
AIRWORTHINESS DIRECTIVE

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.

Airbus Industrie A330 Series Aeroplanes

AD/A330/46 Nose Landing Gear Hydraulic Control Block 3/2005

Applicability: AIRBUS A330-200 and A330-300 aircraft series, all serial numbers, except aircraft on which AIRBUS modification 50650 has been embodied in production or AIRBUS Service Bulletin (SB) A330-32-3156 has been embodied in service.

Requirement: Modify the Hydraulic Control Block (HCB) Part Number (PN) C24856000-9 and PN C24856001-7 in accordance with instructions given in AIRBUS SB A330-32-3156.

Note 1: At the end of this modification:

- the HCB PN C24856000-9 will become PN C24856000-11 and

- the HCB PN C24856001-7 will become PN C24856001-9.

Note 2: DGAC AD F-2005-016 EASA approval 2005-499 dated 12 January 2005 refers.

Compliance: Not later than 30 September 2007.

This Airworthiness Directive becomes effective on 17 March 2005.

Background: An aircraft experienced a sudden veering during take-off roll at 47kts. Analysis of the flight data showed a "Braking and Steering Control Unit (BSCU) Channel 1 Fault" followed by a loss of Nose Wheel Steering (NWS). A brief 'hydraulic lock' occurred in the HCB preventing the transfer from steering to castoring mode and the nose gear returning to its straight-ahead position. Not corrected, the "hydraulic lock" combined with environmental effects, airport geometry and speed can lead to a hazardous event. In order to avoid this situation, AIRBUS and the suppliers have reviewed the design of the HCB by adding a check valve between the selector valve and the servo valve. This check valve limits the back pressure generated from torque applied to the gear due to ground movements in a free castor situation and would allow a nominal functioning of the bypass valve. The aim of this Directive is to require the installation of this check valve on the affected HCB.



James Coyne
Delegate of the Civil Aviation Safety Authority

4 February 2005