



Airworthiness Directive

AD No.: 2014-0068R2

Issued: 08 December 2017

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 A340-200/-300 aeroplanes

Effective Date: Revision 2: 15 December 2017
Revision 1: 11 April 2016
Original issue: 01 April 2014

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

Foreign AD: Not applicable

Revision: This AD revises EASA AD 2014-0068R1 dated 04 April 2016. The original issue of this AD superseded EASA AD 2013-0219 dated 17 September 2013.

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

Manufacturer(s):

Airbus

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) up to MSN 1809 inclusive, except those that have been modified in service in accordance with the instructions of Airbus Service Bulletin (SB) A330-53-3280 and,

Airbus A340-211, A340-212, A340-213, A340-311, A340-312 and A340-313 aeroplanes, all MSN, except those have been modified in service in accordance with the instructions of Airbus SB A340-53-4240.



Reason:

The trimmable horizontal stabilizer (THS) is supported and articulated at frame (FR) 91 by four struts to fix the hinges (Y-bolts) to retain the structural integrity in lateral direction. During scheduled maintenance, several of those THS support struts were found cracked at the strut body ends.

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

Airbus A340-500/600 aeroplanes are not affected by this AD as different material is used on THS support struts.

To address this potentially unsafe condition, Airbus issued SB A330-53-3206 and SB A340-53-4208 (hereafter collectively referred to as 'the applicable SB' in this AD) to provide inspection instructions and consequently, EASA issued AD 2013-0076 to require repetitive special detailed inspections (SDI) of all 8 strut ends of the THS support struts, and, depending on findings, replacement of THS support struts. That AD also required, for aeroplanes on which Airbus mod 203493 had not been embodied in production, or Airbus SB A330-53-3204 or SB A340-53-4199, as applicable, has not been embodied in service, the installation of a clamping device on each support strut end to stop growth of possible cracks (crack stopper function) in order to secure integrity of the struts.

After EASA AD 2013-0076 was issued, it was discovered that several aeroplanes were fitted with another strut configuration (SARMA Strut) than the TAC (Technical Airborne Components Industries) strut, which caused the SARMA strut not to be considered. Prompted by these findings, Airbus revised the applicable SB accordingly, adding a one-time inspection of each SARMA strut and, in case of finding, to replace it with a TAC strut and thereafter to accomplish repetitive inspections. Consequently, EASA issued AD 2013-0219, partially retaining the requirements of EASA AD 2013-0076, which was superseded, and adding the one-time SARMA strut inspection.

After EASA AD 2013-0219 was issued, based on the reporting received from operators, it was determined that repetitive SDI were also necessary for aeroplanes equipped with SARMA struts. Airbus introduced that inspection to the applicable SB at Revision 03. Consequently, EASA issued AD 2014-0068, retaining the requirements of EASA AD 2013-0219, which was superseded, to introduce repetitive SDI for aeroplanes equipped with SARMA struts.

Since EASA AD 2014-0068 was issued, it was determined that, for aeroplanes that were equipped with TAC struts and clamps in production, the threshold for the initial inspection of the strut ends can be extended to 42 months since aeroplane first flight. Consequently, the AD was revised to extend the threshold for the initial inspection of the strut ends for those aeroplanes.

Since EASA AD 2014-0068R1 was issued, Airbus developed mod 203210 and published Airbus SB A330-53-3280 and SB A340-53-4240 to provide instructions for a modification, the replacement of the THS support struts with improved parts, which removes the need for the repetitive inspections.



For the reasons described above, this AD is revised to reduce the Applicability, excluding post-mod 203210 and, post-SB A330-53-3280 or post-SB A340-53-4240 aeroplanes, and to introduce references to optional terminating actions for the repetitive inspections as required by this AD.

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

Required as indicated, unless accomplished previously:

Note 1: For the purpose of this AD, a SARMA strut is a strut on which the diameter of the strut end is less than 43 mm. All other struts are TAC struts.

Note 2: Airbus SB A330-53-3280 and SB A340-53-4240, as applicable, are hereafter collectively referred to as “the applicable modification SB” in this AD.

Inspection:

- (1) Within the compliance time specified in Table 1 of this AD, as applicable, and, thereafter, at intervals not to exceed 42 months or 20 000 flight hours (FH), whichever occurs first, accomplish a High Frequency Eddy Current (HFEC) inspection of all **TAC** strut ends of the THS support located at FR91 in accordance with the instructions of the applicable SB at Revision 03.

Table 1 - Initial inspection for TAC strut ends

Affected Aeroplanes	Compliance Time
A340 MSN 002 to 210 inclusive	Within 6 months after 03 April 2013 [the effective date of EASA AD 2013-0076]
A330 MSN 012 to 209 inclusive	
A340 MSN 212 to 447 inclusive	Within 24 months after 03 April 2013 [the effective date of EASA AD 2013-0076]
A330 MSN 211 to 422 inclusive	
A340 MSN 450 to 955 inclusive	Within 36 months after 03 April 2013 [the effective date of EASA AD 2013-0076], or before exceeding 36 months since aeroplane first flight, whichever occurs later
A330 MSN 423 to 1465 inclusive	
A330 MSN 1466 to 1809 inclusive	Before exceeding 42 months since aeroplane first flight

For aeroplanes on which a clamp is installed on a strut end, remove the clamp from each strut end before accomplishing this inspection.

Corrective Action(s):

- (2) If, during any inspection as required by paragraph (1) of this AD, deficiencies (as specified in Table 2 of this AD) are found, before next flight, accomplish the applicable corrective action(s) in accordance with the instructions of the applicable SB at Revision 03.

Table 2 – Corrective Actions following a TAC strut end inspection

Inspection results	Actions
No crack, or cracks within acceptable limits	Install / Re-install clamps
Cracks outside acceptable limits	Replace strut(s) with TAC strut(s) and install



	clamps
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Inspections:

- (3) Within the compliance time specified in Table 3 of this AD, as applicable, accomplish a one-time HFEC inspection of all SARMA strut ends of the THS support located at FR91 in accordance with the instructions of the applicable SB at Revision 03.

Table 3 - Inspection for SARMA strut ends

Affected Aeroplanes	Compliance Time
A340 MSN 002 to 210 inclusive	Within 6 months after 03 April 2013 [the effective date of EASA AD 2013-0076]
A330 MSN 012 to 209 inclusive	
A340 MSN 212 to 447 inclusive	Within 24 months after 03 April 2013 [the effective date of EASA AD 2013-0076]
A330 MSN 211 to 422 inclusive	
A340 MSN 450 to 955 inclusive	Within 36 months after 03 April 2013 [the effective date of EASA AD 2013-0076], or before exceeding 36 months since aeroplane first flight, whichever occurs later
A330 MSN 423 and subsequent	

- (4) Within 12 months after the initial inspection, as required by paragraph (3) of this AD, or within 3 months after 01 April 2014 [the effective date of the original issue of this AD], whichever occurs later, and thereafter, at intervals not to exceed 12 months, accomplish a HFEC inspection of all SARMA strut ends of the THS support located at FR91 in accordance with the instructions of the applicable SB at Revision 03.

Corrective Action(s):

- (5) If, during any inspection as required by paragraph (3) or (4) of this AD, as applicable, a crack on a strut end is detected, before next flight, replace the affected strut with a TAC strut and install clamps in accordance with the instructions of the applicable SB at Revision 03.

Terminating Action:

- (6) Replacement of THS struts on an aeroplane, as required by paragraph (2) or (5) of this AD, as applicable, does not constitute terminating action for the repetitive inspections as required by paragraph (1) or (4) of this AD for that aeroplane.

Credit:

- (7) Inspections and corrective actions, accomplished before 01 April 2014 [the effective date of this AD at original issue], in accordance with the instructions of Airbus SB A330-53-3206 at original issue or Revision 01 or Revision 02, or Revision 03, or SB A340-53-4208 at original issue or Revision 01, or Revision 02, as applicable to aeroplane type, are acceptable to comply with the initial requirements of this AD. After 01 April 2014 [the effective date of this AD at original issue], the repetitive inspections and applicable corrective actions must be accomplished in accordance with the instructions of the applicable SB at Revision 03.

Optional Terminating Action:

- (8) Modification of an aeroplane in accordance with the instructions of the applicable modification SB (see Note 2 of this AD) constitutes terminating action for all repetitive inspections required by this AD for that aeroplane.

Ref. Publications:

Airbus SB A330-53-3204 original issue dated 07 February 2013, or Revision 01 dated 13 June 2013, or Revision 02 dated 09 August 2013, or Revision 03 dated 03 February 2014.

Airbus SB A330-53-3206 original issue dated 07 February 2013, or Revision 01 dated 10 June 2013, or Revision 02 dated 08 August 2013, or Revision 03 dated 28 February 2014, or Revision 04 dated 23 October 2015.

Airbus SB A340-53-4199 original issue dated 07 February 2013, or Revision 01 dated 13 June 2013, or Revision 02 dated 09 August 2013, or Revision 03 dated 28 February 2014.

Airbus SB A340-53-4208 original issue dated 07 February 2013, or Revision 01 dated 10 June 2013, or Revision 02 dated 08 August 2013, or Revision 03 dated 28 February 2014.

Airbus SB A330-53-3280 original issue dated 08 September 2017.

Airbus SB A340-53-4240 original issue dated 08 September 2017.

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.

