Airworthiness Directive

AD No.: 2016-0147

Issued: 21 July 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):

A300-600ST aeroplanes

Effective Date: 04 August 2016

TCDS Number: EASA.A.014

Foreign AD: Not applicable

Supersedure: None

ATA 53 – Fuselage – Tail Cone / Trimmable Horizontal Stabilizer Support Struts at Frame 91 – Inspection / Modification

Manufacturer(s):
Airbus (formerly Airbus Industrie)

Applicability:
Airbus A300F4-608ST aeroplanes, all manufacturer serial numbers.

Reason:
During scheduled maintenance, several Trimmable Horizontal Stabilizer (THS) support struts 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 FR 91, which would make the remaining structure unable to carry limit loads, possibly resulting in loss of the Horizontal Tail Plane.

To address this unsafe condition, EASA issued AD 2014-0121 to require repetitive Special Detailed Inspections (SDI) 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 as temporary solution pending introduction of re-designed support strut.

Since EASA AD 2014-0121 was issued, it was discovered that the AD appeared to also require SDI of steel struts, which are not prone to cracking. The unsafe condition exists only on support struts made of aluminium.

Consequently, EASA issued AD 2014-0164 to clarify the need for an initial identification of the support struts installed on aeroplanes in pre-mod 06101 configuration.

Since EASA AD 2014-0164 was issued, it was discovered that A300F4-608ST aeroplanes are partly fitted with a strut configuration (SARMA Strut) other than the TAC (Technical Airborne Components Industries) strut. Consequently, Airbus revised Service Bulletin (SB) A300-53-9024 accordingly in order to inspect also any SARMA strut and, in case of finding, to replace it with a TAC with installed clamps and thereafter to accomplish repetitive inspections.

For the reason described above, this AD takes over the requirements for A300F4-608ST aeroplanes from EASA AD 2014-0164, and requires accomplishment of repetitive inspection for aeroplanes equipped with SARMA struts.

Required Action(s) and Compliance Time(s):
Required as indicated, unless accomplished previously:

Note 1: For the purpose of this AD, a SARMA strut can be identified by the diameter of the strut end being less than 43 mm. All other struts are TAC struts.

(1) For aeroplanes equipped with one or more aluminium support strut(s) Part Number (P/N) F535-74140-000-00 (only TAC struts), within 18 months after 28 May 2014 [the effective date of EASA AD 2014-0121], and, thereafter, at intervals not to exceed 24 months, accomplish an SDI of all TAC THS aluminium support strut ends at FR 91 in accordance with the instructions of Airbus SB A300-53-9024 Revision 01.

(2) Reinforcing clamps installed on strut ends must be removed before accomplishment of each SDI as required by paragraph (1) of this AD, and re-installed after the inspection, in accordance with the instructions of Airbus SB A300-53-9024 Revision 01.

(3) Concurrent with the initial inspection as required by paragraph (1) of this AD, identify aluminium support strut(s) P/N F535-74140-000-00 (only TAC struts) with no reinforcing clamps previously installed and, before next flight after the inspection, install clamps on each strut end in accordance with the instructions of Airbus SB A300-53-9022.

(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 1 of this AD, in accordance with the instructions of Airbus SB A300-53-9024 Revision 01.

Table 1: Corrective action(s) following TAC THS Strut end inspection findings

Inspection Result	Corrective Action(s)
One crack of more than 15 mm length, or more than four cracks of 15 mm or less, were found on one strut end	Replace the affected THS support strut with a serviceable part (see Note 2 of this AD) and install clamps on each strut end
No more than four cracks of 15 mm or less were found on a strut end	Install clamps on each strut end

Note 2: For the purpose of this AD, a serviceable part is a new TAC support strut or one on which no crack is found during SDI as requested in paragraph (1) of this AD.

(5) Within 18 months after 28 May 2014 [the effective date of EASA AD 2014-0121] and, thereafter, at intervals not to exceed 12 months, accomplish a SDI of all SARMA strut ends of the THS support located at FR91 in the tail cone in accordance with the instructions of Airbus SB A300-53-9024 Revision 01.

(6) If, during any inspection as required by paragraph (5) of this AD, a crack on at least one strut end is detected, before next flight, replace each cracked strut with a TAC strut and install clamps in accordance with the instructions of Airbus SB A300-53-9022 at original issue.

Conditional Credit for Previous Action(s):

(7) Inspections and corrective actions on an aeroplane, accomplished before the effective date of this AD in accordance with the instructions of Airbus SB A300-53-9024 at original issue, are acceptable to comply with the initial requirements of this AD. After the effective date of this AD, the repetitive inspections and applicable corrective actions must be accomplished in accordance with the instructions of Airbus SB A300-53-9024 Revision 01.

(8) Installation on an aeroplane of reinforcing clamps as required by paragraph (3) or (6) of this AD, as applicable, or replacement of support struts and/or clamp installation as required by paragraph (4) or (6) of this AD, as applicable, do not constitute terminating action for the repetitive inspections as required by paragraph (1) or (5) of this AD for that aeroplane.

(9) Within 30 days after the initial inspection as required by paragraph (1) or (5) of this AD, as applicable, report the results of the inspection (including no finding) to Airbus.

Ref. Publications:
Airbus SB A300-53-9022 original issue dated 05 February 2014.

Airbus SB A300-53-9024 original issue dated 05 February 2014, or Revision 01 dated 18 September 2015.

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. This AD was posted on 15 June 2016 as PAD 16-087 for consultation until 13 July 2016. 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. 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.