Airworthiness Directive

AD No.: 2016-0084

Issued: 28 April 2016

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 plc

Type/Model designation(s):
RB211 Trent 800 engines

Effective Date: 12 May 2016
TCDS Number(s): EASA.E.047
Foreign AD: Not applicable
Supersedure: None

ATA 72 – Engine – Upper Bifurcation Fairing Seal Face – Inspection

Manufacturer(s):
Rolls-Royce plc

Applicability:
RB211 Trent 895-17, 892-17, 892B-17, 884-17, 884B-17, 877-17 and 875-17 engines, all serial numbers. These engines are known to be installed on, but not limited to, Boeing 777 aeroplanes.

Reason:
Inspection of in-service Rolls-Royce RB211 Trent 800 engines has identified cracking and/or material release from the upper bifurcation fairing. This fairing hardware mates to the aeroplane thrust reverser upper bifurcation forward fire seal. Both sets of hardware create the engine firewall to isolate the engine compartment fire zone, which is a firewall feature of the aeroplane type design. Damage (missing materials and holes/openings) to the upper bifurcation fairing creates a breach of the engine fire wall, which may decrease the effectiveness of the engine fire detection and suppression systems due to excess fan air entering the engine compartment fire zone. This could delay or prevent the fire detection and suppression system from functioning properly, and can result in an increased risk of prolonged burning, potentially allowing a fire to reach unprotected areas of the engine, strut and wing.

This condition, if not detected and corrected, could lead to an uncontrolled fire, possibly resulting in damage to, or loss of, the aeroplane.

To address this potential unsafe condition, Rolls-Royce have published Alert Non-Modification Service Bulletin (NMSB) RB.211-72-AJ165 to provide inspection instructions.

For the reasons described above, this AD requires repetitive inspections of the upper bifurcation fairing and, depending on findings, accomplishment of applicable corrective action(s).

Required Action(s) and Compliance Time(s):
Required as indicated, unless accomplished previously:

Note 1: Where, in this AD, reference is made to an Rolls-Royce Mod, SB or NMSB with an 'A' (Alert) in the number, it should be recognised that an earlier or later revision may not have that 'A'. This kind of change does not effectively alter the publication references for the purpose of this AD.

(1) Before exceeding 7 500 engine flight hours (EFH) since first installation of an engine on an aeroplane, or within 7 500 EFH since last inspection (see Note 2 of this AD) of the upper bifurcation fairing, or within 150 flight cycles after the effective date of this AD, whichever occurs later, and, thereafter, at intervals not to exceed 7 500 EFH, accomplish an inspection of the upper bifurcation fairing, either on-wing or in-shop, in accordance with the instructions of Section 3.A.(2) or 3.B.(1), respectively, of Rolls-Royce NMSB RB.211-72-AJ165.

Note 2: Previous inspection of an upper bifurcation fairing may have been accomplished in-shop in accordance with the applicable Engine Manual, task 72-03-14, or on-wing in accordance with the applicable aeroplane maintenance documents, as identified in Rolls-Royce NMSB RB.211-72-AJ165.

(2) If, during any inspection as required by paragraph (1) of this AD, any discrepancy is detected, within the applicable compliance time(s) specified in Rolls-Royce NMSB RB.211-72-AJ165, accomplish the applicable corrective action(s) in accordance with the instructions of Section 3.A.(2) or 3.B.(1), respectively, of Rolls-Royce NMSB RB.211-72-AJ165.

(3) Accomplishment of corrective actions on an engine, as required by paragraph (2) of this AD, does not constitute terminating action for the repetitive inspections required by paragraph (1) of this AD for that engine.

Ref. Publications:
Rolls-Royce Alert NMSB RB.211-72-AJ165 original issue dated 31 March 2016.

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 18 March 2016 as PAD 16-043 for consultation until 15 April 2016. The Comment Response Document can be found at http://ad.easa.europa.eu.

3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.

4. For any question concerning the technical content of the requirements in this AD, please contact your designated Rolls-Royce representative, or download the publication from your Rolls Royce Care account at https://customers.rolls-royce.com.

   If you do not have a designated representative or Rolls Royce Care account, please contact **Corporate Communications** at **Rolls-Royce plc**, P.O. Box 31, Derby, DE24 8BJ, United Kingdom Telephone +44 (0)1332 242424,

   or send an email through http://www.rolls-royce.com/contact/civil_team.jsp identifying the correspondence as being related to **Airworthiness Directives**.