## EASA

# **AIRWORTHINESS DIRECTIVE**

### AD No.: 2015-0094

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### Date: 29 May 2015

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 EU 1321/2014 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 [EU 1321/2014 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:** AIRBUS HELICOPTERS

Type/Model designation(s):

AS 350, AS 355 and EC 130 helicopters

TCDS Numbers: EASA.R.008 and EASA.R.146

Foreign AD: Not applicable

Supersedure: None

ATA 63	Main Rotor Drive – Cross-Bar – Inspection
Manufacturer(s):	Airbus Helicopters, (formerly Eurocopter, Eurocopter France, Aerospatiale)
Applicability:	AS 350 B, BA, BB, B1, B2, B3 and D helicopters, and AS 355 E, F, F1, F2, N and NP helicopters, and EC130 B4 and T2 helicopters, all serial numbers.
Reason:	Two occurrences were reported of finding cracks in the bi-directional suspension cross-bar (i.e. crossbeam) on AS350 B3 helicopters. The cracks were detected, during a maintenance check, at the attachment holes of the transmission deck attachment fittings. In both cases, the helicopters were equipped with a cargo hook and had completed missions with a significant number of torque cycles (TC), (see Note). Because of common design features, such cracks may potentially also occur on other AS350, AS355 and EC 130 helicopter models. Crack growth may lead to failure of one of the four yokes and significantly increased stress load on the remaining yokes.
	This condition, if not detected and corrected, could lead to cracks developing in the remaining yokes and increased loading of the cross-bar, possibly resulting in cross-bar failure and consequent loss of the helicopter.
	To address this potential unsafe condition, Airbus Helicopters (AH) issued four Alert Service Bulletins (ASB) AS350-05.00.84, ASB AS355-05.00.73, ASB EC130- 05A021 and ASB EC130-05A022 to provide instructions for periodic inspections of the cross-bar on affected helicopters.
	For the reason described above, this AD requires repetitive inspections of the bi- directional suspension cross-bar and, depending on findings, replacement of the cross-bar with a serviceable one.

		ASBs will be incorporated in the Airworthiness octive rotorcraft as part of the next revision.		
Effective Date:	12 June 2015			
Required Action(s) and Compliance Time(s):	<ul> <li>Required as indicated, unless accomplished previously:</li> <li>(1) During the next scheduled main gearbox removal after the effective date of this AD, and, thereafter, at intervals not to exceed the values specified in Table 1 of this AD, as applicable to helicopter model, inspect each bi-directional suspension cross-bar Part Number (P/N) 350A38-1040-20 or P/N 350A38-1040-00, as applicable, in accordance with the instructions of paragraph 3.B of AH ASB AS350-05.00.84, or ASB AS355-05.00.73, or ASB EC130-05A021, or ASB EC130-05A022, as applicable.</li> <li>Table 1 – Inspection of Bi-Directional Suspension Cross-Bar</li> </ul>			
	Helicopter Model(s)	<b>Interval</b> (flight hours (FH) or TC, whichever occurs first)		
	AS 350 B, BA, BB, B1, B2, D	4 500 FH or 60 000 TC		
	AS 350 B3			
	AS 355 (all models)	3 300 FH or 60 000 TC		
	EC130 B4			
	EC130 T2	3 300 FH or 40 000 TC		
	<ul> <li>AH ASB.</li> <li>(2) If, during any inspection as required, before next flight, replaying with a serviceable one in accord AS350-05.00.84, or ASB AS355 ASB EC130-05A022, as applicated application of the bi-directional required by paragraph (2) of this</li> </ul>	ind in paragraph 1.E.2 of the applicable ired by paragraph (1) of this AD, a crack is ace the bi-directional suspension cross-bar ance with paragraph 3.B of AH ASB 0-05.00.73, or ASB EC130-05A021, or ble. al suspension cross-bar on a helicopter as a AD does not constitute terminating action for uired by paragraph (1) of this AD for that		
Ref. Publications:	. Publications: AH ASB AS350-05.00.84 original issue dated 21 May 2015. AH ASB AS355-05.00.73 original issue dated 21 May 2015.			
	AH ASB EC130-05A021 original issue dated 21 May 2015.			
	AH ASB EC130-05A022 original issue dated 21 May 2015.			
	The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.			
Remarks:	<ol> <li>If requested and appropriately su Methods of Compliance for this A</li> </ol>	ubstantiated, EASA can approve Alternative		
		ent have indicated the need for immediate but the full public consultation process.		
	3. Enquiries regarding this AD shou	Id be referred to the Safety Information, EASA. E-mail: <u>ADs@easa.europa.eu</u> .		

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	<ol> <li>For any question concerning the technical content of the requirements in this AD, please contact:         <ul> <li>Airbus Helicopters (ESBESB) – Aeroport de Marseille Provence, 1375 Marignane Cedex, France</li> <li>Telephone: +33 (4) 12 85 97 97; Fax: +33 (4) 85 99 66</li> <li>E-mail: directive.technical-support@airbus.com</li> </ul> </li> </ol>
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