	AIRWORTHINESS DIRECTIVE No F-2003-436		Distribution: B	Issue date: December 10, 2003	Page: 1/3
	This Airworthiness Directive is published by the DGAC: <input checked="checked" type="checkbox"/> on behalf of EASA, the Primary Airworthiness Authority for the affected product <input type="checkbox"/> as the Registration Airworthiness Authority for the affected aircraft			<i>Translation of "consigne de navigabilité" of same number. In case of difficulty, reference should be made to the French text.</i>	
Direction générale de l'aviation civile France GSAC publication	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: 1998-475-103, cancelled by its revision 5			
Person in charge of airworthiness: AIRBUS		Type(s): A340-200/-300 aircraft			
Type certificate(s) No. 183 TCDS No. 183					
ATA chapter(s): 32	Subject: Landing gear – Nose wheel steering limits				

1. EFFECTIVITY:

AIRBUS A340 aircraft, models -211, -212, -213, -311, -312 and -313, all serial numbers.

2. REASONS:

This Airworthiness Directive (AD) was prompted by an incident that occurred in August 1998 when the right hand main landing gear (MLG) of an A340 aircraft fractured at Landing.

Investigation revealed a fatigue crack initiation located in the upper part of the MLG main fitting cylindrical barrel. This fatigue crack results from high steering and/or high towing angles when turning the aircraft.

It was determined that all A330 and A340 MLG of any standard to date could be affected.

This condition, if not corrected, could ultimately lead to a possible MLG failure on ground.

Several mandatory actions, covering the maintenance and operations aspects by MLG configuration, have been launched through AD 1998-475-103 R4.


This new simplified AD is introduced to take into account:

- the results of the first actions required by AD 1998-475-103 R4 which must have been complied with since March 31, 2002,
- new available modifications introducing HYBRID MLG.

3. MANDATORY ACTIONS AND COMPLIANCE TIMES:

To prevent the possible failure of a MLG resulting from fatigue crack propagation, the following measures are rendered mandatory from the effective date of this AD:

Note 1: The following requirements are applicable to the A340 aircraft "BASIC", "GROWTH", "SCALLOPED GROWTH" and "HYBRID" MLG's

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A) **MAINTENANCE:**

1. Braking/Steering Control Unit (BSCU) standard (std) 8C/8D/9A/9B:

Unless already accomplished, modify the aircraft steering system in accordance with one of the following AIRBUS Service Bulletins (SB):

- A340-32-4154 (Mod 47500) - BSCU std 8D which limits the nose wheel steering (NWS) angle to a maximum of 72° during powered turns, or
- A340-32-4187 (Mod 50214) - BSCU std 9A which limits the NWS angle to a maximum of 72° during powered turns, or
- A340-32-4131 (Mod 46863) - BSCU std 8C which limits the NWS angle to a maximum of 65° during powered turns, or
- A340-32-4208 (Mod 51393) - BSCU std 9B which limits the NWS angle to a maximum of 65°.

Note 2: When BSCU std 8C, 8D, 9A or 9B is installed, the NWS angle is limited for self-powered turns. The flight crew cannot override the angle limitation value which depends on the installed BSCU standard:

Installed BSCU standard	NWS angle limitation for self-powered turns
8D or 9A	72°
8C or 9B	65°

Note 3: For aircraft on which the tiller modification (Mod 46804/SB A340-32-4128) has been performed, the breakable stop limiting the NWS angle to 65° must be removed in accordance with SB A340-32-4132 (MOD 47349).

2. ACMS software:

ACMS recording of NWS angle exceedences is no longer required.

3. Nose landing gear (NLG) doors markings:


Unless accomplished previously, install markings of the steering angle limitation on NLG doors in accordance with one of the following instructions of:

- SB A340-32-4126 (Mod 46769) or AIRBUS Note 957.4055/98 which install markings for maximum towing/pushback turning angles (+/-60°), or
- SB A340-32-4158 (Mod 47701) which installs markings for maximum towing/pushback turning angles (+/-65°).

Note 4: If markings are installed on the NLG fittings in addition to the NLG doors markings, they must be installed in accordance with SB A340-32-4142 (Mod 47318) for 60° or with SB A340-32-4159 (Mod 47734) for 65°. Consistent angles (60° or 65°) must be used for the NLG main fitting and doors markings.

4. Inspection requirement:

MLG inspection in accordance with the procedure specified in SB A340-32A4124 is no longer required.

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B) OPERATIONS:

1. Towing and pushback:

Aircraft towing and pushback steering angle is limited to a maximum of 60° or 65° depending on the NLG doors markings installed in accordance with the above paragraph A)3. of this AD, using the procedure described in AIRBUS FOT 999.0099/98 Rev 2 of November 23, 1998.

2. Powered taxi:

- Do not exceed a 72° steering limit during taxi and powered turns.
- No braked pivot turn is allowed.
- Do not use asymmetric thrust to tighten turns. Asymmetric thrust is only authorized during turns at high NWS angles to initiate the turn and keep the aircraft moving during the turn.

4. REFERENCE PUBLICATIONS:

AIRBUS Service Bulletin A340-32A4124
AIRBUS Service Bulletin A340-32-4126
AIRBUS Service Bulletin A340-32-4128
AIRBUS Service Bulletin A340-32-4131
AIRBUS Service Bulletin A340-32-4132
AIRBUS Service Bulletin A340-32-4142
AIRBUS Service Bulletin A340-32-4154
AIRBUS Service Bulletin A340-32-4158
AIRBUS Service Bulletin A340-32-4159
AIRBUS Service Bulletin A340-32-4187
AIRBUS Service Bulletin A340-32-4208
AIRBUS FOT 999.0099/98 Revision 2 dated November 23, 1998
(Any further approved revision of these SB's or FOT is acceptable).
AIRBUS Note 957.4055/98

5. EFFECTIVE DATE:

December 20, 2003

6. REMARK:

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

AIRBUS - Gérard MEUREY - Fax : 33 5 61 93 45 80.

7. APPROVAL:

This AD is approved under EASA reference No 1438 dated December 02, 2003.