



Airworthiness Directive

AD No.: 2014-0179R2

Issued: 11 April 2016

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):

SA 365, SA 366, AS 365 and EC 155 helicopters

Effective Date: Revision 02: 11 April 2016
Original issue and Revision 1: 01 August 2014

TCDS Number(s): EASA.R.105

Foreign AD: Not applicable

Revision: This AD revises EASA AD 2014-0179R1 dated 29 July 2014.

ATA 63 – Rotor Drive(s) – Tail Rotor Drive Flange – Inspection

Manufacturer(s):

Airbus Helicopters (formerly Eurocopter, Eurocopter France, Aerospatiale).

Applicability:

SA 365 C, SA 365 C1, SA 365 C2, SA 365 C3, SA 365 N, SA 365 N1 and SA 366 G1 helicopters, all serial numbers, on which Airbus Helicopters modification (mod) 0763B64 has been embodied.

AS 365 N3 and AS 365 N2 helicopters, all serial numbers on which Airbus Helicopters mod 0763B64 has been embodied and first delivered after manufacture before 09 July 2014.

EC 155 B and EC 155 B1 helicopters, all serial numbers first delivered after manufacture before 09 July 2014.

Reason:

Several occurrences have been reported of loss of tightening torque of the Shur-Lok nut, which serves as a retainer of the tail rotor drive flange of the Main Gear Box (MGB). Subsequent investigation determined that these events were the result of failure of the Shur-Lok nut locking function, which is normally ensured by two anti-rotation tabs engaged into two slots at the end of the MGB output shaft pinion.



This condition, if not detected and corrected, could lead to Shur-Lok nut becoming loose and, ultimately, to complete disengagement of the nut threads, possibly resulting in reduction of tail rotor drive control, rear transmission vibrations and reduced control of the helicopter.

To address this potential unsafe condition, Airbus Helicopters issued Alert Service Bulletins (ASB) AS365-63.00.18, ASB SA365-65.50, ASB SA366-63.09 and ASB EC155-63A012, as applicable to helicopter model (hereafter collectively referred to as 'the applicable ASB' in this AD), to provide inspection instructions and EASA issued AD 2014-0165 to require a one-time inspection of the radial play inside the tail rotor drive flange and the condition of the Shur-Lok nut and, depending on findings, corrective actions. That AD was superseded by EASA AD 2014-0179 removing the reference to Airbus Helicopters modification 0763B64 and extending the Applicability to all affected helicopters. Subsequently, EASA issued AD 2014-0179R1 to exclude from the Applicability SA 365 C, SA 365 C1, SA 365 C2, SA 365 C3, SA 365 N, SA 365 N1, AS 365 N2, AS 365 N3 and SA 366 G1 helicopters not modified in accordance with Airbus Helicopters mod 0763B64.

After EASA AD 2014-0179R1 was issued, it was determined that AS 365 N3, EC 155 B and EC 155 B1 helicopters delivered from 09 July 2014 are not affected by the unsafe condition addressed by this AD.

For the reason described above, this AD is revised again to exclude those helicopter from the Applicability.

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

Required as indicated, unless accomplished previously:

- (1) Within 110 flight hours after 01 August 2014 [the effective date of the original issue of this AD], inspect the Shur-Lok nut of the tail rotor drive flange of the MGB in accordance with the instructions of paragraphs 3.A and 3.B of the applicable ASB.
- (2) If, during the inspection as required by paragraph (1) of this AD, any discrepancy is detected, as specified in the applicable ASB, before next flight, accomplish the applicable corrective action(s) in accordance with the instructions of the applicable ASB.

Ref. Publications:

Airbus Helicopters ASB AS365-63.00.18 original issue dated 09 July 2014, or Revision 1 dated 07 March 2016.

Airbus Helicopters ASB SA365-65.50 original issue dated 09 July 2014.

Airbus Helicopters ASB SA366-63.09 original issue dated 09 July 2014.

Airbus Helicopters ASB EC155-63A012 Revision 1 dated 21 July 2014, or Revision 2 dated 07 March 2016.

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 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 (ESBESB) – Aeroport de Marseille Provence, 1375 Marignane Cedex, France
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Superseded

