

EASA	AIRWORTHINESS DIRECTIVE
	AD No.: 2013-0049 Date: 01 March 2013 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 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].	
Design Approval Holder's Name: EUROCOPTER	Type/Model designation(s): EC 225 LP helicopters
TCDS Number:	EASA.R.002
Foreign AD:	Not applicable
Supersedure:	None
ATA 53	Fuselage – Intermediate Gear Box Support Attachment Screws – Identification / Inspection
Manufacturer(s):	Eurocopter
Applicability:	EC 225 LP helicopters, all serial numbers.
Reason:	Damage was reportedly found on the thread of an Intermediate Gear Box (IGB) support attachment screw, when applying tightening torque to the screw during maintenance of the helicopter. The subsequent investigation results revealed that the torque values indicated in the Aircraft Maintenance Manual (MMA) tasks for these screws, as per Sub-task 53-26-00-222-002 of MMA Task 53-26-00-222, are higher than required, which is likely the cause of the reported screw thread damage. This condition, if not detected and corrected, could lead to loss of attachment screw tightening torque, possibly resulting in the separation of the IGB from the airframe structure, with consequent loss of the tail rotor function and control of the helicopter. To address this potential unsafe condition, Eurocopter issued Emergency Alert Service Bulletin (ASB) No 53A040 to provide instructions to detect and correct any improper IGB support attachment screw torque application and launched update of MMA Task 53-26-00-222. For the reasons described above, this AD requires identification of IGB unit removal during maintenance, inspection of the four IGB support attachment screws of affected IGB unit, and depending on findings, a check of attachment screws tightening torque values concurrently with accomplishment of applicable corrective actions.

Effective Date:	15 March 2013
Required Action(s) and Compliance Time(s):	Required as indicated, unless accomplished previously: (1) Within 50 flight hours (FH) after the effective date of this AD, review the helicopter maintenance records to determine whether, following an IGB removal in accordance with the instructions of MMA Task 65-30-00-05, Sub-task 65-30-00-021-001, the actual tightening torques of the IGB support attachment screws have been checked in accordance with erroneous values shown in MMA Task 53-26-00-222, Sub-task 53-26-00-222-002. (2) If, during the review as required by paragraph (1) of this AD, it is identified that actual tightening torques of IGB support attachment screws have already been checked in accordance with erroneous values shown in MMA Sub-task 53-26-00-222-002, or if, during that review, it cannot be confirmed that the actual tightening torques of the IGB support attachment screws have already been checked in accordance with erroneous values shown in MMA Sub-task 53-26-00-222-002, but it can be confirmed that an IGB removal has been accomplished in accordance with the instructions of MMA Task 65-30-00-051, Sub-task 65-30-00-021-001, within 50 FH after the effective date of this AD, visually inspect the paint marks, as screw head marker lines, of the four IGB support attachment screws, in accordance with the instructions of paragraphs 3.B.1 and 3.B.2 of Eurocopter EC225 ASB No.53A040. (3) If, during the inspection as required by paragraph (2) of this AD, any IGB support attachment screw is identified with paint marks on screw head <u>not aligned</u> with the IGB support, before next flight, accomplish a tightening torque check of each affected screw and accomplish all applicable corrective actions in accordance with the instructions of paragraph 3.B.3 of Eurocopter EC225 ASB No.53A040. (4) If, during the inspection as required by paragraph (2) of this AD, any IGB support attachment screw is identified with <u>no paint marks</u> on screw head, before next flight, inspect the condition of each affected screw in accordance with the criteria of paragraph 3.B.2. of Eurocopter EC225 ASB No.53A040, and depending on the finding, accomplish one of the following actions. (4.1) If, paint cracks are found on the screw head, or black marks are detected on the rivets around the screw, or the screw or any rivets are found loose, before next flight, accomplish a tightening torque check of each affected screw and accomplish all applicable corrective actions in accordance with the instructions of paragraph 3.B.3 of Eurocopter EC225 ASB No.53A040. (4.2) If no further discrepancies, other than lack of screw paint marks are detected, within 50 FH after the inspection as required by paragraph (2) of this AD, accomplish a tightening torque check of each screw without paint marks and accomplish all applicable corrective actions in accordance with the instructions of paragraph 3.B.3 of Eurocopter EC225 ASB No.53A040. (5) If, during the inspection as required by paragraph (2) of this AD, any IGB support attachment screw is identified with paint marks on screw head <u>correctly aligned</u> with the IGB support, within 50 FH after the inspection as required by paragraph (2) of this AD, accomplish a tightening torque check of each screw with correctly aligned paint mark and accomplish all applicable corrective actions in accordance with the instructions of paragraph 3.B.3 of Eurocopter EC225 ASB No.53A040.

Ref. Publications:	Eurocopter EC225 ASB No. 53A040, revision 1, dated 22 February 2013. The use of later approved revisions of this document 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. Based on the required actions and the compliance time, EASA have decided to issue a Final AD with Request for Comments, postponing the public consultation process until after publication. 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.