EASA	EMERGENCY AIRWORTHINESS DIRECTIVE
	AD No.: 2014-0098-E **Date: 25 April 2014** 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 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:	**Type/Model designation(s):**
AIRBUS HELICOPTERS	AS 332 and EC 225 helicopters

TCDS Number:	EASA.R.002
Foreign AD:	Not applicable
Supersedure:	None

ATA 53	**Fuselage – Splice of Frame X5295 – Modification / Inspection / Repair**
Manufacturer(s):	Airbus Helicopters (formerly Eurocopter, Eurocopter France, Aerospatiale)
Applicability:	AS 332 L2 helicopters, all serial numbers, if equipped with extended aluminium splices on frame X5295 installed in accordance with Airbus Helicopters modification (MOD) 0726517, or Service Bulletin (SB) 53.01.52 or repair FR 332 53 507 06, and EC 225 LP helicopters, all serial numbers, if equipped with extended aluminium splices on frame X5295 installed in accordance with Airbus Helicopters MOD 0726517 or SB 53-003.
Reason:	Prompted by several reports of cracks developed on helicopter frame X5295 EASA issued AD 2006-103R1 and AD 2007-0079 for AS332 helicopters, and AD 2006-0102R1 for EC225 helicopters to require repetitive inspections of the affected frame. Those ADs also introduced an optional terminating action for the repetitive inspections, which consisted in reinforcement of the frame 5295 by installing aluminium splices on both right (RH) and left (LH) fuselage external skins of the helicopter in accordance with Airbus Helicopters MOD 0726517 or SB 53.01.52 or repair FR 332 53 507 06 or SB 53-003 as applicable to helicopter model. Since those ADs were issued, during a scheduled inspection of an helicopter on which that terminating action had been embodied, a crack was detected on the modified frame. The subsequent investigation revealed that the crack initiated on one splice, in an area hidden by overlapping junction profile of the cabin sliding door rail support, and then propagated to the frame. Optional Airbus Helicopters MODs are available (MOD 332A081354.00 or SB 05.00.84 for the AS332 helicopters, and MOD 0728090 or MOD 332A081354.00 or SB 05-019 for the EC225

	helicopters) installing a cut-out of affected rail support junction profile to allow a convenient access to identify cracks in an affected splice. Modification of a helicopter to embody the rail support cut-out allows earlier detection of the crack initiation, therefore limits further damage at frame X5295 level. However, the affected helicopter was not modified to embody that rail support junction profile cut-out. This condition, if not detected and corrected, could lead to loss of structural integrity of the helicopter frame. To address this potential unsafe condition, Airbus Helicopters issued Alert Service Bulletin (ASB) AS332-05.00.97 and ASB EC225-05A038 to provide inspection instructions and, depending on findings, corrective action(s). These ASBs also provide installation instructions for a cut-out of junction profiles on the supports of both RH and left LH cabin sliding door rails. For the reasons described above, this AD requires repetitive inspections and, depending on the helicopter configuration, modification of both RH and LH cabin sliding door rail supports.
Effective Date:	30 April 2014
Required Action(s) and Compliance Time(s):	Required as indicated, unless accomplished previously: (1) Before next flight after the effective date of this AD, establish the helicopter configuration by reviewing helicopter delivery and/or maintenance records to determine the following conditions: (1.1) Determine if the helicopter is already modified to embody the cut-out the junction profiles of the supports of both, RH and left LH, cabin sliding door rails. Note 1: Cut-out of the cabin sliding door rail supports corresponds to Airbus Helicopters MOD 332A081354.00 or SB 05.00.84 for the AS332 helicopters and Airbus Helicopters MOD 0728090 or MOD 332A081354.00 or SB 05-019, for the EC225 helicopters. (1.2) Determine the flight hours (FH) accumulated by the helicopter on the date when the aluminium splices on frame X5295 were installed. Note 2: Installation of aluminium splices on frame X5295 corresponds to Airbus Helicopters MOD 0726517 for both AS332 and EC225 helicopters, or SB 53.01.52 or repair FR 332 53 507 06 or SB 53-003 as applicable to helicopter model. (1.3) Determine the FH accumulated (on the effective date of this AD) by the helicopter since installation of aluminium splices on frame X5295 (see Note 2). (2) If, during the review as required by paragraph (1) of this AD, it is determined that the helicopter was already modified in accordance with Airbus Helicopters SB 05.00.84 or SB 05-019, within 110 FH after the effective date of this AD, and, thereafter, at intervals not to exceed 110 FH, inspect both RH and LH aluminium splices on frame X5295 in accordance with instructions of paragraph 3.B.3 of Airbus Helicopters ASB AS332-05.00.97 or ASB EC225-05A038, as applicable to the helicopter model. (3) If, during the review as required by paragraph (1) of this AD, it is determined that the helicopter has **not** been modified in accordance with Airbus Helicopters SB 05.00.84 or SB 05-019, depending on configuration of the helicopter, within the compliance time(s) as specified in Table 1 of this AD, accomplish all the applicable actions.

Table 1: Compliance time and required actions depending on helicopter configuration

Aluminium splices on frame X5295	Required actions
Installed when the helicopter had accumulated equal to or more than 12 000 FH	Within 50 FH after the effective date of this AD, comply with paragraph (3.1) of this AD, **or** Within 50 FH after the effective date of this AD, comply with paragraph (3.2) of this AD, **and** within 750 FH after the effective date of this AD, comply with paragraph (3.1) of this AD
Installed before the helicopter had accumulated 12 000 FH, **and** the helicopter has accumulated at the effective date of this AD more than 1 650 FH since splices installation	
Installed before the helicopter had accumulated 12 000 FH, **and** the helicopter has accumulated at the effective date of this AD less than or equal to 1 650 FH since splice installation.	Before exceeding 1 700 FH accumulated since splice installation, comply with paragraph (3.1) of this AD **or** Before exceeding 1 700 FH accumulated since installation of the splices, comply with paragraph (3.2) of this AD, **and** thereafter within 750 FH after the initial inspection as required by paragraph (3.2) of this AD comply with paragraph (3.1) of this AD

(3.1) Within the compliance time specified in Table 1 of this AD, as applicable, inspect and cut-out the junction profiles of the supports of both RH and left LH cabin sliding door rails, and, thereafter, at intervals not to exceed 110 FH, inspect both RH and LH aluminium splices on frame X5295 in accordance with instructions of Airbus Helicopters ASB AS332-05.00.97 or ASB EC225-05A038, as applicable to the helicopter model.

(3.2) Within the compliance time as specified in Table 1 of this AD, as applicable, and, thereafter, at intervals not to exceed 50 FH, inspect the frame X5295 and the inner fuselage skins of frame X5295 to detect cracks in accordance with the instructions of Airbus Helicopters ASB AS332-05.00.97 or ASB EC225-05A038, as applicable to the helicopter model.

(3.3) Modification of a helicopter as required by paragraph (3.1) of this AD constitutes terminating action for the repetitive inspections specified in paragraph (3.2) of this AD.

(4) If, during modification of a helicopter as required by paragraph (3.1) of this AD, any crack is found on one of the RH or LH splices, before next flight, inspect the frame X5295 and the inner fuselage skins of frame X5295 to detect cracks in accordance with instructions of Airbus Helicopters ASB AS332-05.00.97 or ASB EC225-05A038, as applicable to the helicopter model.

(5) If, during any inspection as required by paragraph (2) or (3.1) of this AD, as applicable, any crack is found on one of the RH or LH splices, within 50 FH, repair the affected splice in accordance with approved Airbus

	Helicopters repair instructions. (6) If, during any inspection as required by paragraph (3.2) or (4) of this AD, as applicable, any crack is found on frame X5295, before next flight, repair the affected frame in accordance with approved Airbus Helicopters repair instructions. (7) If, during any inspection as required by paragraph (3.2) or (4) of this AD, as applicable, any crack is found on inner fuselage skins of frame X5295 accomplish all the actions as required by paragraphs (7.1) **and** (7.2) of this AD. (7.1) After each Last-flight-of-the-day, inspect the frame X5295 to detect cracks in accordance with the instructions of Airbus Helicopters ASB AS332-05.00.97 or ASB EC225-05A038, as applicable to the helicopter model. If during the inspection any crack is found, before next flight, repair the affected frame in accordance with approved Airbus Helicopters repair instructions. (7.2) Within 50 FH, repair the affected inner fuselage skins of frame X5295 in accordance with approved Airbus Helicopters repair instructions. Concurrently with the repair, accomplish a dye-penetrant inspection of frame X5295 to detect cracks and, if any crack is found, before next flight, repair the affected frame in accordance with approved Airbus Helicopters repair instructions.
Ref. Publications:	Airbus Helicopters ASB AS332-05.00.97 original issue, dated 15 April 2014. Airbus Helicopters ASB EC225-05A038 original issue, dated 15 April 2014. 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: Airbus Helicopters – 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.