## EASA

## **AIRWORTHINESS DIRECTIVE**



## AD No.: 2012-0230R1

## Date: 12 February 2014

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 EU 748/2012, Part 21.A.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:

Type/Model designation(s):

ROLLS-ROYCE DEUTSCHLAND Ltd & Co KG

BR700-715 engines

TCDS Number: EASA.E.023

Foreign AD: Not applicable

Revision:

This AD revises EASA AD 2012-0230 dated 30 October 2012.

ATA 72	Engine – High Pressure Compressor Rotor Disc Assembly – Removal
Manufacturer(s):	Rolls-Royce Deutschland (RRD) Ltd & Co KG
Applicability:	BR700-715A1-30, BR700-715B1-30 and BR700-715C1-30 engines, all serial numbers, except those modified in accordance with RRD Service Bulletin (SB) SB-BR700-72-900277. These engines are known to be installed on, but not limited to Boeing 717 aeroplanes.
Reason:	Silver chloride-induced stress corrosion cracking was identified during overhaul of a BR700-715 engine, on the High Pressure Compressor (HPC) stages 1 to 6 rotor disc assembly. Subsequent evaluation concluded that the affected part life limitation values declared in the engine Time Limits Manual cannot be supported for high cyclic life HPC discs.
	This condition, if not corrected, could lead to uncontained HPC disc failure, possibly resulting in damage to, and/or reduced control of the aeroplane.
	To address this potential unsafe condition, EASA issued AD 2012-0230 to require removal from service of HPC stage 1 to 6 rotor disc assemblies before exceeding defined thresholds in accordance with RRD Alert Non-Modification Service Bulletin (NMSB) SB-BR-700-72-A900401.
	Since that AD was issued, RRD issued NMSB SB-BR-700-72-A900401 revision 1 to exclude engines modified in accordance with RRD NMSB SB-BR700-72-900277.
	Accomplishment of RRD NMSB SB-BR700-72-900277 introduces a new front drum and a silver free nut, which eliminates the risk of silver contamination.
	For the reasons describe above, this AD has been revised to exclude engines modified in accordance with RRD NMSB SB-BR700-72-900277 and to

	introduce an optional terminating action for the requirements of this AD.
Effective Date:	Revision 1: 12 February 2014
	Original issue: 06 November 2012
Required Action(s) and Compliance Time(s):	Required as indicated, unless accomplished previously:
	Note: For the purpose of this AD, flight cycles (FC) means total actual engine cycles since new without any pro-rata calculations applied for different flight missions. Guidance for the total actual engine cycle calculation, for the purpose of this AD, is given in the Notice to Operators BR715 engines NTO No: 184, dated 25 October 2012.
	BR700-715A1-30 Engines operated under Hawaiian Flight Mission only:
	(1) After 06 November 2012 [the effective date of the original issue of this AD], before exceeding 16 000 FC accumulated since new by the HPC stage 1 to 6 rotor disc assembly, replace the HPC stage 1 to 6 rotor disc assembly with a serviceable part in accordance with the instructions of RRD Alert NMSB SB-BR-70072- A900401 or RRD NMSB SB-BR700-72-900277.
	BR700-715A1-30, BR700-715B1-30 and BR700-715C1-30 Engines (All Flight Missions except Hawaiian Flight Mission):
	(2) After 06 November 2012 [the effective date of the original issue of this AD], before exceeding 14 000 FC accumulated since new by the HPC stage 1 to 6 rotor disc assembly, replace the HPC stage 1 to 6 rotor disc assembly with a serviceable part in accordance with the instructions of RRD Alert NMSB SB-BR-700-72- A900401 or RRD NMSB SB-BR700-72-900277.
	(3) [Deleted]
	All engines
	(4) Modification of an engine in accordance with the instructions of RRD NMSB SB-BR700-72-900277 constitutes the terminating action for the repetitive replacements as required by paragraph (1) or (2) of this AD.
Ref. Publications:	RRD Alert NMSB SB-BR700-72-A900401 original issue dated 25 October 2012 or Revision 1 dated 10 July 2013.
	RRD NMSB SB-BR700-72-900277 dated 08 July 2013.
	The use of later approved revisions of these documents is acceptable for compliance with the requirements of this AD.
	RRD Notice to Operators BR715 engines NTO No: 184, dated 25 October 2012.
Remarks:	<ol> <li>If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.</li> </ol>
	<ol> <li>Based on the required actions and the compliance time, EASA have decided to issue a Final AD with Request for Comments, postponing the public consultation process until after publication.</li> </ol>
	<ol> <li>Enquiries regarding this AD should be referred to the Safety Information Section, Executive Directorate, EASA. E-mail: <u>ADs@easa.europa.eu</u>.</li> </ol>
	<ol> <li>For any question concerning the technical content of the requirements in this AD, please contact: Rolls-Royce Deutschland Ltd &amp; Co KG, Eschenweg 11, 15827 Dahlewitz, Germany Telephone: +49 (0) 33 7086 1200; Fax: +49 (0) 33 7086 1212</li> </ol>
	E-mail: <u>RRDTechnicalHelpdesk@rolls-royce.com</u>