


EASA	AIRWORTHINESS DIRECTIVE
	<p>AD No.: 2007-202</p> <p>Date: 01 August 2007</p>
No person may operate an aircraft to which an Airworthiness Directive applies, except in accordance with the requirements of that Airworthiness Directive unless otherwise agreed with the Authority of the State of Registry.	
Type Approval Holder's Name: ROLLS-ROYCE plc	Type/Model designation(s): RB211 Trent 768-60, 772-60, 772B-60 and 772C-60
TCDS No: EASA E.042	
Foreign AD number: Not applicable	
Supersedure: Not applicable	
ATA 72	Engine – HP/IP Turbine Bearing Oil Vent Tube Restrictor – Inspection / Cleaning / Replacement
Manufacturer(s):	Rolls-Royce plc
Applicability:	<p>1. Models RB211 Trent 768-60, 772-60, 772B-60 and 772C-60 engines inspected or modified prior to issue of this AD in accordance with:</p> <ul style="list-style-type: none"> a. IOR 72-E965 and not subsequently inspected in accordance with NMSB 72-AE302 rev 4 or 5; b. NMSB 72-AE792 rev 2 or earlier issue and not subsequently inspected in accordance with NMSB 72-AE302 rev 4 or 5; c. NMSB 72-AE302 rev 3 or earlier issue and not subsequently inspected in accordance with NMSB 72-AE792 rev 3. <p>These engines are known to be installed on Airbus A330 series aeroplanes.</p>
Reason:	<p>In October 2003 an uncontained multiple Intermediate Pressure (IP) turbine blade release occurred on an RB211 Trent 700 series engine. The blade release was the result of an overspeed of the IP turbine rotor that was initiated by an internal fire in the HP/IP bearing chamber. Post incident analysis established that blockage of the HP/IP turbine bearing oil vent tube, due to oil coking, is a significant factor in the failure sequence.</p> <p>Further analysis has now identified that intervention actions that were introduced to address this problem may have increased the rate of carbon formation in the vent pipe. These intervention actions are believed to loosen carbon fragments which are subsequently released</p>

	<p>during engine running and could become caught down-stream in the vent flow restrictor. The resultant reduced vent pipe flow will then lead to accelerated carbon build up inside the pipe and increased likelihood of auto-ignition.</p> <p>This AD introduces a one-off inspection of the vent pipe restrictor across the fleet for all engines which have received previous intervention actions.</p>
Effective Date:	15 August 2007
Compliance/Action:	<p><u>VENT FLOW RESTRICTOR INSPECTION</u></p> <p>A. 05 modules of engines in group 1.a. of the Applicability section (above), carry out the Action (part C. below) within 2 months of the Effective Date of this Airworthiness Directive.</p> <p>B. 05 modules of engines in group 1.b. and 1.c. of the Applicability section (above), carry out Action (part C. below) within 6 months of the Effective Date of this Airworthiness Directive.</p> <p>C. <u>Action:</u></p> <p>Inspect and clean or reject (as necessary) the HP/IP turbine bearing external (IPC ref 79-22-49-10-500) oil vent tube in accordance with Section 3 Accomplishment Instructions of Rolls-Royce Alert Non Modification Service Bulletin RB211-72-AF424 Revision 1 (or later approved revision).</p> <p>Note: vent flow restrictor inspection instructions, equivalent to those of NMSB 72-AF424 rev 1, were added to NMSB 72-AE302 and NMSB 72-AE792 at rev 4 and rev 3 respectively. Compliance with these NMSBs therefore constitutes satisfactory compliance to this Airworthiness Directive (this is reflected in the Applicability section of this Airworthiness Directive).</p>
Ref. Publications:	<p>Rolls-Royce Alert Non Mod Service Bulletin RB211-72-AF424 Revision 1 (or later approved revisions).</p> <p>Rolls-Royce Alert Non Mod Service Bulletin RB211-72-AE302 Revision 4 (or later approved revisions).</p> <p>Rolls-Royce Alert Non Mod Service Bulletin RB211-72-AE792 Revision 3 (or later approved revisions).</p>
Remarks:	<ol style="list-style-type: none"> 1. If requested and appropriately substantiated the responsible EASA manager for the related product has the authority to accept Alternative Method of Compliance (AMOC) for this AD. 2. This AD was posted on 15 June 2007 as PAD 07-100 for consultation until 28 June 2007. The Comment Response Document can be found at http://ad.easa.europa.eu 3. Enquiries regarding this AD should be referred to the AD Focal Point - Certification Directorate, EASA. E-mail: ADs@easa.europa.eu 4. For any questions concerning the technical content of the requirements in this AD, please contact Rolls-Royce plc. PO Box 31, Derby, DE24 8BJ, United Kingdom. Phone: +44 (0) 1332 242424, Fax: +44 (0) 1332 249936.