



Airworthiness Directive

AD No.: 2018-0164R1

Issued: 14 March 2019

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:

ROLLS-ROYCE DEUTSCHLAND Ltd & Co KG

Type/Model designation(s):

Trent 1000 engines

Effective Date: Revision 1: 14 March 2019
Original issue: 09 August 2018

TCDS Number(s): EASA.E.036

Foreign AD: Not applicable

Revision: This AD revises EASA AD 2018-0164 dated 26 July 2018.

ATA 72 – Engine – High Pressure Turbine Disc Front Cover Plate – Replacement [Life Limitation]

Manufacturer(s):

Rolls-Royce plc (RR)

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 72-AK057.

The TLM Task: Rolls-Royce Trent 1000 Time Limits Manual (TLM) T-Trent-10RRC, task 05-10-01-800-801, dated 12 March 2019.

Affected part: High Pressure (HP) turbine disc front cover plates, Part Number (P/N) KH59279.



Groups: Group 1 engines are those that have an affected part installed. Group 2 engines are those that do not have an affected part installed.

Reason:

Following a recent analysis of the material condition used in manufacture of these parts, it was established that the HP turbine disc front cover plate may have a safe life below its declared safe cyclic life (DSCL).

This condition, if not corrected, could lead to premature failure of an affected part, possibly resulting in damage to the engine and reduced control of the aeroplane.

To address this potential unsafe condition, RR published the NMSB to provide the new DSCL and replacement instructions. Consequently, EASA issued AD 2018-0164 to require implementation of the reduced DSCL and removal from service of those affected parts that have exceeded the reduced DSCL.

Since that AD was issued, further analysis has resulted in the approval of an extended life for the affected parts. RR has published the TLM Task for this extended limit and it is expected the NMSB will be cancelled accordingly.

For the reason described above, this AD is revised to amend the compliance time.

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

Required as indicated, unless accomplished previously:

Life Limit Implementation:

- (1) For Group 1 engines: From the effective date of this revised AD, before an affected part exceeds 1 250 flight cycles (FC) since its first installation on an engine, remove that affected part from service.

Parts Installation:

- (2) For Group 1 and Group 2 engines: From the effective date of this revised AD, it is allowed to install an affected part on any engine, provided the part is new, or it is determined that the part has not exceeded 1 250 FC since its first installation on an engine, and that, following installation, the affected part is replaced as required by paragraph (1) of this AD.

Ref. Publications:

Rolls-Royce Trent 1000 TLM T-Trent-10RRC, Task 05-10-01-800-801 dated 12 March 2019.

The use of later approved revisions of the above-mentioned document/task 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. The original issue of this AD was posted on 26 June 2018 as PAD 18-087 for consultation until 24 July 2018. 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](#).
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 http://www.rolls-royce.com/contact/civil_team.jsp identifying the correspondence as being related to **Airworthiness Directives**.

