



Notification of a Proposal to issue an Airworthiness Directive

PAD No.: 22-130

Issued: 28 September 2022

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 S.A.S.

Type/Model designation(s):

A330 aeroplanes

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

TCDS Numbers: EASA.A.004

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2018-0148R1 dated 05 April 2019.

ATA 78 – Engine Exhaust – Thrust Reverser Lower Beam – Inspection / Repair

Manufacturer(s):

Airbus, formerly Airbus Industrie

Applicability:

Airbus A330-243, A330-243F, A330-341, A330-342, A330-343 and A330-743L aeroplanes, all manufacturer serial numbers.

Definitions:

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

The SB: Airbus Service Bulletin (SB) A330-78-3023.

The NMSB: Rolls-Royce Non-Modification SB (NMSB) RB.211-78-AH677, which includes a reference to Safran Nacelles NMSB 78-AH677.

TRU Beam: Thrust Reverser (TR) Unit (TRU) C-duct lower structural 6 o'clock beam.



Reason:

Occurrences have been reported on A330 aeroplanes fitted with Trent 700 engines where a TRU beam was found with evidence of thermally caused material degradation in the rearmost section of the TRU beam at latches 5, 6 and 7 areas. Subsequent fatigue analysis determined that the static strength margins of the material of the TRU beam could be reduced, with detrimental effect on the operational fatigue life of the beam.

This condition, if not detected and corrected, could lead to disconnection of the TRU from the engine, with possible damage to the engine adjacent structure and controls, and/or damage to the aeroplane, and injury to persons on the ground.

To address this potential unsafe condition, Airbus issued the SB, which includes reference to the instructions of the NMSB, providing instructions to inspect each TRU beam, and EASA issued AD 2018-0148 to require repetitive special detailed inspections (SDI) of the TRU beams and, depending on findings, accomplishment of applicable corrective action(s).

After that AD was issued, it was found that there could be cases where the flight cycles (FC) accumulated by a TRU beam are unknown (at that time, not a tracked part). Consequently, EASA issued AD 2018-0148R1 to clarify that the FC accumulated by the TRU assembly can be used to determine the first inspection, and to include additional clarifications.

Since that AD was issued, it has been determined that the Applicability of the AD has to be updated, to include A330-743L aeroplanes, and Airbus revised the SB accordingly. Furthermore, it has been determined that the calendar compliance time and interval for repetitive inspections can be extended.

For the reason described above, this AD retains the requirements of EASA AD 2018-0148R1, which is superseded, and expands the Applicability.

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

Required as indicated, unless accomplished previously:

Repetitive Inspections:

- (1) Within the compliance time specified in Table 1 of this AD, as applicable, and, thereafter, at intervals not to exceed 3 300 FC or 48 months accumulated by the TRU beam, whichever occurs first, accomplish an SDI (conductivity test) of each left-hand (LH) and right-hand (RH) TRU beam in accordance with the instructions of the SB.

Table 1 – Initial SDI (Conductivity Test) of TRU Beam

Compliance Time (whichever occurs later, A or B, as applicable)		
A	All models	Before exceeding 3 300 FC or within 48 months, whichever occurs first since first installation of the TRU beam or TRU assembly on an aeroplane
B	A330-243, A330-243F, A330-341, A330-342, A330-343	Within 3 300 FC or 24 months, whichever occurs first after 27 July 2018 [the effective date of the original issue of EASA AD 2018-0148]



Corrective Action(s):

- (2) If, during any SDI as required by paragraph (1) of this AD, damage to a TRU beam is found which exceeds the limits specified in the NMSB (see Note 1 of this AD), before next flight, replace that TRU beam with a serviceable beam in accordance with the instructions of the SB.

Note 1: The NMSB contains, by reference to Safran Nacelles SB 78-AH677, a matrix to define “GO – NO GO” criteria and includes permitted fly-on damage limits.

- (3) If, during any SDI as required by paragraph (1) of this AD, the inspection result of one or more TRU beams is “GO” (see Note 1 of this AD), before next flight, accomplish the inspections as specified in Table 2 of this AD, as applicable, and, depending on findings, accomplish the applicable corrective action(s) in accordance with the instructions of the SB.

Table 2 – Detailed Inspection (DET) / Ultrasonic Inspection

TRU Position(s)	Inspection Method, Areas and Purpose
LH	DET of TRU beam latches (5, 6 and 7) for bush migration and crack/deformation
RH	DET of TRU beam clevises (5, 6 and 7) for crack/deformation
LH and RH	Ultrasonic inspection of TR Outer Fixed Structure rear area for delamination

Terminating Action:

- (4) None.

Part Installation:

- (5) From the effective date of this AD, installation of a TRU beam on an aeroplane is allowed, provided that the TRU assembly of which that TRU beam is a component, or the TRU beam, as applicable, has not exceeded 3 300 FC or 48 months, whichever occurs first since its first installation on an aeroplane, or has passed an inspection (no defects found) in accordance with the instructions of the SB, and that, following its installation, it is inspected as required by paragraph (1) of this AD.

Ref. Publications:

Airbus SB A330-78-3023 original issue dated 12 December 2017, or Revision 01 dated 27 September 2022.

Rolls-Royce NMSB RB211-78-AH677 original issue dated 18 December 2017.

Safran Nacelles SB 78-AH677 dated 18 December 2017.

The use of later approved revisions of the above-mentioned documents is acceptable for compliance with the requirements of this AD.



Remarks:

1. This Proposed AD will be closed for consultation on 26 October 2022.
2. Enquiries regarding this PAD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: 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.

