EASA	**AIRWORTHINESS DIRECTIVE**
	AD No.: 2012-0252 **Date: 28 November 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 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):** AS 350 helicopters

TCDS Number:	EASA.R.008
Foreign AD:	Not Applicable
Supersedure:	This AD supersedes EASA AD 2011-0237 dated 14 December 2011.

ATA 67	**Rotor Flight Controls – Twist Grip Assembly – Adjustment / Functional Check / Replacement / Modification**

Manufacturer(s):	Eurocopter, formerly Eurocopter France, Aerospatiale
Applicability:	AS 350 B3 helicopters, all serial numbers, if equipped with the ARRIEL 2B engines.
Reason:	In 2006, a case was reported concerning an AS 350 B3 helicopter where, during an autorotation training procedure, the engine remained at idle rating although the twist grip had been turned back to the "FLIGHT" position. Analysis revealed that the cause of this occurrence was jamming of the "forced idle" microswitch (called microswitch in the text below) pin in the pushed-in position. This condition, if not corrected, can occur when the pilot turns the twist grip back to the "FLIGHT" position on completion of autorotation training, or when the pilot turns the grip in the low flow rate direction during training for governor failure. To address this potential unsafe condition, EASA issued AD 2006-0094, to require repetitive functional tests of the microswitch. The AD also established a life limit of 550 flight hours (FH) for the microswitch. Since EASA AD 2006-0094 was issued, two new cases have been reported, one related to a microswitch jam (at 412 FH, i.e. below the life limit as defined in that AD) and another related to an incorrectly routed harness. Prompted by these findings, EASA issued AD 2011-0237, retaining the requirements of EASA AD 2006-0094, which was superseded, reducing the microswitch life limit to 330 FH and requiring an additional check of the collective lever for free travel, each time the microswitch was replaced. Since EASA AD 2011-0237 was issued, Eurocopter designed a new

	modification (MOD) 073357, which gives priority to the Hydro Mechanical Unit (HMU) flight position when the microswitch does not operate correctly at forced idle.
	However, this modification is only effective for helicopters that do not have an auto-pilot installed and those which have not been modified by Eurocopter MOD 073222 in production, or modified by Eurocopter AS 350 Alert Service Bulletin (ASB) No. 67.00.33 in service.
	For the reasons described above, this new AD retains the requirements of EASA AD 2011-0237, which is superseded, and requires the terminating action modification to the electrical operation of the twist grip for all helicopters, except those that have an auto-pilot installed, and except those which have been modified by Eurocopter Mod 073222 in production, or modified by Eurocopter AS 350 ASB No. 67.00.33 in service.
Effective Date:	12 December 2012
Required Action(s) and Compliance Time(s):	Required as indicated, unless accomplished previously: (1) Within 110 FH after 05 May 2006 [the effective date of EASA AD 2006-0094], adjust the microswitch and check it for correct operation (functional test) in accordance with the instructions of paragraphs 2.B.2 and 2.B.3 of Eurocopter AS 350 ASB No. 05.00.49. (2) Thereafter, at intervals not exceeding 110 FH, accomplish a functional test of the microswitch in accordance with the instructions of paragraph 2.B.3 of Eurocopter AS 350 ASB No. 05.00.49. (3) Initially, within the compliance time, in FH accumulated on 28 December 2011 [the effective date of EASA AD 2011-0237] by the microswitch since first installation on a helicopter, as specified in Table 1 of this AD, as applicable, and thereafter at intervals not exceeding 330 FH, replace the microswitch in accordance with the instructions of paragraph 2.B.4 of Eurocopter AS 350 ASB No. 05.00.49 Revision 2 (or later approved revisions). Table 1 – Life Limit (Replacement) TABLE1 (4) Replacement of the microswitch on a helicopter, as required by paragraph (3) of this AD, does not constitute terminating action for the repetitive functional tests as required by paragraph (2) of this AD for that helicopter. (5) Within 660 FH after the effective date of this AD, modify the electrical operation of the twist grip in accordance with the instructions of paragraph 3 of Eurocopter AS350 ASB No. 67.00.43. This requirement does not apply to helicopters that have an auto-pilot installed, or those which have been modified by Eurocopter Mod 073222 in production, or have been modified by Eurocopter AS350 ASB No. 67.00.33 in service. (6) Modification of a helicopter as required by paragraph (5) of this AD constitutes terminating action for the repetitive inspections of the microswitch as required by paragraph (2) of this AD and the repetitive

Table 1 – Life Limit (Replacement)

FH accumulated by the microswitch	Compliance time
Less than 275 FH	Before accumulating 330 FH
275 FH or more	Within 55 FH after 28 December 2011 [the effective date of EASA AD 2011-0237], without exceeding 550 FH (microswitch FH)

	replacements of the microswitch as required by paragraph (3) of this AD.
Ref. Publications:	Eurocopter AS 350 ASB No. 05.00.49 Revision 3 dated 08 March 2012.
	Eurocopter AS 350 ASB No. 67.00.43 dated 08 March 2012, or Revision 1 dated 31 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. This AD was posted on 31 May 2012 as PAD 12-055 for consultation until 28 June 2012 and republished as PAD 12-055R1 for consultation until 07 November 2012. The Comment Response Document can be found at http://ad.easa.europa.eu.
	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:
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