

EASA	AIRWORTHINESS DIRECTIVE
	AD No.: 2011-0232 Date: 13 December 2011 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 Deutschland Ltd & Co KG	Type/Model designation(s) : BR700-715 engines
TCDS Number :	EASA.E.023
Foreign AD :	not applicable
Supersedure :	None
ATA 72	Engine – Low Pressure (LP) Compressor Booster Rotor – Inspection / Rework
Manufacturer(s):	Rolls-Royce Deutschland Ltd & Co KG
Applicability:	BR700-715A1-30, BR700-715B1-30 and BR700-715C1-30 engines, all Serial Numbers. These engines are known to be installed on, but not limited to Boeing 717 aeroplanes.
Reason:	Several LP compressor booster rotors have been found non compliant to original design. The technical investigations carried out by Rolls Royce Deutschland (RRD) revealed that this discrepancy is due to a manufacturing defect and that only some specific LP compressor booster rotor serial numbers are affected. This condition, if not corrected, could lead to an uncontained engine failure, potentially damaging the aeroplane and injuring its occupants, and/or injuring persons on the ground. To address this condition, RRD have developed an inspection programme and a rework for the affected LP compressor booster rotors. For the reasons described above, depending on engine type of operations, this AD requires repetitive Fluorescent Penetrant Inspections of the LP compressor booster rotor and if any crack is found, replacement with a serviceable part. This AD also requires rework of all affected LP compressor booster rotors.

Effective Date:	27 December 2011									
Required action(s) and Compliance Time(s):	Required as indicated, unless accomplished previously: (1) For engines on which LP Compressor Booster Rotors with part number (P/N) BRH19215 or P/N BRH19871, with serial numbers (S/N) from 118 to 255 inclusive is installed, within the compliance times indicated in Table 1 of this AD, depending on engine type of operation, accomplish a Fluorescent Penetrant Inspection (FPI) of the LP compressor booster rotor, in accordance with the instructions of RRD Non Modification Service Bulletin (NMSB) SB-BR700-72-A900503 Rev. No. 4. Thereafter, at intervals not to exceed the value indicated in Table 1 of this AD, as applicable to the operation (rating) of the engine, repeat the FPI of the LP compressor booster rotor. Table 1 – Compliance Time(s) <table><tr><th>Engine type of operation (rating)</th><th>Initial FPI (whichever occurs later)</th><th>Repetitive FPI Interval (not to exceed)</th></tr><tr><td>Hawaiian Flight Mission rating only</td><td>Before accumulating 36 000 Engine Cycles (EC), or within 500 EC after the effective date of this AD</td><td>6 000 EC</td></tr><tr><td>Any other rating, or combination of ratings</td><td>Before accumulating 18 000 EC, or within 500 EC after the effective date of this AD</td><td>4 000 EC</td></tr></table> (2) If a crack is detected during any inspection as required by paragraph (1) of this AD, before next flight, replace the LP compressor booster rotor with a serviceable part. Note 1: For the purpose of this AD, a serviceable LP compressor booster rotor is: - A LP Compressor booster rotor not having a P/N BRH19215 or a P/N BRH19871, with S/N from 118 to 255 inclusive; - Or a part having a P/N BRH19215 or P/N BRH19871, with S/N from 118 to 255 inclusive and this part is in compliance with the requirements of paragraph (1) of this AD. (3) For engines on which LP Compressor Booster Rotors with P/N BRH19215 or P/N BRH19871, with S/N from 118 to 255 inclusive is installed, at the next LP compressor booster rotor exposure during shop visit, but no later than 96 months after the effective date of this AD, rework the LP compressor booster rotor in accordance with the instructions of RRD SB-BR700-72-101683. Note 2: Rework of the LP compressor booster rotor can only be accomplished by RRD maintenance centres. Once the LP compressor booster rotor has been reworked, the part has a new P/N. (4) Replacement on an engine of the LP compressor booster rotor with a part not having a P/N BRH19215 or P/N BRH19871, with S/N from 118 to 255 inclusive, constitutes terminating action for the repetitive inspection requirements of paragraph (1) of this AD for that engine. (5) After the effective date of this AD, do not install an engine equipped with a LP Compressor Booster Rotor with P/N BRH19215 or P/N BRH19871, with S/N from 118 to 255 inclusive, unless in compliance with the requirements of this AD. (6) After the effective date of this AD, do not install a LP Compressor Booster Rotor with P/N BRH19215 or P/N BRH19871, with S/N from 118 to 255	Engine type of operation (rating)	Initial FPI (whichever occurs later)	Repetitive FPI Interval (not to exceed)	Hawaiian Flight Mission rating only	Before accumulating 36 000 Engine Cycles (EC), or within 500 EC after the effective date of this AD	6 000 EC	Any other rating, or combination of ratings	Before accumulating 18 000 EC, or within 500 EC after the effective date of this AD	4 000 EC
Engine type of operation (rating)	Initial FPI (whichever occurs later)	Repetitive FPI Interval (not to exceed)								
Hawaiian Flight Mission rating only	Before accumulating 36 000 Engine Cycles (EC), or within 500 EC after the effective date of this AD	6 000 EC								
Any other rating, or combination of ratings	Before accumulating 18 000 EC, or within 500 EC after the effective date of this AD	4 000 EC								

	inclusive, on an engine, unless in compliance with the requirements of this AD.
Ref. Publications:	RRD NMSB Alert SB-BR700-72-A900503 Rev. No.4, dated 16 June 2011. RRD SB-BR700-72-101683, dated 20 September 2010. 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. This AD was posted on 07 November 2011 as PAD 11-116 for consultation until 05 December 2011. The Comment Response Document can be found at http://ad.easa.europa.eu/. 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, Dahlewitz, 15827 Blankenfelde-Mahlow, Germany, Telephone : +49 (0) 33 7086 1768; Fax: +49 (0) 33 7086 3356, Email rrd.aog@rolls-royce.com.