


EASA	AIRWORTHINESS DIRECTIVE	
	<p>AD No.: 2013-0060</p> <p>Date: 11 March 2013</p> <p>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.</p>	
<p>This AD is issued in accordance with EU 748/2012, Part 21.A.3B. In accordance with EC 2042/2003 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 [EC 2042/2003 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [EC 216/2008, Article 14(4) exemption].</p>		
<p>Design Approval Holder's Name: ROLLS-ROYCE plc</p>	<p>Type/Model designation(s): RB211 Trent 700 engines</p>	
<p>TCDS Number:</p>	<p>EASA.E.042</p>	
<p>Foreign AD:</p>	<p>Not applicable</p>	
<p>Supersedure:</p>	<p>This AD supersedes EASA AD 2012-0247 dated 20 November 2012.</p>	
<p>ATA 72</p>	<p>Engine – Low Pressure Compressor Blades – Inspection / Replacement</p>	
<p>Manufacturer(s):</p>	<p>Rolls-Royce plc (RR)</p>	
<p>Applicability:</p>	<p>RB211 Trent 768-60, 772-60, 772B-60 and 772C-60 engines, all serial numbers.</p> <p>These engines are known to be installed on, but not limited to, Airbus A330 aeroplanes.</p>	
<p>Reason:</p>	<p>Low Pressure (LP) compressor partial aerofoil blade release events have occurred in service on RR Trent 700 engines. While primary containment of the released sections has been achieved in each case, some of the releases did exhibit secondary effects that are considered to present a potential hazard. Previously, expeditious actions by RR have mitigated the risks presented by these effects, by removal from service of batches of LP compressor blades. However, some causal factors still exist that are not fully understood.</p> <p>This condition, if not detected and corrected, could lead to LP compressor blade release with possible consequent loss of the engine nose cowl, under cowl fires and forward projection of secondary debris, possibly resulting in damage to the aeroplane and/or injury to persons on the ground.</p> <p>To mitigate the risk of further partial fan blade release events, RR issued Non-Modification SB (NMSB) RB.211-72-G872, providing instructions for an ultrasonic inspection of the affected LP compressor blades to detect sub-surface anomalies in the aerofoil and, depending on findings, replacement of LP compressor blades.</p> <p>To address this potential unsafe condition, EASA issued AD 2012-0247 to require a one-time inspection of the affected LP compressor blades.</p>	

	<p>Since that AD was issued, a population of LP compressor blades have been identified as incorrectly inspected and therefore require re-inspection. Consequently, RR issued NMSB RB.211-72-H311 to provide the instructions for this re-inspection.</p> <p>For the reason described above, this AD retains the requirements of EASA AD 2012-0247, which is superseded, and adds, for the affected group of LP compressor blades, a one-time re-inspection.</p> <p>This AD is still considered an interim measure and further AD action is likely.</p>
Effective Date:	25 March 2013
Required Action(s) and Compliance Time(s):	<p>Required as indicated, unless accomplished previously:</p> <p>Re-statement of the requirements of EASA AD 2012-0247:</p> <p>(1) For LP Compressor blades that, on 04 December 2012 [the effective date of EASA AD 2012-0247], had accumulated or exceeded 2 500 flight cycles (FC) since new, or since inspection in accordance with RR NMSB RB.211-72-G702, or since in-shop ultrasonic inspection in accordance with the Engine Manual, whichever occurred later:</p> <p>Within 500 FC or 10 months, whichever occurs first after 04 December 2012 [the effective date of EASA AD 2012-0247], accomplish an ultrasonic inspection of each LP compressor blade (either on-wing or in-shop) in accordance with the instructions of Section 3 of RR NMSB RB.211-72-G872.</p> <p>Note 1: For LP Compressor blades that have accumulated less than 2 500 FC since new, or since inspection in accordance with RR NMSB RB.211-72-G702, or since in-shop ultrasonic inspection in accordance with the Engine Manual, whichever occurs later, no action is required by this AD.</p> <p>Note 2: The inspection of paragraph (1) is not required for LP Compressor blades identified by serial number in Appendix 1 of RR NMSB RB.211-72-H311, which are addressed by paragraph (2) of this AD.</p> <p>New requirements of this AD:</p> <p>(2) For LP Compressor blades identified by serial number in Appendix 1 of RR NMSB RB.211-72-H311 that, on 04 December 2012 [the effective date of EASA AD 2012-0247], had accumulated or exceeded 2 500 FC since new, or since inspection in accordance with RR NMSB RB.211-72-G702, or since in-shop ultrasonic inspection in accordance with the Engine Manual, whichever occurred later:</p> <p>Within 500 FC or 10 months, whichever occurs first after 04 December 2012 [the effective date of EASA AD 2012-0247], accomplish an ultrasonic inspection of each LP compressor blade (either on-wing or in-shop) in accordance with the instructions of Section 3 of RR NMSB RB.211-72-H311.</p> <p>(3) If, during any inspection as required by paragraph (1) or (2) of this AD, a LP Compressor blade fails the ultrasonic inspection, before next flight, or before release to service of the engine, as applicable, replace the affected blade with a serviceable blade.</p> <p>(4) From the effective date of this AD, do not install on an engine any replacement LP compressor blades that have accumulated or exceeded 2 500 FC since new, or since inspection in accordance with RR NMSB RB.211-72-G702, or since in-shop ultrasonic inspection in accordance with the Engine Manual, whichever occurred later, unless the replacement LP compressor blades have passed the ultrasonic inspection as required by paragraph (1) or paragraph (2) of this AD, as applicable.</p>

Ref. Publications:	<p>Rolls-Royce NMSB RB.211-72-G702 dated 23 May 2011.</p> <p>Rolls-Royce NMSB RB.211-72-G872 dated 2 April 2012, or Revision 1 dated 2 July 2012, or Revision 2 dated 08 March 2013.</p> <p>Rolls-Royce NMSB RB.211-72-H311 dated 08 March 2013.</p> <p>The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.</p>
Remarks:	<ol style="list-style-type: none"> 1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD. 2. Based on the required actions and the compliance time, EASA have decided to issue a Final AD with Request for Comments, postponing the public consultation process until after publication. 3. Enquiries regarding this AD should be referred to the Safety Information Section, Executive 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. <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, The United Kingdom. Telephone: +44 (0) 1332 242424, or email from http://www.rolls-royce.com/contact/civil_team.jsp identifying the correspondence as being related to Airworthiness Directives.</p>

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