

EASA	AIRWORTHINESS DIRECTIVE
	AD No.: 2015-0103
	Date: 05 June 2015 Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) No 216/2008 on behalf of the European Community, 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 EU 748/2012, Part 21.A.3B. In accordance with 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 [EU 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption].	
Design Approval Holder's Name: ROLLS-ROYCE plc	Type/Model designation(s): RB211-535E4 engines
TCDS Number: EASA.E.061	
Foreign AD: Not applicable	
Supersedure: This AD supersedes EASA AD 2015-0058 dated 02 April 2015.	
ATA 72	Engine – Critical Parts – Identification / Replacement
Manufacturer(s): Rolls-Royce plc (RR)	
Applicability:	RB211-535E4-37, RB211-535E4-B-37 and RB211-535E4-C-37 engines, all serial numbers (s/n). These engines are known to be installed on, but not limited to, Boeing 757 series aeroplanes.
Reason:	A review of operational flight data has revealed that some RB211-535 engines may have been operated beyond the flight profile (FP) assumed by the operator when establishing the operational limits (life limits) within which the corresponding critical parts are allowed to remain installed. This condition, if not corrected, may lead to critical part failure, possibly resulting in release of high energy debris, damage to the aeroplane and/or injury to the occupants. Prompted by these findings, EASA issued AD 2015-0058 to require identification and removal from service of the affected parts. Since that AD was issued, further information has become available in relation to the remaining cyclic life of the four parts that were subject to AD 2015-0058, and the wider population of parts affected by the same condition. To address this unsafe condition, RR issued Alert Non-Modification Service Bulletin (NMSB) RB.211-72-AH972, which lists all parts that are believed to have been operated beyond the FP assumed by the operator when establishing the applicable operational limits (life limits), instructs operators to calculate the Total Life Consumed and establish the resulting remaining life for some affected parts, to replace some affected parts within a specified compliance time, and introduces a new flight profile G.

	The parts previously required by EASA AD 2015-0058 to be removed from service are also listed in RR Alert NMSB RB.211-72-AH972 Revision 1 (hereafter referred to as 'the NMSB' in this AD). The original issue of NMSB RB.211-72-AH972 contained errors and should therefore not be used. For the reasons described above, this AD supersedes EASA AD 2015-0058, requires re-assessment of engine operation against the currently published profiles (Flight Profile 'A' and 'B'), identification of additional affected parts, re-calculation of cyclic life, and removal from service of parts before exceeding the applicable (re-calculated) cyclic life.
Effective Date:	09 June 2015
Required Action(s) and Compliance Time(s):	Note 1: Where, in this AD, reference is made to a 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: For the purpose of this AD, an 'affected part' is a part that has been operated beyond the FP assumed by the operator when establishing the applicable operational limits (life limits) within which the corresponding critical parts are allowed to remain installed. Affected parts are listed in Appendix 4 of the NMSB. Required as indicated, unless accomplished previously: (1) For each RB211-535E4-37 engine fleet or sub-fleet in service, within 21 days after the effective date of this AD, determine whether current operation is in excess of the currently published FP 'A' or 'B'. Depending on the results of this determination, re-calculate the cyclic life for each critical part in accordance with the instructions of the NMSB. (2) For all engines, within 21 days after the effective date of this AD, determine whether any affected part, identified by Part Number (P/N) and s/n in Appendix 4 of the NMSB, is installed on the engine. (3) Based on the determination as required by paragraph (2) of this AD, within the applicable compliance time as specified in the NMSB, replace each affected part with a serviceable part (see paragraph (5) of this AD) in accordance with the instructions of the applicable engine manual. (4) For each affected part that is subject to an additional life consumed, but not to a compliance time as specified in the NMSB, within 21 days after the effective date of this AD, calculate the Total Life Consumed and resulting remaining life for that part and, before exceeding the newly calculated life limit, replace that part with a serviceable part (see paragraph (5) of this AD) in accordance with the instructions of the applicable engine manual. (5) From the effective date of this AD, it is allowed to install a part identified in Appendix 4 of the NMSB on an engine, or to install on an aeroplane a replacement engine with a part installed as listed in Appendix 4 of the NMSB, provided that, prior to installation, it has been determined that no part, identified by P/N and s/n in Appendix 4 of the NMSB has reached or exceeded its applicable compliance time or re-calculated life, as applicable, and as specified in the NMSB.
Ref. Publications:	Rolls-Royce Alert NMSB RB.211-72-AH792 Revision 1 dated 05 June 2015. The use of later approved revisions of this document is acceptable for compliance with the requirements of this AD. RR Worldwide (WW) Communication WW/11174/2, dated 22 January 2015. RR WW/11196/1 dated 01 May 2015.

Remarks:	1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD. 2. This AD was posted on 08 May 2015 as PAD 15-060 for consultation until 22 May 2015. The Comment Response Document can be found at http://ad.easa.europa.eu/. 3. Enquiries regarding this AD should be referred to the Safety Information Section, Certification Directorate, EASA. 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 Aeromanager account at www.aeromanager.com. If you do not have a designated representative or Aeromanager 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.
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