



適航指令發布單

Airworthiness Directive Issuance Form

民航局 AD 編號 AD number	CAA-2019-03-012	發布日期 Date issued	2019/3/28
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, A330-223F, 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). 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.		
主旨摘要	Landing Gear - Free Fall Actuators - Inspection / Replacement		
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 <div style="display: flex; justify-content: space-between;"> <div style="width: 48%;"> <input type="checkbox"/> FAA <input checked="" type="checkbox"/> EASA <input type="checkbox"/> Brazil <input type="checkbox"/> Transport Canada Civil Aviation <input type="checkbox"/> DGAC </div> <div style="width: 48%;"> <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 _____ </div> </div>		
	設計國 AD 編號 Original AD number	2019-0063	
	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. Ref. Publications: Airbus AOT A32L012-18 original issue dated 29 January 2019.		
註： 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： adcaa@mail.caa.gov.tw Note： 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： adcaa@mail.caa.gov.tw			



Airworthiness Directive

AD No.: 2019-0063

Issued: 26 March 2019

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, 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 (EU) 2018/1139, Article 71 exemption].

Design Approval Holder's Name::

AIRBUS

Type/Model designation(s):

A330 and A340 aeroplanes

Effective Date: 09 April 2019

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

Foreign AD: Not applicable

Supersedure: None

ATA 32 – Landing Gear – Free Fall Actuators – Inspection / Replacement

Manufacturer(s):

Airbus, formerly Airbus Industrie

Applicability:

Airbus A330-201, A330-202, A330-203, A330-223, A330-243, A330-223F, 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).

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.

Definitions:

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

The AOT: Airbus Alert Operators Transmission (AOT) A32L012-18.

Affected FFA: Free fall actuators (FFA), having Part Number (P/N) AR02404, and having a serial number listed in Appendix 3 of the AOT, installed on nose landing gear (NLG), main landing gear (MLG) and centre landing gear (CLG).

Serviceable FFA: FFA P/N TY3409-01A, or FFA P/N AR02404 having a year of manufacture 2006 or later.



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

Reason:

An A330 aeroplane failed to extend its NLG by free fall method, prompted by the loss of the green hydraulic system. Investigation results revealed that the NLG FFA P/N AR02404 has been identified as the root cause, the magnets on this actuator having been found detached on both electrical motors. Further investigation conducted with the FFA manufacturer has identified a potential similar issue on specific FFA with the same P/N, manufactured in 2001 and 2002. Units manufactured in other years are still being investigated. These affected FFA can also be fitted on MLG (on A330 and A340 aeroplanes) and CLG (on A340-500/600 aeroplanes only) of the aeroplane.

This condition, if not detected and corrected, could prevent LG extension by free fall method, possibly resulting in loss of control of the aeroplane after landing, with consequent damage to the aeroplane and injury to occupants.

To address this potential unsafe condition, Airbus issued the AOT to provide instructions to inspect and test the affected FFA.

For the reasons described above, this AD requires repetitive testing of each affected FFA, and, depending on findings, replacement with a serviceable FFA.

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

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

Required as indicated, unless accomplished previously:

Identification / Inspections:

Note 1: The identification whether or not an affected FFA is installed on an aeroplane can be accomplished either by physical P/N inspection, or a records check, provided those records can be relied upon.

- (1) For Group 1 aeroplanes: Within 90 days after the effective date of this AD, and, thereafter, at intervals not to exceed the values defined in Table 1 of this AD, accomplish a test of the free fall system of each LG fitted with an affected FFA in accordance with the instructions of the AOT.

Table 1 – Inspection / Test Intervals

Aeroplane	Compliance Time
	(flight hours (FH) or calendar time, whichever occurs first)
A330, A340-200 and -300	3 000 FH or 9 months
A340-500 and -600	2 025 FH or 9 months



Corrective Action(s):

- (2) If, during any test as required by paragraph (1) of this AD, an affected FFA fails the test, before next flight, replace the affected FFA with a serviceable FFA, as defined in this AD, in accordance with the instructions of the AOT.

Credit:

- (3) Accomplishment of a test as required by paragraph (1) of this AD allow operator to claim compliance with the applicable ALS Part 3 (CMR), "Operational Check of Landing Gear Freefall system", A330 task 323000-00001-1-C, A340 task 323000-A0001-1-C or A340 task 323000-B0001-1-C, as applicable, provided the continuity test specified in AMM task A330-32-33-00-710-809, or AMM task A340-32-33-00-710-806, as applicable, is accomplished concurrently.

Terminating Action:

- (4) Replacement on an aeroplane of each affected FFA, as defined in this AD, with a serviceable FFA, as defined in this AD, constitutes terminating action for the repetitive tests of the free fall system of each LG, as required by paragraph (1) of this AD for that aeroplane.

Part(s) Installation:

- (5) For Group 1 and Group 2 aeroplanes: From the effective date of this AD, do not install on any aeroplane an affected FFA.

Ref. Publications:

Airbus AOT A32L012-18 original issue dated 29 January 2019.

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. This AD was posted on 14 February 2019 as PAD 19-024 for consultation until 28 February 2019. The Comment Response Documents 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.
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 [EU aviation safety reporting system](#).
5. 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.

