

EASA	AIRWORTHINESS DIRECTIVE
	AD No.: 2012-0120 Date: 04 July 2012 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 EC 1702/2003, Part 21A.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].	
Design Approval Holder's Name : Rolls-Royce plc	Type/Model designation(s) : RB211 Trent 800 Engines
TCDS Number:	United Kingdom No. 1051
Foreign AD:	Not applicable
Supersedure:	None
ATA 73	Engine – Intermediate Pressure (IP) Turbine Disc – Identification / Inspection / Replacement
Manufacturer(s):	Rolls-Royce plc
Applicability:	RB211 Trent 875-17, 877-17, 884-17, 884B-17, 892-17, 892B-17 and 895-17 engines, all serial numbers. These engines are known to be installed on, but not limited to, Boeing 777 series aeroplanes.
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.</p> <p>This AD also prohibits (re)installation of certain IP turbine discs on an engine.</p>
Effective Date:	18 July 2012

Required Action(s) and Compliance Time(s):	<p>Required as indicated, unless accomplished previously:</p> <p>(1) During the next engine shop visit after the effective date of this AD where the Module 05 is removed from the engine or, in case that, on the effective date of this AD, an engine happens to be in such a shop visit, inspect the IP turbine disc installed on the engine to identify the serial number (s/n).</p> <p>(2) If, during the inspection as required by paragraph (1) of this AD, it is identified that a turbine disc is installed 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="3">IP turbine disc s/n</th></tr><tr><td>ADREB 73</td><td>ADREB 85</td><td>ADREB 92</td></tr><tr><td>ADREB 79</td><td>ADREB 86</td><td>ADREB 94</td></tr><tr><td>ADREB 80</td><td>ADREB 87</td><td>ADREB 96</td></tr><tr><td>ADREB 81</td><td>ADREB 88</td><td>ADREB 102</td></tr><tr><td>ADREB 82</td><td>ADREB 89</td><td>ADREB 103</td></tr><tr><td>ADREB 83</td><td>ADREB 90</td><td>ADREB 104</td></tr><tr><td>ADREB 84</td><td>ADREB 91</td><td></td></tr></table> <p>(3) From the effective date 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 85	ADREB 92	ADREB 79	ADREB 86	ADREB 94	ADREB 80	ADREB 87	ADREB 96	ADREB 81	ADREB 88	ADREB 102	ADREB 82	ADREB 89	ADREB 103	ADREB 83	ADREB 90	ADREB 104	ADREB 84	ADREB 91	
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ADREB 84	ADREB 91																								
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. 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 ADs@easa.europa.eu</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 www.aeromanager.com, 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 http://www.rolls-royce.com/contact/civil_team.jsp identifying the correspondence as being related to Airworthiness Directives.</p>																								