



Airworthiness Directive

AD No.: 2021-0068

Issued: 11 March 2021

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):

A340 aeroplanes

Effective Date: 25 March 2021

TCDS Number(s): EASA.A.015

Foreign AD: Not applicable

Supersedure: None

ATA 27 – Flight Controls – Trimmable Horizontal Stabilizer Actuator – Replacement

Manufacturer(s):

Airbus, formerly Airbus Industrie

Applicability:

Airbus A340-541, A340-542 and A340-642 aeroplanes, all manufacturer serial numbers (MSN).

Definitions:

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

Affected THSA: Trimmable horizontal stabilizer actuators (THSA), having Part Number (P/N) 47175-501 or P/N 47175-521.

Serviceable THSA: An affected THSA that has not exceeded the THSA FC limit, as defined in this AD, or a not affected THSA that has not exceeded its applicable THSA FC limit, as defined in the applicable Airbus A340 Airworthiness Limitations Section Part 4. EASA AD 2014-0257 (now at R1) provides a list of additional THSA with their applicable THSA FC limit.

THSA FC Limit: 3 500 flight cycles (FC) since first installation on an aeroplane, or since last no-back brake (NBB) discs replacement, whichever is later.



Reason:

During endurance qualification tests on THSA installed on another Airbus aeroplane type, a partial loss of efficiency of the NBB was experienced. Due to THSA design similarity on the A330/A340 fleet, a similar partial loss of NBB efficiency was identified for THSA installed on certain A340 aeroplanes.

This condition, if not detected and corrected, in combination with the power gear train unable to keep the ball screw in its last commanded position, could lead to uncommanded movements of the horizontal stabilizer, possibly resulting in loss of control of the aeroplane.

To address this potential unsafe condition, EASA issued AD 2014-0257 (later revised) to require replacement of each THSA that has exceeded a certain number of FC in service.

Since EASA AD 2014-0257R1 was issued, EASA certified new THSA P/N, potentially affected by the same technical issue and which must also be replaced before exceeding the THSA FC limit, as defined in this AD, for the purpose of in-shop NBB discs replacement.

For the reasons described above, this AD requires replacement of affected THSA before exceeding the THSA FC limit, as defined in this AD.

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

Required as indicated, unless accomplished previously:

Replacement:

- (1) From the effective date of this AD, before an affected THSA exceeds the THSA FC limit, as defined in this AD, or within 30 days after the effective date of this AD, whichever occurs later, replace that affected THSA with a serviceable THSA, as defined in this AD.

This can be accomplished in accordance with the instructions of Airbus A340 Aircraft Maintenance Manual task 27-44-51-920-801-A.

THSA Installation:

- (2) From the effective date of this AD, it is allowed to install on any aeroplane an affected THSA, provided that it has not exceeded the THSA FC limit, as defined in this AD.

Ref. Publications:

None.

Remarks:

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.
2. This AD was posted on 02 February 2021 as PAD 21-012 for consultation until 02 March 2021. The Comment Response Document 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](#). 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 – IIAL (Airworthiness Office), E-mail: airworthiness.A330-A340@airbus.com.

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