

EASA	EMERGENCY AIRWORTHINESS DIRECTIVE
	AD No.: 2012-0087-E Date: 18 May 2012 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
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 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 Approval Holder's Name : EUROCOPTER	Type/Model designation(s) : EC 225 helicopters
TCDS Number :	EASA.R.002
Foreign AD :	Not applicable
Supersedure :	None
ATA 63	Main Rotor Drive – Main Gear Box Bevel Gear Vertical Shaft – Inspection / Limitation
Manufacturer(s):	Eurocopter (formerly EUROCOPTER France)
Applicability:	EC 225 LP helicopters, all serial numbers, if equipped with Main Gear Box (MGB) bevel gear vertical shaft Part Number (P/N) 332A32.5101.00 with a serial number (S/N) of M0370 or higher, and the part has accumulated less than 500 Flight Hours since new.
Reason:	A report has been received following the ditching of an EC 225 LP helicopter in May 2012 in the North Sea. The flight crew carried out an emergency ditching after warning indication of MGB loss of oil pressure and subsequent additional red alarm on the MGB emergency lubrication system (EM LUB). The preliminary findings of the investigation have shown a full circumferential crack of the lower vertical shaft of the MGB bevel gear. As a result, the vertical shaft ceased to drive the main and backup oil pumps. The vertical shaft failed after a low number of accumulated flight hours and although the investigation is still in progress, at this early stage a manufacturing defect of the part must be considered. The investigation has also determined that prior to the flight during which the helicopter ditched, the Vibration Health Monitoring system (VHM) installed on the helicopter had identified a rising trend in certain monitoring parameters associated with the MGB oil pump drive system. For the reasons described above, this AD requires, for helicopters operating over water which are equipped with Eurocopter VHM system, to monitor some VHM data and when not equipped with this system, to limit the operation to Day VFR.

Effective Date:	19 May 2012
Required Action(s) and Compliance Time(s):	Required as indicated, unless accomplished previously: (1) For helicopters equipped with Eurocopter VHM system, before next flight over water after the effective date of this AD, and thereafter at intervals not to exceed 3 Flight Hours, download VHM data to review the two indicators named MOD-45 and MOD-70 and after each review report to Eurocopter any trend indication of these two parameters. Note: For further advice regarding interpretation of the VHM data, contact Eurocopter Technical Support. (2) For helicopters not equipped with Eurocopter VHM system, before next flight over water after the effective date of this AD, accomplish the following actions: (2.1) Install a placard "DAY VFR ONLY FOR FLIGHT OVER WATER" in the full view of the pilots; (2.2) Insert a copy of this AD in the Rotorcraft Flight Manual of the helicopter.
Ref. Publications:	Eurocopter Safety Information Notice (SIN) No.2450-S-00 dated 13 May 2012.
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 public consultation process. 3. Enquiries regarding this AD should be referred to the Safety Information Section, Executive Directorate, EASA. E-mail: ADs@easa.europa.eu. 4. For any question concerning the technical content of the requirements in this AD, please contact: EUROCOPTER (STD1) – Aéroport de Marseille Provence, 13725 Marignane Cedex, France; telephone +33 (4) 12 85 97 97; facsimile +33 (4) 85 99 66; E-mail: Directive.technical-support@eurocopter.com.