

EASA	AIRWORTHINESS DIRECTIVE
	AD No.: 2012-0158 Date: 22 August 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 Deutschland Ltd & Co KG	Type/Model designation(s): Spey 511-8 engines
TCDS Number:	EASA.E.064
Foreign AD:	Not applicable
Supersedure:	None
ATA 72	Engine – Low Pressure Turbine Support Assembly, High Pressure Turbine Bearing Support Assembly and Air Seal Sleeve / Bolts – Inspection / Replacement
Manufacturer(s):	Rolls-Royce plc.
Applicability:	Spey 511-8 engines, serial numbers: 8847, 8853, 8879, 8989, 8994 and 9817. These engines are known to be installed on, but not limited to, Gulfstream II and III series aircraft.
Reason:	The results of a recent quality review of low pressure turbine (LPT) support assembly, high pressure turbine (HPT) bearing support assembly and HPT air seal sleeve bolts identified that, before installation, these bolts are not subjected to a complete quality inspection. As a consequence, bolts with reduced material properties may have been installed in some engines. This condition, if not detected and corrected, could lead to failure of a bolt, potentially causing turbine disc fracture and release of high-energy debris, possibly resulting in damage to the aeroplane and/or injury to the occupants. To address this potential unsafe condition, Rolls-Royce Deutschland (RRD), the design approval holder, issued Alert Service Bulletin (ASB) Sp72-A1068 providing instructions to inspect bolts installed in LPT support assembly, HPT bearing support assembly and HPT air seal sleeve on a number of engines. For the reasons described above, this AD requires inspection of the affected bolts and, depending on findings, replacement with serviceable ones and report of findings.

Effective Date:	05 September 2012
Required Action(s) and Compliance Time(s):	Required as indicated, unless accomplished previously: (1) Within 30 days after the effective date of this AD, review the engine maintenance records and identify the date of the engine last shop visit. (2) For engines with a date of the last shop visit before 15 November 2007, within 4 500 engine cycles accumulated since that engine last shop visit, inspect bolts installed in the LPT support assembly, HPT bearing support assembly and HPT air seal sleeve in accordance with the accomplishment instructions of RRD ASB Sp72-A1068. (3) If, during the inspection as required by paragraph (2) of this AD, any broken bolt, brown bolt or bolt with a rough oxidized surface is identified, before release to service of the engine, replace the affected bolt sets in accordance with the accomplishment instructions of RRD ASB Sp72-A1068. (4) If, during the inspection as required by paragraph (2) of this AD, any bolt discoloration and oxidation are identified, within 30 days after the inspection, complete the Accomplishment Form of the ASB Sp72-A1068 and send it to RRD Service Engineering, and accomplish RRD instructions accordingly, if applicable. (5) From the effective date of this AD, do not install an HPT and/or LPT module on an engine, or an engine on aeroplane, unless in compliance with the requirements of this AD.
Ref. Publications:	Rolls-Royce Deutschland ASB Sp72-A1068 at 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 posted on 23 July 2012 as PAD 12-084 for consultation until 20 August 2012. No comments were received during the consultation period. 3. Enquiries regarding this AD should be referred to the Safety Information Section, Executive 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 Deutschland Ltd & Co KG Eschenweg 11 – 15827 Dahlewitz – Germany Tel: + 49 (0) 33 708 6 1200 (direct 1016) Fax: + 49 33 708 6 1212.