



## Notification of a proposal to issue an Airworthiness Directive

**PAD No.: 17-031**

**Issued: 16 March 2017**

Note: This Proposed Airworthiness Directive (PAD) 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.

In accordance with the EASA Continuing Airworthiness Procedures, the Executive Director is proposing the issuance of an EASA Airworthiness Directive (AD), applicable to the aeronautical product(s) identified below.

All interested persons may send their comments, referencing the PAD Number above, to the e-mail address specified in the 'Remarks' section, prior to the consultation date indicated.

### Design Approval Holder's Name:

ROLLS-ROYCE plc

### Type/Model designation(s):

RB211 Trent 800 engines

**Effective Date:** [TBD - standard: 14 days after AD issue date]

**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 intends to publish Alert Non-Modification Service Bulletin (NMSB) RB.211-72-AJ463, providing instructions for replacement of these pins. A draft of that NMSB is currently available on Rolls-Royce Care (see ref. WW11346-1 dated 15 March 2017) to invite operator comments.

For the reason described above, this PAD proposes to require a one-time replacement of the affected A-frame hollow locating pins P/N FK11612. This PAD also proposes to prohibit 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 Rolls-Royce 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 [to be published]. 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) of this AD, or as required by paragraph (2) of this AD, 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 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 Rolls-Royce 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 [to be published].

The use of later approved revisions of this document is acceptable for compliance with the requirements of this AD.

**Remarks:**

1. This Proposed AD will be closed for consultation on 30 March 2017.
2. Enquiries regarding this PAD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: [ADs@easa.europa.eu](mailto:ADs@easa.europa.eu).
3. For any question concerning the technical content of the requirements in this PAD, 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**.

