



Notification of a proposal to issue an Airworthiness Directive

PAD No.: 17-051

Issued: 26 April 2017

Note: This Proposed Airworthiness Directive (PAD) is issued by EASA, acting in accordance with Regulation (EC) 216/2008 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 66 of that Regulation.

In accordance with the EASA Continuing Airworthiness Procedures, the Executive Director is proposing the issuance of an EASA Airworthiness Directive (AD), applicable to the aeronautical product(s) identified below.

All interested persons may send their comments, referencing the PAD Number above, to the e-mail address specified in the 'Remarks' section, prior to the consultation date indicated.

Design Approval Holder's Name:

AIRBUS

Type/Model designation(s):

A330 and A340 aeroplanes

Effective Date: [TBD - standard: 14 days after AD issue date]

TCDS Numbers: EASA.A.004, EASA.A.015

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2013-0067 issued on 14 March 2013.

ATA 32 – Landing Gear – Repaired Main Landing Gear Wheel Axles – Reduced Life Limit

Manufacturer(s):

Airbus (formerly Airbus Industrie)

Applicability:

Airbus A330-201, A330-202, A330-203, A330-223, A330-243, 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 (mod) 54500 has been embodied in production, or those on which Airbus Service Bulletin A330-32-3273 has been embodied in-service.

Airbus A340-211, A340-212, A340-213, A340-311, A340-312 and A340-313 aeroplanes, all MSN except those on which Airbus mod 54500 has been embodied in production.

Reason:

In the past EASA received a report, via Airbus and Messier-Bugatti-Dowty Ltd, from a Maintenance Repair Organisation (MRO), concerning a specific repair accomplished on certain Main Landing Gear (MLG) wheel axles. Investigations revealed that the axles were machined with a radius as small as 0.4 mm.



This condition, if not corrected, has a detrimental effect on the fatigue lives of these parts, possibly affecting the structural integrity of the aeroplane. Fatigue analysis were performed and the results indicated that the life limit of the affected MLG wheel axles must be reduced to below the one stated in the A330 and A340 Airbus Airworthiness Limitation Section (ALS) Part 1.

To address this potential unsafe condition, EASA issued AD 2011-0170, which required the replacement of the MLG wheel axles before reaching the new reduced demonstrated life limit.

Since that AD was issued, it was discovered that additional MLG wheel axles were subject to repairs by the same MRO. Consequently, EASA issued AD 2013-0067, retaining the requirements of EASA AD 2011-0170, which was superseded, and required the replacement of this additional batch of affected MLG wheel axles.

Since EASA AD 2013-0067 was issued, it was reported that two additional MROs have accomplished similar incorrect repairs on additional MLG wheel axles, necessitating implementation of a reduced life limit. The affected MLG wheel axles, as well as the related life limits, have been published in Airbus Service Bulletin (SB) A330-32-3282 and SB A340-32-4311, as applicable to aeroplane type.

For the reasons described above, this AD retains the requirements of EASA AD 2013-0067, which is superseded, and requires identification and replacement of the affected MLG wheel axles.

Required Action(s) and Compliance Time(s):

Required as indicated, unless accomplished previously:

Note 1: Airbus SB A330-32-3282 and SB A340-32-4311 are hereafter collectively referred to as “the applicable SB” in this AD.

Note 2: For the purpose of this AD, the affected MLG wheel axles are listed by Part Number (P/N) and serial number (s/n) in Appendix 01 (MRO 1), Appendix 02 (MRO 2) and Appendix 03 (MRO 3) of the applicable SB and as applicable to MRO listed in Table 1 of this AD. In addition to the above lists, MLG wheel axle P/N 201272649, s/n SER959/96, is also affected as a MLG wheel axle from MRO 1.

Note 3: For the purpose of this AD, a serviceable MLG wheel axle is an affected MLG wheel axle (see Note 2 of this AD) that has not exceeded the applicable life limit values as specified in Appendix 1 of this AD, or a new part with a P/N and s/n not listed in Appendix 01, Appendix 02 or Appendix 03 of the applicable SB.

Note 4: For the purpose of this AD, the term post-repair “Life Limits” represents the time in service, flight cycles (FC) or flight hours (FH), whichever occurs first, accumulated since repair by the affected MRO (see Appendix 1 of this AD).

Identification:

- (1) Within 90 days after the effective date of this AD, identify the P/N and s/n of each Left Hand (LH) and Right Hand (RH) MLG wheel axle and determine whether the MLG wheel axle is an affected part (see Note 2 of this AD).



A review of aeroplane delivery and/or maintenance records is acceptable to make this determination, in lieu of inspecting a MLG wheel axle, provided those records can be relied upon for that purpose and the P/N and s/n of the affected part can be positively identified from that review.

Replacement:

- (2) Based on the identification as required by paragraph (1) of this AD, except as specified in paragraph (3) of this AD, before exceeding the post-repair life limits specified in Appendix 1 of this AD, as applicable to MRO, aeroplane type, model and Weight Variant (WV) series, replace each repaired MLG wheel axle with a serviceable part in accordance with the instructions of the applicable SB (See Notes 3 and 4 of this AD).
- (3) For some affected MLG wheel axles repaired by MRO 2 (Appendix 1, Table 2) or MRO 3 (Appendix 1, Table 3) that are close to, or have exceeded the post-repair life limits specified in Appendix 1 of this AD, it is acceptable to replace a repaired MLG wheel axle, as required by paragraph (2) of this AD, within 19 months after the effective date of this AD, without exceeding the values specified as 'exceedance' in Table 2 or Table 3, as applicable, of Appendix 1 of this AD.

Part installation:

- (4) From 21 September 2011 [the effective date of EASA AD 2011-0170], an affected MLG wheel axle repaired by MRO 1 can be installed on an aeroplane, provided the MLG axle is serviceable (see Note 3 of this AD).
- (5) From the effective date of this AD, an affected MLG wheel axle repaired by MRO 2 or by MRO 3 can be installed on an aeroplane, provided the MLG axle is serviceable (see Note 3 of this AD).

Ref. Publications:

Airbus SB A330-32-3282 Revision 01 dated 28 February 2017.

Airbus SB A340-32-4311 Revision 01 dated 28 February 2017.

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

Remarks:

1. This Proposed AD will be closed for consultation on 24 May 2017.
2. Enquiries regarding this PAD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
3. For any question concerning the technical content of the requirements in this PAD, please contact: AIRBUS – EIAW (Airworthiness Office)
E-mail: airworthiness.A330-A340@airbus.com.



Appendix 1

Table 1 – Post-Repair (by MRO 1) MLG Wheel Axles Life Limits (see Note 4 of this AD)

Affected Aeroplane(s)	WV (series)	Compliance Time
A340-211, A340-212 and A340-213	WV00x	4 600 FC or 29 000 FH
A340-311, A340-312 and A340-313	WV00x	4 700 FC or 22 250 FH
A340-313	WV02x and WV05x	3 950 FC or 16 900 FH
A330-301, A330-321, A330-322, A330-341 and A330-342	WV00x and WV01x	5 050 FC or 15 200 FH
A330-201, A330-202, A330-203, A330-223 and A330-243	WV02x, WV05x and WV06x	4 450 FC or 17 900 FH
A330-301, A330-302, A330-303, A330-323, A330-342 and A330-343	WV02x and WV05x	5 150 FC or 13 450 FH

Table 2 – Post-Repair (by MRO 2) MLG Wheel Axles Life Limits (see Note 4 of this AD)

Affected Aeroplane(s)	WV (series)	Compliance Time	Exceedance
A340-211, A340-212, A340-213, A340-311, A340-312 and A340-313	WV00x	25 000 FC or 100 000 FH	None
A340-311, A340-312 and A340-313	WV02x and WV05x	25 000 FC or 83 100 FH	25 000 FC or 100 000 FH
A330-301, A330-321, A330-322, A330-341 and A330-342	WV00x, WV01x, WV02x and WV05x	50 000 FC or 75 000 FH	None
A330-201, A330-202, A330-203, A330-223 and A330-243	WV02x, WV05x (except WV058) and WV06x		
	WV058	50 000 FC or 70 950 FH	50 000 FC or 75 000 FH



Table 3 – Post-Repair (by MRO 3) MLG Wheel Axle Life Limits (see Note 4 of this AD)

Affected Aeroplane(s)	WV (series)	Compliance Time	Exceedance
A340-211, A340-212, A340-213, A340-311, A340-312 and A340-313	WV00x	25 000 FC or 100 000 FH	None
A340-311, A340-312 and A340-313	WV02x and WV05x	25 000 FC or 68 800 FH	25 000 FC or 100 000 FH
A330-301, A330-321, A330-322, A330-341 and A330-342	WV00x and WV01x	50 000 FC or 73 400 FH	50 000 FC or 75 000 FH
	WV02x and WV05x	50 000 FC or 64 150 FH	
A330-201, A330-202, A330-203, A330-223 and A330-243	WV02x, WV05x (except WV058) and WV06x	50 000 FC or 62 950 FH	
	WV058	50 000 FC or 59 350 FH	

Revised

