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## AIRWORTHINESS DIRECTIVE

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For the reasons set out in the background section, the CASA delegate whose signature appears below issues the following Airworthiness Directive (AD) under subregulation 39.001(1) of CASR 1998. The AD requires that the action set out in the requirement section (being action that the delegate considers necessary to correct the unsafe condition) be taken in relation to the aircraft or aeronautical product mentioned in the applicability section: (a) in the circumstances mentioned in the requirement section; and (b) in accordance with the instructions set out in the requirement section; and (c) at the time mentioned in the compliance section.

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### **Eurocopter SA 360 and SA 365 (Dauphin) Series Helicopters**

**AD/DAUPHIN/100**

**Fuselage Frame N.9**

**8/2009  
DM**

**Applicability:** Model SA 365 N, SA 365 N1, AS 365 N2 and AS 365 N3 helicopters, all serial numbers; and SA 366 G1 helicopters, all serial numbers.

**Requirement:** 1. For helicopters that have accumulated less than 3,190 flight hours at the effective date of this Directive:

Inspect the inner angles and flanges of the 9 degree frame on the left hand side and right hand side in accordance with the instructions of paragraph 2. of Eurocopter Alert Service Bulletin (ASB) AS365 05.00.57 Revision 0 or SA366 05.39 Revision 0, as applicable; or later EASA approved revisions.

2. For helicopters that have accumulated 3,190 flight hours or more at the effective date of this Directive:

Inspect the inner angles and flanges of the 9 degree frame on the left hand side and right hand side in accordance with the instructions of paragraph 2. of ASB AS365 05.00.57 Revision 0 or SA366 05.39 Revision 0, as applicable; or later EASA approved revisions.

3. If no cracking is detected during the Requirement 1 or 2 inspections, repeat the Requirement 1 or 2 inspections, as applicable.

4. If cracking is detected during any Requirement 1, 2 or 3 inspection:

a. In the inner flange of the 9 degree frame or the inner angle and the crack length is less than 33 mm:

Repeat the inspection in accordance with the instructions of paragraph 2. of ASB AS365 05.00.57 Revision 0 or SA366 05.39 Revision 0, as applicable; or later EASA approved revisions; and,

Before further flight, contact Eurocopter to request a "Repair Design Approval Sheet" (RDAS) and perform the repair within 660 flight hours or 1 year, whichever occurs first.

**Eurocopter SA 360 and SA 365 (Dauphin) Series Helicopters**

AD/DAUPHIN/100 (continued)

- b. In the inner flange of the 9 degree frame or the inner angle and the crack length is 33 mm or more:

Before further flight, contact Eurocopter to request a "Repair Design Approval Sheet" and perform the repair.

- c. In the inner flange of the 9 degree frame and in the inner angle:

Before further flight, contact Eurocopter to request a "Repair Design Approval Sheet" and perform the repair.

*Note: EASA Corrected AD 2009-0125-E refers.*

- Compliance:
1. Before the accumulation of 3,200 flight hours.
  2. Within 10 flight hours after 18 June 2009.
  3. Repeat at intervals not to exceed 110 flight hours.
  - 4.a. Repeat at intervals not to exceed 10 flight hours.
  - 4.b. As specified in Requirement 4.b.
  - 4.c. As specified in Requirement 4.c.

This Airworthiness Directive becomes effective on 18 June 2009.

Background: Eurocopter received a report of a crack in the 9 degree frame of an AS 365 N2 helicopter, which had logged a total of 10,786 flight hours. The crack was detected during the Major Inspection and was located 230 mm above the cabin floor; and had grown over a large section of the 9 degree frame on the right hand side. Such cracking, if not corrected, could lead to failure of the 9 degree frame which would adversely affect the structural integrity of the helicopter.



David Villiers  
Delegate of the Civil Aviation Safety Authority

17 June 2009