


<b>EASA</b>	<b>NOTIFICATION OF A PROPOSAL TO ISSUE AN AIRWORTHINESS DIRECTIVE</b>
	<p><b>PAD No.: 13-096</b></p> <p><b>Date: 04 July 2013</b></p> <p>Note: This Proposed Airworthiness Directive (PAD) 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>In accordance with the EASA Continuing Airworthiness Procedures, the Executive Director is proposing the issuance of an EASA Airworthiness Directive (AD), applicable to the aeronautical product(s) identified below. All interested persons may send their comments, referencing the PAD Number above, to the e-mail address specified in the 'Remarks' section, prior to the consultation closing date indicated.</p>	
<b>Design Approval Holder's Name :</b>	<b>Type/Model designation(s) :</b>
ROLLS-ROYCE plc	RB211 Trent 900 engines
TCDS Number : EASA.E.012	
Foreign AD : Not applicable	
Supersedure: None	
<b>ATA 72</b>	<b>Engine – Low Pressure Turbine Exhaust Case and Support Assembly (Tail Bearing Housing) – Inspection / Replacement</b>
<b>Manufacturer(s):</b>	Rolls-Royce plc
<b>Applicability:</b>	<p>RB211 Trent 970-84, 970B-84, 972-84, 972B-84, 977-84, 977B-84 and 980-84 engines, all serial numbers.</p> <p>These engines are known to be installed on, but not limited to, Airbus A380 aeroplanes.</p>
<b>Reason:</b>	<p>Rolls-Royce performed a re-analysis of the structural features of the Trent 900 low pressure turbine exhaust case and support assembly (also known as Tail Bearing Housing, or TBH). The result of this re-analysis indicates that the TBH may not retain full limit load capability in all fail-safe conditions.</p> <p>In addition, during previous inspections of Trent 900 TBH mounts and vanes, cracks have been found in the outer annulus leading edge (LE) fillet of some vanes.</p> <p>These conditions, if not detected and corrected, could lead to disconnection of the TBH structural ring from the mounts, possibly resulting in damage to, or reduced control of, the aeroplane.</p> <p>For the reasons described above, this AD requires on-wing and in-shop inspections of the TBH structural features to detect cracks or damage and, depending on findings, the accomplishment of applicable corrective action(s).</p>
<b>Effective Date:</b>	[TBD: 14 days after final AD issue date]

<p>Required Action(s) and Compliance Time(s):</p>	<p>Required as indicated, unless accomplished previously:</p> <ol style="list-style-type: none"> <li>(1) Within the compliance times specified in Table 1 of Appendix 1 of this AD, as applicable, accomplish on-wing inspections of the TBH features in accordance with the instructions of the specified sections of the Rolls-Royce Alert Non-Modification Service Bulletins (NMSB), as referenced in Table 1.</li> <li>(2) Within the compliance times specified in Table 2 of Appendix 1 of this AD, as applicable, accomplish in-shop inspections of the TBH features in accordance with the instructions of the specified sections of the Rolls-Royce Alert NMSB, as referenced in Table 2.</li> <li>(3) If, during any on-wing or in-shop inspection as required by paragraph (1) or (2) of this AD, as applicable, any crack is found on the TBH Mount Lug Run-outs, before next flight, or before release to service of the engine, as applicable, replace the TBH with a serviceable TBH.</li> <li>(4) If, during any on-wing inspection as required by paragraph (1) of this AD, any crack or damage is found on the TBH Mount Lug Forging LE Areas or Fail Safe Catcher, re-inspect or remove the engine in accordance with the criteria and within the compliance times defined in sections 3.A.(3) or 3.A.(4), as applicable, of Rolls-Royce Alert NMSB RB.211-72-AH154.</li> <li>(5) If, during any in-shop inspection as required by paragraph (2) of this AD, any crack or damage is found on the TBH Mount Lug Forging LE Areas or Fail Safe Catcher, before release to service, repair the engine in accordance with the instructions of sections 3.B.(2) or 3.B.(3), as applicable, of Rolls-Royce Alert NMSB RB.211-72-AH154.</li> <li>(6) Accomplishment of an in-shop inspection of the TBH Mount Lug Run-outs in accordance with the instructions of section 3.B or 3.C of Rolls-Royce Alert NMSB RB.211-72-AG971 is acceptable in lieu of an on-wing inspection of the TBH Mount Lug Run-outs as required by paragraph (1) of this AD.</li> <li>(7) Accomplishment of an on-wing inspection of the TBH Mount Lug Run-outs in accordance with the instructions of section 3.A of Rolls-Royce Alert NMSB RB.211-72-AG971 is acceptable in lieu of an in-shop inspection of the TBH Mount Lug Run-outs as required by paragraph (2) of this AD.</li> <li>(8) Accomplishment of an in-shop inspection of the TBH Mount Lug Forging LE Areas and Fail Safe Catcher in accordance with the instructions of section 3.B of Rolls-Royce Alert NMSB RB.211-72-AH154, is acceptable in lieu of an on-wing inspection of the TBH Mount Lug Forging LE Areas and Fail Safe Catcher as required by paragraph (1) of this AD.</li> <li>(9) Accomplishment of an on-wing inspection of the TBH Mount Lug Forging LE Areas and Fail Safe Catcher in accordance with the instructions of section 3.A of Rolls-Royce Alert NMSB RB.211-72-AH154 is acceptable in lieu of an in-shop inspection of the TBH Mount Lug Forging LE Areas and Fail Safe Catcher as required by paragraph (2) of this AD.</li> <li>(10) Inspections and corrective actions, accomplished before the effective date of this AD, in accordance with the instructions of Rolls-Royce Technical Variance (TV) TV124801 or TV124851 (at any issue) are acceptable in lieu of actions in accordance with the instructions of section 3.A or 3.B, as applicable, of Rolls-Royce Alert NMSB RB.211-72-AG971.</li> <li>(11) Inspections and corrective actions, accomplished before the effective date of this AD, in accordance with the instructions of Rolls-Royce TV132043 or TV132217 (at any issue) are acceptable in lieu of actions</li> </ol>
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	<p>in accordance with the instructions of section 3.A, 3.B or 3.C, as applicable, of Rolls-Royce Alert NMSB RB.211-72-AH154.</p> <p>(12) Before exceeding 17 200 engine flight cycles (EFC) by a TBH since first installation on an engine, that TBH must be removed from service. This life limit will be introduced in the applicable Airworthiness Limitation Section (ALS) of the Engine Manual.</p> <p>(13) Corrective actions, as required by paragraph (3), (4) or (5) of this AD, as applicable, do not constitute terminating action for the repetitive inspections required by paragraph (1) and (2) of this AD.</p>
Ref. Publications:	<p>Rolls-Royce Alert NMSB RB.211-72-AG971 Initial Issue, dated 20 September 2012.</p> <p>Rolls-Royce Alert NMSB RB.211-72-AH154 Revision 1, dated 18 June 2013.</p> <p>Rolls-Royce TV124801 issue 2, dated 04 July 2012.</p> <p>Rolls-Royce TV124851 issue 2, dated 04 July 2012.</p> <p>Rolls-Royce TV132043 issue 1, dated 25 March 2013.</p> <p>Rolls-Royce TV132217 issue 2, dated 15 April 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"> <li>1. This Proposed AD will be closed for consultation on 25 July 2013.</li> <li>2. Enquiries regarding this PAD should be referred to the Safety Information Section, Executive Directorate, EASA. E-mail <a href="mailto:ADs@easa.europa.eu">ADs@easa.europa.eu</a>.</li> <li>3. For any question concerning the technical content of the requirements in this PAD, 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>. If you do not have a designated representative or Aeromanager account, please contact <b>Corporate Communications at Rolls-Royce plc</b>, P.O. Box 31, Derby, DE24 8BJ, United Kingdom. Telephone: +44 (0) 1332 242424, or email from <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>.</li> </ol>

## Appendix 1

Note 1: EFC = Engine Flight Cycles.

Note 2: Since new = EFC accumulated by the TBH since first installation on an engine.

Table 1 – TBH On-wing Inspections

TBH Feature	Applicable Rolls-Royce NMSB and Section	Compliance Time	
		Initial Inspection	Interval (not to exceed)
Mount Lug Run-out	RB.211-72-AG971 Section 3.A	Before exceeding 2 200 EFC since new (see Note 2)	2 200 EFC
Mount Lug Forging LE Areas and Fail Safe Catcher – <i>When TBH has accumulated no more than 900 EFC since new (see Note 2) on the effective date of this AD</i>	RB.211-72-AH154 Section 3.A	Before exceeding 1 000 EFC since new (see Note 2)	1 000 EFC
Mount Lug Forging LE Areas and Fail Safe Catcher – <i>When TBH has accumulated more than 900 EFC since new (see Note 2) on the effective date of this AD</i>	RB.211-72-AH154 Section 3.A	Within 100 EFC after the effective date of this AD	

Table 2 – TBH In-shop Inspections

TBH Feature	Applicable Rolls-Royce NMSB and Section	Compliance Time	
		Initial Inspection	Interval (not to exceed)
Mount Lug Run-out	RB.211-72-AG971 Section 3.B or 3.C	Before exceeding 2 200 EFC since new (see Note 2)	2 200 EFC
Top Core Vanes	RB.211-72-AG971 Section 3.C	Before exceeding 3 800 EFC since new (see Note 2)	3 800 EFC
Mount Lug Forging LE Areas – <i>When TBH has accumulated no more than 900 EFC since new (see Note 2) on the effective date of this AD</i>	RB.211-72-AH154 Section 3.B	Before exceeding 1 000 EFC since new (see Note 2)	1 000 EFC
Mount Lug Forging LE Areas – <i>When TBH has accumulated more than 900 EFC since new (see Note 2) on the effective date of this AD</i>	RB.211-72-AH154 Section 3.B	Within 100 EFC after the effective date of this AD	