

<b>EASA</b>	<b>AIRWORTHINESS DIRECTIVE</b>
	<b>AD No.: 2014-0249R1</b>  <b>Date: 18 February 2015</b>  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].	
<b>Design Approval Holder's Name:</b> ROLLS-ROYCE plc	<b>Type/Model designation(s):</b> RB211-535E4 engines
TCDS Number: EASA.E.061	
Foreign AD: Not applicable	
Revision: This AD revises EASA AD 2014-0249 dated 19 November 2014.	
<b>ATA 05, 72</b>	<b>Time Limits / Maintenance Checks – Engine Critical Parts – Reduction of Cyclic Life Limits</b>
Manufacturer(s):	Rolls-Royce plc (RR)
Applicability:	RB211-535E4-37, RB211-535E4-B-37 and RB211-535E4-C-37 engines, all manufacturer serial numbers.  These engines are known to be installed on, but not limited to, Boeing 757 aeroplanes.
Reason:	<p>An engineering analysis, carried out by RR, of the lives of critical parts of the RB211-535E4-37 engine, has resulted in reduced cyclic life limits for certain high pressure (HP) turbine discs. The reduced limits are published in the RR RB211-535E4-37 Time Limits Manual (TLM): 05-10-01-800-000, current Revision dated July 2014.</p> <p>Operation of critical parts beyond these reduced cyclic life limits may result in part failure, possibly resulting in the release of high-energy debris, which may cause damage to the aeroplane and/or injury to the occupants.</p> <p>To address this potential unsafe condition, EASA issued AD 2014-0249 to require implementation of the reduced cyclic life limits for the affected critical parts, i.e. replacement of each part before the applicable reduced life limit is exceeded, and replacement of those critical parts that have already exceeded the reduced cyclic life limits.</p> <p>Since that AD was issued, it was determined that the affected discs are not eligible for installation on Model RB211-535C-37 engines. In addition, the AD did not explicitly include reference to the necessary recalculation of remaining life for a part that has been transferred from one engine Model to another.</p>

	For the reasons described above, this AD is revised to remove the Model RB211-535C-37 from the Applicability, and to amend paragraph (3) for clarification.									
Effective Date:	Revision 1: 18 February 2015 Original issue: 03 December 2014									
Required Action(s) and Compliance Time(s):	<p>Required as indicated, unless accomplished previously:</p> <p>(1) From 03 December 2014 [the effective date of the original issue of this AD], except as specified in paragraphs (2) and (3) of this AD, replace each component with a serviceable part before exceeding the applicable life limit, as specified in RR RB211-535E4-37 TLM 05-10-01-800-000, Revision dated 01 July 2014 (hereafter referred to as 'the TLM'), as applicable to engine Model and configuration.</p> <p>Note 1: For the purpose of this AD, a serviceable part is one having a P/N as listed in the TLM with a total accumulated cyclic life less than the applicable life limit as specified in the TLM.</p> <p>(2) Within 30 days after 03 December 2014 [the effective date of the original issue of this AD], determine the Part Number (P/N) of the HP turbine disc installed on the engines and the accumulated flight cycles (FC) since new for each HP turbine disc.</p> <p>(3) If, as a result of the determination as required by paragraph (2) of this AD, a disc is installed with a P/N as listed in Table 1 of this AD, before the accumulated cyclic life exceeds the applicable life limit specified in Table 1 of this AD, as applicable, or within 25 FC after 03 December 2014 [the effective date of the original issue of this AD], whichever occurs later, replace the affected disc with a serviceable part.</p> <p>For an affected HP turbine disc, installed on a Model RB211-535E4-B-37 or RB211-535E4-C-37 engine, which was previously installed on a Model RB211-535E4-37 engine operated in accordance with flight profile A, task 05-00-01-800-00 of the TLM specifies how the equivalent cycles since new must be re-calculated to determine the applicable life limit as specified in Table 1 of this AD.</p> <p>Table 1 – Affected HP Turbine Discs and associated Cyclic Life Limits</p> <table><tr><th>P/N</th><th colspan="2">Cyclic Life Limit</th></tr><tr><td>UL27681</td><td>Flight Plan A:</td><td>Flight Plan B:</td></tr><tr><td>UL39767</td><td>19 500 FC</td><td>14 700 FC</td></tr></table> <p>(4) Within 12 months after 03 December 2014 [the effective date of the original issue of this AD], revise the approved aircraft maintenance programme (AMP), on the basis of which the operator or the owner ensures the continuing airworthiness of each operated aeroplane, by incorporating the limitations, tasks and associated thresholds and intervals described in the TLM.</p> <p>(5) For an AMP that, on 03 December 2014 [the effective date of the original issue of this AD], is already updated to incorporate the maintenance tasks and life limitations as specified in the RR RB211-535E4-37 TLM 05-10-01-800-000, Revision dated 01 April 2014, the more restrictive limitations, as defined in Table 1 of this AD, must be incorporated into the AMP to comply with paragraph (4) of this AD.</p> <p>(6) Compliance with the requirements of paragraph (4) of this AD constitutes compliance with the requirements of paragraphs (1), (2) and (3) of this AD. After revising the AMP, as required by paragraph (4) or (5) of this AD, as applicable, it is not necessary that accomplishment of individual tasks</p>	P/N	Cyclic Life Limit		UL27681	Flight Plan A:	Flight Plan B:	UL39767	19 500 FC	14 700 FC
P/N	Cyclic Life Limit									
UL27681	Flight Plan A:	Flight Plan B:								
UL39767	19 500 FC	14 700 FC								

	<p>is recorded for demonstration of AD compliance on a continued basis.</p> <p>Note 2: For affected engines installed on aeroplanes registered in Europe, complying with the approved AMP as specified in paragraph (3) of this AD is required by Commission Regulation (EU) No <a href="#">1321/2014</a>, Part M.A.301, paragraph 3.</p>
Ref. Publications:	<p>RR RB211-535E4-37 TLM 05-10-01-800-000, Revision dated 01 July 2014.</p> <p>The use of later approved variations or revisions of this document is acceptable for compliance with the requirements of this AD.</p>
Remarks:	<ol style="list-style-type: none"> <li>1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.</li> <li>2. The original issue of this AD was posted on 20 October 2014 as PAD 14-152 for consultation until 17 November 2014. No comments were received during the consultation period.</li> <li>3. Enquiries regarding this AD should be referred to the Safety Information Section, Certification Directorate, EASA. E-mail: <a href="mailto:ADs@easa.europa.eu">ADs@easa.europa.eu</a>.</li> <li>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 <a href="http://www.aeromanager.com">www.aeromanager.com</a>.</li> </ol> <p>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 e-mail through <a href="http://www.rolls-royce.com/contact/civil_team.jsp">http://www.rolls-royce.com/contact/civil_team.jsp</a> identifying the correspondence as being related to <b>airworthiness directives</b>.</p>