

EASA	AIRWORTHINESS DIRECTIVE
	<p>AD No.: 2014-0180R1</p> <p>Date: 16 October 2014</p> <p>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.</p>
<p>This AD is issued in accordance with EU 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].</p>	
<p>Design Approval Holder's Name:</p> <p>AIRBUS HELICOPTERS DEUTSCHLAND GmbH</p>	<p>Type/Model designation(s):</p> <p>MBB-BK 117 and BO 105 helicopters</p>
<p>TCDS Numbers: EASA.R.010 and EASA.R.011</p>	
<p>Foreign AD: Not applicable</p>	
<p>Revision: This AD revises EASA AD 2014-0180 issued 28 July 2014, including the correction issued 30 July 2014.</p>	
ATA 62	Main Rotor – Swashplate Assembly – Inspection / Replacement
<p>Manufacturer(s):</p>	<p>Airbus Helicopters Deutschland GmbH (AHD) (formerly Eurocopter Deutschland GmbH, Eurocopter Hubschrauber GmbH, Messerschmitt-Bölkow-Blohm GmbH), Airbus Helicopters Inc. (formerly American Eurocopter LLC), Eurocopter Canada Ltd. (formerly Messerschmitt-Bölkow-Blohm Helicopter Canada Ltd.)</p>
<p>Applicability:</p>	<p>MBB-BK 117 A-1, MBB-BK 117 A-3, MBB-BK 117 A-4, MBB-BK 117 B-1, MBB-BK 117 B-2, MBB-BK 117 C-1 and MBB-BK 117 C-2 helicopters, all serial numbers (s/n), and</p> <p>BO 105 A, BO 105 C, BO 105 D, BO 105 S and BO 105 LS A-3 helicopters, all variants, all s/n.</p>
<p>Reason:</p>	<p>During a post flight check on a BO 105 helicopter, it was detected that the lower clamp installed on the swashplate bellows was missing. Prior to this, the loose clamp had caused damage to the swashplate bearing ring. Similar cases had already been reported in the past.</p> <p>Investigation showed that over-torquing can cause damage to the clamp, which may have contributed to the loosening and subsequent loss of the clamp.</p> <p>This condition, if not detected and corrected, could lead to further cases of lost swashplate clamps, possibly resulting in loss of control of the helicopter.</p> <p>To address this unsafe condition, AHD issued Alert Service Bulletins (ASB) to provide instructions for clamp replacement and for repetitive inspections. EASA issued AD 2014-0180, later corrected, to require replacement of swash-plate clamps with cable ties, repetitive inspections of cable ties for loose fit and replacement of cable ties with serviceable parts.</p>

	Since that AD was issued, it was found that an intermediate inspection interval is not defined for some MBB-BK 117 and all BO 105 helicopters. This AD is therefore revised to incorporate compliance times for the replacement of swashplate clamps.								
Effective Date:	Revision 1: 30 October 2014 Original issue: 11 August 2014								
Required Action(s) and Compliance Time(s):	<p>Required as indicated, unless accomplished previously:</p> <p>(1) Within the compliance time as defined in Table 1 of this AD, replace each clamp installed on the swashplate bellows and having P/N MBB100-W3-5 or P/N MBB270-W3-5 or P/N NSA5528-100 or P/N NSA5528-250 with cable ties in accordance with the instructions of AHD ASB MBB-BK117-40A-115 or ASB MBB-BK117C-2-62A-007 or ASB BO105-40A-107 or ASB BO105LS-40A-12, as applicable to helicopter model.</p> <p style="text-align: center;">Table 1 – Replacement of Swashplate Clamps</p> <table border="1"> <thead> <tr> <th>Model</th><th>Compliance time, whichever occurs first</th></tr> </thead> <tbody> <tr> <td>BO 105, all variants</td><td>Within 300 flight hours (FH) after the last periodical inspection, or at the next periodical inspection, or within 6 months after the effective date of this AD</td></tr> <tr> <td>MBB-BK 117 A-1, A-3, A-4, B-1, B-2, C-1</td><td>Within 300 flight hours (FH) after the last periodical inspection, or at the next periodical inspection, or within 6 months after the effective date of this AD</td></tr> <tr> <td>MBB-BK 117 C-2</td><td>At the next intermediate inspection (refer to MBB-BK 117 C-2 Aircraft Maintenance Manual (AMM))</td></tr> </tbody> </table> <p>(2) Within 400 FH or at the next scheduled 12 month inspection, whichever occurs first after replacement of the swashplate clamps with cable ties as required by paragraph (1) of this AD, and, thereafter, at intervals not to exceed 400 FH, or during each scheduled 12 month inspection, whichever occurs first, inspect the cable ties for loose fit in accordance with the instructions of AHD ASB MBB-BK117-40A-115 or ASB MBB-BK117C-2-62A-007 or ASB BO105-40A-107 or ASB BO105LS-40A-12, as applicable to helicopter model.</p> <p>(3) If, during any inspection as required by paragraph (2) of this AD, any cable tie is found loose, before next flight, replace the loose cable tie with a serviceable part in accordance with the instructions of AHD ASB MBB-BK117-40A-115 or ASB MBB-BK117C-2-62A-007 or ASB BO105-40A-107 or ASB BO105LS-40A-12, as applicable to helicopter model.</p> <p>(4) During each periodical inspection (see Note below) following replacement of the swashplate clamps with cable ties as required by paragraph (1) of this AD, replace each cable tie with a serviceable part in accordance with the instructions of AHD ASB MBB-BK117-40A-115 or ASB MBB-BK117C-2-62A-007 or ASB BO105-40A-107 or ASB BO105LS-40A-12, as applicable to helicopter model.</p> <p>Note: For the applicable periodic inspection intervals, refer to the AMM for the helicopter model.</p> <p>(5) Do not install on any helicopter a swashplate clamp P/N MBB100-W3-5 or P/N MBB270-W3-5 or P/N NSA5528-100 or P/N NSA5528-250 or any gearbox or swashplate equipped with clamps P/N MBB100-W3-5 or P/N MBB270-W3-5 or P/N NSA5528-100 or P/N NSA5528-250, as required by paragraph (5.1) or (5.2), as applicable to helicopter model.</p>	Model	Compliance time, whichever occurs first	BO 105, all variants	Within 300 flight hours (FH) after the last periodical inspection, or at the next periodical inspection, or within 6 months after the effective date of this AD	MBB-BK 117 A-1, A-3, A-4, B-1, B-2, C-1	Within 300 flight hours (FH) after the last periodical inspection, or at the next periodical inspection, or within 6 months after the effective date of this AD	MBB-BK 117 C-2	At the next intermediate inspection (refer to MBB-BK 117 C-2 Aircraft Maintenance Manual (AMM))
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MBB-BK 117 C-2	At the next intermediate inspection (refer to MBB-BK 117 C-2 Aircraft Maintenance Manual (AMM))								

	<p>(5.1) For helicopters not equipped with swashplate clamps: From the effective date of this AD.</p> <p>(5.2) For helicopters equipped with swashplate clamps: After replacement of clamps with cable ties as required by paragraph (1) of this AD.</p>
Ref. Publications:	<p>AHD ASB MBB-BK117-40A-115 Revision 0 dated 31 March 2014.</p> <p>AHD ASB MBB-BK117C-2-62A-007 Revision 0 dated 31 March 2014.</p> <p>AHD ASB BO105-40A-107 Revision 0 dated 31 March 2014.</p> <p>AHD ASB BO105LS-40A-12 Revision 0 dated 31 March 2014.</p> <p>The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.</p>
Remarks:	<ol style="list-style-type: none"> 1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD. 2. The original issue of this AD was posted on 23 May 2014 as PAD 14-086 for consultation until 20 June 2014. No comments were received during the consultation period. 3. Enquiries regarding this AD should be referred to the Safety Information Section, Certification Directorate, EASA. 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, 86607 Donauwörth, Federal Republic of Germany Telephone: + 49 (0)151 1422 8976; Facsimile: + 49 (0)906 71 4111.