



Airworthiness Directive

AD No.: 2018-0013

Issued: 17 January 2018

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):

Tay 620-15 engines

Effective Date: 31 January 2018

TCDS Number(s): EASA.E.063

Foreign AD: Not applicable

Supersedure: None

ATA 72 – Engine – Low Pressure Compressor Fan Blades – Identification / Replacement

Manufacturer(s):

Rolls-Royce plc.

Applicability:

Tay 620-15 engines, all manufacturer serial numbers (s/n), equipped with low pressure compressor (LPC) module M01100AA or M01100AB.

Reason:

Fractures of low pressure compressor (LPC) fan blade retention lugs were reported on engines subjected to a high number of Dry Film Lubrication (DFL) treatments. Subsequent investigation determined that, as a consequence, the retention lugs of the affected LPC (fan) blades had been exposed to excessive high stress cycles.

This condition, if not detected and corrected, could lead to failure of LPC fan blade retention lug(s), high vibration, reduced thrust, or in-flight shut down, possibly resulting in reduced control of the aeroplane.

To address this potential unsafe condition, Rolls Royce Deutschland (RRD) issued Alert Non-Modification Service Bulletin (NMSB) TAY-72-A1834 (hereafter referred to as 'the NMSB') to provide identification and replacement instructions.



For the reasons described above, this AD requires determination of number of DFL treatments applied to the LPC fan blades and, based on that determination, replacement. This AD also introduces a maximum allowable number of DFL treatments applicable to the LPC fan blades.

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

Required as indicated, unless accomplished previously:

Note 1: LPC fan blades, having Part Number (P/N) JR30649, P/N JR31702, P/N JR31983, P/N JR33863, or P/N JR33864, are hereafter collectively referred to as 'affected LPC fan blade' in this AD.

Determination:

- (1) Within 30 days after the effective date of this AD, for each affected LPC fan blade (see Note 1 of this AD), determine the number of DFL treatments that were applied to that blade by reviewing the engine maintenance records, or using an alternative method specified in, and in accordance with, the instructions of the NMSB.

Corrective Action(s):

- (2) If it is determined, as required by paragraph (1) of this AD, that the number of DFL treatments is less than 13, during the next scheduled LPC fan blade removal after the effective date of this AD, mark the affected LPC blade by applying a specific suffix code on the blade dovetail root in accordance with the instructions of the NMSB.
- (3) If it is determined, as required by paragraph (1) of this AD, that the number of DFL treatments is 13 or more, within 500 flight hours after the effective date of this AD, replace the affected LPC blade with a serviceable part in accordance with the instructions of the NMSB.

Parts Installation:

- (4) From the effective date of this AD, the installation actions as specified in paragraphs (4.1) and (4.2), as applicable, are allowed, provided that, prior to installation, it has been determined that each affected LPC fan blade has received less than 13 DFL treatments, has been marked in accordance with the instructions of the NMSB, as applicable, and that, following installation, the LPC fan blade is replaced before exceeding 13 DFL treatments.

(4.1) Install on any engine an affected LPC fan blade, or an LPC module M01100AA or M01100AB equipped with an affected LPC fan blade.

(4.2) Install on any aeroplane an engine, or an LPC module M01100AA or M01100AB, equipped with an affected LPC fan blade.

Ref. Publications:

RRD Alert NMSB TAY-72-A1834 original issue dated 17 November 2017.

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 12 December 2017 as PAD 17-170 for consultation until 09 January 2018. 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.
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.

