



Civil Aviation Authority

EMERGENCY MANDATORY PERMIT DIRECTIVE

Number: 2025-001-E

Issue date: 24 January 2025



In accordance with 41(1) of 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.

Design Approval Holder's Name:

BRP-ROTAX GmbH & Co KG

Type/Model Designation(s):

Rotax 912i, 915i and 916i engines

Effective Date:	27 January 2025
TADS / AAN (as applicable):	N/A
Supersedure:	N/A

ATA 71 and 24 - Engine / Electrical Power – Internal Generator – Inspection / Replacement of Oil Spray Nozzle

Manufacturer(s):

BRP-Rotax GmbH & Co KG (BRP-Rotax), formerly BRP-Powertrain GmbH & Co. KG, Bombardier-Rotax GmbH & Co. KG, Bombardier-Rotax GmbH

Applicability:

Rotax 912 iS Sport, 915 iS A, 915 iS C24, 916 iS A, and 916 iS C24 series engines, all models, all serial numbers (s/n).

These engines are known to be installed on various general aviation aeroplanes, microlights, and gyroplanes. Installation of these engines was done by either the respective aircraft manufacturers, amateur constructors or through a modification of the aircraft.

Definitions:

For the purpose of this Emergency MPD, the following definitions apply:

The Alert Service Bulletin (ASB) for Type Certified engines: BRP-Rotax Alert Service Bulletin (ASB) ASB-912 i-016 R1 / ASB-915 i-016 R1 / ASB-916 i-006 R1 (Revision 1, published as a single document on 20 December 2024).

The ASB for non-Type Certified engines: ASB-912 i-016iS R1 / ASB-915 i-016iS R1 / ASB-916 i-006iS R1 (Revision 1, published as a single document on 20 December 2024).

Note: Although this MPD only covers non-type certified engines, further detail, instructions, and affected serial numbers are listed in the ASB for type certified engines.

Affected part(s): Oil spray nozzle assembly, having Part Number (P/N) 456540, and generator stator assemblies, which match at least one of the following conditions:

- A) known to have been installed initially on engines having a s/n as listed in the Appendix of the ASB for type certified engines;
- B) known to have been delivered as 'spare part', as identified in the applicability section of the ASB for non-type certified engines;
- C) it cannot be established that the affected parts are not affected by condition A) or B).

Except those parts which have been in operation for 200 FH or more, without any required maintenance action due to generator stator assembly cooling issues, or those which passed (no discrepancy found) an inspection in accordance with the instructions of the ASB for type certified engines.

Serviceable part(s): Oil spray nozzle assemblies, and generator stator assemblies, eligible for installation in accordance with the instructions of BRP-Rotax, which are not an affected part, as defined in this MPD; or oil spray nozzles, having P/N 456540, manufactured (date of equivalent statement of conformity) after 31 October 2024.

Reason:

An occurrence was reported from the production line, where it was found that due to a deviation in the manufacturing process, an excessive amount of LOCTITE has been applied at the sprag clutch housing and/or oil spray nozzle of several engines, which may lead to blockage of the oil nozzle. This blockage of the nozzle could possibly lead to inadequate cooling and damage to (both) the generators.

This condition, if not detected and corrected, could possibly lead to an uncommanded in-flight engine shutdown and consequent forced landing, possibly resulting in damage to the aeroplane and injury to occupants.

To address this potential unsafe condition, BRP-Rotax published the ASB for type certified engines and ASB for non-type certified engines, as defined in this MPD, to provide instructions for inspection of the oil spray nozzle and generator stator assemblies, defining criteria for determination of its serviceability, and for replacement of un-serviceable parts.

For the reason described above, this MPD requires repetitive operational checks, and a one-time inspection of the engine oil spray nozzle and the generator stator assembly, as applicable, and, depending on findings, applicable corrective action(s). This MPD also prohibits (re)installation of affected parts, as defined in this MPD.

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

Required as indicated by this MPD, unless the action(s) required by this MPD have been already accomplished:

Repetitive Operational Check:

- (1) From the effective date of this MPD, before each flight, accomplish an operational check to ensure the availability of the battery backup function in accordance with the instructions of the ASB for type certified engines (see Notes 1 and 2).

Note 1:The action required by paragraph (1) of this MPD may be accomplished, by the pilot-owner under the provisions of Article 46 and Article 48 of the Air Navigation Order (ANO).

Note 2:Before starting the engine under normal procedure, an additional first start on the battery only (back-up function as described in the ASB for type certified engines) must be accomplished, as introduced in the ASB for type certified engines; the use of any additional external power source (external ground power equipment, battery booster, etc.) is prohibited for these engine starts, part of the operational check, in order to solely acquire (check) the sufficient state of charge / health of the onboard battery.

Inspection:

- (2) Within 25 FH or within 12 months, whichever occurs first after the effective date of this MPD, accomplish a one-time inspection (functional check) of the oil spray nozzle and generator stator assembly, as applicable, in accordance with the instructions of the ASB for type certified engines.

Corrective Action(s):

- (3) If, during any operational check, as required by paragraph (1) of this MPD, any discrepancy is detected, before next flight, contact BRP-Rotax for applicable repair instructions and, before next flight, accomplish those instructions accordingly.
- (4) If, during the inspection (functional check) as required by paragraph (2) of this MPD, it is determined that the oil spray nozzle and/or generator stator assembly is un-serviceable, before next flight, replace the discrepant oil spray nozzle and/or generator stator assembly, as applicable, with serviceable part(s), as defined in this MPD, in accordance with the instructions of the ASB for type certified engines.

Credit:

- (5) Inspections and corrective action(s), as applicable, accomplished on an engine before the effective date of this MPD, in accordance with the instructions of BRP-Rotax SB SB-912 i-016 / SB-915 i-016 / SB-916 i-006 at original issue, are acceptable to comply with the requirements of the paragraphs (2) and (4) of this MPD, as applicable, for that engine.

Terminating Action:

- (6) Accomplishment on an engine, of the inspection(s) as required by paragraph (2) of this MPD and of the corrective action(s) as required by paragraph (4) of this MPD, as applicable, constitutes terminating action for the repetitive operational checks as required by paragraph (1) of this MPD for that engine.

Parts Installation:

- (7) From the effective date of this MPD, do not (re)install on any engine an affected part, and do not install on any aeroplane an engine having an affected part installed on it

Reference Publications:

ASB-912 i-016 R1 / SB-915 i-016 R1 / SB-916 i-006 R1 Revision 1 dated 20 December 2024

ASB-912 i-016iS R1 / ASB-915 i-016iS R1 ASB-916 i-006iS R1 Revision 1 dated 20 December 2024

The use of later approved revisions of the above-mentioned documents are acceptable for compliance with the requirements of this MPD.

Remarks:

1. The safety assessment has warranted immediate publication and notification without implementing the full consultation process.
2. If requested and appropriately substantiated, CAA can approve Alternative Methods of Compliance for this MPD.
3. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this MPD, and which may occur, or have occurred on a product, part or appliance not affected by this MPD, can be reported to the CAA aviation safety reporting system. This may include reporting on the same or similar components, other than those covered by the design to which this MPD applies, if the same unsafe condition can exist or may develop on an aircraft with those components installed.
4. Enquiries regarding this MPD should be referred to: ga@caa.co.uk
5. For any questions concerning the technical content of the requirements in this MPD, please contact: BRP-Rotax GmbH & Co KG, Telephone: +43 7246 601 0, Fax: +43 7246 601 9130, E-mail: airworthiness@brp.com, Website www.flyrotax.com.