EASA	AIRWORTHINESS DIRECTIVE
	AD No.: 2008-0109 R1 **Date: 17 June 2008** 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 Airworthiness Directive applies, except in accordance with the requirements of that Airworthiness Directive 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 500 engines

TCDS Number:	EASA E.060
Foreign AD :	Not applicable
Revision:	This AD revises and replaces EASA AD 2008-0109 dated 06 June 2008.
ATA 72	**Engine – Intermediate Pressure (IP) Turbine Blade Outer Shrouds – Inspection**
Manufacturer(s):	Rolls-Royce plc
Applicability:	RB211-Trent 500 series engines, all marks without Rolls-Royce service bulletin No. 72-D733 embodied. These engines are known to be installed on, but not limited to, Airbus A340-500 and Airbus A340-600 series aircraft.
Reason:	The IP turbine blade shrouds of the RB211-Trent 500 series engines feature closure welds (dust caps). Development engine testing has revealed the potential for dust caps to crack, lift and release. The latter may potentially allow hot annulus gas to be ingested down the core passages of IP turbine blades. Radial inflow of annulus gas into the IP disc rim region could cause local heating of the disc firtree, resulting in creep of the disc material. Failure of the disc rim in creep could simultaneously release two blades and a disc post. Failure to this extent could be beyond the containment capabilities of the casing. Consequently, release of the dust caps would constitute a potentially unsafe condition. This Airworthiness Directive is published to require inspection of IP Turbine Blade Outer Shrouds and, depending on the results, subsequent corrective actions. This AD has been revised in order to allow the option of carrying out the required inspections while the engine is not installed on an aircraft.
Effective Date:	20 June 2008

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

1) Borescope Inspection

Before 1st July 2008, carry out the borescope inspection as specified in Section 3, Accomplishment Instructions of Rolls-Royce Non Modification Service Bulletin (NMSB) No. 72-AF994.

2) Actions following Borescope Inspection (see also 1 above)

Depending on the results of the inspection carried out according to paragraph 1) of this AD, carry out the following:

Results of Borescope Inspection	**Actions that Must Be Carried Out**
Total Number of IP Turbine Blade Outer Shroud Dust Caps lifting is 0	At intervals not to exceed 100 Cycles, re-inspect engine in accordance with Section 3, Accomplishment Instructions of Rolls-Royce NMSB No. 72-AF994
Total Number of IP Turbine Blade Outer Shroud Dust Caps lifting exceeds 0 but is equal to or less than 10	At intervals not to exceed 20 Cycles, re-inspect engine in accordance with Section 3, Accomplishment Instructions of Rolls-Royce NMSB No. 72-AF994
Total Number of IP Turbine Blade Outer Shroud Dust Caps lifting exceeds 10 but is equal to or less than 20	At intervals not to exceed 10 Cycles, re-inspect engine in accordance with Section 3, Accomplishment Instructions of Rolls-Royce NMSB No. 72-AF994
Total Number of IP Turbine Blade Outer Shroud Dust Caps lifting exceeds 20	Within 10 Cycles, remove engine from service and incorporate Rolls-Royce service bulletin No. 72-D733
Total Number of IP Turbine Blade Outer Shroud Dust Caps missing is equal to or exceeds 1	Before further flight, remove engine from service and incorporate Rolls-Royce service bulletin No. 72-D733

Note: In deviation to the instructions of Rolls-Royce NMSB No. 72-AF994, the inspections required by 1) and 2) above can also be carried out while the engine is not installed on an aircraft.

Ref. Publications:

Rolls-Royce RB211 Propulsion System Non Modification Service Bulletin (NMSB) No. 72-AF994.

The use of later approved revisions of these documents 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 required actions and the risk allowance have granted the issuance of a Final AD with Request for Comments, postponing the public consultation process after publication.
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:
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