



# Notification of a Proposal to issue an Airworthiness Directive

**PAD No.: 21-012**

**Issued: 02 February 2021**

Note: This Proposed Airworthiness Directive (PAD) 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.

In accordance with the EASA Continuing Airworthiness Procedures, the Executive Director is proposing the issuance of an EASA Airworthiness Directive (AD), applicable to the aeronautical product(s) identified below.

All interested persons may send their comments, referencing the PAD Number above, to the e-mail address specified in the 'Remarks' section, prior to the consultation date indicated.

**Design Approval Holder's Name:**

AIRBUS

**Type/Model designation(s):**

A340 aeroplanes

**Effective Date:** [TBD - standard: 14 days after AD issue date]

**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 life limit, as defined in this AD, or a not affected THSA that has not exceeded its applicable life limit, as defined in the applicable Airbus A340 Airworthiness Limitations Section Part 4. EASA AD 2014-0275 provides a list of additional THSA with their applicable life limit.

**Life Limit:** 3 500 flight cycles (FC).



**Reason:**

During endurance qualification tests on THSA installed on another Airbus aeroplane type, a partial loss of efficiency of the no-back brake (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 life limit, as defined in this AD.

For the reasons described above, this AD requires replacement of affected THSA before exceeding the life 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 life 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 is a serviceable THSA, as defined in this AD.

**Ref. Publications:**

None.

**Remarks:**

1. This Proposed AD will be closed for consultation on 02 March 2021.
2. Enquiries regarding this PAD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu).
3. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this PAD, and which may occur, or have occurred on a product, part or appliance not affected by this PAD, 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 PAD 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.

4. For any question concerning the technical content of the requirements in this PAD, please contact: AIRBUS – IIAL (Airworthiness Office), E-mail: [airworthiness.A330-A340@airbus.com](mailto:airworthiness.A330-A340@airbus.com).

