



Civil Aviation Authority
**MANDATORY PERMIT
DIRECTIVE**



Number: 2018-001

Issue date: 15 February 2018

In accordance with Article 41(1) of The Air Navigation Order 2016, as amended, the following action required by this Mandatory Permit Directive (MPD) is mandatory for applicable aircraft registered in the United Kingdom operating on a UK CAA Permit to Fly.	
Type Approval Holder's Name: BRP-Rotax GmbH & Co. KG	Type/Model Designation(s): Rotax 912/914 engines
Title:	Reciprocating Engine – Valve Push Rod Assembly – Inspection / Replacement
Manufacturer:	BRP-Rotax GmbH & Co. KG
Applicability:	Rotax 912 iS Sport, 912UL, 912ULS, 914UL engines. For Serial numbers affected refer to Rotax SB SB-912 i-008iS/SB-912-070UL / SB-914-052UL at latest revision
Reason:	<p>Power loss and engine RPM drop have been reported on Rotax 912/914 engines in service. It has been determined that, due to a quality control deficiency in the manufacturing process of certain valve push-rod assemblies manufactured between 08 June 2016 and 02 October 2017 inclusive, partial wear on the rocker arm ball socket may occur, which may lead to malfunction of the valve train.</p> <p>This condition, if not detected and corrected, may lead to rough engine operation and loss of power, possibly resulting in a forced landing with consequent damage to the aeroplane and injury to occupants.</p> <p>To address this potential unsafe condition, BRP-Rotax issued Service Bulletin (SB) SB-912 i-008 / SB-912-070 / SB-914-052 (single document), providing applicable instructions.</p> <p>For the reason described above, this MPD requires a one-time inspection and, depending on findings, replacement of affected parts. This MPD also prohibits installation of affected parts on an engine.</p> <p>This MPD, for the uncertified engine variants, mirrors the EASA AD 2017-0208, which was for the certified engine variants.</p>
Effective Date:	18 February 2018

**Compliance/
Action:**

Required as indicated unless accomplished previously:

Note 1: Valve push-rod assemblies Part Number (P/N) 854861 are hereafter referred to as “valve push-rod” in this MPD.

Note 2: BRP Rotax SB-912 i-008 / SB-912-070 / SB-914-052 (single document) is hereafter referred to as “the SB” in this MPD.

Note 3: BRP Rotax SB-912 i-008iS / SB-912-070UL / SB-914-052UL (single document) is hereafter referred to as “the Applicability SB” in this MPD.

Note 4: For the purpose of this MPD, Group 1 engines are those having a serial number (s/n) as listed in the Applicability SB (see Note 3 of this MPD); or an engine, having any s/n, on which a valve push-rod (see Note 1 of this MPD) has been replaced in service between 08 June 2016 and the effective date of this MPD inclusive. Group 2 engines are those that are not Group 1.

Inspection:

- (1) For Group 1 engines (see Note 4 of this MPD): Within the compliance time identified in Table 1 of this MPD, as applicable, visually inspect the push-rod ball sockets of each valve push-rod in accordance with the instructions of the SB.

Table 1 – Visual Inspection of Affected Assembly

Engine Flight Hours (FH) since first installation on an aircraft	Compliance Time
160 FH or less	Before exceeding 170 FH since first installation of the engine on an aircraft, or within 3 months after the effective date of this MPD, whichever occurs first.
More than 160 FH	Within 10 FH or 3 months, whichever occurs first after the effective date of this MPD

Corrective action:

- (2) If, during the inspection as required by paragraph (1) of this MPD, a valve push-rod having black surface is detected (reference Fig. 1 in the SB), before next flight, replace that valve push-rod and its affected parts (see Note 5 of this MPD) with serviceable ones in accordance with the instructions of the SB.

Note 5: for the purpose of this MPD, an affected part is listed in Table 2 of this MPD.

Table 2 – Affected Part

Part	Part Number
Vale push-rod assembly	854861
Rocker arm left	854383
Rocker arm right	854393

Compliance/ Action Cont:	<p>Part installation:</p> <p>(3) For Group 1 and Group 2 engines: From the effective date of this MPD, it is prohibited to install on any engine a valve push-rod (see Note 1 of this MPD) manufactured between 08 June 2016 and 02 October 2017 inclusive.</p>
ENSURE COMPLIANCE WITH THIS MPD IS RECORDED IN THE AIRCRAFT LOGBOOK	
Reference Publications:	<p><i>BRP-Rotax</i> SB-912 i-008iS / SB-912-070UL / SB-914-052UL (single document) Initial Issue 12 October 2017</p> <p><i>BRP-Rotax</i> SB-912 i-008 R1 / SB-912-070 R1 / SB-914-052 R1 (Single Document) Revision 1 12 October 2017</p> <p>The use of later approved revisions of this document is acceptable for compliance with the requirements of this MPD.</p>
Remarks:	<p>(1) This MPD was not posted for consultation because of the urgency of the requirement.</p> <p>(2) Enquiries regarding this Mandatory Permit Directive should be referred to: GA Unit, Civil Aviation Authority, Safety Regulation Group, Aviation House, Gatwick Airport South, West Sussex RH6 0YR.</p> <p>Tel: +44 (0)1293 573988 E-mail: GA@caa.co.uk</p>