EASA AD No.: 2012-0041R1 **EASA AIRWORTHINESS DIRECTIVE** AD No.: 2012-0041R1 Date: 15 March 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 1702/2003, Part 21A.3B. In accordance with EC 2042/2003 Annex J, 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]. Type/Model designation(s) : **Type Approval Holder's Name :** EC 135 and EC 635 helicopters Eurocopter Deutschland GmbH **TCDS Number :** EASA.R.009 Foreign AD : Not applicable Revision: This AD revises EASA Emergency AD 2012-0041-E dated 12 March 2012. **ATA 62** Main Rotor System – Main Rotor Hub – Inspection / Replacement Manufacturer(s): Eurocopter Deutschland GmbH (ECD), Eurocopter España S.A., Eurocopter S.A Applicability: EC 135 P1(CDS), EC 135 P1(CPDS), EC 135 P2(CPDS), EC 135 P2+, EC 135 T1(CDS), EC 135 T1(CPDS), EC 135 T2(CPDS), EC 135 T2+, EC 635 T1(CPDS), EC 635 P2+ and EC 635 T2+ helicopters, all serial numbers. During a periodical inspection of an EC 135 helicopter, a crack was detected Reason: on the lower hub-shaft flange of a main rotor hub (MRH) shaft. The investigation is on-going and the cause of the cracking has not been determined yet. It has been established, however, that deformed safety pins, used to secure main rotor blade bolts, can indicate that bolts may have rotated, indicating possible cracking in one of the hub-shaft flanges. This condition, if not detected and corrected, could lead to further crack propagation, possibly resulting in main rotor hub failure and consequent loss of the helicopter. For the reason described above, EASA issued Emergency AD to require repetitive pre-flight checks of the main rotor blade attachment bolts and safety pins to detect rotated bolts. In addition, that AD requires a one-time visual inspection of the upper and lower hub-shaft flange for cracks and, if cracks are detected, replacement of the main rotor hub. This AD also requires reporting of any findings to ECD. This AD is considered to be an interim action and further AD action may follow. This AD has been revised to clarify the paragraph (1) requirement.

	Original issue: 14 March 2012		
Required Action(s)	Required as indicated, unless already accomplished:		
and Compliance Time(s):	(1) Before the first flight of the day after 14 March 2012 [the effective date of the original issue of this AD] and thereafter, before each first flight of the day, accomplish a pre-flight check as specified in the applicable Rotorcraft Flight Manual (RFM), taking into account the instructions specified in section 1.E.2.(a) of ECD Alert Service Bulletin (ASB) No. EC135-62A-029.		
	Note: The pre-flight checks as required by paragraph (1) of this AD can be accomplished by the helicopter pilot. As the pre-flight check is already required through the RFM, there is no need to record AD compliance for each accomplished pre-flight check, provided each pilot operating the helicopter has been made aware of the specific ASB instructions for emphasis.		
		s required by paragraph (1) of this AD, ore next flight, contact ECD for approved se instructions accordingly.	
	(3) Within the compliance time as specified in Table 1 of this AD, visually inspect the upper and lower hub-shaft flanges in accordance with the instructions of section 3.B.2 of ECD ASB No. EC135-62A-029.		
	Table 1 – Visual	Inspection of the MRH	
	Flight hours (FH) accumulated by the MRH since first installation on a helicopter	Compliance time	
	Less than 10 FH	Within 100 FH or 3 months, whichever occurs first after accumulating 10 FH since first MRH installation on a helicopter	
	10 FH or more	Within 100 FH or 3 months, whichever occurs first after 14 March 2012 [the effective date of the original issue of this AD]	
		ired by paragraph (3) of this AD, cracks replace the MRH with a serviceable unit.	
6	 (5) Within 30 days after replacement of the MRH as required by paragraph (4) of this AD, report the findings and send the removed MRH for further investigation to ECD. 		
	(6) Corrective action as required by paragraph (2) of this AD, or replacement of a MRH as required by paragraph (4) of this AD, does not constitute terminating action for the repetitive pre-flight checks as required by paragraph (1) of this AD.		
Ref. Publications:	Eurocopter Deutschland ASB No. EC135-62A-029 dated 08 March 2012.		
	The use of later approved revisions compliance with the requirements of		
Remarks :	 If requested and appropriately s Alternative Methods of Complian 		

	2.	The required actions and the risk allowance have granted the issuance of a Final AD with Request for Comments, postponing the public consultation process after publication.
	3.	Enquiries regarding this AD should be referred to the Safety Information Section, Executive Directorate, EASA. E-mail: <u>ADs@easa.europa.eu</u> .
	4.	For any question 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.