EASA	EMERGENCY AIRWORTHINESS DIRECTIVE
	AD No.: 2010-0236-E **Date: 10 November 2010** Note: This Emergency 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 :	**Type/Model designation(s) :**
ROLLS-ROYCE PLC	RB211 Trent 900 series engines

TCDS Number :	EASA.E.012
Foreign AD :	Not applicable
Supersedure :	None

ATA 72	**Engine – High Pressure / Intermediate Pressure (HP/IP) Structure – Inspections**
Manufacturer(s):	Rolls-Royce plc
Applicability:	RB211 Trent 900 series engines, variants RB211 Trent 970-84, RB211 Trent 970B-84, RB211 Trent 972-84, RB211 Trent 972B-84, RB211 Trent 977-84, RB211 Trent 977B-84 and RB211 Trent 980-84, all serial numbers. These engines are known to be installed on, but not limited to, Airbus A380 series aeroplanes.
Reason:	An uncontained engine failure has recently occurred on a Rolls-Royce Trent 900 involving release of high energy debris and leading to damage to the aeroplane. Analysis of the preliminary elements from the incident investigation shows that an oil fire in the HP/IP structure cavity may have caused the failure of the Intermediate Pressure Turbine (IPT) Disc. This condition, if not detected, could ultimately result in uncontained engine failure potentially leading to damage to the aeroplane and hazards to persons or property on the ground. For the reasons described above and pending conclusion of the incident investigation, this AD requires repetitive inspections of the Low Pressure Turbine (LPT) stage 1 blades and case drain, HP/IP structure air buffer cavity and oil service tubes in order to detect any abnormal oil leakage, and if any discrepancy is found, to prohibit further engine operation. The requirements of this AD are considered as interim action. If, as a

result of the on-going incident investigation, a terminating action is later identified, further mandatory actions might be considered.

Effective Date:

10 November 2010

Required Action(s) and Compliance Time(s):

Required as indicated, unless accomplished previously:

(1) Within the compliance times indicated in Table 1 of this AD, accomplish the following actions in accordance with Rolls-Royce Non Modification Service Bulletin (NMSB) 72-AG590, Par 3. Accomplishment Instructions, 3.A or 3.B as applicable to the engine configuration:

(1.1) Carry out an extended ground idle run.

(1.2) Inspect the Low Pressure Turbine (LPT) stage 1 blades and case drain.

(1.3) Inspect the HP/IP structure air buffer cavity and oil service tubes.

Table 1

Engine Configuration	Compliance time	
	Initial Threshold	Repetitive Interval
On-wing	Within 10 Flight Cycles (FC) after the effective date of this AD.	At intervals not exceeding 20 FC.
In-shop	After the engine test procedure and before next flight.	Not applicable *(after engine installation refer to on-wing repetitive inspection intervals)*.

(2) If any discrepancy is found during the inspections required by paragraph (1) of this AD, any further engine operation is prohibited. Within one day after the accomplishment of the inspection, report the findings to Rolls-Royce.

(3) Inspections accomplished in accordance with the content of NMSB 72-AG590 before the effective date of this AD, are acceptable to comply with the initial inspections required by this AD.

(4) After the effective date of this AD, do not operate an engine on an aeroplane unless it has been inspected in accordance with the requirements of this AD.

Ref. Publications:

Rolls-Royce RB211-Trent 900 Alert Non Modification Service Bulletin 72-AG590 dated 10 November 2010.

The use of later approved updates 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. The safety assessment has requested not to implement the full consultation process and an immediate publication and notification.
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: Your designated Rolls-Royce representative or download the publication from your Aeromanager account at www.aeromanager.com. If you do not have a designated representative or Aeromanager account, please contact **Corporate Communications** at **Rolls-Royce plc.** PO Box 31, Derby, DE24 8BJ, United Kingdom. Phone: +44 (0) 1332 242424, or e-mail from http://www.rolls-royce.com/contact/civil_team.jsp identifying the correspondence as being related to **Airworthiness Directives**.