



Airworthiness Directive

AD No.: 2020-0018

Issued: 04 February 2020

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):

RB211 Trent 900 engines

Effective Date: 18 February 2020

TCDS Number(s): EASA.E.012

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2020-0003 dated 09 January 2020.

ATA 73 – Engine Fuel & Control – Hydro-mechanical Metering Units – Removal from Service

Manufacturer(s):

Rolls-Royce plc

Applicability:

RB211 Trent 970-84, Trent 972-84 and Trent 972E-84 engines, all serial numbers (s/n).

These engines are known to be installed on, but not limited to, Airbus A380 aeroplanes.

Definitions:

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

The NMSB: Rolls-Royce Trent 900 Alert Non-Modification Service Bulletin (NMSB) RB.211-73-AK475 Revision 1. The NMSB has an 'A' (Alert) in the number, but a later revision may not have that 'A'. This kind of change does not effectively alter the publication references. The NMSB refers to "Collins aerospace Service Bulletin JFC910-1-73-2" which is actually Hamilton Sundstrand (part of UTC Aerospace, recently renamed Collins Aerospace) Service Bulletin (SB) JFC910-1-73-2, which is attached to the NMSB.

Affected part: Hydro-mechanical metering units (HMU), having Part Number 1002400-5, and having an s/n as listed in Appendix 1 of the NMSB, except those marked with 'SB73-2'.



Serviceable part: Any HMU that is not an affected part.

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:

An occurrence was reported of a tailpipe fire on a Trent 900 engine during an engine ground run. Investigation results determined that this event was due to certain markings on the servo valve, caused by a calibration tool during HMU production, which resulted in debris release and consequent jamming of a fuel valve in fully OPEN position. A limited number of HMU have been identified that may have been subject to the same tool marking.

This condition, if not corrected, could lead to loss of thrust control and engine in-flight shut-down, possibly resulting in reduced control of the aeroplane.

Prompted by these findings, Rolls-Royce published Trent 900 NMSB RB.211-73-AK475 (original issue), providing instructions to remove the affected parts from service for in-shop rectification by the HMU manufacturer. Consequently, EASA issued AD 2020-0003 to require removal from service of the affected parts. That AD also prohibited (re)installation of an affected part.

Since that AD was issued, eight (8) more affected parts have been identified and Rolls-Royce issued the NMSB, as defined in this AD, accordingly.

For the reason described above, this AD retains the requirements of EASA AD 2020-0003, which is superseded, expands the batch of affected parts (by reference to Appendix 1 of the NMSB, as defined in this AD) and reduces the compliance time for aeroplanes with three (3) affected parts installed.

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

Required as indicated, unless accomplished previously:

Removal from Service:

- (1) For Group 1 engines: Within the compliance times specified in Table 1 of this AD, as applicable, depending on the number of affected parts installed on the aeroplane, replace each affected part with a serviceable part, as defined in this AD, in accordance with the instructions of the NMSB.

Table 1 – HMU Removal from Service

Installed	Compliance Time
4 or 3	Before next flight after the effective date of this AD
2 or 1	Within 5 months after 23 January 2020 [the effective date of EASA AD 2020-0003]

Parts Installation:

- (2) For Group 1 and Group 2 engines: From the effective date of this AD, it is allowed to install an HMU on any engine, provided this is a serviceable part, as defined in this AD.



Ref. Publications:

Rolls-Royce Trent 900 Alert NMSB RB.211-73-AK475 original issue dated 23 December 2019 and Revision 1 dated 03 February 2020.

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. Based on the required actions and the compliance time, EASA have decided to issue a Final AD with Request for Comments, postponing the public consultation process until after publication.
3. Enquiries regarding this AD should be referred to the EASA Programming and Continued Airworthiness 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 <https://www.rolls-royce.com/contact-us/civil-aerospace.aspx> identifying the correspondence as being related to **Airworthiness Directives**.

