



## Airworthiness Directive

**AD No.:** 2017-0096

**Issued:** 01 June 2017

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) 216/2008 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 66 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 (EC) 216/2008, Article 14(4) exemption].

**Design Approval Holder's Name:**

ROLLS-ROYCE plc

**Type/Model designation(s):**

RB211 Trent 800 engines

**Effective Date:** 08 June 2017

**TCDS Number(s):** EASA.E.047

**Foreign AD:** Not applicable

**Supersedure:** None

### ATA 72 – Engine – Low Pressure Compressor Case A-Frame Hollow Locating Pins – Replacement

**Manufacturer(s):**

Rolls-Royce PLC (RR)

**Applicability:**

RB211 Trent 875-17, 877-17, 884-17, 884B-17, 892-17, 892B-17 and 895-17 engines, all serial numbers (ESN).

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

**Reason:**

All low pressure compressor (LPC) case A-frame hollow locating pins, Part Number (P/N) FK11612, manufactured between 01 January 2012 and 31 May 2016, have potentially been subjected to incorrect heat treatment. This may have reduced the integrity of the pin such that in a Fan Blade Off (FBO) event it is unable to withstand the applied loads.

This condition, if not corrected, could lead to loss of location of the A-frame following an FBO event, possibly resulting in engine separation, loss of thrust reverser unit, release of high-energy debris, or an uncontrolled fire.



To address this potential unsafe condition, RR identified the affected engines that have these A-frame hollow locating pins installed and published Alert Non-Modification Service Bulletin (NMSB) RB.211-72-AJ463, providing instructions for replacement of these pins. The NMSB was recently revised to correct an error in Section 1.A., where ESN 51477 was inadvertently omitted. That ESN was correctly listed in Section 1.D.(1)(f) for the compliance time.

For the reason described above, this AD requires a one-time replacement of the affected A-frame hollow locating pins P/N FK11612. This AD also prohibits installation of pins that were released to service before 05 July 2016.

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

Required as indicated, unless accomplished previously:

Note 1: Where, in this AD, reference is made to an RR Mod, SB or NMSB with an 'A' (Alert) in the number, it should be recognised that an earlier or later revision may not have that 'A'. This kind of change does not effectively alter the publication references for the purpose of this AD.

Note 2: An A-frame hollow locating pin, P/N FK11612, is hereafter referred to as 'affected part' in this AD, except those with an original RR authorised release certificate dated 05 July 2016 or later, which are hereafter referred to as 'serviceable part' in this AD.

Note 3: RR Alert NMSB RB.211-72-AJ463 is hereafter referred to as 'the NMSB' in this AD.

Note 4: Group 1 engines are those with an ESN as identified in Section 1.A. 'Effectivity' of RR Alert NMSB RB.211-72-AJ463 Revision 1 dated 17 May 2017. Group 2 engines are all other ESN.

#### **On-wing Replacement:**

- (1) For Group 1 engines (see Note 4 of this AD): Within the compliance time specified in Section 1.D.(1) of the NMSB, as applicable to ESN, replace each affected part (see Note 2 of this AD) with a serviceable part (see Note 2 of this AD) in accordance with the instructions of Section 3 of the NMSB.

Note 5: For an aeroplane with a Group 1 engine installed that is close to, or has exceeded, the applicable compliance time, a single ferry flight (not exceeding 2 flight cycles) is allowed to a location where the actions required by this AD can be accomplished on that engine.

#### **Spare Engines:**

- (2) For a Group 1 engine that, on the effective date of this AD, is held as a serviceable spare engine, or is removed from the aeroplane after the effective date of this AD and then held as a serviceable spare engine, before (re-)installation of that engine on an aeroplane, replace each affected part with a serviceable part in accordance with the instructions of Section 3 of the NMSB.

#### **In-shop Replacement:**

- (3) Unless already accomplished as required by paragraph (1) or (2) of this AD, as applicable, during the next qualified shop visit (see Note 6 of this AD) of a Group 1 engine after the effective date of this AD, or, if on the effective date of this AD, a Group 1 engine is in a qualified shop visit,



before release to service, replace each affected part with a serviceable part in accordance with the instructions of Section 3 of the NMSB.

Note 6: For the purpose of this AD, a qualified shop visit is where the engine is subject to a serviceability check and repair, refurbishment or overhaul, as defined by the Trent 800 Generic Engine Management Programme (EMP) on RR Care Customer website, and includes 'hospital' shop visits.

#### Parts Installation:

- (4) For Group 1 and Group 2 engines: From the effective date of this AD, it is allowed to install on any engine an A-frame hollow locating pin, P/N FK11612, provided that the part is a serviceable part (see Note 2 of this AD).

#### Ref. Publications:

Rolls-Royce NMSB RB.211-72-AJ463 original issue dated 07 April 2017, or Revision 1 dated 17 May 2017.

The use of later approved revisions of this 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 16 March 2017 as PAD 17-031 for consultation until 30 March 2017 and republished on 11 April 2017 as PAD 17-031R1 for additional consultation until 25 April 2017. The Comment Response Document can be found in the [EASA Safety Publications Tool](#), in the compressed (zipped) file attached to the record for this revised PAD.
3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu).
4. 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](http://www.rolls-royce.com/contact/civil_team.jsp) identifying the correspondence as being related to **Airworthiness Directives**.

