

To address this potential unsafe condition, Airbus Helicopters (AH) issued AH Alert Service Bulletin (ASB) AS355-05.00.77 to provide instructions to check the status of the fan assembly bearings.

For the reasons described above, this AD requires accomplishment of vibration level measurements of the forward portion of the TR drive line and, depending on findings, replacement of the bearings.

This AD is considered an interim measure and further AD action may be taken.

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

Required as indicated, unless accomplished previously:

Note 1: AH ASB AS355-05.00.77 original issue, is hereafter referred as “the ASB” in this AD.

Inspection:

(1) Within 165 flight hours or 6 months, whichever occurs first after the effective date of this AD, accomplish two vibration level measurements, one before and one after cleaning of the MGB oil cooler fan, in accordance with the instructions of paragraph 3.B of the ASB.

Corrective Action(s):

(2) If, during any of the vibration level measurements as required by paragraph (1) of this AD, excessive level or level trends are detected, before next flight, replace the bearings in accordance with the instructions of Appendix 4.B of the ASB.

Parts Installation:

(3) From the effective date of this AD, it is allowed to install an MGB oil cooler fan assembly bearing on the TR drive shaft of a helicopter, provided that, the parts are new, or before next flight following installation, it passes (no excessive level or level trends detected) two vibration level measurements, one before and one after cleaning of the fan, in accordance with the instructions of paragraph 3.B of the ASB.

Terminating action:

(4) None

Ref. Publications:

AH ASB AS355-05.00.77, original issue dated 03 July 2017.

The use of later approved revisions of this 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 25 July 2017 as PAD 17-099 for consultation until 22 August 2017. 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 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 - Etablissement de Marignane, Customer Support

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