



Emergency Airworthiness Directive

AD No.: 2016-0118-E

Issued: 17 June 2016

Note: This Emergency 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 DEUTSCHLAND GmbH

Type/Model designation(s):

BO105 helicopters

Effective Date: 21 June 2016

TCDS Number(s): EASA.R.011

Foreign AD: Not applicable

Supersedure: None

ATA 62 – Main Rotor – Main Rotor Blade Erosion Protection Shell – Inspection / Replacement

Manufacturer(s):

Eurocopter Deutschland GmbH (ECD), Eurocopter Hubschrauber GmbH, Messerschmitt-Bölkow-Blohm GmbH

Applicability:

BO105 C, BO105 D, BO105 LS A-3 and BO105 S helicopters (all variants, except CB-5, D, DS, DBS-5, and CBS-5), all serial numbers.

Reason:

During an inspection on a BO105 helicopter, debonding was found on the erosion protective shell of a main rotor blade (MRB). Investigation identified that incorrect preparation of the erosion protective shell caused the debonding.

This condition, if not detected and corrected, could result in in-flight loss of the erosion protective shell, which could impact the tail boom and/or tail rotor, leading to unbalance of the main rotor and high vibrations, damage to the helicopter, possibly resulting in loss of control of tail rotor, and/or injury to persons on the ground.



To address this unsafe condition, ECD issued Emergency Alert Service Bulletins (EASB) BO105-10A-128 and BO105 LS-10A-016, as applicable to helicopter model (hereafter referred to as the “applicable ASB” in this AD), providing instructions for repetitive inspections to determine the correct installation of the erosion protective shell of the main rotor blades.

For the reasons described above, this AD requires the accomplishment of repetitive inspections of affected MRB and, depending on findings, applicable corrective actions.

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

Required as indicated, unless accomplished previously:

Note: For the purpose of this AD, an “affected MRB” is a MRB having part number (P/N) as listed in Appendix 1 of this AD, as applicable to helicopter model, and on which either the erosion protective shell has been replaced last time between 01 December 2010 and 28 February 2015 (inclusive), or no maintenance record is available to determine the date of last erosion protective shell replacement.

- (1) Within 10 flight hours (FH) after the effective date of this AD, determine if any affected MRB (see Note) is installed on the helicopter.
- (2) If, during the determination as required by paragraph (1) of this AD, an affected MRB (see Note) is found installed, within 10 FH after the effective date of this AD and, thereafter, at intervals not to exceed 50 FH, and until accumulation of 200 FH after the effective date of this AD, accomplish an inspection of that MRB for debonding of the erosion protective shell in accordance with the instructions of Section 3.B of the applicable ASB.
- (3) If, during any inspection as required by paragraph (2) of this AD, debonding is detected on a MRB, accomplish the applicable corrective actions on that MRB within the compliance time and in accordance with the instructions of Section 3.B of the applicable ASB.
- (4) For an affected MRB (see Note), passing an inspection, accomplished after 200 FH or more since last erosion protective shell replacement, in accordance with the instruction of the maintenance manual (MM), Chapter 101-11.1, paragraph 14 (1), as applicable to helicopter model, constitutes terminating action for the repetitive inspections as required by paragraph (2) of this AD.
- (5) For an affected MRB (see Note) which, on the effective date of the AD, already passed an inspection, accomplished after 200 FH or more since last erosion protective shell replacement, in accordance with the instruction of the MM, Chapter 101-11.1, paragraph 14 (1), as applicable to helicopter model, the requirements of paragraph (2) of this AD do not apply.
- (6) From the effective date of this AD, it is allowed to install on any helicopter an affected MRB (see Note) provided inspections as required by paragraph (2) of this AD are accomplished on that MRB.



Ref. Publications:

AHD EASB BO105-10A-128, initial Revision dated 16 June 2016.

AHD EASB BO105 LS-10A-016, initial Revision dated 16 June 2016.

The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.

MM BO105, Issue 2, Revision 29 dated 15 February 2015.

MM BO105 LS A-3, Issue 4, Revision 6 dated 1 July 2015.

Remarks:

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.
2. The results of the safety assessment have indicated the need for immediate publication and notification, without the full consultation process.
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 Deutschland GmbH, Industriestraße 4, D-86607 Donauwörth, Germany,
Telephone. +49 151 1422 8976, Facsimile: +49 906 71-4111



Appendix 1 – List of MRB P/N possibly affected

Helicopter Model	MRB P/N
BO105 C, BO105 D, and BO105 S (all variants, except CB-5, D, DS, DBS-5, and CBS-5)	105-15103
	105-87214
	105-81013
	105-15150
	105-15141
	105-15150V001
	105-15141V001
	105-15152
	105-15143
	1120-15103
	1120-15101
BO105 LS A-3	105-15141

