


EASA	AIRWORTHINESS DIRECTIVE	
	<p>AD No.: 2011-0116</p> <p>Date: 06 July 2011</p> <p>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.</p>	
<p>This AD is issued in accordance with EC 1702/2003, Part 21A.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].</p>		
<p>Type Approval Holder's Name : EUROCOPTER</p>	<p>Type/Model designation(s) : EC130 B4 helicopters</p>	
<p>TCDS Number :</p>	<p>EASA R.008</p>	
<p>Foreign AD:</p>	<p>Not applicable.</p>	
<p>Supersedure :</p>	<p>None</p>	
<p>ATA 53</p>	<p>Fuselage – Tail Boom / Fenestron Junction Frame – Inspection</p>	
<p>Manufacturer(s):</p>	<p>Eurocopter (formerly Eurocopter France, Aerospatiale)</p>	
<p>Applicability:</p>	<p>EC 130 B4 helicopters, all serial numbers, except:</p> <ul style="list-style-type: none"> - those that have been modified in production by EC modification 073880 (Reinforcement of the tail boom / Fenestron junction), and - 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. <p>NOTE: Tail boom assembly serial number TB 7377 is not affected by this AD.</p>	
<p>Reason:</p>	<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 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 the helicopter.</p> <p>For the reasons described above, this AD requires repetitive inspections of the affected area and, depending on findings, accomplishment of corrective actions.</p>	
<p>Effective Date:</p>	<p>20 July 2011</p>	

Required Action(s)
and Compliance
Time(s):

Required as indicated, unless accomplished previously:

- (1) Within 10 flight hours (FH) after the effective date of this AD and thereafter at intervals not exceeding 40 FH, inspect the RH side 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 Eurocopter EC130B4 Emergency Alert Service Bulletin (ASB) No. 53A019.
- (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.

Table 1 – Crack detected

Extent of crack(s)	Action
(a) entirely crossing the frame web	Before next flight, contact EC 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 EC for approved instructions and accomplish those instructions accordingly
(c) outside of frame only - no crack in the frame web	Before next flight, 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 of EC130B4 ASB No. 53A019.

- (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. After the initial inspection as required by paragraph (3) of this AD, the repetitive 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 frame in accordance with the instructions of paragraph 3.B.1 of EC130B4 ASB No. 53A019. 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 EC 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 EC for approved instructions and accomplish those instructions accordingly
(c) outside of frame only - no crack in the frame web	<p>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 EC for approved instructions and accomplish those instructions accordingly.</p> <p>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</p>

(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. 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.

Table 3 – Crack detected

Extent of crack(s)	Action
(a) entirely crossing the frame web	Before next flight, contact EC 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 EC for approved instructions and accomplish those instructions accordingly

	<p>(c) outside of frame only - no crack in the frame web</p>	<p>Flights are allowed within 12 months after detecting the 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 EC for approved instructions and accomplish those instructions accordingly</p>
Ref. Publications:	<p>(8) From the effective date of this AD, do not install a tail boom assembly on a helicopter unless it incorporates modification 073880.</p> <p>Eurocopter EC130B4 Emergency ASB 53A019 dated 14 June 2011.</p> <p>The use of later approved revisions of this document is acceptable for compliance with the requirements of this AD.</p>	
Remarks :	<ol style="list-style-type: none"> 1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD. 2. The required actions and the risk allowance have granted the issuance of a Final AD with Request for Comments, postponing the public consultation process after publication. 3. Enquiries regarding this AD should be referred to the Airworthiness Directives, Safety Management & Research Section, Certification Directorate, EASA. E-mail ADs@easa.europa.eu. 4. For any question concerning the technical content of the requirements in this AD, please contact: Eurocopter 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: airframe.technical-support@eurocopter.com 	