EASA	AIRWORTHINESS DIRECTIVE
	AD No.: 2012-0015 **Date: 23 January 2012** 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.

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].

Type Approval Holder's Name :	**Type/Model designation(s) :**
AIRBUS	A330 and A340-200/-300 aeroplanes

TCDS Numbers:	EASA.A.004, EASA.A.015
Foreign AD:	Not applicable
Supersedure:	This AD supersedes EASA AD 2011-0141 dated 25 July 2011.

ATA 32	**Landing Gear – Main Landing Gear Bogie Beam – Inspection / Repair / Modification**
Manufacturer(s):	Airbus (formerly Airbus Industrie)
Applicability:	Airbus A330-201, A330-202, A330-203, A330-223, A330-223F, A330-243, A330-243F, A330-301, A330-302, A330-303, A330-321, A330-322, A330-323, A330-341, A330-342 and A330-343 aeroplanes, all manufacturer serial numbers (MSN), except those on which Airbus modification 58896 has been embodied in production. Airbus A340-211, A340-212, A340-213, A340-311, A340-312 and A340-313 aeroplanes, all MSN, except those on which Airbus modification 58896 has been embodied in production.
Reason:	The operator of an A330 aeroplane (which has a common bogie beam with the A340) reported a fracture of the right-hand (RH) main landing gear (MLG) bogie beam, which occurred while turning during low speed taxi maneuvers. The bogie fractured aft of the pivot point and remained attached to the sliding tube by the brake torque reaction rods. After this RH bogie failure, the aeroplane continued for approximately 40 meters on the forks of the sliding member before coming to rest on the taxiway. The preliminary investigations revealed that this event was due to corrosion pitting occurring on the bore of the bogie beam. Investigations are ongoing to determine why bogie beam internal paint has been degraded, leading to a loss of cadmium plating, thereby allowing development of corrosion pitting. This condition, if not detected and corrected, could lead to a runway excursion event or to detachment of the bogie from the aeroplane, or to MLG collapse, possibly resulting in damage to the aeroplane and injury to the occupants.

<table>
<tr><td></td><td>To enable early detection and repair of corrosion of the internal surfaces, EASA issued EASA AD 2007-0314 to require a one-time inspection of all MLG bogie beams, except Enhanced MLG bogie beams, and the reporting of the results to Airbus. EASA AD 2007-0314 was revised and later superseded by EASA AD 2008-0093, reducing the inspection threshold.

The results of subsequent investigations showed thin paint coats and paint degradation, confirmed as well on Enhanced MLG bogie beams. To address this additional concern, EASA issued EASA AD 2011-0141, retaining the requirements of EASA AD 2008-0093, which was superseded, to require a one-time visual inspection of all MLG bogie beams, including a visual examination of the internal diameter for corrosion or damage to protective treatments of the bogie beam and measurement of the paint thickness on the internal bore, accomplishment of the applicable corrective actions and a modification of the MLG bogie beam to improve the coat paint application method, and application of corrosion protection.

Prompted by in-service requests, this AD retains the requirements of EASA AD 2011-0141, which is superseded, and introduces repetitive inspections of the MLG bogie beams, which allows extension of the compliance time for the MLG bogie beam modification from 15 years to 21 years. Modification of a MLG bogie beam constitutes terminating action for the repetitive inspections for that MLG bogie beam.</td></tr>
<tr><td>Effective Date:</td><td>06 February 2012</td></tr>
<tr><td>Required Action(s) and Compliance Time(s):</td><td>Required as indicated, unless accomplished previously:

(1) Within the threshold indicated in Table 1 of this AD, depending on the MLG bogie beam condition and, thereafter, at intervals indicated in Table 2 of this AD, clean the internal bore and perform a detailed visual inspection of internal surfaces of the LH and RH MLG bogie beams for any damage to the protective treatments or any corrosion, in accordance with instructions of Airbus SB A330-32-3225 Revision 01 or SB A340-32-4268 Revision 01, as applicable to aeroplane type.

Table 1 – Initial Inspection

<table>
<tr><th>MLG bogie beam condition</th><th>Compliance time</th></tr>
<tr><td>MLG bogie beams which have not embodied Airbus modification 54500 in production nor Airbus SB A330-32-3212 or Airbus SB A340-32-4256 in service, and which had accumulated on 03 June 2008 [the effective date of EASA AD 2008-0093] less than or equal to 4.5 years since their first flight on an aeroplane or since their first flight after their last overhaul, as applicable</td><td>At the first convenient maintenance opportunity which occurs after the 4.5 years threshold, but no later than 6 years since the LH or RH MLG bogie beam first flight on an aeroplane or since first flight after its last overhaul, as applicable</td></tr>
<tr><td>MLG bogie beams which have not embodied Airbus modification 54500 in production nor Airbus SB A330-32-3212 or Airbus SB A340-32-4256 in service, and which had accumulated on 03 June 2008 more than 4.5 years since their first flight on an aeroplane or since their first flight after their last overhaul, as applicable</td><td>At the next convenient maintenance opportunity, or within 18 months after 04 January 2008 [the effective date of EASA AD 2007-0314R1], whichever occurs first and without exceeding the next bogie beam overhaul.</td></tr>
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Table 2 – Repeat Inspection

No later than 6 years, but not earlier than 4 years since its first flight after the MLG bogie beam overhaul which occurs after the last inspection

(1.1) If, during any of the inspections as required by paragraph (1) of this AD, no damage and no corrosion is found, before next flight, apply the protective treatments of the bogie beam in accordance with the instructions of Airbus SB A330-32-3225 Revision 01 or SB A340-32-4268 Revision 01, as applicable to aeroplane type.

(1.2) If, during any of the inspections as required by paragraph (1) of this AD, damage or corrosion is found, before next flight, record the findings and apply the applicable corrective actions and accomplish the repair in accordance with the instructions of Airbus SB A330-32-3225 Revision 01 or SB A340-32-4268 Revision 01, as applicable to aeroplane type.

(2) Accomplishment of the inspection and corrective actions, in accordance with the instructions of Messier-Dowty SB N° A33/34-32-271 or in accordance with the instructions of Messier-Dowty SB N° A33/34-32-272, as applicable, is an acceptable method to comply with the requirements of paragraph (1) of this AD.

(3) MLG bogie beams that have been inspected and corrected, before the effective date of this AD, in accordance with the instructions of Airbus SB A330-32-3225 at original issue or Airbus SB A340-32-4268 at original issue, as applicable to the aeroplane type, are compliant with the requirements of paragraph (1) of this AD. The repetitive inspections as required by paragraph (1) of this AD remain applicable.

(4) Before a MLG bogie beam accumulates 21 years since its first flight on an aeroplane, accomplish the following actions concurrently:

(4.1) Visually inspect the internal bores of the MLG bogie beam in accordance with the instructions of Airbus SB A330-32-3237 or Airbus SB A340-32-4279, as applicable to aeroplane type and, in case damage or corrosion is found, apply the corrective actions and accomplish the repair in accordance with the instructions of Airbus SB A330-32-3237 or SB A340-32-4279, as applicable to aeroplane type, and

(4.2) Modify and/or re-identify, as applicable, the MLG bogie beam in accordance with the instructions of Airbus SB A330-32-3237 or Airbus SB A340-32-4279, as applicable to aeroplane type.

(4.3) The inspection requirements of paragraph (4.1) of this AD and the modification requirements only of paragraph (4.2) do not apply to a MLG bogie beam whose serial number is listed in Appendix A of Messier-Dowty SB N° A33/34-32-283 or Messier-Dowty SB N° A33/34-32-284, as applicable.

(5) Within 90 days after accomplishment of each inspection as required by paragraph (1) or paragraph (4) of this AD, as applicable, report the results, including no findings, to Airbus.

(6) Accomplishment of inspections and corrective actions in accordance with the instructions of Messier-Dowty SB N° A33/34-32-278 is an acceptable alternative method to comply with the requirements of paragraph (4.1) of this AD.

(7) Modification of a MLG bogie beam in accordance with the instructions of Messier-Dowty SB N° A33/34-32-283 or Messier-Dowty SB N° A33/34-32-284, as applicable, is an acceptable alternative method to comply with the requirements of paragraph (4.2) of this AD for that MLG bogie beam.

	(8) Modification of a MLG bogie beam as required by paragraph (4) of this AD, or as specified in paragraphs (6) **and** (7) of this AD, constitutes terminating action for the repetitive inspections required by paragraph (1) of this AD for that MLG bogie beam. (9) From the effective date of this AD, do not install any MLG bogie beam on an aeroplane, unless it is in compliance with the requirements and thresholds of this AD.
Ref. Publications :	Airbus SB A330-32-3225 original issue dated 21 November 2007, or Revision 01 dated 30 October 2008. Airbus SB A340-32-4268 original issue dated 21 November 2007, or Revision 01 dated 30 October 2008. Messier-Dowty SB N° A33/34-32-271 original issue dated 13 September 2007. Messier-Dowty SB N° A33/34-32-272 original issue original issue dated 16 November 2007, or Revision 1 dated 22 September 2008. Messier-Dowty SB N° A33/34-32-278 original issue dated 17 February 2010. Messier-Dowty SB N° A33/34-32-283 original issue dated 11 May 2010. Messier-Dowty SB N° A33/34-32-284 original issue dated 11 May 2010. Airbus SB A330-32-3237 original issue dated 18 January 2011. Airbus SB A340-32-4279 original issue dated 18 January 2011. 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 22 December 2011 as PAD 11-135 for consultation until 19 January 2012. The Comment Response Document can be found at http://ad.easa.europa.eu. 3. Enquiries regarding this AD should be referred to the Safety Information Section, Executive Directorate, EASA. E-mail ADs@easa.europa.eu. 4. For any question concerning the technical content of the requirements in this AD, please contact: AIRBUS SAS – Airworthiness Office – EIAL, E- mail: airworthiness.A330-A340@airbus.com.