



Airworthiness Directive

AD No.: 2015-0120R1

Issued: 21 September 2016

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: Revision 1: 28 September 2016
Original issue: 10 July 2015

TCDS Number(s): EASA.A.004 and EASA.A.015

Foreign AD: Not applicable

Revision: This AD revises EASA AD 2015-0120 dated 26 June 2015.

ATA 57 – Wings – Main Landing Gear Rib 6 Aft Bearing Lugs – Inspection / Replacement

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 (mod) 205205 or mod 205492 has been embodied in production, and

Airbus A340-211, A340-212, A340-213, A340-311, A340-312, A340-313, A340-541, A340-542, A340-642 and A340-643 aeroplanes, all MSN.

Reason:

During main landing gear (MLG) lubrication, a crack was visually found in the MLG rib 6 aft bearing forward lug on one A330 in-service aeroplane. The crack had extended through the entire thickness of the forward lug at approximately the 4 o'clock position (when looking forward). It has been determined that a similar type of crack can develop on other aeroplane types that are listed in the applicability paragraph.



This condition, if not detected and corrected, could affect the structural integrity of the MLG attachment.

To address this potential unsafe condition, Airbus issued inspection Service Bulletin (SB) A330-57-3096, SB A340-57-4104 and SB A340-57-5009 to provide instructions for repetitive inspections of the gear rib lugs. Prompted by these findings, EASA issued Emergency AD 2006-0364-E to require repetitive detailed visual inspections of the left-hand (LH) and right-hand (RH) wing MLG rib 6 aft bearing lugs. Subsequently, EASA issued AD 2007-0247-E (later revised), which superseded AD 2006-0364-E, to expand the applicability to all A330 and A340 aeroplanes, because the interference fit bushes could not be considered as a terminating action, owing to unknown root cause; and to add a second parameter quoted in flight hours (FH) to the inspection interval in order to reflect the aeroplane utilization in service.

Since EASA AD 2007-0247R1 was issued, six further cracks were reported. Consequently, EASA issued AD 2013-0271, retaining the requirements of AD 2007-0247R1-E, which was superseded, and expanded the applicability of the AD to the newly certified models A330-223F and A330-243F. That AD also reduced the inspection threshold(s) to reflect the updated risk assessment and in-service experience.

Since EASA AD 2013-0271 was issued, a new occurrence of crack finding was reported. Prompted by this finding, analysis resulted in the need to reduce the threshold of the initial inspection and Airbus issued SB A330-57-3096 Revision 06 to introduce this more restrictive initial inspection threshold and a grace period for aeroplanes which had already passed the new threshold.

Consequently, EASA issued AD 2015-0120, partially retaining the requirements of EASA AD 2013-0271, which was superseded, and introducing those reduced initial inspection thresholds.

Since that AD was issued, Airbus developed mod 205205 and mod 205492 to address the rib lug crack matter for aeroplanes in production. For in-service aeroplanes, Airbus developed similar mod 205491, available through Airbus SB A330-57-3124 and SB A340-57-4131, and mod 205724, available through Airbus SB A340-57-5037. These mods include re-work of the Left Hand (LH) and Right Hand (RH) MLG rib 6 lug assemblies, the embodiment of which constitutes terminating action for the required repetitive inspections. The embodiment of Airbus repair instruction (RI) R572-56266, R575-46002, R575-58471 or R575-58472, can also constitute terminating action for the applicable MLG Rib 6, provided that a finishing cut to the lug bore has been applied without deviation.

For the reasons described above, this AD is revised to reduce the Applicability by excluding certain post-mod aeroplanes and to introduce the optional terminating action for the repetitive inspections required by this AD. This AD also introduces editorial changes, without affecting the requirements.

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

Required as indicated, unless accomplished previously:

Note 1: The MLG rib 6 installed on the LH and RH side of the aeroplane may be different, depending on the mod/RI status 'Pre-mod/-RI' or 'post-mod/-RI'. The required actions to be accomplished depend on this status.



- (1) Initially, within the threshold defined in Table 1 of this AD, and, thereafter, at intervals not to exceed the values specified in Table 2 of this AD, accomplish a detailed visual inspection (DET) of the LH and RH wing MLG rib 6 aft bearing lugs (forward and aft) to detect any cracks in accordance with the instructions of Airbus SB A330-57-3096 Revision 06 or SB A340-57-4104 Revision 04 or SB A340-57-5009 Revision 03, as applicable to aeroplane type and model.

Table 1 – Initial inspection

Compliance Time (whichever occurs later, A or B)	
A	Within 24 months or 2 000 flight cycles (FC), whichever occurs first since aeroplane first flight, or since the last MLG support rib 6 replacement, as applicable
B	Within 30 days after 10 July 2015 [the effective date of EASA AD 2015-0120]

Table 2 – Inspection Intervals

Aeroplane Models	Interval (whichever occurs first, FC or FH)
A330-201, A330-202, A330-203, A330-223 and A330-243	300 FC or 1 500 FH
A330-223F and A330-243F	300 FC or 900 FH
A330-301, A330-302, A330-303, A330-321, A330-322, A330-323, A330-341, A330-342 and A330-343	
A340-211, A340-212 and A340-213	200 FC or 800 FH
A340-311, A340-312 and A340-313, except weight variant (WV)27	
A340-313, only WV27	200 FC or 400 FH
A340-541, A340-542, A340-642 and A340-643	100 FC or 500 FH

- (2) If, during any DET as required by paragraph (1) of this AD, any crack is detected, before next flight, contact Airbus for replacement instructions and replace the cracked MLG support rib 6 accordingly.
- (3) Inspections, accomplished on an aeroplane before 10 July 2015 [the effective date of this AD at original issue] in accordance with the instructions of Airbus SB A330-57-3096 at Revision 05 or an earlier revision, or Airbus AOT A57L005-14 at Revision 01 or an earlier revision, or Airbus SB A340-57-4104 Revision 03 or an earlier revision, or Airbus SB A340-57-5009 Revision 02 or an earlier revision, as applicable to aeroplane type, are acceptable to comply with the inspection requirements of paragraph (1) of this AD for that aeroplane. After 10 July 2015 [the effective date of this AD at original issue], the inspections required by paragraph (1) of this AD must be accomplished in accordance with the instructions of Airbus SB A330-57-3096 Revision 06 (or later approved revisions) or SB A340-57-4104 Revision 04 (or later approved revisions) or SB A340-57-5009 Revision 03 (or later approved revisions), as applicable.

Note 2: For the purpose of this AD, a pre-mod MLG support rib 6 is a part that is pre-SB A330-57-3124, or pre-SB A340-57-4131, or pre-SB A340-57-5037, as applicable, or pre-RI R572-56266 or pre-RI R575-58471, or pre-RI R575-46002, or pre-RI R575-58472, as applicable.



- (4) Replacement of a MLG support rib 6 on an aeroplane with a pre-mod or pre-RI MLG support rib 6 (see Note 2 of this AD) does not constitute terminating action for the repetitive inspections as required by this AD for that aeroplane.

Optional Terminating Action (Modification)

- (5) Modification of an aeroplane (both RH and LH sides) in accordance with the instructions of Airbus SB A330-57-3124, or SB A340-57-4131, or SB A340-57-5037, as applicable, constitutes terminating action for the repetitive inspections as required by this AD for that aeroplane.

Optional Terminating Action (Repair)

- (6) Repair of a MLG Rib 6 in accordance with the instructions of Airbus RI R572-56266, or R575-58471, or R575-46002, or R575-58472, as applicable, constitutes terminating action for the repetitive inspections as required by this AD for that MLG Rib 6, provided that the repair is accomplished including finishing cut to the lug bore and without deviation.

Ref. Publications:

Airbus SB A330-57-3096 original issue dated 05 December 2006, or Revision 01 dated 18 April 2007, or Revision 02 dated 13 August 2007, or Revision 03 dated 24 October 2012, or Revision 04 dated 06 February 2013, or Revision 05 dated 17 October 2013, or Revision 06 dated 29 May 2015.

Airbus SB A340-57-4104 original issue dated 05 December 2006, or Revision 01 dated 13 August 2007, or Revision 02 dated 05 September 2007, or Revision 03 dated 24 October 2012, or Revision 04 dated 17 October 2013.

Airbus SB A340-57-5009 original issue dated 05 December 2006, or Revision 01 dated 13 August 2007, or Revision 02 dated 24 October 2012, or Revision 03 dated 17 October 2013.

Airbus SB A330-57-3124 original issue dated 02 February 2016.

Airbus SB A340-57-4131 original issue dated 05 February 2016.

Airbus SB A340-57-5037 original issue dated 31 March 2016.

Airbus AOT A57L005-14 original issue dated 15 July 2014, or Revision 01 dated 28 August 2014.

Airbus RI R572-56266 Issue A dated 31 October 2011.

Airbus RI R575-46002 Issue A dated 17 April 2012.

Airbus RI R575-58471 Issue A dated 13 November 2015.

Airbus RI R575-58472 Issue A dated 18 May 2016.

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 EASA Safety Information Section, Certification Directorate. 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.

