

 適航指令發布單 Airworthiness Directive Issuance Form			
民航局 AD 編號 AD number	CAA-2017-04-012	發布日期 Date issued	2017/5/4
適用之航空產品 Applied to (models, serial numbers or part numbers, as applicable)	RB211 Trent 768-60, 772-60, 772B-60 and 772C-60 engines, all serial numbers. These engines are known to be installed on, but not limited to, Airbus A330 aeroplanes.		
主旨摘要	Engine - Compressor Intermediate Case - Inspection / Repair		
民航局 CAA <input type="checkbox"/> 本國產品 Native products <input type="checkbox"/> 其他個案 Other	設計國民航主管機構 Original Authorities <input type="checkbox"/> FAA <input type="checkbox"/> Germany LBA <input checked="" type="checkbox"/> EASA <input type="checkbox"/> CAA-NL <input type="checkbox"/> Brazil <input type="checkbox"/> UK CAA <input type="checkbox"/> Transport Canada Civil Aviation <input type="checkbox"/> Japan CAB <input type="checkbox"/> DGAC <input type="checkbox"/> CAA of Israel <input type="checkbox"/> Other _____		
	設計國 AD 編號 Original AD number	2017-0071	
	1. 直接採用原 AD 之內容?(Is the original AD directly adopted?) <input checked="" type="checkbox"/> 是(Yes) <input type="checkbox"/> 否(No) _ a. 生效日期另訂為(Re-specify the effective date as) : _____ b. 執行時限另訂為(Re-specify the compliance time or period as) : _____ 2. 使用人是否需要將 AD 執行結果向民航局提出報告?(Do Users need to report the status of compliance to the CAA?) <input type="checkbox"/> 是(Yes) <input checked="" type="checkbox"/> 否(No)		
備註 Note	ATA 72. This AD supersedes EASA AD 2017-0003(CAA-2017-01-002) dated 09 January 2017. Ref. Publications: Rolls-Royce Alert NMSB RB.211-72-AH976 dated 03 November 2016, or Revision 1 dated 17 November 2016, or Revision 2 dated 16 March 2017.		
註： 1. AD 內容後附。 2. 航空器產品使用人得向民航局提出豁免、替代符合方法、執行時限之展延之申請。 3. 如有任何問題，請聯絡交通部民用航空局初始適航科。Tel：(02)2349-6331~3, Fax：(02)2545-8464, e-mail： adcaa@mail.caa.gov.tw Note： 1. The AD text is enclosed. 2. Exemption, an alternative method of compliance or adjustment of the compliance time may be proposed to the CAA for approval. 3. For further information, please contact Civil Aeronautics Administration on Tel：(02)2349-6331~3, Fax：(02)2545-8464, e-mail： adcaa@mail.caa.gov.tw			



Airworthiness Directive

AD No.: 2017-0071

Issued: 26 April 2017

Note: This 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.

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 700 engines

Effective Date: 10 May 2017

TCDS Number(s): EASA.E.042

Foreign AD: Not applicable

Supersedure: This AD supersedes EASA AD 2017-0003 dated 09 January 2017.

ATA 72 – Engine – Compressor Intermediate Case – Inspection / Repair

Manufacturer(s):

Rolls-Royce plc (RR)

Applicability:

RB211 Trent 768-60, 772-60, 772B-60 and 772C-60 engines, all serial numbers.

These engines are known to be installed on, but not limited to, Airbus A330 aeroplanes.

Reason:

It has been determined that certain compressor intermediate cases (CIC), repaired by RR Repair FRSC005, have a higher probability of cracking, due to increased residual stresses which were applied during the weld repair process.

This condition, if not detected and corrected, could lead to CIC failure, possibly resulting in damage to, and/or reduced control of, the aeroplane.

To address this potential unsafe condition, RR issued Alert Non-Modification Service Bulletin (NMSB) RB.211-72-AH976 (later revised), providing inspection instructions and identifying the affected CIC and modules.



Consequently, EASA issued AD 2017-0003 to require a one-time fluorescent-penetrant inspection (FPI) of each affected CIC and, depending on findings, accomplishment of a repair.

Since that AD was issued, as some doubt existed whether all post-repair FRSC005 engines were identified in the original NMSB, a visual inspection of the compressor intermediate case was deemed necessary, and RR issued NMSB RB.211-72-AH976 Revision 2 accordingly.

For the reason described above, this AD retains the requirements of EASA AD 2017-0003, which is superseded, but adds a visual inspection to determine if 'FRSC005' is etched on the compressor intermediate case.

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 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: RR NMSB RB.211-72-AH976 Revision 2 is hereafter referred to as 'the NMSB' in this AD.

Inspection:

- (1) During the next qualified shop visit (see Note 3 of this AD), or within 6 000 engine flight cycles, whichever occurs first after the effective date of this AD, visually inspect the compressor intermediate case and, for those engines with 'FRSC005' etched on it, accomplish an FPI of the CIC in accordance with the instructions of the NMSB.

Note 3: For the purpose of this AD, a qualified shop visit is where the engine is undergoing a non-modular rework level of engine refurbishment.

Corrective action(s):

- (2) If, during the FPI as required by paragraph (1) of this AD, a CIC is found cracked, before release to service of the engine, accomplish RR Repair FRSC372 on that CIC, or replace it with a serviceable CIC.

Credit:

- (3) Inspection and corrective action(s) of an engine, accomplished before the effective date of this AD in accordance with the instructions of RR Alert NMSB RB.211-72-AH976 at original issue or Revision 1, is acceptable to comply with the requirements of paragraphs (1) and (2) of this AD.

Part(s) Installation:

- (4) From the effective date of this AD, it is allowed to install an intermediate module or a CIC on an engine, provided that, prior to installation, it is determined that 'FRSC005' is not etched on the compressor intermediate case, or the CIC has passed an FPI in accordance with the instructions of the NMSB.



Ref. Publications:

Rolls-Royce Alert NMSB RB.211-72-AH976 dated 03 November 2016, or Revision 1 dated 17 November 2016, or Revision 2 dated 16 March 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 17 March 2017 as PAD 17-033 for consultation until 14 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 AD.
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**.

