EASA	EMERGENCY AIRWORTHINESS DIRECTIVE
	AD No.: 2012-0129-E **Date: 13 July 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].

Design Approval Holder's Name :	**Type/Model designation(s) :**
EUROCOPTER	AS 332 and EC 225 helicopters

TCDS Number:	EASA.R.002
Foreign AD:	Not applicable
Supersedure:	This AD supersedes EASA AD 2009-0099-E dated 23 April 2009.

ATA 63	**Main Rotor Drive – Main Gear Box, Intermediate gear Box and Tail Gear Box – Modification / Inspection**
Manufacturer(s):	Eurocopter (formerly EUROCOPTER France)
Applicability:	AS 332 C, AS 332 C1, AS 332 L, AS 332 L1, AS 332 L2 and EC 225 LP helicopters, all serial numbers.
Reason:	Following an accident with an AS 332 L2 helicopter on 1 April 2009, off the coast of Scotland near Aberdeen, the preliminary results of the investigations showed a failure within the epicyclic reduction gear module of the Main Gear Box (MGB) which resulted in the rupture of the MGB case and allowed the main rotor head to separate from the helicopter. To address this potential unsafe condition on the AS 332 L2 and EC 225 LP helicopter models equipped with a similar MGB, enhancement of the means for detection of MGB contamination and degradation was deemed of the utmost importance. As an initial precautionary measure, EASA issued AD 2009-0087-E with that aim. Additionally, EASA issued AD 2009-0095-E to require a one-time inspection to detect particles in the MGB epicyclic reduction gear module . Subsequently, EASA issued AD 2009-0099-E , which retained the main requirements of ADs 2009-0087-E and 2009-0095-E, which were superseded, and required modification of the chip collector inside the MGB (located between the epicyclic module and the main module) to enhance the early detection capability of the magnetic plugs of the gearbox sump and the epicyclic module. To that aim, AD 2009-0099-E required removing the magnetic elements installed on the chip collector and the flanged edged from

	the chip collector (equivalent to production MOD 0752522). After accomplishment of the modification, the AD also required monitoring of the MGB epicyclic reduction gear module magnetic plug of the affected helicopter models. Since issuance of EASA AD 2009-0099-E, the UK Air Accident Investigation Board published the final accident report. On the basis of these investigation findings, it has been decided to standardize the intervals of the visual checks of all electrical and non-electrical chip detectors, and to require this check for all models of the Super-Puma helicopter family, in order to increase the likelihood of detecting any adhered particles. This action must be accomplished on all rotor drive system gear boxes, i.e. on the MGB, but also on the Intermediate Gear Box (IGB) and the Tail Gear Box (TGB). For the reasons described above, this new AD retains the requirement for the accomplishment of MOD 0752522 of AD 2009-0099-E, which is superseded, expands the Applicability and requires repetitive visual checks of all electrical and non-electrical chip detectors installed on MGB, IGB and TGB.
Effective Date:	15 July 2012
Required Action(s) and Compliance Time(s):	Required as indicated, unless accomplished previously: (1) **For AS 332 L2 and EC 225 LP helicopters**, before next flight after 24 April 2009 [the effective date of AD 2009-0099-E], modify the MGB epicyclic reduction gear module (MOD 0752522) in accordance with the instructions of paragraph 2.B of Eurocopter AS332 Alert Service Bulletin (ASB) No. 05.00.81 revision 3, or EC225 ASB No. 05A017 revision 3, as applicable to helicopter model. (2) Modification of a MGB epicyclic reduction gear module (MOD 0752522), accomplished before the effective date of this AD, in accordance with the instructions of Eurocopter AS332 ASB No. 05.00.81 revision 2, or EC225 ASB No. 05A017 revision 2, as applicable to helicopter model, is acceptable for compliance with the modification as required by paragraph (1) of this AD. (3) After 24 April 2009 [the effective date of AD 2009-0099-E], do not install on any **AS 332 L2 and EC 225 LP helicopters** a MGB, unless it has been modified in production with MOD 0752522 or in service in accordance with the instructions of Eurocopter AS332 ASB No. 05.00.81 revision 2 or revision 3, or EC225 ASB No. 05A017 revision 2 or revision 3, as applicable to helicopter model. (4) **For all helicopters**, within the compliance times after the effective date of this AD, as specified in Appendix 1 of this AD for initial and repetitive inspections, visually check for no particles all non-electrical and electrical chip detectors, in accordance with the instructions of paragraph 3.B of Eurocopter ASB No. AS332.05.00.94 or ASB No. EC225.05A029, as applicable to helicopter model, as listed in that Appendix 1 of this AD. (5) If, during any inspection as required by paragraph (4) of this AD, a particle is found, before next flight, accomplish the applicable maintenance actions in accordance with the instructions of paragraph 3.B of Eurocopter ASB No. AS332.05.00.94 and ASB No. EC225.05A029, as applicable to helicopter model. (6) Accomplishment of applicable maintenance actions as required by paragraph (5) of this AD does not constitutes termination action for the repetitive visual checks as required by (4) of this AD.
Ref. Publications:	Eurocopter AS332 ASB No. 05.00.81 Revision 3 dated 13 July 2012; Eurocopter EC225 ASB No. 05A017 Revision 3 dated 13 July 2012; Eurocopter ASB No. AS332.05.00.94 Revision 0 dated 13 July 2012;

	Eurocopter ASB No. EC225.05A029 Revision 0 dated 13 July 2012. The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.
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 (STDI) – Aéroport de Marseille Provence 13725 Marignane Cedex, France; telephone +33 (4) 42 85 97 97; facsimile +33 (4) 42 85 99 66; E-mail: Directive.technical-support@eurocopter.com.

Appendix 1 – Chip Detectors visual inspections (initial and repetitive checks)

Helicopter model(s)	Chip Detectors of	Type of Chip Detectors	Inspections after the effective date of this AD
AS 332 C, AS 332 C1, AS 332 L, AS 332 L1,	- Mast tapered housing	**Non-Electrical Chip Detectors or Electrical Chip Detectors**, not connected to instrument panel caution light (for EuroHums or EuroArms systems only)	Within **25** FH or before next scheduled chip detector inspection ,whichever occurs first, and thereafter at intervals not exceeding **25** FH
	- MGB bottom casing, - IGB and TGB		
	- MGB bottom casing, - IGB and TGB	**Electrical Chip Detectors**, connected to instrument panel caution light	Within **50** FH or before next scheduled chip detector inspection ,whichever occurs first, and thereafter at intervals not exceeding **50** FH
AS 332 L2	- Mast tapered housing - MGB epicyclic module, - IGB and TGB	**Non-Electrical Chip Detectors or Electrical Chip Detectors**, not connected to instrument panel caution light (for EuroHums or EuroArms systems only)	Within **25** FH or before next scheduled chip detector inspection ,whichever occurs first, and thereafter at intervals not exceeding **25** FH
	- MGB bottom casing	**Electrical Chip Detectors**	Within **50** FH or before next scheduled chip detector inspection ,whichever occurs first, and thereafter at intervals not exceeding **50** FH
EC 225 LP	- Mast tapered housing - MGB epicyclic module - MGB bottom casing, - IGB and TGB	**Electrical Chip Detectors**	Within **50** FH or before next scheduled chip detector inspection ,whichever occurs first, and thereafter at intervals not exceeding **50** FH