


<b>EASA</b>	<b>AIRWORTHINESS DIRECTIVE</b>
	<p><b>AD No.: 2012-0120R1</b></p> <p><b>Date: 25 September 2012</b></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 EC 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>	
<b>Design Approval Holder's Name :</b>	<b>Type/Model designation(s) :</b>
Rolls-Royce plc	RB211 Trent 800 Engines
TCDS Number:	United Kingdom No. 1051
Foreign AD:	Not applicable
Revision:	This AD revises EASA AD 2012-0120 dated 04 July 2012, including the Correction dated 27 August 2012.
<b>ATA 72</b>	<b>Engine – Intermediate Pressure (IP) Turbine Disc – Identification / Inspection / Replacement</b>
Manufacturer(s):	Rolls-Royce plc
Applicability:	<p>RB211 Trent 875-17, 877-17, 884-17, 884B-17, 892-17, 892B-17 and 895-17 engines, all serial numbers.</p> <p>These engines are known to be installed on, but not limited to, Boeing 777 series aeroplanes.</p>
Reason:	<p>The inspection of several IP turbine discs at past engine overhauls identified the presence of steel inclusions in these parts. Further investigation concluded that all affected parts were manufactured from Waspalloy billets produced before 1997 at a certain supplier who also melted steel in the same furnaces. Initial engineering evaluation concluded that the lives of the parts would not be affected by the presence of the said steel inclusions. This evaluation has been recently repeated, utilising improved structural analysis, and it is now concluded that the currently published lives of the components cannot be supported for some discs with a steel inclusion.</p> <p>This condition, if not corrected, could lead to an uncontained IP turbine disc failure, possibly resulting in damage to, and reduced control of, the aeroplane.</p> <p>For the reasons described above, this AD requires replacement of certain IP turbine discs. This AD also prohibits (re)installation of certain IP turbine discs on an engine.</p> <p>This AD has been revised to correct the identification requirements.</p>
Effective Date:	<p>Revision 1: 25 September 2012</p> <p>Original issue: 18 July 2012</p>

Required Action(s) and Compliance Time(s):	<p>Required as indicated, unless accomplished previously:</p> <p>(1) During the next engine shop visit after 18 July 2012 [the effective date of the original issue of this AD] where the Module 51 is removed from the engine or, in case that, on the effective date of this revised AD, an engine is undergoing such a shop visit, identify the Part Number (P/N) and serial number (s/n) of the IP turbine disc installed on the engine.</p> <p>(2) If, resulting from paragraph (1) of this AD, a turbine disc is identified with a s/n as listed in Table 1 of this AD, accomplish one of the following actions, as applicable, in accordance with the instructions of Rolls-Royce RB211 Trent 800 Series Propulsion Systems Non-Modification Service Bulletin (NMSB) RB211-72-AG795 (hereafter referred to as the NMSB):</p> <p>(2.1) If the IP turbine disc accumulated life exceeds 9 700 engine cycles, before returning the engine to service, replace the IP turbine disc with a serviceable part, in accordance with the instructions of the NMSB.</p> <p>(2.2) If the accumulated life of the IP turbine disc is below the 9 700 engine cycles threshold, before the IP turbine disc exceeds that threshold, replace the IP turbine disc with a serviceable part, in accordance with the instructions of the NMSB.</p> <p style="text-align: center;">Table 1 – Affected IP Turbine Discs</p> <table><tr><th colspan="4">IP turbine disc s/n</th></tr><tr><td>ADREB 73</td><td>ADREB 83</td><td>ADREB 88</td><td>ADREB 94</td></tr><tr><td>ADREB 79</td><td>ADREB 84</td><td>ADREB 89</td><td>ADREB 96</td></tr><tr><td>ADREB 80</td><td>ADREB 85</td><td>ADREB 90</td><td>ADREB 102</td></tr><tr><td>ADREB 81</td><td>ADREB 86</td><td>ADREB 91</td><td>ADREB 103</td></tr><tr><td>ADREB 82</td><td>ADREB 87</td><td>ADREB 92</td><td>ADREB 104</td></tr></table> <p>(3) From 18 July 2012 [the effective date of the original issue of this AD], do not install on any engine an IP turbine disc with a s/n as listed in Table 1 of this AD, except in accordance with the requirements of this AD.</p>	IP turbine disc s/n				ADREB 73	ADREB 83	ADREB 88	ADREB 94	ADREB 79	ADREB 84	ADREB 89	ADREB 96	ADREB 80	ADREB 85	ADREB 90	ADREB 102	ADREB 81	ADREB 86	ADREB 91	ADREB 103	ADREB 82	ADREB 87	ADREB 92	ADREB 104
IP turbine disc s/n																									
ADREB 73	ADREB 83	ADREB 88	ADREB 94																						
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ADREB 81	ADREB 86	ADREB 91	ADREB 103																						
ADREB 82	ADREB 87	ADREB 92	ADREB 104																						
Ref. Publications:	<p>Rolls-Royce RB211 Trent 800 Series Propulsion Systems NMSB RB211-72-AG795, dated 28 October 2011.</p> <p>The use of later approved revisions of this document is acceptable for compliance with the requirements of this AD.</p>																								
Remarks :	<p>1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.</p> <p>2. The original issue of this AD was posted on 04 June 2012 as PAD 12-058 for consultation until 02 July 2012. No comments were received during the consultation period.</p> <p>3. Enquiries regarding this AD 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>.</p> <p>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>, or contact at Rolls-Royce plc. Corporate Communications, 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>																								