EASA

AIRWORTHINESS DIRECTIVE

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AD No.: 2012-0205

Date: 01 October 2012

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) No 216/2008 on behalf of the European Community, 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 EC 748/2012, Part 21.A.3B. In accordance with EC 2042/2003 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 [EC 2042/2003 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption].

Design Approval Holder's Name: EUROCOPTER

Type/Model designation(s):

AS 350 and AS 355 helicopters

TCDS Number: EASA.R.008, EASA.R.146

Foreign AD: Not applicable

None

Supersedure:

| Doors – Sliding Door Lower Ball-joint – Modification |
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| Eurocopter (formerly Eurocopter France, Aerospatiale) |
| AS 350 B, AS 350 BA, AS 350 BB, AS 350 B1, AS 350 B2, AS 350 B3 and AS 350 D helicopters, all serial numbers (s/n), and AS 355 E, AS 355 F, AS 355 F1, AS 355 F2, AS 355 N and AS 355 NP helicopters, all s/n, if equipped with sliding doors, except those that embody modification AL. 4262. |
| During a patrol flight with the sliding doors open, the right-hand (RH) sliding door became detached and was lost in flight without hitting the helicopter. Upon return from the mission, it was found that the nut of the ball-joint bolt was missing, which caused the ball-joint bolt to detach from doors and the RH sliding door to fall off. When checking the left-hand (LH) sliding door, it was found that the nut of the ball-joint bolt was found that the nut of the ball-joint bolt was not tightened and could be unscrewed by hand. The self-locking characteristics of the nut of the ball-joint bolt were lost. The same condition, probably due to a defective assembly consisting in reuse of disposable parts and/or improper nut tightening, is assumed to be the reason of ball-joint bolt attachment failure in the RH sliding door. |
| Lack of protection against unscrewing of the nut of the ball-joint bolt, if not |
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Lack of protection against unscrewing of the nut of the ball-joint bolt, if not corrected, could lead to the loss of the door in flight potentially resulting in damage of the surrounding rotorcraft structures and/or injuries to persons on the ground.

For the reasons described above, in order to improve the nut protection against unscrewing, by adding a non-friction locking device, this AD requires embodiment of modification AL. 4262 which consists in replacement of the nut and the washer of the lower ball-joint bolt with a new nut and lock-washer.

| Effective Date: | 15 October 2012 |
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| Required Action(s) and Compliance Time(s): | Required as indicated, unless accomplished previously: Within 165 flight hours or 13 months, whichever occurs first after the effective date of this AD, replace the lower ball-joint nut and washer of each sliding door with a new nut and lock-washer (modification AL. 4262) in accordance with the instructions of paragraph 3.B.2 of Eurocopter Alert Service Bulletin (ASB) AS350-52.00.34, or ASB AS355-52.00.26, as applicable to helicopter model. |
| Ref. Publications: | Eurocopter ASB AS350-52.00.34 dated 09 July 2012. Eurocopter ASB AS355-52.00.26 dated 09 July 2012. The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD. |
| Remarks: | If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD. This AD was posted on 25 July 2012 as PAD 12-088 for consultation until 22 August 2012. No comments were received during the consultation period. Enquiries regarding this AD should be referred to the Safety Information Section, Executive Directorate, EASA. E-mail: <u>ADs@easa.europa.eu</u>. For any question concerning the technical content of the requirements in this AD, please contact: EUROCOPTER (STDI) – Aéroport de Marseille Provence 13725 Marignane Cedex, France Telephone +33 (4) 42 85 97 97; Facsimile +33 (4) 42 85 99 66 E-mail: <u>Directive.technical-support@eurocopter.com</u>. |