


EASA	AIRWORTHINESS DIRECTIVE
	<p>AD No.: 2008-0160</p> <p>Date: 22 August 2008</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 :</p> <p>AIRBUS</p>	<p>Type/Model designation(s) :</p> <p>A330-300, A340-200/-300 aircraft</p>
TCDS Number :	EASA.A.004, EASA.A.015
Foreign AD :	Not applicable
Supersedure :	None
ATA 27	Flight Controls – Spoiler Servo Control Maintenance Cover – Identification / Modification
Manufacturer(s):	AIRBUS (formerly AIRBUS INDUSTRIE)
Applicability:	<p>AIRBUS A330 aircraft, models -301, -302, -303, -321, -322, -323, -341, -342 and -343, all serial numbers up to and including MSN 588 except those on which AIRBUS Service Bulletin (SB) A330-27-3110 has been embodied in service.</p> <p>AIRBUS A340 aircraft, models -211, -212, -213, -311, -312, and -313, all serial numbers up to and including MSN 598 except those on which AIRBUS SB A340-27-4115 has been embodied in service.</p>
Reason:	<p>One Long Range operator experienced a failure of one spoiler servo-control, associated with surface deflection in flight and hydraulic leak. On ground, this servo-control Part Number (P/N) MZ4306000-02X was found with the maintenance cover broken. Investigations showed that the rupture of the maintenance cover was due to pressure pulse fatigue.</p> <p>The maintenance cover allows switching the servo-control from “Operational” to “Maintenance” modes. The same cover is installed on all standard MZ spoiler servo-controls except on P/N MZ4339390-12 and MZ4306000-12, which have a reinforced maintenance cover. The rupture of the maintenance cover in flight may result in the deflection of the associated spoiler surface up to the null-hinge position (loss of the hydraulic locking). It may also result in the loss of the associated hydraulic system (external leakage). In the worst case, the three hydraulic systems may be affected, which constitutes an unsafe condition.</p> <p>For the reasons described above, this EASA AD requires the identification and the modification of all standard MZ spoiler servo-controls with initial maintenance</p>

	cover (P/N MZ4339390-01X, -02X, -10X for position 1 and P/N MZ4306000-01X, -02X, -10X for positions 2 to 6) into standard MZ servo-controls with reinforced maintenance cover (P/N MZ4339390-12 for position 1 and P/N MZ4306000-12 for positions 2 to 6).													
Effective Date:	05 September 2008													
Required Action(s) and Compliance Time(s):	<p>Required as indicated, unless already accomplished:</p> <p><u>(A) For aircraft which, on the effective date of this AD, have accumulated more than 8 500 FC since the first flight of the aircraft.</u></p> <p>(1) Within 3 months from the effective date of this AD, identify the P/N of Spoiler Servo-Controls installed on aircraft at all positions in order to determine the number of affected hydraulic circuits, in accordance with instructions of SB A330-27A3154 Revision 01 or SB A340-27A4154 Revision 01.</p> <p>(2) If there is no spoiler servo-control installed on aircraft with P/N of MZ type identified in Table 1 below, no further action is required by this AD.</p> <p>(3) If there is any spoiler servo-control installed on aircraft with P/N of MZ type and identified in Table 1 below, proceed with the actions of paragraph (A) (3) (1) or (A) (3) (2) or (A) (3) (3), as applicable:</p> <table><tr><th colspan="3">Table 1</th></tr><tr><th></th><th>Position 1</th><th>Position 2 to 6</th></tr><tr><td rowspan="3">Spoiler servo-control P/N</td><td>MZ4339390-01X</td><td>MZ4306000-01X</td></tr><tr><td>MZ4339390-02X</td><td>MZ4306000-02X</td></tr><tr><td>MZ4339390-10X</td><td>MZ4306000-10X</td></tr></table> <p>(3) (1) <u>If three hydraulic circuits are affected:</u></p> <p>(a) Before accumulating 10 400 FC from first flight of the aircraft or within 3 months from the identification as required by paragraph (A)(1) of this AD, whichever occurs later, modify the affected spoiler servo-control(s) on one hydraulic circuit in accordance with instructions of SB A330-27-3110 or SB A340-27-4115.</p> <p>(b) Before accumulating 10 800 FC from first flight of the aircraft or within 6 months from the identification as required by paragraph (A)(1) of this AD, whichever occurs later, modify the affected spoiler servo-control(s) on a second hydraulic circuit in accordance with instructions of SB A330-27-3110 or SB A340-27-4115.</p> <p>(c) Within 18 months from the effective date of this AD, modify the remaining affected spoiler servo-control(s) in accordance with instructions of SB A330-27-3110 or SB A340-27-4115.</p> <p>(3) (2) <u>If two hydraulic circuits are affected:</u></p> <p>(a) Before accumulating 10 800 FC from first flight of the aircraft or within 6 months from the identification as required by paragraph (A)(1) of this AD, whichever occurs later, modify the affected spoiler servo-control(s) on one hydraulic circuit in accordance with instructions of SB A330-27-3110 or SB A340-27-4115.</p> <p>(b) Within 18 months from the effective date of this AD, modify the remaining affected spoiler servo-control(s) in accordance with instructions of SB A330-27-3110 or SB A340-27-4115.</p> <p>(3) (3) <u>If one hydraulic circuit is affected:</u></p> <p>Within 18 months from the effective date of this AD, modify the affected spoiler servo-control(s) in accordance with instructions of SB A330-27-3110 or SB A340-27-4115.</p>	Table 1				Position 1	Position 2 to 6	Spoiler servo-control P/N	MZ4339390-01X	MZ4306000-01X	MZ4339390-02X	MZ4306000-02X	MZ4339390-10X	MZ4306000-10X
Table 1														
	Position 1	Position 2 to 6												
Spoiler servo-control P/N	MZ4339390-01X	MZ4306000-01X												
	MZ4339390-02X	MZ4306000-02X												
	MZ4339390-10X	MZ4306000-10X												

(B) For aircraft which, on the effective date of this AD, have accumulated less than or equal to 8 500 FC since the first flight of the aircraft:

- (1) Within 9 months from the effective date of this AD, identify the P/N of Spoiler Servo-Controls installed on aircraft at all positions in order to determine the number of affected hydraulic circuits, in accordance with instructions of SB A330-27A3154 Revision 01 or SB A340-27A4154 Revision 01.
- (2) If there is no spoiler servo-control installed on aircraft with P/N of MZ type identified in Table 2 below, no further action is required by this AD.
- (3) If there is any spoiler servo-control installed on aircraft with P/N of MZ type and identified in Table 2 below, within 18 months after the effective date of this AD, modify all the affected spoiler servo-control(s) in accordance with instructions of SB A330-27-3110 or SB A340-27-4115.

Table 2		
	Position 1	Position 2 to 6
Spoiler servo-control P/N	MZ4339390-01X	MZ4306000-01X
	MZ4339390-02X	MZ4306000-02X
	MZ4339390-10X	MZ4306000-10X

(C) Installation of spare spoiler servo-controls as a replacement:

From the effective date of this AD, no person shall install Spoiler Servo-Controls (Position 1) PN MZ4339390-01X, MZ4339390-02X, MZ4339390-10X and (Position 2 to 6) PN MZ4306000-01X, MZ4306000-02X, MZ4306000-10X on an aircraft as a replacement part, until they have been modified in accordance with the instructions of SB A330-27-3110 or SB A340-27-4115.

Ref. Publications:

AIRBUS Service Bulletin A330-27-3110 at original issue;
 AIRBUS Service Bulletin A340-27-4115 at original issue;
 AIRBUS Service Bulletin A330-27A3154 Revision 01;
 AIRBUS Service Bulletin A340-27A4154 Revision 01.

The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.

Remarks :

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.
2. This AD was posted on 29 July 2008 as PAD 08-086 for consultation until 12 August 2008. The Comment Response Document can be found at <http://ad.easa.europa.eu>
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 questions concerning the technical content of the requirements in this AD, please contact:
 AIRBUS SAS – Airworthiness Office - EAL Fax: +33 5 61 93 45 80.