	AIRWORTHINESS DIRECTIVE No F-2005-016	Distribution: B	Issue date: January 19, 2005	Page : 1/2
Direction générale de l'aviation civile France GSAC publication	This Airworthiness Directive is published by the DGAC on behalf of EASA, Airworthiness Authority of the State of Design for the affected product, part or appliance.		*Translation of « Consigne de Navigabilité » of same number.* *In case of difficulty, reference should be made to the French issue.*	
	No person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of that Airworthiness Directive, unless otherwise agreed with the Authority of the State of Registry.			

Corresponding foreign Airworthiness Directive(s): **Not applicable**	Airworthiness Directive(s) replaced: **None**
Person in charge of airworthiness: **AIRBUS SAS**	Type(s): **A330 and A340-200/-300 aircraft**
Type certificate(s) No. **A.004, A.015** TCDS No **A.004, A.015**	
ATA chapter: **32**	Subject: **Nose landing gear - Modification of hydraulic control block**

1. EFFECTIVITY:

AIRBUS A330-200, A330-300, A340-200 and A340-300 aircraft series, all certified models, all serial numbers, except aircraft on which AIRBUS modification 50650 has been embodied in production or AIRBUS Service Bulletin (SB) A330-32-3156 or SB A340-32-4194 has been embodied in service.

2. REASONS:

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). It has been evidenced that a brief 'hydraulic lock' occurred in the Hydraulic Control Block (HCB) preventing the transfer from steering to castoring mode and the nose gear returning to its straight ahead position. The aircraft trajectory could have be maintained by use of thrust reversers and differential braking.

Not corrected, this situation "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 Airworthiness Directive (AD) is to require the installation of this check valve on the affected HCB.

3. MANDATORY ACTIONS AND COMPLIANCE TIMES:

In order to ensure that the steering system works as expected and enters into castoring mode as soon as the BSCU detects the fault and the NWS is disconnected, the following measures are rendered mandatory from the effective date of this AD for the affected HCB installed either on aircraft or held as spares:

Not later than September 30, 2007, modify the HCB PN C24856000-9 and PN C24856001-7 in accordance with instructions given in AIRBUS SB A330-32-3156 or SB A340-32-4194.

Note: 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.

4. REFERENCE PUBLICATIONS:

AIRBUS Service Bulletin A330-32-3156
AIRBUS Service Bulletin A340-32-4194
(Any further approved revision of these SBs is acceptable).

5. EFFECTIVE DATE:

January 29, 2005.

6. REMARK:

For questions concerning the technical contents of this AD's requirements, contact:

AIRBUS SAS - Airworthiness office - EAL - Fax: 33 5 61 93 45 80.

7. APPROVAL:

This AD is approved under EASA reference No 2005-499 dated January 12, 2005.