



Airworthiness Directive

AD No.: 2025-0176

Issued: 07 August 2025

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, or Annex Vb Part ML.A.301, as applicable, 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 Annex Vb Part ML.A.303, as applicable] or agreed with the Authority of the State of Registry [Regulation (EU) 2018/1139, Article 71 exemption].

Design Approval Holder's Name:

ROLLS-ROYCE DEUTSCHLAND Ltd & Co KG

Type/Model designation(s):

Trent 1000 engines

Effective Date: 21 August 2025

TCDS Number(s): EASA.E.036

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2023-0087 dated 26 April 2023.

ATA 75 – Air – Intermediate / High Pressure Air Tubes / Connectors – Inspection

Manufacturer(s):

Rolls-Royce plc

Applicability:

Trent 1000-AE3, Trent 1000-CE3, Trent 1000-D3, Trent 1000-G3, Trent 1000-H3, Trent 1000-J3, Trent 1000-K3, Trent 1000-L3, Trent 1000-M3, Trent 1000-N3, Trent 1000-P3, Trent 1000-Q3 and Trent 1000-R3 engines, all serial numbers.

These engines are known to be installed on, but not limited to, Boeing 787 aeroplanes.

Definitions:

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

The NMSB: Rolls-Royce Alert Non-Modification Service Bulletin (NMSB)

TRENT 1000 75-AK920 Revision 1.

Affected air transfer tubes: Intermediate pressure (IP) Stage 8 (IP8) and high pressure (HP) Stage 3 (HP3) air transfer tubes as identified in Table 1 of Appendix 1 of the NMSB, including the tube connectors (see Note 1 and Note 2 of this AD).



Note 1: There are in total 20 IP8 air transfer tubes external to the engine core, 15 of which are defined in the NMSB. All 20 IP8 air transfer tubes are identified in Boeing 787 Aircraft Maintenance Manual (AMM) task B787-A-R75-22-00-01B-311A-A.

Note 2: There are in total 6 HP3 air transfer tubes external to engine core, all of which are defined in the NMSB. All 6 HP3 air transfer tubes are identified in Boeing 787 AMM task B787-A-R75-22-00-08A-311A-A.

Affected air feed tubes: Front bearing housing IP8 air feed tubes, as identified in Table 2 of Appendix 1 of the NMSB, including the tube connectors.

Qualified engine shop visit: A shop visit where a core module flange is separated (including Hospital and Check and Rectify shop visits).

Groups:

Group 1 engines are those which have not been subject to a shop visit where a core module flange has been separated (including Hospital and Check and Rectify shop visits).

Group 2 engines are those which have passed at least one shop visit where a core module flange has been separated (including Hospital and Check and Rectify shop visits).

Reason:

The Rolls-Royce Trent 1000 TEN Time Limits Manual (TLM) T-Trent-10RRT contains instructions for visual inspections to determine the integrity of critical IP8 and HP3 air system tubes at intervals consistent with exposure assumptions used in critical part life assessments. However, the intervals of some of these inspections, not previously included in the TLM, are shorter than the planned refurbishment interval shop visits for the engine. It was therefore determined that certain more frequent inspections are necessary.

If, the IP8 or HP3 air system tube failure is not detected and corrected, this could lead to reduced efficiency of internal cooling and sealing flows, possibly resulting in engine critical parts being unable to achieve their approved lives, leading to engine critical part failure, damage to the engine, and reduced control of the aeroplane.

To address this potential unsafe condition, Rolls-Royce issued the original issue of the Rolls-Royce Alert NMSB TRENT 1000 75-AK920, providing in-shop instructions to inspect the affected parts, and EASA published AD 2023-0087 to require repetitive visual inspections of each affected part and, depending on findings, replacement.

Since that AD was published, Rolls-Royce issued the NMSB, as defined in this AD, to include on-wing inspections for the affected air transfer tubes and to increase the inspection interval for affected air feed tubes from 1 000 flight cycles (FC) to every refurbishment shop visit.

For the reasons described above, this AD retains the requirements of EASA AD 2023-0087, which is superseded and requires repetitive visual on-wing inspections of each affected air transfer tube. It is expected that the Rolls-Royce Trent 1000 TEN TLM T-Trent-10RRT will be amended to include the inspections as required by this AD.



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

Required as indicated by this AD, unless the action(s) required by this AD have been already accomplished:

On-Wing Inspection(s):

- (1) Within the compliance time as defined in Table 1 of this AD and, thereafter, at interval not to exceed 1 000 FC inspect each affected air transfer tube in accordance with the instructions of section 3 of the NMSB.

Table 1 – On-Wing Air Transfer Tube Inspection

Group	Compliance Time
1	Within 1 000 FC accumulated by the engine since new
2	Within 1 000 FC accumulated by the engine since last qualified engine shop visit

In-Shop Inspection(s):

- (2) During the next qualified engine shop visit, as defined in this AD, after the effective date of this AD, and, thereafter, during shop visit(s) as defined in Table 2 of this AD, inspect each affected air transfer tube and affected air feed tube in accordance with the instructions of section 3 of the NMSB.
- (3) For an engine that, on the effective date of this AD, is in a qualified engine shop visit, where the re-assembly has not yet started, accomplish the inspection as required by paragraph (2) of this AD before release to service of that engine.
- (4) For an engine that, on the effective date of this AD, is in a qualified engine shop visit, where the re-assembly has started, it is allowed to postpone the inspection as required by paragraph (2) of this AD in accordance with the requirements of paragraphs (4.1) and (4.2) of this AD.
- (4.1) For air transfer tube(s): Accomplish the inspection during the on-wing inspection within the compliance time as required by and in accordance with the requirement of paragraph (1) of this AD, or during the next qualified engine shop visit, whichever occurs first.
- (4.2) For air feed tube(s): Accomplish the inspection during the next qualified engine shop visit.

Table 2 – In-Shop Air Transfer Tube and Air Feed Tube Inspection

Affected Parts	Repeat Interval
Air transfer tube	During each qualified engine shop visit
Air feed tube	During each refurbishment shop visit



Corrective Action(s):

- (5) If, during any inspection as required by paragraph (1), (2) (3) or (4) of this AD, cracking, damage or any sign of air leakage wear is found, before next flight or before release to service of the engine, as applicable, replace the affected air transfer tube or air feed tube, as applicable, in accordance with the instructions of section 3 of the NMSB.

Credit:

- (6) Inspection(s) and corrective action(s) accomplished on an engine before the effective date of this AD in accordance with the instructions of the original issue of the Rolls-Royce Alert NMSB TRENT 1000 75-AK920 is acceptable to comply with the initial requirements of paragraphs (1), (2), (3) and (5) of this AD for that engine.

Terminating Action:

- (7) None.

Acceptable Method:

- (8) Accomplishment of the on-wing inspection, within the compliance time as required by paragraph (1) of this AD, of affected air transfer tubes (IP8 and HP3 air transfer tubes) identified in and in accordance with Boeing 787 AMM tasks B787-A-R75-22-00-01B-311A-A and B787-A-R75-22-00-08A-311A-A is an acceptable method to comply with the requirement of paragraph (1) of this AD for those affected air transfer tubes.

Ref. Publications:

Rolls-Royce Alert NMSB TRENT 1000 75-AK920 original issue dated 28 February 2023 or Revision 1 dated 30 May 2025.

The use of later approved revisions of the above-mentioned document 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 04 July 2025 as PAD 25-100 for consultation until 01 August 2025. 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: your designated Rolls-Royce representative, or download the publication from your Rolls Royce Care account at <https://customers.rolls-royce.com>.

If you do not have a designated representative or Rolls-Royce Care account, please contact **Corporate Communications** at **Rolls-Royce plc**, P.O. Box 31, Derby, DE24 8BJ, United Kingdom Telephone +44 (0)1332 242424,

or send an email through <https://www.rolls-royce.com/contact-us/civil-aerospace.aspx> identifying the correspondence as being related to **Airworthiness Directives**.

