

<b>EASA</b>	<b>EMERGENCY AIRWORTHINESS DIRECTIVE</b>	
	<b>AD No.: 2009-0106-E</b>	
	<b>Date: 30 April 2009</b>	
<p>Note: This Emergency 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 EC 1702/2003, Part 21A.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 Airworthiness Directive applies, except in accordance with the requirements of that Airworthiness Directive 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>		
<b>Type Approval Holder's Name :</b>		<b>Type/Model designation(s) :</b>
Eurocopter Deutschland GmbH		EC135 and EC635 helicopters
TCDS Number : EASA R.009		
Foreign AD : Not applicable		
Supersedure : This AD supersedes EASA AD 2008-0116-E dated 17 June 2008.		
<b>ATA 63</b>		
<b>Main Rotor Drive – Main Gearbox (MGB) Oil Sampling &amp; Analysis Program – Amendment</b>		
Manufacturer(s):	Eurocopter Deutschland GmbH, Eurocopter ESPANA S.A.	
Applicability:	EC135 helicopters, model P1(CDS), P1(CPDS), P2(CPDS), P2+, T1(CDS), T1(CPDS), T2(CPDS) and T2+, all serial numbers, and EC635 helicopters, model T1(CPDS), P2+ and T2+, all serial numbers.	
Reason:	<p>Following several chip indications, a main gearbox was returned to the manufacturer of the main gearbox, ZF Luftfahrttechnik (ZFL), for repair. During disassembly, a partial tooth rupture was detected after removal of a drive pinion. This tooth rupture was determined to have been caused by wear.</p> <p>To monitor the condition of the main gearbox (MGB), Eurocopter Deutschland (ECD) has developed a program for oil samples to be taken and analyzed at regular intervals, which will ensure that wear is detected in time, prior to actual tooth rupture, and that appropriate corrective measures are taken following chip indication(s). EASA AD 2008-0082R1 was issued to require operators to implement the oil sampling and analysis program and to adopt appropriate corrective actions.</p> <p>Following further technical analysis, the corrective actions to be taken following chip indication(s) had been adapted and EASA AD 2008-0116-E, superseding AD 2008-0082R1 and retaining its requirements, required a one-time check of chip indication records over the last 300 flight hours (FH), with subsequent corrective measures and implementation of the</p>	

	<p>adapted corrective measures into the oil sampling and analysis program.</p> <p>After the issuance of EASA AD 2008-0116-E, experience has shown that a definition of the oil change interval in case of contamination with water is necessary. In fact, depending on the determined water content, an oil change might become necessary before the next flight.</p> <p>This AD, superseding EASA AD 2008-0116-E and retaining its requirements, requires an oil change in case of water contamination, in accordance with the instructions of ECD Alert Service Bulletin (ASB) EC135-63A-012 Revision 04.</p>
Effective Date:	02 May 2009
Required action(s) and Compliance Time(s):	<p>Required as indicated, unless accomplished previously:</p> <ol style="list-style-type: none"> <li>(1) For EC135 and EC635 series helicopters with serial numbers (s/n) up to 504 inclusive that have not been modified in accordance with ECD Service Bulletin (SB) EC135-63-011 (retrofit to a more efficient lubricating oil), within the next 100 flight hours (FH) after 09 May 2008 [the effective date of AD 2008-0082], take the first oil sample in accordance with the instructions of ECD ASB EC135-63A-012;</li> <li>(2) For EC135 and EC635 series helicopters with s/n up to 504 inclusive that have been modified in accordance with ECD SB EC135-63-011, within the next 100 FH after 09 May 2008 [the effective date of AD 2008-0082], but not prior to accumulating 100 FH after accomplishment of SB EC135-63-011, take the first oil sample in accordance with the instructions of ECD ASB EC135-63A-012;</li> <li>(3) For EC135 and EC635 series helicopters with s/n 505 and up, within the next 100 FH, but not prior to accumulating 90 FH after the first oil change, whichever occurs later after 09 May 2008 [the effective date of AD 2008-0082] (the first oil change must be accomplished when 50 FH have been accumulated since new), take the first oil sample in accordance with the instructions of ECD ASB EC135-63A-012;</li> <li>(4) After taking the first oil sample, take further oil samples at intervals not to exceed 100 FH (+/-10%) or 12 months, whichever occurs first, in accordance with the instructions of ECD ASB EC135-63A-012;</li> <li>(5) Before the helicopter accumulates 25 FH after taking each oil sample, accomplish the analysis in accordance with the instructions of paragraph 3.A(4) of ECD ASB EC135-63A-012 and, depending on the results, take the corrective measures as specified and at the time(s) indicated in paragraph 3.A(5) of ECD ASB EC135-63A-012 at Revision 04;</li> <li>(6) Oil sampling, analysis and corrective actions accomplished prior to the effective date of this AD in accordance with ECD ASB EC135-63A-012 at original issue or Revision 1, Revision 2 or Revision 3 are acceptable to comply with the initial requirements of this AD. After the effective date of this AD, oil sampling, analysis and corrective actions must be accomplished in accordance with ECD ASB EC135-63A-012 at Revision 04.</li> <li>(7) When a MGB is installed that has accumulated 300 FH or more total time, or time since overhaul or since repair, before further flight, check the log card of the MGB for entries regarding chip indications and, depending on the results, at the time(s) indicated in paragraph 3.B of ECD ASB EC135-63A-012, accomplish the tasks and take the</li> </ol>

	<p>corrective measures in accordance with paragraph 3.C of ECD ASB EC135-63A-012.</p> <p>(8) At any time after the effective date of this AD, in case of a chip detector indication, at the time(s) indicated in paragraph 3.B of ECD ASB EC135-63A-012, accomplish the tasks and take the corrective measures in accordance with paragraphs 3.B and 3.C of ECD ASB EC135-63A-012.</p>
Ref. Publications:	<p>Eurocopter EC135 Alert Service Bulletin No. EC135-63A-012 Revision 04 dated 27 April 2009.</p> <p>The use of later approved revisions of this document is acceptable for compliance with the requirements of this AD.</p>
Remarks:	<ol style="list-style-type: none"> <li>1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.</li> <li>2. The safety assessment has requested not to implement the full consultation process and an immediate publication and notification.</li> <li>3. Enquiries regarding this AD should be referred to the Airworthiness Directives, Safety Management &amp; Research Section, Certification Directorate, EASA. E-mail: <a href="mailto:ADs@easa.europa.eu">ADs@easa.europa.eu</a>.</li> <li>4. For any questions concerning the technical content of the requirements in this AD, please contact: Eurocopter Deutschland GmbH, Industriestrasse 4, 86607 Donauwörth, Federal Republic of Germany Telephone: + 49 (0)151-1422 8976; Facsimile: + 49 (0)906-71 4111</li> </ol>