

EASA	AIRWORTHINESS DIRECTIVE
	AD No.: 2009-0073R1 Date: 08 April 2009 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].	
Type Approval Holder's Name : ROLLS-ROYCE PLC	Type/Model designation(s) : RB211-524, Trent 500, Trent 700 and Trent 800 series Engines
TCDS Numbers : EASA.E.042, EASA.E.060, United Kingdom Nos. 1046, 1048 and 1051	
Foreign AD : Not applicable	
Revision : This AD revises and replaces AD 2009-0073 dated 30 March 2009.	
ATA 72	Engine – High Pressure (HP) Compressor Stage 1 to 4 Rotor Discs and HP Compressor Rotor Shafts – Inspection
Manufacturer(s):	Rolls-Royce plc
Applicability:	1) RB211 Trent 553-61, 553A2-61, 556-61, 556A2-61, 556B-61, 556B2-61, 560-61 and 560A2-61 engines, all serial numbers, if HP Compressor Stage 1 to 4 Rotor Discs, Part Number (P/N) FK30524 are installed. These engines are known to be installed on, but not limited to, Airbus A340 series aeroplanes. 2) RB211 Trent 768-60, 772-60, 772B-60 and 772C-60 engines, all serial numbers, if a HP Compressor Rotor Shaft, P/N FK22745, FK24031, FK26185, FK23313, FK25502, FK32129, FW20195, FW20196, FW20197, FW20638 or FW23711 is installed. These engines are known to be installed on, but not limited to, Airbus A330 series aeroplanes. 3) RB211 Trent 875-17, 877-17, 884-17, 884B-17, 892-17, 892B-17 and 895-17 engines, all serial numbers, if HP Compressor Stage 1 to 4 Rotor Discs, P/N FK24009, FK26167, FK32580, FW11590 or FW61622 are installed. These engines are known to be installed on, but not limited to, Boeing 777 series aeroplanes. 4) RB211-524G2-T-19, RB211-524G3-T-19, RB211-524H-T-36 and RB211-524H2-T-19 engines, if a HP Compressor Rotor Shaft, P/N FK25502, FK20195 or FW23711 is installed. These engines are known to be installed on, but not limited to, Boeing 747 and Boeing 767 series aeroplanes.
Reason:	During manufacture of a number of HP Compressor Stage 1 and 2 discs with axial dovetail slots, anomalies at the disc post corners have been found. Fatigue crack initiation and subsequent crack propagation at the disc post may

	result in release of two blades and the disc post. This may potentially be beyond the containment capabilities of the engine casings. Thus, these anomalies present at the disc posts constitute a potentially unsafe condition. For the reasons described above, this AD requires repetitive inspections of the axial dovetail slots and follow-on corrective action, depending on findings. This revised AD has been issued to correct a discrepancy between the original AD Applicability and the related Rolls-Royce publication. In addition, a small editorial change has been made to paragraph (4) of the Compliance section, for clarification purposes.
Effective Date:	14 April 2009
Required Action(s) and Compliance Time(s):	Required as indicated, unless accomplished previously: (1) If, on the effective date of this AD, the life of the HP Compressor Stage 1 to 4 Rotor Discs or the HP Compressor Rotor Shafts is equal to or greater than 1 000 Cycles Since New (CSN) and the engine is at Refurbishment (Level 3) shop visit, carry out the inspections defined in Section 3. Accomplishment Instructions of Rolls-Royce Non-Modification Service Bulletin (NMSB) 72-AF964, Revision 1. (2) If, on the effective date of this AD, the life of the HP Compressor Stage 1 to 4 Rotor Discs or the HP Compressor Rotor Shafts is equal to or greater than 1 000 CSN and the engine is at Overhaul (Level 4) shop visit, carry out the inspections defined in Section 3. Accomplishment Instructions of Rolls-Royce NMSB 72-AF964, Revision 1. (3) If, on the effective date of this AD, the life of the HP Compressor Stage 1 to 4 Rotor Discs or the HP Compressor Rotor Shafts is equal to or greater than 1 000 CSN and the HP Compressor Rotor is at piece part level, carry out the inspections defined in Section 3. Accomplishment Instructions of Rolls-Royce NMSB 72-AF964, Revision 1. (4) When the life of the HP Compressor Stage 1 to 4 Rotor Discs or the HP Compressor Rotor Shaft is greater than or equal to 1 000 CSN, carry out the actions defined in Section 3. Accomplishment Instructions of Rolls-Royce NMSB No. 72-AF964, Revision 1 at every engine Refurbishment (Level 3) shop visit, every engine Overhaul (Level 4) shop visit and each time the HP Compressor is at piece part level.
Ref. Publications:	Rolls-Royce RB211 Propulsion System NMSB 72-AF964 Revision 1 The use of later approved revisions of this document is acceptable for compliance with the requirements of this AD.
Remarks:	1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD 2. This AD was published on 17 February 2009 as PAD 09-039 for consultation until 10 March 2009. The Comment Response Document can be found at http://ad.easa.europa.eu/. 3. Enquiries regarding this AD should be referred to the Airworthiness Directives, Safety Management & Research Section, Certification Directorate, EASA. E-mail ADs@easa.europa.eu. 4. For any question concerning the technical content of the requirements in this AD, please contact: Rolls-Royce plc., P.O. Box 31, Derby, DE24 8BJ, United Kingdom; Telephone: +44 (0) 1332 242424, Fax: +44 (0) 1332 249936; Email: tech.help@rolls-royce.com or download the publication from https://www.aeromanager.com/