



Airworthiness Directive

AD No.: 2018-0161

Issued: 25 July 2018

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):

A300, A310, A300-600 aeroplanes

Effective Date: 08 August 2018

TCDS Number(s): EASA.A.172

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2014-0164R1 dated 21 July 2016, including its Correction dated 04 August 2016.

ATA 53 – Fuselage – Trimmable Horizontal Stabilizer Support Struts – Inspection

Manufacturer(s):

Airbus (formerly Airbus Industrie)

Applicability:

Airbus A300, A300-600 and A310 aeroplanes, all certified models, all manufacturer serial numbers (MSN).

Definitions:

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

The applicable inspection SB: Airbus Service Bulletin (SB) A300-53-0395, SB A300-53-6174, or SB A310-53-2137, as applicable.

The applicable clamp SB: Airbus SB A300-53-0394, SB A300-53-6172, or SB A310-53-2136, as applicable.

The modification SB: Airbus SB A300-53-6188.

Affected part: Trimmable horizontal stabilizer (THS) aluminium support struts, Part Number (P/N) R21449, P/N R21449D, P/N R21449G, or P/N R21449H.



Groups:

- Group 1 aeroplanes are those that have an affected part installed, which includes those that embodied modification (mod) 06101 in production.
- Group 2 aeroplanes are those that did not embody Airbus mod 06101 in production (MSN 0001 through MSN 0498 inclusive), provided the aeroplane remains in that configuration.

Reason:

During scheduled maintenance, several support struts of the THS were found cracked at the strut ends. The THS is supported and articulated at frame (FR) 91 in the tail cone. Lateral movement is prevented by four diagonal support struts. Investigations revealed that the cracks were caused by stress corrosion and propagated from the inside to the outside of the strut.

This condition, if not detected and corrected, could lead to the rupture of all four THS support struts at FR91, which would make the remaining structure unable to carry limit loads, possibly resulting in loss of the horizontal tailplane.

To address this unsafe condition, Airbus published the applicable inspection SB to provide inspection instructions and EASA issued AD 2014-0121 to require repetitive High Frequency Eddy Current (HFEC) inspections of the THS support strut ends, installation of reinforcing clamps on strut ends and, depending on findings, replacement of damaged support struts. Installation of reinforcing clamps on strut ends was considered a temporary solution pending introduction of a re-designed support strut. Since that AD was issued, it was discovered that the AD appeared to also require HFEC inspections of steel struts, which are not prone to cracking. Consequently, EASA issued AD 2014-0164, superseding AD 2014-0121, to clarify the need for an initial identification of the support struts installed on aeroplanes in pre-mod 06101 configuration. EASA AD 2014-0164 was later revised to exclude Airbus A300F4-608ST aeroplanes from the Applicability, and AD 2016-0147 was issued to address the THS struts on those aeroplanes.

Since EASA AD 2014-0164R1 was issued, new analyses were performed, the results of which determined a new extended inspection interval and defined a terminating action for certain aeroplanes.

For the reasons described above, this AD retains the requirements of EASA AD 2014-0164R1, which is superseded, extends the inspection interval from 24 months to 48 months and introduces a terminating action for A300-600R series aeroplanes.



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

Required as indicated, unless accomplished previously:

Inspection(s):

- (1) For Group 1 aeroplanes: Within the compliance time defined in Table 1 of this AD, as applicable, depending on aeroplane MSN, and, thereafter, at intervals not to exceed 48 months, accomplish an HFEC inspection of the strut ends at FR91 of the affected parts in accordance with the instructions of the applicable inspection SB.

Table 1 – Initial Inspection of THS Support Strut Ends

MSN	Compliance Time (after 28 May 2014, the effective date of EASA AD 2014-0121)
MSN 0499 through MSN 0747 inclusive	Within 12 months
MSN 0748 through MSN 0878 inclusive	Within 18 months
MSN 0001 through MSN 0498 inclusive	Within 24 months

Concurrent Action(s):

- (2) Reinforcing clamps installed on strut ends must be removed before accomplishment of each HFEC inspection as required by paragraph (1) of this AD, and re-installed after the inspection, in accordance with the instructions of the applicable inspection SB.
- (3) Concurrent with the initial inspection as required by paragraph (1) of this AD, identify each affected part with no reinforcing clamps previously installed and, before next flight after that inspection, install reinforcing clamps on each affected part strut end in accordance with the instructions of the applicable clamp SB.

Corrective Action(s):

- (4) If, during any inspection as required by paragraph (1) of this AD, any crack is found, before next flight, accomplish the applicable corrective action(s), depending on the inspection results, as specified in Table 2 of this AD, in accordance with the instructions of the applicable inspection SB.

Table 2 – Corrective Action(s) following THS Strut End Inspection Findings

Inspection Result	Corrective Action(s)
A crack of more than 15 mm, or more than four cracks of 15 mm or less, found on one strut end	Replace the affected THS support strut with a new TAC strut and install clamps on each strut end
No more than four cracks of 15 mm or less found on one strut end	Install reinforcing clamps on each strut end



Terminating Action:

- (5) For Group 1 A300 B4-605R, A300 B4-622R, A300 C4-605R variant F, A300 F4-605R and A300 F4-622R aeroplanes that embody Airbus mod 8128 in production: Modification of an aeroplane in accordance with the instructions of the modification SB constitutes terminating action for the repetitive inspections as required by paragraph (1) of this AD for that aeroplane.

Parts Installation:

- (6) Installation on a Group 1 aeroplane of reinforcing clamps as required by paragraph (3) of this AD, or corrective action(s) as required by paragraph (4) of this AD, do not constitute terminating action for the repetitive inspections as required by paragraph (1) of this AD for that aeroplane.
- (7) For Group 2 aeroplanes: From the effective date of this AD, do not install an affected part on the aeroplane.

Reporting:

- (8) Within 30 days after the initial inspection as required by paragraph (1) of this AD, report the results of the inspection (including no findings) to Airbus.

Ref. Publications:

Airbus SB A300-53-0394 original issue dated 14 February 2014.

Airbus SB A300-53-0395 original revision dated 14 February 2014 and Revision 01 dated 16 January 2018.

Airbus SB A300-53-6172 original issue dated 14 February 2014.

Airbus SB A300-53-6174 original revision dated 14 February 2014 and Revision 01 dated 16 January 2018.

Airbus SB A300-53-6188 original issue dated 17 November 2017.

Airbus SB A310-53-2136 original issue dated 14 February 2014.

Airbus SB A310-53-2137 original revision dated 14 February 2014 and Revision 01 dated 16 January 2018.

The use of later approved revisions of the above-mentioned 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. This AD was posted on 18 June 2018 as PAD 18-083 for consultation until 16 July 2018. No comments were received during the consultation period.



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 – EIAW (Airworthiness Office)
E-mail: continued.airworthiness-wb.external@airbus.com

