



## Airworthiness Directive

**AD No.:** 2017-0198

**Issued:** 10 October 2017

Note: This Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EC) 216/2008 on behalf of the European Union, 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 Regulation (EU) 748/2012, Part 21.A.3B. In accordance with Regulation (EU) 1321/2014 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 [Regulation (EU) 1321/2014 Annex I, Part M.A.303] or agreed with the Authority of the State of Registry [Regulation (EC) 216/2008, Article 14(4) exemption].

**Design Approval Holder's Name:**

ROLLS-ROYCE DEUTSCHLAND Ltd & Co KG

**Type/Model designation(s):**

BR700-710 engines

**Effective Date:** 24 October 2017

**TCDS Number(s):** EASA.E.018

**Foreign AD:** Not applicable

**Supersedure:** None

### ATA 73 – Engine Fuel and Control – Engine Electronic Controller Firebox Assembly – Replacement

**Manufacturer(s):**

Rolls-Royce Deutschland Ltd & Co KG (RRD)

**Applicability:**

BR700-710A2-20 engines, manufacturer serial number (MSN) 12619 to 12648 inclusive, and MSN 12650 to 22719 inclusive.

BR700-710A2-20 engines, MSN up to 12618 inclusive, and MSN 12649, if modified in accordance with RRD Service Bulletin (SB) SB-BR700-73-101559, or SB-BR700-73-101634, as applicable.

BR700-710C4-11 engines, MSN 15404 to 16261 inclusive, having configuration standard 710C4-11 engraved on the engine data plate.

BR700-710C4-11 engines, MSN up to 15403 inclusive, if modified in accordance with RRD SB-BR700-73-101438, and having configuration standard 710C4-11 engraved on the engine data plate.

BR700-710C4-11 engines MSN 16049 to 16275 inclusive, having configuration standard 710C4-11/10 engraved on the engine data plate.



BR700-710C4-11 engines MSN up to 16048 inclusive, if modified in accordance with RRD SB-BR700-73-101873, and having configuration standard 710C4-11/10 engraved on the engine data plate.

These engines are known to be installed on, but not limited to, Gulfstream GV-SP (G500, G550) and Bombardier BD-700-1A10 and BD-700-1A11 series aeroplanes.

#### Reason:

Occurrences were reported where deterioration of an Electronic Engine Controller (EEC) firebox assembly intumescent heat resistant paint system was found to be beyond acceptable limits. Subsequent investigation determined that lack of paint adhesion, due to incorrect surface preparation during manufacturing, had caused this deterioration.

This condition, if not corrected, could reduce the fire protection capability of the EEC firebox, possibly leading to reduced control of an engine during engine fire, engine overspeed and release of high-energy debris, resulting in damage to, and/or reduced control of, the aeroplane.

To address this potential unsafe condition, RRD issued Alert SB SB-BR700-73-A101977, SB-BR700-73-A101981 and SB-BR700-73-A101985 to provide modification instructions introducing improved new or reworked EEC firebox assembly parts, which have a more durable paint system.

For the reason described above, this AD requires replacement of affected EEC firebox assembly parts with improved parts.

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

Required as indicated, unless accomplished previously:

Note 1: For the purpose of this AD, EEC firebox cover assembly, EEC firebox base assembly, EEC firebox port shield and EEC firebox cover plate are hereafter referred to as 'firebox assembly parts'.

Note 2: For the purpose of this AD, RRD Alert SB-BR700-73-A101977 (BR700-710A2-20 engines), Alert SB-BR700-73-A101981 (BR700-710C4-11 engines having configuration standard 710C4-11 engraved on the engine data plate) and Alert SB-BR700-73-A101985 (BR700-710C4-11 engines, having configuration standard 710C4-11/10 engraved on the engine data plate) are hereafter collectively referred to as 'the applicable RRD SB'.

#### Modification:

- (1) Within 38 months after the effective date of this AD, modify the engine by replacing each firebox assembly part (see Note 1 of this AD) with an improved part, as defined in, and in accordance with the instructions of Revision 3 of the applicable RRD SB (see Note 2 of this AD).

#### Credit:

- (2) Modification of an engine, before the effective date of this AD, in accordance with the instructions of the applicable RRD SB at original issue, or Revision 1, or Revision 2, is an acceptable method to comply with the requirements of paragraph (1) of this AD for that engine.



**Parts Installation:**

- (3) From the effective date of this AD, installation of a firebox assembly part on an engine is allowed, provided the part is an improved part as defined in the instructions of RRD SB, as applicable to engine model and configuration.

**Ref. Publications:**

RRD Alert SB-BR700-73-A101977 original issue dated 22 December 2016, or Revision 1 dated 24 January 2017, or Revision 2 dated 27 March 2017, or Revision 3 dated 10 July 2017.

RRD Alert SB-BR700-73-A101981 original issue dated 22 December 2016, or Revision 1 dated 24 January 2017, or Revision 2 dated 27 March 2017, or Revision 3 dated 10 July 2017.

RRD Alert SB-BR700-73-A101985 original issue dated 22 December 2016, or Revision 1 dated 24 January 2017, or Revision 2 dated 27 March 2017, or Revision 3 dated 10 July 2017.

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 08 September 2017 as PAD 17-127 for consultation until 06 October 2017. No comments were received during the consultation period.
3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: [ADs@easa.europa.eu](mailto: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) 337086 1200, E-mail: [rrd.techhelp@rolls-royce.com](mailto:rrd.techhelp@rolls-royce.com).

