	AIRWORTHINESS DIRECTIVE No F-2004-189 R1	Distribution: B	Issue date: January 05, 2005	Page : 1/4
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.		<i>Translation of « Consigne de Navigabilité » of same number. In case of difficulty, reference should be made to the French issue.</i>	
	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: F-2004-189 original issue		
Person in charge of airworthiness: AIRBUS SAS		Type(s): A319, A320 and A321 aircraft		
Type certificate(s) No. 180 TCDS No 180				
ATA chapter: 53	Subject: Keel beam - Main landing gear door actuator fitting			

1. **EFFECTIVITY:**

AIRBUS A319, A320 and A321 aircraft, all certified models, all serial numbers (MSN), except aircraft that have received AIRBUS modification 30355 (or 31362 in production or AIRBUS Service Bulletin (SB) A320-53-1158 in service).

2. **REASONS:**

2.1. **MLG Door actuator fittings:**

On an A320, the crew was unable to close one of the Main Landing Gear (MLG) door.

On ground, the MLG door actuator fittings installed on the keel beam and the related strap were found cracked. Such failure could lead to the loss of the MLG door and could cause damage to the aircraft and/or hazard to persons or property on the ground.


Airworthiness Directive (AD) 2000-521-160, which dealt with the same subject, mandated the inspection of the MLG door actuator fittings.

The present AD takes over the requirements of AD 2000-521-160, which is cancelled, and introduces new requirements for MLG door actuator fittings inspection.

2.2. **Keel beam:**

In the frame of MLG door actuator fittings inspection, cracks were detected in the keel beam back-up structure. The cracks were initiated from the uppermost hole of the actuator fitting in the keel beam side panel.

This AD mandates the inspection of the uppermost fastener holes.

	AIRWORTHINESS DIRECTIVE No F-2004-189 R1	Distribution: B	Issue date: January 05, 2005	Page: 2/4
---	---	---------------------------	--	---------------------

Reason for Revision 1 :

Revision 1 aims at clarifying paragraphs A.1.2.1 et B.1 as well as modifying the list of aircraft involved in paragraph B.1.

3. MANDATORY ACTIONS AND COMPLIANCE TIMES:

A. MLG door actuator fittings:

A.1. For aircraft that have not received AIRBUS modification 26720 or 26721 in production or SB A320-53-1140 Revision 2 in service:

A.1.1. For aircraft having not received application of SB A320-53-1140 at original issue or Revision 1:

A.1.1.1. Before accumulation of 8,000 flights since the first flight or since fittings and straps replacement or within 500 flights from the effective date of this AD at original issue, whichever occurs later, perform an ultrasonic NDT inspection or Eddy current rotating probe inspection of the vertical flange and the connection straps of all MLG door actuator fittings, and apply all necessary corrective actions in accordance with the instructions given in the SB A320-53A1135 Revision 3.

The aircraft that have already been inspected with SB A320-53A1135 Revision 1 or 2 are compliant with paragraph A.1.1.1. of this AD.

A.1.1.2. Repeat the inspection as defined in paragraph A.1.1.1. and apply all necessary corrective actions, at intervals and following the instructions given in SB A320-53A1135 Revision 3.

Accomplishment of SB A320-53-1140 at Revision 2 cancels the requirements of paragraphs A.1.1.1. and A.1.1.2. of this AD.

A.1.2. For aircraft having received application of SB A320-53-1140 at original issue or Revision 1:

A.1.2.1. Before accumulation of 12,000 flights since accomplishment of the SB A320-53-1140 Rev. 00 and 01 or within 500 flights from the effective date of this AD at original issue, whichever occurs later, perform an Eddy current rotating probe inspection of the connection straps of all MLG door actuator fittings and apply all necessary corrective actions, in accordance with the instructions given in the SB A320-53A1135 Revision 3.


The aircraft that have already been inspected with SB A320-53A1135 Revision 1 or 2 are compliant with paragraph A.1.2.1. of this AD.

A.1.2.2. Repeat the inspection as defined in paragraph A.1.2.1. at intervals not exceeding 5,000 flights and apply all necessary corrective actions in accordance with the instructions given in the SB A320-53A1135 at Revision 3.

Accomplishment of SB A320-53-1140 at Revision 2 cancels the requirements of paragraphs A.1.2.1 and A.1.2.2. of this AD.

A.2. For aircraft that have received AIRBUS modification 26720 or 26721 in production, except aircraft that have received AIRBUS modification 28812 or 28813 in production or SB A320-53-1148 in service:

A.2.1. Before accumulation of 12,000 flights since the first flight or within 500 flights from the effective date of this AD at original issue, whichever occurs later, perform an Eddy current rotating probe inspection of the four fastener holes of each upper connection strap and apply all necessary corrective actions in accordance with the instructions given in the SB A320-53-1149.

	<p style="text-align: center;">AIRWORTHINESS DIRECTIVE</p> <p style="text-align: center;">No F-2004-189 R1</p>	<p>Distribution:</p> <p style="text-align: center;">B</p>	<p>Issue date:</p> <p style="text-align: center;">January 05, 2005</p>	<p>Page:</p> <p style="text-align: center;">3/4</p>
---	--	--	---	--

A.2.2. Repeat the inspection as defined in paragraph A.2.1. at intervals not exceeding 5,000 flights and apply all necessary corrective actions in accordance with the instructions given in the SB A320-53-1149.

Accomplishment of SB A320-53-1148 cancels the requirements of paragraphs A.2.1. and A.2.2. of this AD.

B. Keel Beam:

B.1. For A320 and A321 aircraft, MSN 2, 4, 26, 53, 76, 103, 194, 387, 412, 468, 473, 474, 514, 520, 706 and 755:

These aircraft have received a specific repair on the keel beam at the level of the uppermost attachment holes on the vertical flange of the MLG door actuator fittings. The inspection SB A320-53-1160 can not be applied on the repaired holes but remains applicable on the unrepaired holes.

For the repaired holes, before February 18th, 2005, contact Airbus for further actions.
For the unrepaired holes, apply the actions of following paragraphs B.2., B.3., B.4. or B.5., in accordance with aircraft configuration.

B.2. For A319 and A320 aircraft that have not received AIRBUS modification 26720 or 26721 in production, or SB A320-53-1140 in service and on which Ultrasonic NDT inspection as per SB A320-53A1135 Revision 3 is applied to comply A.1.:

B.2.1. Before accumulation of 8,000 flights since the first flight or within 3,500 flights from the effective date of this AD at original issue whichever occurs later, perform an Eddy current rotating probe inspection of the uppermost attachment hole on the vertical flange of the MLG door actuator fittings on the keel beam and apply all necessary corrective actions following the instructions given in the SB A320-53-1160.

B.2.2. Repeat the inspection as defined by paragraph B.2.1. of this AD at intervals not exceeding 6,000 flights and apply all necessary corrective actions following the instructions given in the SB A320-53-1160.

Accomplishment of SB A320-53-1158 cancels the requirements of paragraphs B.2.1. and B.2.2. of this AD.

Note: For aircraft on which SB A320-53A1135 (at any approved revision) inspection is performed using Eddy Current rotating probe method as per paragraph A.1.1 of this AD, inspection requirement as per paragraph B.2. of this AD does not apply.


B.3. For A321 aircraft that have not received AIRBUS modification 26720 or 26721 in production or SB A320-53-1140 in service and on which Ultrasonic NDT inspection as per SB A320-53A1135 Revision 3 is applied to comply A.1.:

B.3.1. Before accumulation of 8,000 flights since the first flight or within 500 flights from the effective date of this AD at original issue whichever occurs later, perform an Eddy current rotating probe inspection of the uppermost attachment hole on the vertical flange of the MLG door actuator fittings on the keel beam and apply all necessary corrective actions following the instructions given in the SB A320-53-1160.

B.3.2. Repeat the inspection as defined by paragraph B.3.1. of this AD at intervals not exceeding 4,000 flights and apply all necessary corrective actions following the instructions given in the SB A320-53-1160.

Accomplishment of SB A320-53-1158 cancels the requirements of paragraphs B.3.1. and B.3.2. of this AD.

Note: For aircraft on which SB A320-53A1135 (at any approved revision) inspection is performed using Eddy Current rotating probe method as per paragraph A.1.1 of this AD, inspection requirement as per paragraph B.3. of this AD does not apply.

	<p style="text-align: center;">AIRWORTHINESS DIRECTIVE No F-2004-189 R1</p>	<p>Distribution: B</p>	<p>Issue date: January 05, 2005</p>	<p>Page: 4/4</p>
---	---	-----------------------------------	--	-----------------------------

B.4. For aircraft that have received AIRBUS modification 26720 or 26721 in production:

B.4.1. Before accumulation of 12,000 flights since the first flight or within 3,500 flights from the effective date of this AD at original issue whichever occurs later, perform an Eddy current rotating probe inspection of the uppermost attachment hole on the vertical flange of the MLG door actuator fittings on the keel beam in accordance with the instructions given in the SB A320-53-1160.

B.4.2. Repeat the inspections as defined by paragraph B.4.1. of this AD at intervals not exceeding 7,000 flights and apply all necessary corrective actions following the instructions given in the SB A320-53-1160.

Accomplishment of SB A320-53-1158 cancels the requirements of paragraphs B.4.1. and B.4.2. of this AD.

B.5. For aircraft that have received AIRBUS SB A320-53-1140 in service:

B.5.1. Before accumulation of 12,000 flights since application of AIRBUS SB A320-53-1140 or within 3,500 flights from the effective date of this AD at original issue whichever occurs later, perform an Eddy current rotating probe inspection of the uppermost attachment hole on the vertical flange of the MLG door actuator fittings on the keel beam in accordance with the instructions given in the SB A320-53-1160.

B.5.2. Repeat the inspections as defined by paragraph B.5.1. of this AD at intervals not exceeding 7,000 flights and apply all necessary corrective actions following the instructions given in the SB A320-53-1160.

Accomplishment of SB A320-53-1158 cancels the requirements of paragraphs B.5.1. and B.5.2. of this AD.

Note: Total accomplishment of SB A320-53-1158 does not require previous incorporation of SB A320-53-1140 and A320-53-1148 for any paragraph of this Airworthiness Directive.

4. REFERENCE PUBLICATIONS:

AIRBUS Service Bulletin A320-53A1135 Revision 3
 AIRBUS Service Bulletin A320-53-1140 Revision 2
 AIRBUS Service Bulletin A320-53-1148
 AIRBUS Service Bulletin A320-53-1149
 AIRBUS Service Bulletin A320-53-1160
 AIRBUS Service Bulletin A320-53-1158
 (Any further approved revision of these documents is acceptable).

5. EFFECTIVE DATES:

Original issue : December 18, 2004
Revision 1 : January 15, 2005.

6. REMARK:

For questions concerning the technical contents of this AD's requirements, contact:
 AIRBUS SAS - Office of Airworthiness - EAS - Fax 33 5 61 93 44 51.

7. APPROVAL:

This AD Revision is approved under EASA reference No 2004-12555 dated December 27, 2004.