

 <b>適航指令發布單</b> <b>Airworthiness Directive Issuance Form</b>	
民航局 AD 編號 AD number	CAA-2017-12-003 發布日期 Date issued 2017/12/18
適用之航空產品 Applied to (models, serial numbers or part numbers, as applicable)	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 MSN 0896, 0905 and 0913 (see below) and except those on which Airbus modification (mod) 54500 has been embodied in production. Airbus A330-343 aeroplanes, MSN 0896, 0905 and 0913, except those on which Airbus Service Bulletin (SB) 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.
主旨摘要	Landing Gear - Repaired Main Landing Gear Wheel Axles - Reduced Life Limit
民航局 CAA <input type="checkbox"/> 本國產品 Native products <input type="checkbox"/> 其他個案 Other	設計國民航主管機構 Original Authorities <input type="checkbox"/> FAA <input checked="" type="checkbox"/> EASA <input type="checkbox"/> Brazil <input type="checkbox"/> Transport Canada Civil Aviation <input type="checkbox"/> DGAC <input type="checkbox"/> Germany LBA <input type="checkbox"/> CAA-NL <input type="checkbox"/> UK CAA <input type="checkbox"/> Japan CAB <input type="checkbox"/> CAA of Israel <input type="checkbox"/> Other _____
	設計國 AD 編號 Original AD number 2017-0245
	1. 直接採用原 AD 之內容?(Is the original AD directly adopted?) <input checked="" type="checkbox"/> 是(Yes) <input type="checkbox"/> 否(No) _ a. 生效日期另訂為(Re-specify the effective date as) : _____ b. 執行時限另訂為(Re-specify the compliance time or period as) : _____ 2. 使用人是否需要將 AD 執行結果向民航局提出報告?(Do Users need to report the status of compliance to the CAA?) <input type="checkbox"/> 是(Yes) <input checked="" type="checkbox"/> 否(No)
備註 Note	ATA 32. This AD supersedes EASA AD 2013-0067(CAA-2013-03-011) issued on 14 March 2013. Ref. Publications: Airbus SB A330-32-3282 Revision 03 dated 24 October 2017. and Airbus SB A340-32-4311 Revision 03 dated 24 October 2017.
註： Note：	1. AD 內容後附。 2. 航空器產品使用人得向民航局提出豁免、替代符合方法、執行時限之展延之申請。 3. 如有任何問題，請聯絡交通部民用航空局初始適航科。Tel：(02)2349-6331~3, Fax：(02)2545-8464, e-mail： <a href="mailto:adcaa@mail.caa.gov.tw">adcaa@mail.caa.gov.tw</a> 1. The AD text is enclosed. 2. Exemption, an alternative method of compliance or adjustment of the compliance time may be proposed to the CAA for approval. 3. For further information, please contact Civil Aeronautics Administration on Tel:(02)2349-6331~3, Fax:(02)2545-8464, e-mail： <a href="mailto:adcaa@mail.caa.gov.tw">adcaa@mail.caa.gov.tw</a>



## Airworthiness Directive

**AD No.:** 2017-0245

**Issued:** 11 December 2017

Note: This Airworthiness Directive (AD) 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.

This AD is issued in accordance with Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (EU) 1321/2014 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 [Regulation (EU) 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [Regulation (EC) 216/2008, Article 14(4) exemption].

### Design Approval Holder's Name:

AIRBUS

### Type/Model designation(s):

A330 and A340 aeroplanes

**Effective Date:** 25 December 2017

**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 MSN 0896, 0905 and 0913 (see below) and except those on which Airbus modification (mod) 54500 has been embodied in production.

Airbus A330-343 aeroplanes, MSN 0896, 0905 and 0913, except those on which Airbus Service Bulletin (SB) 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 analyses 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 exceeding the new reduced demonstrated life limit. After 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 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, both at Revision 03, 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 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.

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 12 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 03 dated 24 October 2017.

Airbus SB A340-32-4311 Revision 03 dated 24 October 2017.

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.
2. This AD was posted on 26 April 2017 as PAD 17-051 for consultation until 24 May 2017 and republished on 14 June 2017 as PAD 17-051R1 for consultation until 28 June 2017 and republished on 24 November 2017 as PAD 17-051R2 for consultation until 05 December 2017. The Comment Response Document can be found in the [EASA Safety Publications Tool](#), in the compressed (zipped) file attached to the record for this AD.
3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu).



4. For any question concerning the technical content of the requirements in this AD, please contact: AIRBUS – EIAL (Airworthiness Office), E-mail: [airworthiness.A330-A340@airbus.com](mailto: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)

<b>Affected Aeroplane(s)</b>	<b>WV (series)</b>	<b>Compliance Time</b>	<b>Exceedance</b>
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 64 100 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	

