


<b>EASA</b>	<b>EMERGENCY AIRWORTHINESS DIRECTIVE</b>
	<p><b>AD No.: 2014-0114-E</b></p> <p><b>Date: 08 May 2014</b></p> <p>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.</p>
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].	
<b>Type Approval Holder's Name :</b> AIRBUS HELICOPTERS	<b>Type/Model designation(s) :</b> EC130 B4 helicopters
TCDS Number :	EASA R.008
Foreign AD:	Not applicable.
Supersedure :	This AD supersedes EASA AD 2011-0116 dated 06 July 2011.
<b>ATA 53</b>	<b>Fuselage – Tail Boom / Fenestron Junction Frame – Inspection / Repair</b>
Manufacturer(s):	Airbus Helicopters (formerly Eurocopter, Eurocopter France, Aerospatiale)
Applicability:	<p>EC 130 B4 helicopters, all serial numbers, except:</p> <ul style="list-style-type: none"> <li>- those that have embodied modification (mod) 073880 (Reinforcement of the tail boom / Fenestron junction),</li> <li>- those that have embodied mod 074609 (Reinforcement of the tail boom/Fenestron junction).</li> <li>- all those which have been repaired in accordance with Repair Design Approval Sheet (RDAS) No. 350 53 522 07 or 350 53 521 10, or 350 53 524 10, or 350 53 525 10, or 350 53 526 10, or 350 53 511 11, or 350 53 512 11, or 350 53 523 11, or 350 53 504 12, or AE11-0205, or AE11-0380.</li> </ul> <p>NOTE: Tail boom assembly serial number TB 7377 is not affected by this AD.</p>
Reason:	<p>Several reports have been received of finding cracks in the tail boom / Fenestron junction frame. Prompted by these reports, Eurocopter published Information Notice No. 2167-I-53. Since publication of this document, new cases of cracks in the tail boom / Fenestron junction frame have been reported.</p> <p>The examination of the parts showed that the cracks were longer than in the previous cases. The cracks start to develop in the plane of the rivet head countersink on the Right Hand (RH) side of the Fenestron and spread to the web of the frame.</p> <p>This condition, if not detected and corrected, could lead to structural failure, possibly resulting in Fenestron detachment and consequent loss of control of</p>

	<p>the helicopter.</p> <p>To address this unsafe condition, EASA issued AD 2011-0116 to require repetitive inspections of the affected area and, depending on findings, accomplishment of corrective actions.</p> <p>Following further investigation, Airbus Helicopters developed mod 074609, the purpose of which is to limit the risk of cracks appearing on the tail boom / Fenestron junction frame.</p> <p>Airbus Helicopters issued Revision 1 of ASB 53A019 to extend the inspection to the entire circumference of the frame and provided instructions to embody mod 074609 in service through Service Bulletin (SB) 53-024.</p> <p>For the reasons described above, this AD retains the requirements of EASA AD 2011-0116, which is superseded, and requires embodiment of the final fix solution.</p>								
Effective Date:	12 May 2014								
Required Action(s) and Compliance Time(s):	<p>Required as indicated, unless accomplished previously:</p> <p>(1) Within 10 flight hours (FH), or within 40 FH after the last inspection in accordance with Airbus Helicopters EC130B4 Emergency Alert Service Bulletin (ASB) No. 53A019 at original issue, whichever occurs later after the effective date of this AD, and, thereafter, at intervals not exceeding 40 FH, inspect the whole circumference of the tail boom / Fenestron junction frame (the frame) for cracks, in accordance with the instructions of paragraph 3.B.1 and paragraph 3.B.2 of Airbus Helicopters EC130B4 Emergency ASB No. 53A019 Revision 1.</p> <p>(2) If, during any inspection as required by paragraph (1) of this AD, a crack is detected, depending on the extent of the crack(s), accomplish the action as specified in Table 1 of this AD, as applicable.</p> <p style="text-align: center;">Table 1 – Crack detected</p> <table border="1"> <thead> <tr> <th>Extent of crack(s)</th><th>Action</th></tr> </thead> <tbody> <tr> <td>(a) Crack on the inside crossing the web</td><td>Before next flight, contact Airbus Helicopters for approved instructions and accomplish those instructions accordingly</td></tr> <tr> <td>(b) Crack on the inside crossing part of the frame web</td><td>Contact Airbus Helicopters. Up to 10 FH are allowed to ferry the helicopter to a location where the corrective action can be accomplished in accordance with Airbus Helicopters instructions</td></tr> <tr> <td>(c) Outside of frame only - no crack in the frame web</td><td>Before next flight, strip the outside of the frame in accordance with the instructions of paragraph 3.B.3 and inspect the frame in accordance with the instructions of paragraph 3.B.4 of EC130B4 ASB No. 53A019 Revision 1</td></tr> </tbody> </table> <p>(3) If, during any inspection as required by paragraph (1) of this AD, no crack is found, within 110 FH or 6 months, whichever occurs first after the effective date of this AD, strip the frame in accordance with the instructions of paragraph 3.B.3 and inspect the frame in accordance with the instructions of paragraph 3.B.4, and, thereafter, at intervals not exceeding 100 FH inspect the frame in accordance with the instructions of paragraph 3.B.4 of EC130B4 ASB No. 53A019 Revision 1. After the initial inspection as required by paragraph (3) of this AD, the repetitive</p>	Extent of crack(s)	Action	(a) Crack on the inside crossing the web	Before next flight, contact Airbus Helicopters for approved instructions and accomplish those instructions accordingly	(b) Crack on the inside crossing part of the frame web	Contact Airbus Helicopters. Up to 10 FH are allowed to ferry the helicopter to a location where the corrective action can be accomplished in accordance with Airbus Helicopters instructions	(c) Outside of frame only - no crack in the frame web	Before next flight, strip the outside of the frame in accordance with the instructions of paragraph 3.B.3 and inspect the frame in accordance with the instructions of paragraph 3.B.4 of EC130B4 ASB No. 53A019 Revision 1
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(c) Outside of frame only - no crack in the frame web	Before next flight, strip the outside of the frame in accordance with the instructions of paragraph 3.B.3 and inspect the frame in accordance with the instructions of paragraph 3.B.4 of EC130B4 ASB No. 53A019 Revision 1								

inspections of paragraph (1) of this AD are no longer required.

- (4) If, during any inspection as required by paragraph (2) – Table 1 or by paragraph (3) of this AD, or during any other maintenance action, a crack is detected that reaches the radius of the frame, inspect the inside of the frame in accordance with the instructions of paragraph 3.B.1 of EC130B4 ASB No. 53A019 Revision 1. Thereafter, repeat the same inspection at intervals not exceeding 40 FH.
- (5) Depending on findings during any inspection as required by paragraph (4) of this AD, accomplish the corrective action as specified in Table 2 of this AD, as applicable.

Table 2 – Crack detected

Extent of crack(s)	Action
(a) Entirely crossing the frame web	Before next flight, contact Airbus Helicopters for approved instructions and accomplish those instructions accordingly
(b) Crossing part of the frame web	Up to 10 FH are allowed to ferry the helicopter to a location where the corrective action can be accomplished; then contact Airbus Helicopters for approved instructions and accomplish those instructions accordingly
(c) Outside of frame only - no crack in the frame web	Up to 85 FH are allowed after the previous maintenance action when the frame was inspected (i.e. the one preceding the maintenance action during which a crack reaching the radius of the frame was detected). Then, up to 10 FH are allowed to ferry the helicopter to a location where the corrective action can be accomplished; then contact Airbus Helicopters for approved instructions and accomplish those instructions accordingly.  If the crack that reaches the radius of the frame was detected during the initial inspection as required by paragraph (1) of this AD, accomplish the actions required by line (b) of this Table 2

- (6) If, during any inspection as required by paragraph (2) – Table 1 or by paragraph (3) of this AD, or during any other maintenance action, a crack is detected that does not reach the radius of the frame, inspect the frame in accordance with the instructions of paragraph 3.B.1 and 3.B.4 of EC130B4 ASB No. 53A019 Revision 1. Thereafter, repeat the same inspection at intervals not exceeding 40 FH.
- (7) Depending on findings during any inspection as required by paragraph (6) of this AD, accomplish the corrective action as specified in Table 3 of this AD, as applicable.

	<p style="text-align: center;"><b>Table 3 – Crack detected</b></p> <table border="1" data-bbox="576 203 1453 987"> <thead> <tr> <th data-bbox="576 203 983 248">Extent of crack(s)</th><th data-bbox="983 203 1453 248">Action</th></tr> </thead> <tbody> <tr> <td data-bbox="576 248 983 427">(a) Entirely crossing the frame web</td><td data-bbox="983 248 1453 427">.Before next flight, contact Airbus Helicopters for approved instructions and accomplish those instructions accordingly</td></tr> <tr> <td data-bbox="576 427 983 651">(b) Crossing part of the frame web</td><td data-bbox="983 427 1453 651">Up to 10 FH are allowed to ferry the helicopter to a location where the corrective action can be accomplished; then contact Airbus Helicopters for approved instructions and accomplish those instructions accordingly</td></tr> <tr> <td data-bbox="576 651 983 987">(c) Outside of frame only - no crack in the frame web</td><td data-bbox="983 651 1453 987">Flights are allowed within 12 months after detecting a crack that does not reach the radius of the frame.  Then, up to 10 FH are allowed to ferry the helicopter to a location where the corrective action can be accomplished; then contact Airbus Helicopters for approved instructions and accomplish those instructions accordingly</td></tr> </tbody> </table> <p data-bbox="536 1021 1442 1267">(8) From the effective date of this AD, do not install a tail boom assembly on a helicopter unless it incorporates modification 073880 or 074609.</p> <p data-bbox="536 1099 1442 1155">(9) Not later than 31 December 2017, modify the helicopter in accordance with the instructions of Airbus Helicopters EC130B4 SB No. 53-024.</p> <p data-bbox="536 1178 1442 1267">(10) Modification of a helicopter as required by paragraph (9) of this AD constitutes terminating action for all repetitive inspections required by this AD for that helicopter.</p>	Extent of crack(s)	Action	(a) Entirely crossing the frame web	.Before next flight, contact Airbus Helicopters for approved instructions and accomplish those instructions accordingly	(b) Crossing part of the frame web	Up to 10 FH are allowed to ferry the helicopter to a location where the corrective action can be accomplished; then contact Airbus Helicopters for approved instructions and accomplish those instructions accordingly	(c) Outside of frame only - no crack in the frame web	Flights are allowed within 12 months after detecting a crack that does not reach the radius of the frame.  Then, up to 10 FH are allowed to ferry the helicopter to a location where the corrective action can be accomplished; then contact Airbus Helicopters for approved instructions and accomplish those instructions accordingly
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Ref. Publications:	<p data-bbox="536 1301 1453 1391">Eurocopter EC130B4 SB 53-024 dated 08 January 2013, or Revision 1 dated 09 December 2013, or Airbus Helicopters EC130B4 SB 53-024 Revision 2 dated 15 April 2014.</p> <p data-bbox="536 1402 1453 1469">Airbus Helicopters EC130B4 Emergency ASB 53A019 Revision 1 dated 15 April 2014.</p> <p data-bbox="536 1480 1453 1536">The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.</p>								
Remarks :	<ol data-bbox="536 1581 1453 1984" style="list-style-type: none"> <li>1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.</li> <li>2. The results of the safety assessment have indicated the need for immediate publication and notification, without the full public consultation process.</li> <li>3. Enquiries regarding this AD should be referred to the Safety Information Section, Executive Directorate, EASA. E-mail: <a href="mailto:ADs@easa.europa.eu">ADs@easa.europa.eu</a>.</li> <li>4. For any question concerning the technical content of the requirements in this AD, please contact: Airbus Helicopters Technical Support Department of the Customer Service, Telephone +33 (0)4.42.85.97.16, Fax + 33 (0)4.42.85.99.66, E-mail: <a href="mailto:airframe.technical-support@eurocopter.com">airframe.technical-support@eurocopter.com</a>.</li> </ol>								