EASA	AIRWORTHINESS DIRECTIVE
	AD No.: 2013-0267R1 **Date: 04 March 2014** 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 EU 748/2012, Part 21.A.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
Revision:	This AD revises EASA AD 2013-0267 dated 06 November 2013, which superseded EASA AD 2012-0015 dated 23 January 2012.
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 investigations revealed that this event was due to corrosion pitting occurring on the bore of the bogie beam. 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. 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 period. 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 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, EASA issued EASA AD 2012-0015 retaining the requirements of EASA AD 2011-0141, which was superseded, and introducing 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. Reports on inspection results provided to Airbus show that some aeroplanes were initially inspected too early (before 4 years and 6 months since aeroplane first flight with bogie beam installed/installed after overhaul) and have not been re-inspected as required. For the reasons described above, this AD retains the requirements of EASA AD 2012-0015, which is superseded, and redefines the inspection periodicity. This AD also introduces a specific one-time inspection for aeroplanes that have been inspected too early. Prompted by operator comments, this AD is revised to clarify the required actions and the specific configurations to which the actions must be applied. Appendix 1 of this AD has been amended accordingly.
Effective Date:	Revision 1: 11 March 2014 Original issue: 20 November 2013
Required Action(s) and Compliance Time(s):	Required as indicated, unless accomplished previously: **Part A: For aeroplanes equipped with basic MLG (201252 series), or growth MLG (201490 series):** (1) After 4 years and 6 months earliest, but no later than 6 years since the Left Hand or RH MLG bogie beam first flight on an aeroplane, or since its first flight on an aeroplane after overhaul, as applicable, and thereafter, at intervals not less than 4 years and 6 months, but not exceeding 6 years, since the last inspection, clean the internal bore and accomplish a detailed inspection of internal surfaces of the LH and RH MLG bogie beams to detect any damage to the protective treatments and/or any corrosion, and measure the paint thickness on the internal bore in accordance with instructions of Airbus SB A330-32-3225 Revision 02 or SB A340-32-4268 Revision 03, as applicable to aeroplane type. During overhaul of a MLG bogie beam, any corrosion will be removed, which means that the first inspection after overhaul of that bogie beam, as required by paragraph (1) of this AD, is due between 4 years and 6 months and 6 years since its first flight after that overhaul. (2) Inspections and corrective actions on both MLG bogie beams on an aeroplane, in accordance with the instructions of Messier-Dowty (M-D) SB A33/34-32-271 or in accordance with the instructions of M-D SB A33/34-32-272 (initial and repetitive), as applicable, are acceptable to

comply with the requirements of paragraph (1) of this AD for that aeroplane, provided each inspection is accomplished between 4 years and 6 months and 6 years since first flight of the affected MLG bogie beam on an aeroplane or since its first flight after its last overhaul, as applicable.

(3) Inspections and corrective actions on a LH or RH MLG bogie beam, accomplished before 20 November 2013 [the effective date of the original issue of this AD] in accordance with the instructions of Airbus SB A330-32-3225 at original issue or Revision 01 or Airbus SB A340-32-4268 at original issue or Revision 01 or Revision 02, as applicable to aeroplane type, are acceptable to comply with the initial inspection as required by paragraph (1) of this AD, provided these inspections and corrective actions were accomplished between 4 years and 6 months and 6 years since first flight of the affected MLG bogie beam on an aeroplane or since its first flight after its last overhaul, as applicable.

(4) **Specific one-time inspection**:

For a LH or RH MLG bogie beam which has [on 20 November 2013, the effective date of the original issue of this AD] already **exceeded 6 years** since its first flight on an aeroplane, or since its first flight on an aeroplane after overhaul, as applicable, and has been inspected **earlier than 4 years and 6 months** since first flight of the affected MLG bogie beam on an aeroplane, or since its first flight on an aeroplane after its last overhaul, as applicable, accomplish the actions as specified in paragraphs (4.1) and (4.2) of this AD in accordance with the instructions of Airbus SB A330-32-3225 or Airbus SB A340-32-4268 (at any revision) as applicable to aeroplane type.

Table 1 – Specific one-time inspection for aeroplane groups as defined in Appendix 1 of this AD.

Group	MLG bogie beam first inspection (defined time periods are since the LH or RH MLG bogie beam first flight on an aeroplane or since its first flight on an aeroplane after its last overhaul, as applicable)	Compliance time after 20 November 2013 [the effective date of the original issue of this AD
A	Inspected after 4 years and 3 months and before 4 years and 6 months inclusive.	within **9 months**
B	Inspected after 3 years and 9 months and before 4 years and 3 months inclusive	within **3 months**
	Inspected before 4 years and 3 months, **and** have accumulated (on 20 November 2013) less than 8 years	
C	Inspected before 3 years and 9 months inclusive, **and** have accumulated (on 20 November 2013) more than 8 years	within **1 month**

(4.1) Within the compliance time indicated in Table 1 of this AD, depending on the MLG bogie beam age and the date of the first inspection (see groups of aeroplanes in the chart in Appendix 1), clean the internal bore and accomplish a detailed inspection of internal surfaces of the LH and RH MLG bogie beams to detect any damage to the protective treatments and/or any corrosion and measure the paint thickness on the internal bore in accordance with

the instructions of Airbus SB A330-32-3225 Revision 02 or SB A340-32-4268 Revision 03, as applicable to aeroplane type.

(4.2) Within 30 days after accomplishment of the one-time specific inspection as required by paragraph (4.1) of this AD, report the results, including no findings, to Airbus.

(4.3) After accomplishment of the one-time specific inspection as required by paragraph (4.1) of this AD, the repetitive actions as required by paragraph (1) of this AD remain applicable, within the periods specified in paragraph (1) of this AD.

(5) If, during any inspection as required by paragraph (1) or (4.1) 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 02 or SB A340-32-4268 Revision 03, as applicable to aeroplane type.

(6) If, during any inspection as required by paragraph (1) or (4.1) of this AD, damage or corrosion is found, before next flight, record the findings and accomplish the applicable corrective actions, accomplish the repair and apply the protective treatments of the bogie beam in accordance with the instructions of Airbus SB A330-32-3225 Revision 02 or SB A340-32-4268 Revision 03, as applicable to aeroplane type.

Part B: For aeroplanes equipped with basic MLG (201252 series), or growth MLG (201490 series), or enhanced MLG (10-210 series):

(7) Before a MLG bogie beam accumulates 21 years since its first flight on an aeroplane, accomplish the actions as specified in paragraphs (7.1) and (7.2) of this AD, **concurrently and in sequence:**

(7.1) Visually inspect the internal bores of the LH and RH MLG bogie beams 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.

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

(7.3) The inspection requirements of paragraph (7.1) of this AD and the modification requirements only of paragraph (7.2) do not apply to a MLG bogie beam whose serial number is listed in Appendix A of M-D SB A33/34-32-283 or M-D SB A33/34-32-284, as applicable.

(8) Within 90 days after accomplishment of each inspection as required by paragraph (1) or paragraph (7) of this AD, as applicable, report the results, including no findings, to Airbus.

(9) Accomplishment of inspections and corrective actions on both MLG bogie beams installed on an aeroplane, in accordance with the instructions of M-D SB A33/34-32-278, is an acceptable alternative method to comply with the requirements of paragraph (7.1) of this AD for that aeroplane.

(10) Modification of both MLG bogie beams on an aeroplane in accordance with the instructions of M-D SB A33/34-32-283 or M-D SB A33/34-32-284, as applicable, is an acceptable alternative method to comply with the requirements of paragraph (7.2) of this AD for that aeroplane.

(11) Modification of both MLG bogie beams on an aeroplane, as required by paragraph (7) of this AD, or as specified in paragraphs (9) **and** (10) of this AD, constitutes terminating action for the repetitive inspections required

	by paragraph (1) of this AD for that aeroplane. (12) After modification of an aeroplane as required by paragraph (7) of this AD, or as specified in paragraphs (9) **and** (10) of this AD, do not install on that aeroplane a MLG bogie beam, unless: - that MLG bogie beam has been modified and re-identified in accordance with the instructions of Airbus SB A330-32-3237 or Airbus SB A340-32-4279, as applicable to aeroplane type, or, - that MLG bogie beam has been inspected and corrected in accordance with the instructions of M-D SB A33/34-32-278, and modified in accordance with the instructions of M-D SB A33/34-32-283, or M-D SB A33/34-32-284, as applicable, or, - that MLG bogie beam has a serial number which is listed in Appendix A of M-D SB A33/34-32-283 or M-D SB A33/34-32-284, as applicable. (13) From 20 November 2013 [the effective date of the original issue of this AD], except as specified in paragraph (12) of this AD, it is allowed to install a MLG bogie beam on an aeroplane, provided that, following installation, it is inspected and, depending on findings, corrected in compliance with the requirements of this AD.
Ref. Publications :	Airbus SB A330-32-3225 original issue dated 21 November 2007, or Revision 01 dated 30 October 2008, or Revision 02 dated 26 October 2012. Airbus SB A340-32-4268 original issue dated 21 November 2007, or Revision 01 dated 30 October 2008, or Revision 02 dated 26 October 2012, or Revision 03 dated 14 January 2013. M-D SB A33/34-32-271 original issue dated 13 September 2007, or Revision 1 dated 16 November 2007. M-D SB A33/34-32-272 original issue dated 16 November 2007, or Revision 1 dated 22 September 2008. M-D SB A33/34-32-278 original issue dated 17 February 2010, or Revision 1 dated 24 August 2011. M-D SB A33/34-32-283 original issue dated 11 May 2010, or Revision 1 dated 10 July 2012. M-D SB A33/34-32-284 original issue dated 11 May 2010, or Revision 1 dated 10 July 2012. Airbus SB A330-32-3237 original issue dated 18 January 2011, or Revision 01 dated 14 October 2011. Airbus SB A340-32-4279 original issue dated 18 January 2011, or Revision 01 dated 14 October 2011. Airbus SB A330-32-3222 original issue dated 10 January 2008. Airbus SB A340-32-4265 original issue dated 11 January 2008. 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. Based on the required actions and the compliance time, EASA have decided to issue a Final AD with Request for Comments, postponing the public consultation process until after publication. 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 – Airworthiness Office – EIAL, E- mail: airworthiness.A330-A340@airbus.com.

Appendix 1

Aeroplane Group determination chart for the specific one-time inspection
as required by paragraph (4.1) of this AD