



Airworthiness Directive

AD No.: 2017-0012

Issued: 25 January 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 500 engines

Effective Date: 08 February 2017

TCDS Number(s): EASA.E.60

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 553-61, 553A2-61, 556-61, 556A2-61, 556B-61, 556B2-61, 560-61 and 560A2-61 engines, serial numbers (ESN) as identified in Section 1.A. Effectivity of RR Alert Non-Modification Service Bulletin (NMSB) RB.211-72-AJ451 dated 22 November 2016.

These engines are known to be installed on, but not limited to, Airbus A340-500 and A340-600 series aeroplanes.

Reason:

All low pressure compressor (LPC) case A-frame hollow locating pins, Part Number (P/N) FK32009, manufactured since 2012 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 NMSB RB.211-72-AJ451, providing instructions for replacement of these pins.

For the reason described above, this AD requires a one-time replacement of the A-frame hollow locating pins P/N FK32009 on the affected engines.

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: The affected A-frame hollow locating pins, P/N FK32009, are hereafter referred to as 'the affected parts' in this AD.

Note 3: RR Alert NMSB RB.211-72-AJ451 is hereafter referred to as 'the NMSB' in this AD.

On-wing Replacement:

- (1) Within the compliance time specified in Section 1.D.(1) of the NMSB (see Note 4 of this AD), as applicable to ESN, replace the affected parts with serviceable parts in accordance with the instructions of Section 3 of the NMSB.

Note 4: For an aeroplane with an 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 an 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 the affected parts with serviceable parts 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 5 of this AD) after the effective date of this AD, or, if on the effective date of this AD, an engine is in a qualified shop visit, before release to service, replace the affected parts with serviceable parts in accordance with the instructions of Section 3 of the NMSB.

Note 5: For the purpose of this AD, a qualified shop visit is defined as any shop visit for an engine subject to a Level 1 to Level 4 workscope, as defined by the Trent 500 Generic Engine Management Programme (EMP), on Rolls-Royce Care Customer website and includes 'hospital' shop visits.



Ref. Publications:

Rolls-Royce NMSB RB.211-72-AJ451 original issue dated 22 November 2016.

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 01 December 2016 as PAD 16-165 for consultation until 15 December 2016. The Comment Response Document can be found at <http://ad.easa.europa.eu>.
3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: 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 identifying the correspondence as being related to **Airworthiness Directives**.

