

## Airworthiness Directive

**AD No.:** 2020-0003

**Issued:** 09 January 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:** 23 January 2020

**TCDS Number(s):** EASA.E.012

**Foreign AD:** Not applicable

**Supersedure:** None

## 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:

**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 'SB-73-2'. Where the NMSB refers to "Collins Bulletin JFC910-1-73-2", this must be read as Hamilton Sundstrand (part of UTC Aerospace, recently renamed Collins Aerospace) Service Bulletin (SB) JFC910-1-73-2.

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

**The NMSB:** Rolls-Royce Alert Non-Modification Service Bulletin (NMSB) RB.211-73-AK475. 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.

**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 issued the NMSB, providing instructions to remove the affected parts from service for in-shop rectification by the HMU manufacturer.

For the reason described above, this AD requires removal from service of the affected parts. This AD also prohibits (re)installation of an affected part.

**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	Before next flight after the effective date of this AD
3	Within 14 days after the effective date of this AD
2 or 1	Within 5 months after the effective date of this AD

**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.

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](mailto: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**.

