


EASA	EMERGENCY AIRWORTHINESS DIRECTIVE	
	AD No.: 2007-0209-E Date: 06 August 2007	
No person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of that Airworthiness Directive unless otherwise agreed with the Authority of the State of Registry.		
Type Approval Holder's Name:		Type/Model designation(s):
EUROCOPTER		AS355 helicopters
TCDS Number: EASA R.146		
Foreign AD: Not applicable.		
Supersedes: This Emergency AD supersedes EASA Emergency AD 2006-0378-E.		
ATA 67	Rotor Drive – Main Gearbox (MGB) Lubrication Pump – Inspection / Replacement	
Manufacturer(s):	EUROCOPTER (Formerly EUROCOPTER FRANCE, AEROSPATIALE).	
Applicability:	AS355 E, AS355 F, AS355 F1, AS355 F2 and AS355 N helicopters, all serial numbers, equipped with lubrication pumps Part Number (P/N) 355A32-0700-01, P/N 355A32-0700-02 or P/N 355A32-0701-00, installed on the Main Gear Box (MGB).	
Reason:	<p>DGAC France issued Airworthiness Directive (AD) F-2006-027 following four reports of MGB lubrication pump deterioration. These cases had occurred on pumps with serial numbers relatively close to each other and with few (less than 610) operating hours. AD F-2006-027 required monitoring of MGB oil pumps, limited to those serial numbers corresponding to a machining modification concerning the shape of the pump casing. A further incident occurred on a MGB fitted with a pump that had not been subject to this machining modification. This event showed that the machining modification of the pumps was not the only reason for early deterioration of the oil pumps. After a period of operation of insufficient lubrication, the Combining Gearbox assembly can deteriorate. This condition, if not corrected, could result in the loss of the drive train from one or possibly both engines (deterioration of the combiner gearbox gears). Consequently, EASA issued Emergency AD 2006-0378-E which superseded DGAC France AD F-2006-027, retained the basic requirements of that directive and extended the applicability to all pumps having certain Part Numbers.</p> <p>Recently, EUROCOPTER have developed an improved procedure for monitoring the (condition of the) MGB lubrication pump. EASA has reviewed EUROCOPTER AS355 Alert Service Bulletin (ASB) No. 05.00.51 and agrees that this achieves an adequate level of safety.</p> <p>Consequently, this new Emergency AD replaces EASA AD 2006-0378-E retains the basic requirements of that directive and subsequently requires the</p>	

	implementation of the improved periodic monitoring of the oil pump for wear to prevent insufficient lubrication of the MGB. This procedure replaces the monitoring procedures described by EUROCOPTER AS355 ASB No. 05.00.40, now at Revision 3.
Effective Date:	08 August 2007
Compliance:	<p>Required as indicated, unless accomplished previously:</p> <p>After 27 December 2006 (the effective date of EAD 2006-0378-E):</p> <ol style="list-style-type: none"> (1) At each check after the last flight of the day (ALF-check) without exceeding 10 flight hours (FH) between two successive checks, inspect the MGB magnetic plug and the MGB oil sight glass in accordance with the instructions specified paragraph 2.B.1 of EUROCOPTER AS355 ASB 05.00.40;. (2) Depending on the results of the check as required by paragraph (1) of this directive, before next flight, inspect the lubrication pump and, if necessary, take the corrective actions described in paragraph 2.B.2 of EUROCOPTER AS355 ASB 05.00.40; (3) Before installation on a helicopter of a spare lubrication pump having P/N 355A32-0700-01, 355A32-0700-02 or 355A32-0701-00, either already installed in a main gearbox (MGB) or separately, if the pump has logged flight hours since new, overhaul or repair (refer to the log card), check the lubricating pump and, if necessary, take corrective action in accordance with the instructions specified in paragraph 2.B.2 of EUROCOPTER AS355 ASB 05.00.40. <p>After the effective date of this directive:</p> <ol style="list-style-type: none"> (4) Within the next 25 FH and thereafter at intervals as indicated below, depending on inspection results, inspect the oil pump for wear in accordance with the instructions specified in paragraph 2.B of EUROCOPTER AS355 ASB No. 05.00.51; <p>Note 1: The flight immediately prior to each inspection needs to last more than 20 minutes to ensure the MGB oil temperature has stabilized.</p> <p>Note 2: After implementation of the inspection programme in accordance with paragraph (4) of this directive, the ALF-checks and follow-on actions as required by paragraphs (1), (2) and (3) of this directive may be discontinued.</p> <ol style="list-style-type: none"> (5) If the recorded value is in Zone 1 (see Figure 1 of the ASB), at intervals not to exceed 110 FH, inspect the oil pump for wear in accordance with the instructions specified in paragraph 2.B of EUROCOPTER AS355 ASB No. 05.00.51; (6) If the recorded value is in zone 2, at intervals not to exceed 25 FH, inspect the oil pump for wear in accordance with the instructions specified in paragraph 2.B of EUROCOPTER AS355 ASB No. 05.00.51; (7) If the recorded value is in zone 3, before next flight, replace the oil pump with an airworthy part; (8) Immediately after the first flight following installation on a helicopter of a spare lubrication pump, having P/N 355A32-0700-01, 355A32-0700-02 or 355A32-0701-00, inspect the oil pump for wear in accordance with the instructions specified in paragraph 2.B of EUROCOPTER AS355 ASB No. 05.00.51. This is applicable to lubrication pumps installed as part of a main gearbox (MGB) assembly replacement or installed separately on the helicopter, <p>Note 3: This flight needs to last more than 20 minutes to ensure the MGB oil temperature has stabilized.</p>
Ref. Publications:	EUROCOPTER AS355 ASB No. 05.00.40 Revision 2 or Revision 3; and

	EUROCOPTER AS355 ASB No. 05.00.51; or later approved revisions of these documents.
Remarks:	<ol style="list-style-type: none"> 1. If requested and appropriately substantiated the responsible EASA manager for the related product has the authority to accept Alternative Methods of Compliance (AMOCs) for this AD. 2. The safety assessment has requested not to implement the full consultation process and an immediate publication and notification. 3. Enquiries regarding this AD should be addressed to Focal Point Certification Directorate, EASA, e-mail: Ads@easa.europa.eu 4. For any questions concerning the technical content of the requirements in this AD, please contact: EUROCOPTER (STDI) – Aéroport de Marseille Provence 13725 Marignane Cedex- France. Tel: +33 (4) 12 85 97 97 – Fax: +33 (4) 85 99 66. E-mail: Directive.technical-support@eurocopter.com