



Emergency Airworthiness Directive

AD No.: 2023-0177-E

Issued: 09 October 2023

Note: This Emergency Airworthiness Directive (AD) is issued by EASA, acting in accordance with Regulation (EU) 2018/1139 on behalf of the European Union, its Member States and of the European third countries that participate in the activities of EASA under Article 129 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, or Annex Vb Part ML.A.301, as applicable, 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 Annex Vb Part ML.A.303, as applicable] or agreed with the Authority of the State of Registry [Regulation (EU) 2018/1139, Article 71 exemption].

Design Approval Holder's Name:

EVEKTOR, spol. s r.o.

Type/Model designation(s):

SportStar RTC aeroplanes

Effective Date: 11 October 2023

TCDS Number(s): EASA.A.592

Foreign AD: Not applicable

Supersedure: None

ATA 72 – Engine – Propeller Gearbox Magnetic Plug – Inspection / Propeller Shaft – Replacement

Manufacturer(s):

For the aeroplanes: Evektor, spol. s r.o.

For the engines: BRP-Rotax GmbH & Co KG, formerly BRP-Powertrain GmbH & Co. KG; Bombardier Rotax GmbH & Co. KG; Bombardier-Rotax GmbH

Applicability:

SportStar RTC aeroplanes, all manufacturer serial numbers (s/n) if equipped with a BRP-Rotax 912 ULS engine.

Definitions:

For the purpose of this AD, the following definitions apply:

The SB: Evektor Service Bulletin (SB) No. RTC-072a SR which refers to the Rotax SB.

The Rotax SB: BRP-Rotax SB-912-078UL / SB-914-059UL / SB-912 i-014iS (published as a single document) which refers to BRP-Rotax SB-912-078 / SB-914-059 / SB-912 i-014 (published as a single document).



Affected part: Any propeller shaft having Part Number (P/N) 937047, matching any of the following conditions:

- It is known to have been installed initially (on delivery) in Rotax 912 ULS engines having an s/n as listed in Table 1 of Appendix 1 of this AD;
or
- It is known to have been delivered as 'spare part', having a shaft s/n as listed in Table 2 of Appendix 1 of this AD;
or
- When it cannot be determined on which engine it has been installed initially (on delivery).

Serviceable part: Any propeller shaft, eligible for installation, which is not an affected part.

Affected engine: A Rotax 912 ULS engine which has the affected part installed.

Groups: Group 1 aeroplanes are those that have an affected engine installed.
Group 2 aeroplanes are those that do not have an affected engine installed.

Reason:

An occurrence was reported from the BRP-Rotax production line, where it was found that certain propeller shafts showed abnormalities on the surface. Further investigation revealed that this non-conformity was caused by a deviation in the machining process of a certain production batch of shafts. It was determined that this discrepancy could lead to increased wear of the propeller shaft bearings, possibly resulting in engine defects. It was also determined on which delivered (new) engines the affected parts from the identified non-conforming batch had been (initially) installed, and also that several non-conforming shafts had been delivered as spare parts.

This condition, if not detected and corrected, could lead to engine in-flight shut down and consequent emergency landing of the aeroplane, possibly resulting in damage to the aeroplane and injury to occupants.

To address this potential unsafe condition, Evektor issued the SB, referring to Rotax SB, which provides instructions for inspection and replacement of the affected part.

For the reason described above, this AD requires repetitive inspections of the magnetic plug to check the condition of the propeller gearbox. This AD also requires replacement and prohibits (re)installation of affected parts.

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

Required as indicated, unless accomplished previously:

Inspection(s):

- (1) For Group 1 aeroplanes: Before next flight after the effective date of this AD, and, thereafter, at intervals not to exceed 10 flight hours (FH), inspect the magnetic plug to determine the condition of the gearbox in accordance with the instructions of the SB.



Corrective Action(s):

- (2) If, during any inspection as required by paragraph (1) of this AD, any discrepancy as defined in the SB is detected, before next flight, replace the affected part with a serviceable part in accordance with the instructions of the SB.

Replacement:

- (3) For Group 1 aeroplanes: Before exceeding 50 FH since engine first operation or since first installation of the affected part on an engine, as applicable, or within 10 days after the effective date of this AD, whichever occurs later, replace the affected part with a serviceable part, as defined in this AD, in accordance with the instructions of the SB.

Part(s) Installation:

- (4) For Group 1 and Group 2 aeroplanes: From the effective date of this AD, do not install an affected part on any engine or an affected engine on any aeroplane.

Terminating Action:

- (5) Replacement of the affected part on an engine as required by paragraph (2) or (3) of this AD, constitutes terminating action for the repetitive inspections as required by paragraph (1) of this AD for that engine.

Ref. Publications:

Evektor SB No. RTC-072a SR original issue dated 01 September 2023.

BRP-Rotax SB-912-078 / SB-914-059 / SB-912 i-014 original issue dated 25 July 2023.

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

BRP-Rotax SB-912-078UL / SB-914-059UL / SB-912 i-014iS original issue dated 25 July 2023.

Remarks:

1. If requested and appropriately substantiated, EASA can approve Alternative Methods of Compliance for this AD.
2. The results of the safety assessment have indicated the need for immediate publication and notification, without the full consultation process.
3. Enquiries regarding this AD should be referred to the EASA Safety Information Section, Certification Directorate. E-mail: ADs@easa.europa.eu.
4. Information about any failures, malfunctions, defects or other occurrences, which may be similar to the unsafe condition addressed by this AD, and which may occur, or have occurred on a product, part or appliance not affected by this AD, can be reported to the [EU aviation safety reporting system](#). This may include reporting on the same or similar components, other than those covered by the design to which this AD applies, if the same unsafe condition can exist or may develop on an aircraft with those components installed. Such components may be installed under an FAA Parts Manufacturer Approval (PMA), STC or other modification.



5. For any question concerning the technical content of the requirements in this AD, please contact: Evector, spol. s r.o., Letecká 1008, 686 04 Kunovice, Czech Republic
Telephone: +420 572 537 428, Fax: +420 572 537 901, E-mail: evektor@evektor.cz



Appendix 1

Table 1 – Affected Engines which are known to have been delivered (from the factory) with an affected part P/N 937047 installed.

Engine Type	s/n
912 ULS	from 10000421 up to 10000445 inclusive from 10000833 up to 10000867 inclusive from 10000898 up to 10000914 inclusive from 10000931 up to 10000978 inclusive from 10001008 up to 10001021 inclusive from 10001037 up to 10001065 inclusive

Table 2 – Affected Propeller Shafts P/N 937047

Propeller Shafts s/n
937047, 222444, 222459, 222465, 222472, 222480, 222485, 222492, 222496, 222517, 222548, 222588, 222596, 222615, 222622, 222626, 222632, 222641, 222644, 222665, 222700, 222715

