Airworthiness Directive

AD No.: **2021-0245**

Issued: **10 November 2021**

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 800 engines

Effective Date: 17 November 2021

TCDS Number(s): EASA.E.047

Foreign AD: Not applicable

Supersedure: None

ATA 73 – Engine – Fuel Pump – Replacement / De-Pairing Limitation

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Manufacturer(s):
Rolls-Royce plc

Applicability:
RB211 Trent 875-17, 877-17, 884-17, 884B-17, 892-17, 892B-17 and 895-17 engines, all serial numbers.

These engines are known to be installed on, but not limited to, Boeing 777 aeroplanes.

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

The NMSB: Rolls-Royce Alert Non-Modification Service Bulletin (NMSB) RB211/TRENT 73-AK788. 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.

Affected part: Fuel pumps, having a Part Number (P/N) and serial number as listed in Appendix 1 of the NMSB, as defined in this AD.

Affected engine: An engine having an affected part installed.

Affected aeroplane: An aeroplane having two affected engines installed.

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Reason:

Occurrences have been reported of single engine events resulting in loss of thrust. Investigation determined that certain engines have been exposed to unacceptable levels of water contamination, which caused corrosion developing on the fuel pump internal components, leading to debris release and filter blockages in Variable Stator Vane Actuator Control Units, which finally resulted in the Variable Stator Vane system to fail in the closed position.

This condition, if not corrected, could lead to dual engine loss of thrust control or engine in-flight shut-down with consequent reduced control of the aeroplane.

To address this potential unsafe condition, Rolls-Royce published the NMSB to provide instructions for de-pairing of affected parts on any single aeroplane.

For the reasons described above, this AD requires replacement of affected parts. This AD also prohibits (re)-installation of an engine having an affected part installed on any aeroplane. Finally, this AD prohibits (re)installation of an affected part on any engine.

This AD is considered an interim action and further AD action may follow.

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

Required as indicated, unless accomplished previously:

Fuel Pump Replacement / De-Pairing:

(1) Within 30 days after the effective date of this AD, replace the affected part on one or both affected engine(s) installed on an affected aeroplane, as defined in this AD, with a fuel pump that is not an affected part in accordance with the instructions of the NMSB.

Engine Installation:

(2) From the effective date of this AD, do not install an engine having an affected part installed on any aeroplane.

Part installation:

(3) From the effective date of this AD, do not install an affected part on any engine.

Ref. Publications:

Rolls-Royce Alert NMSB TRENT 800 73-K788 original issue dated 09 November 2021.

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.

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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**.

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