

Airworthiness DirectiveAD No.:2024-0079Issued:26 March 2024

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EU) 2018/1139 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 129 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, or Annex Vb Part ML.A.301, as applicable, 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 Annex Vb Part ML.A.303, as applicable] or agreed with the Authority of the State of Registry [Regulation (EU) 2018/1139, Article 71 exemption].

Design Approval Holder's Name:

Type/Model designation(s): A380 aeroplanes

AIRBUS S.A.S.

Effective Date: 09 April 024 TCDS Number(s): EASA.A.110

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2023-0124 dated 16 June 2023.

ATA 32 – Landing Gear – Body Landing Gear Rear Axle – Replacement

Manufacturer(s):

Airbus

Applicability:

Airbus A380-841, A380-842 and A380-861 aeroplanes, all manufacturer serial numbers (MSN).

Definitions:

For the purpose of this AD, the following definitions apply:

The AOT: Airbus Alert Operators Transmission (AOT) A32R026-22 Revision 04, which includes references to Collins instructions RDAS-SCR004-22 and Collins Aerospace Service Information Letter 02121-32-031.

Affected part: Right-hand (RH) and left-hand (LH) body landing gear (BLG) rear axles with a serial number (s/n) identified in Appendix 2 of the AOT, except those which have been overhauled since first installation on an aeroplane, or have passed (no defect found, or defect repaired) an inspection in accordance with the Collins instructions (RDAS-SCR004-22) referred to in the AOT. The Appendices 2 and 4 of the AOT also identify MSNs of the affected aeroplanes, but that is informative aeroplane delivery data only, and an affected BLG may have been moved to another MSN.



Serviceable part: Any RH and LH BLG rear axle with an s/n not listed in Appendix 2 of the AOT, or an affected part which has been overhauled since its first installation on an aeroplane, or an affected part that has passed (no defect found, or defect repaired) an inspection in accordance with the Collins instructions (RDAS-SCR004-22) referred to in the AOT.

Groups: Group 1 aeroplanes are those that have an affected part installed. Group 2 aeroplanes are those that do not have an affected part installed.

Reason:

An occurrence was reported where, during a regular walk-around inspection of a stored A380 aeroplane, the LH BLG rear axle was found to have ruptured. The affected aeroplane was delivered (entry into service) in 2012 and had been in longer term storage since March 2020. The initial inspection of the damaged part determined that failure of the axle occurred through the bogie pivot pin bore, where corrosion was identified. In addition, several additional instances were identified of degradation of the protective coating and subsequent corrosion within the rear axle bore which would require a repair to restore serviceability. Further investigation of the root-cause(s) is still on-going.

This condition, if not detected and corrected, could lead to failure of a BLG rear axle, with consequent detachment of the aft BLG wheel assembly during take-off, possibly resulting in damage to the aeroplane and injury to occupants.

To address this potential unsafe condition, Airbus and Collins Aerospace, the BLG rear axle manufacturer, developed instructions to identify and replace the affected parts, and Airbus issued AOT A32R026-22 (original issue) to provide these instructions. Consequently, EASA issued AD 2022-0075 to require removal from service of all affected parts for the purpose of in-shop inspection, and replacement with a serviceable part. That AD also prohibited (re)installation of an affected part.

After that AD was issued, further information identified more BLG rear axles being affected. In addition, certain compliance times have been extended. Consequently, Airbus issued AOT A32R026-22 Revision 01 and EASA issued AD 2023-0031, retaining the requirements of EASA AD 2022-0075, which was superseded, identifying the newly found affected parts and amending some compliance times, referring to Appendix 2 of Airbus AOT A32R026-22 Revision 01.

After that AD was issued, it was found that another 26 BLG rear axles (s/n) were omitted in Revision 01 of Airbus' AOT. Consequently, Airbus published Revision 02 of its AOT, and EASA issued AD 2023-0124, retaining the requirements of EASA AD 2023-0031, which was superseded, but with reference to Revision 02 of Airbus AOT A32R026-22.

Since that AD was issued, further information identified (10 + 6) more affected BLG rear axles, and the need for corrections in the lists of affected s/n in the appendices of Airbus' AOT. Consequently, Airbus published Revision 03 of its AOT and, thereafter, the AOT, as defined in this AD.

The revised Appendices 2 and 4 to the AOT now incorporate a (new) column, providing compliance times (date or timescale) for each listed affected BLG rear axle s/n.



For the reason described above, this AD retains the requirements of EASA AD 2023-0124, which is superseded, however, identifying s/n of additional and corrected affected parts and referring to the respecified compliance times for each affected part in the revised appendices to the AOT.

This AD is still considered to be an interim action and further AD action may follow.

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

Required as indicated by this AD, unless the action(s) required by this AD have been already accomplished:

Replacement:

(1) For Group 1 aeroplanes: Before return to service (RTS), specified in the AOT appendices as "Prior RTS" (see Note 1 of this AD), or before exceeding the date identified in the compliance time column in the AOT appendices, as applicable, replace each affected part with a serviceable part.

Where the AOT specifies a compliance time of 6 months for an affected part (s/n), this AD requires replacement of that affected part with a serviceable part within 6 months after the effective date of this AD.

Note 1: Where AOT appendices indicate the compliance time as "Prior RTS" for a certain affected part, this is a reflection of the fact that this BLG rear axle is installed on an aeroplane that is parked/ stored and, therefore, is currently out of (operational) service.

Part(s) Installation:

- (2) Do not install an affected part on any aeroplane, as required by paragraph (2.1) or (2.2) of this AD, as applicable.
 - (2.1) For Group 1 aeroplanes: After removal of each affected part from the aeroplane as required by paragraph (1) of this AD.
 - (2.2) For Group 2 aeroplanes: From the effective date of this AD.

Ref. Publications:

Airbus AOT A32R026-22 original issue dated 27 April 2022, or Revision 01 dated 06 February 2023, or Revision 02 dated 22 March 2023, or Revision 03 dated 10 January 2024, or Revision 04 dated 15 February 2024.

The use of later approved revisions of the above-mentioned document 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.



All interested persons may send their comments, referencing the AD Number, to the E-mail address specified in below Remark 3, prior to 23 April 2024. Only if any comment is received during the consultation period, a Comment Response Document will be published in the <u>EASA</u> <u>Safety Publications Tool</u>, in a 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: <u>ADs@easa.europa.eu</u>.
- 4. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this AD, and which may occur, or have occurred on a product, part or appliance not affected by this AD, can be reported to the <u>EU aviation safety</u> reporting system. This may include reporting on the same or similar components, other than those covered by the design to which this AD applies, if the same unsafe condition can exist or may develop on an aircraft with those components installed. Such components may be installed under an FAA Parts Manufacturer Approval (PMA), Supplemental Type Certificate (STC) or other modification.
- 5. For any question concerning the technical content of the requirements in this AD, please contact: AIRBUS S.A.S. 1IANA (Airworthiness Office), Telephone: +33 562 110 253, Fax: +33 562 110 307, E-mail: account.airworth-A380@airbus.com.

