Airworthiness Directive

AD No.: **2017-0197**

Issued: **06 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 plc

Type/Model designation(s):
Viper Mk. 601-22 Engines

Effective Date: 13 October 2017

TCDS Number(s): United Kingdom No. 1038

Foreign AD: Not applicable

Supersedure: None

ATA 72 – Engine – Oil Pump Assembly / Oil Pressure Filter – Inspection / Replacement

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Manufacturer(s):
Rolls-Royce plc (RR)

Applicability:
Viper Mk. 601-22 engines, all serial numbers.

These engines are known to be installed on, but not limited to, Textron Aviation Inc. (formerly Beechcraft Corporation, Hawker Beechcraft, Raytheon Aircraft Company, Beech Aircraft Corporation, British Aerospace, Hawker Siddeley) BH.125 and HS.125 series aeroplanes.

Reason:
An engine mainline bearing failure occurred on a Viper Mk. 632-43 engine because of debris being present in the engine oil system. The debris entered the oil system through a damaged oil pressure filter. Further investigation of this event revealed that, although the oil pump assembly was of post-modification (mod) CV4559 standard, the oil pressure filter fitted on the oil pump assembly was a pre-mod CV 4559 standard (Part Number (P/N) V21264). The purpose of modification CV4559 is to replace the oil pressure filter P/N V21264 with a more robust oil pressure filter (P/N 2526). Mod CV4559 was introduced in service by R-R Service Bulletin (SB) 72-198.

This condition, if not detected and corrected, could lead to an engine mainline bearing failure, possibly resulting in a complete loss of thrust and consequent reduced control of the aeroplane.

To address this potentially unsafe condition, R-R issued Alert SB 72-A208, providing instructions to identify and replace pre-modification oil filters.

For the reason described above, this AD requires replacement of all oil pressure filters P/N V21264 found to be installed on post-mod CV4559 oil pump assemblies. This AD also requires replacement of all pre-mod CV4559 oil pump assemblies (P/N V112027) with post-mod oil pump assemblies (P/N V112225 or P/N NPN11962).

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

Required as indicated, unless accomplished previously:

Note 1: RR Alert SB 72-A208 dated September 2017 is hereafter referred to as 'the ASB' in this AD.

Note 2: Group 1 engines are those that are in post-mod CV4559 (SB 72-198) configuration, having a oil pump assembly P/N V112225 or P/N NPN11962 installed. Group 2 engines are those in pre-mod CV4559 configuration, having a oil pump assembly P/N V112027 installed.

Inspection(s):

(1) For Group 1 engines: Within 30 days or 25 flight hours (FH), whichever occurs first after the effective date of this AD, inspect the oil pump assembly to determine the P/N of the oil pressure filter in accordance with the instructions of paragraph 2.A.(3) of the ASB.

Corrective Action(s):

(2) If, during the inspection as required by paragraph (1) of this AD, it is found that the oil pump assembly has a pre-mod CV4559 standard oil pressure filter (P/N V21264) installed, before next flight, replace the oil pressure filter with a post-mod CV4559 standard oil pressure filter (P/N 2526) in accordance with the instructions of paragraph 2.A.(3)(b) of the ASB.

Modification:

(3) For Group 2 engines: Within 30 days or 25 FH, whichever occurs first after the effective date of this AD, modify the engine to post-mod CV4559 standard by replacing the oil pump assembly P/N V112027 with an oil pump assembly P/N V11225 or P/N NPN11962 in accordance with the instructions of the ASB, or the instructions of RR SB 72-198.

Parts Installation:

(4) Do not install on any engine a pre-mod CV4559 oil pump assembly P/N V112027, or an oil pressure filter P/N V21264, as required by paragraph (4.1) or (4.2) of this AD, as applicable.

(4.1) For Group 1 engines: From the effective date of this AD.

(4.2) For Group 2 engines: After modification of the engine as required by paragraph (3) of this AD.

Ref. Publications:

Rolls-Royce Viper Mk. 601-22 SB 72-198 dated July 2004.

Rolls-Royce Viper Mk. 601-22 Alert SB 72-A208 dated September 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. 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.

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 plc, Defence Aerospace Operations Room - WH-70, P.O. Box 3, Filton, Bristol BS34 7QE, United Kingdom, Telephone : +44 (0) 117 97 90700, Fax: +44 (0) 117 97 95498 E-Mail: defence-operations-room@rolls-royce.com.