



CRUISER  
AIRCRAFT

No.: SB-SC-102

DATE: 2024-01-15

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# SERVICE BULLETIN

Czech Aircraft Group s.r.o.  
Na Záhonech 212  
686 04 Kunovice  
Czech Republic  
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REV.: -

DATE: -

|                           |  |
|---------------------------|--|
| <b>MODEL AFFECTED:</b>    | SportCruiser / PiperSport operating outside EASA rules   |
| <b>SUBJECT:</b>           | Accomplishment of ROTAX Bulletin SB-912-078UL / SB-912-078. Exchange of propeller shaft on ROTAX Engine Type 912S and 912ULS   |
| <b>AIRCRAFT AFFECTED:</b> | All aircrafts with 912 S and 912 ULS engines.  |
| <b>COMPLIANCE:</b>        | <ul style="list-style-type: none"> <li>- Before next flight check the magnetic plug according to the latest Maintenance Manual Line (MML). If the magnetic plug indicates a good condition of the gearbox, it is allowed to repeat this inspection every 10 hours up to 50 hours of engine TSN. At latest, at 50 hours of engine TSN carry out this exchange of the propeller shaft on the engines listed in Appendix 01, according to the Accomplishment instructions.</li> <li>- Exchange the propeller shaft on engines prior to initial installation. Return affected spare parts to authorized service partner.</li> <li>- On engines, gearbox assy. and propeller shaft, prior to delivery.</li> </ul> |

### DESCRIPTION:

This Service Bulletin contain instructions how to exchange of stator assy. for ROTAX 912 Aircraft Engines.

### AUTHORISATION TO PERFORM:

- ROTAX - Airworthiness representatives
- ROTAX - Authorized Distributors or their independent Service Centers
- Persons approved by the respective Aviation Authorities
- Persons with approved qualifications for the corresponding engine types. Only authorized persons (iRMT, Level Heavy Maintenance) are entitled to carry out this work
- Persons with type-specific training

### APPLICABILITY:

Engines 912 S and 912 ULS have been originally delivered from factory with the affected propeller shaft part no. 937047. See Appendix 01.  
Spare propeller shaft has been delivered as a spare part or as a part of a gearbox assy. are also affected. See Appendix 01.

### REASON:

Due to a deviation in the machining process of the propeller shaft, the affected batch shows abnormalities on the surface. This could lead to increased wear of the propeller shaft bearings and subsequent serious engine problems.

### MANPOWER:

2,5 hours

### PUBLICATIONS AFFECTED:

N/A



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## WEIGHT AND BALANCE:

N/A

## ELECTRICAL LOAD DATA:

N/A

## REFERENCES:

SB-912-078UL / SB-914-059UL / SB-912 i-014iS

SB-912-078 / SB-914-059 / SB-912 i-014

POH - Pilot's Operating Handbook (use appropriate POH for specific aircraft S/N)

SC-AMM-1-0-00 SportCruiser Maintenance Manual

Other Rotax publications:

- in general Illustrated Parts Catalog (IPC) and in particular: Ch. 72-10-00 and 73-10-00
- in general Installation Manual (IM) and in particular: Ch. 61-00-00 and 73-00-00
- in general Maintenance Manual Line (MML) and in particular: Ch. 12-20-00
- in general Maintenance Manual Heavy (MMH) and in particular: Ch. 72-00-00 and 73-00-00

## MATERIAL AND COSTS:

A labor credit will be provided for work performed by a technician with current applicable iRMT rating.

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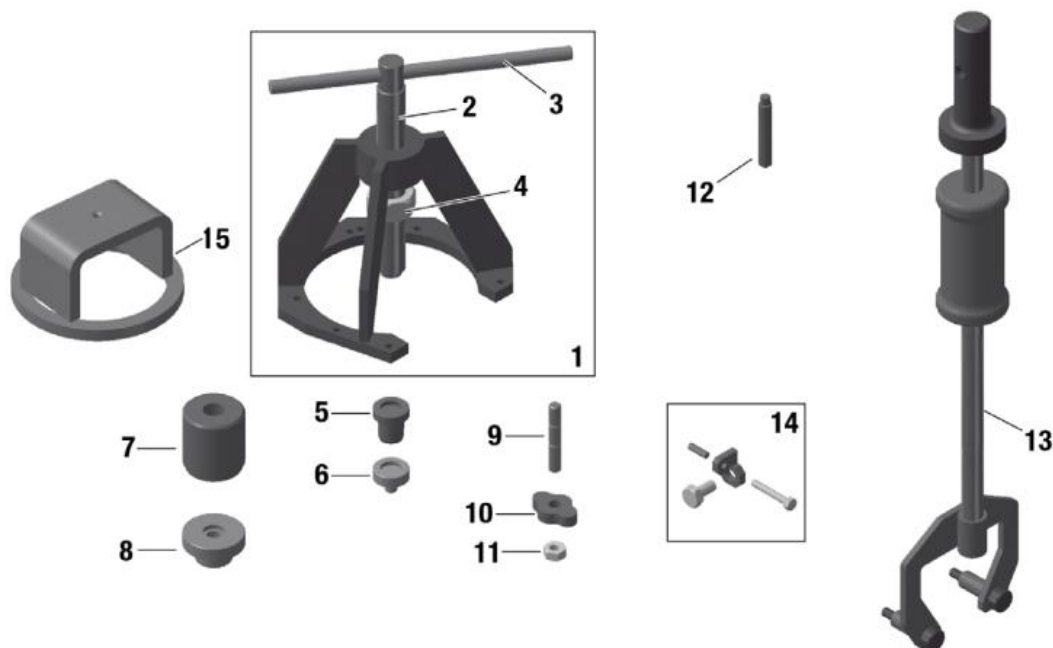
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## SPECIAL TOOLS:

| PART No. | QUANTITY    | DESCRIPTION              | APPLICATION                               |
|----------|-------------|--------------------------|---|
| 877615   | 1           | Extractor assy.          | Roller bearing 25x25x15, oil seal 30x52x7 |
| 877580   | 1           | Pull-in spindle M24x1.5  | Extractor assy.                           |
| 276155   | 1           | Bolt 12x250              | Extractor assy.                           |
| 842585   | 1           | Hex. screw M24x1.5-19 mm | Extractor assy.                           |
| 877605   | 1           | Press-out mushroom       | Prop shaft (Version 2)                    |
| 877594   | 1           | Press-in jig             | Oil seal 30x52x7 (Version 2)              |
| 877590   | 1           | Press-in mushroom        | Roller bearing 25x52x15                   |
| 941180   | 1           | Stud M10x45/20           | Roller bearing 25x52x15, oil seal 30x52x7 |
| 877561   | 1           | Pull-out plate           | Roller bearing 25x52x15, oil seal 30x52x7 |
| 242092   | 1           | Hex. nut M10             | Roller bearing 25x52x15, oil seal 30x52x7 |
| 240880   | 1           | Thread bolt M8x50        | Crankshaft locking screw                  |
| 877540   | 1           | Pushing jig assy.        | Gearbox                                   |
| 877660   | 1           | Puller assy.             | Gearbox                                   |
| 876885   | 1           | Mounting yoke            | To compress dog gear                      |
| 897651   | As required | Loctite 243 blue         | Hex. screw M7x16                          |
| 297434   | As required | Loctite anti seize 8151  | Propeller shaft at ball bearing           |
| 899791   | As required | Loctite 5910             | Flange sealan                             |



- |                            |                      |
|----------------------------|----------------------|
| 1 Extractor assy.          | 9 Stud M10x45/20     |
| 2 Pull-in spindle M24x 1.5 | 10 Pull-out plate    |
| 3 Bolt 12x250              | 11 Hex. nut M10      |
| 4 Hex. screw M24x1.5       | 12 Thread bolt M8x50 |
| 5 Press-out mushroom       | 13 Puller assy.      |
| 6 Press-out mushroom       | 14 Pushing jig assy. |
| 7 Press-in jig             | 15 Mounting yoke     |
| 8 Press-out mushroom       |                      |

Fig. 1: Special tools

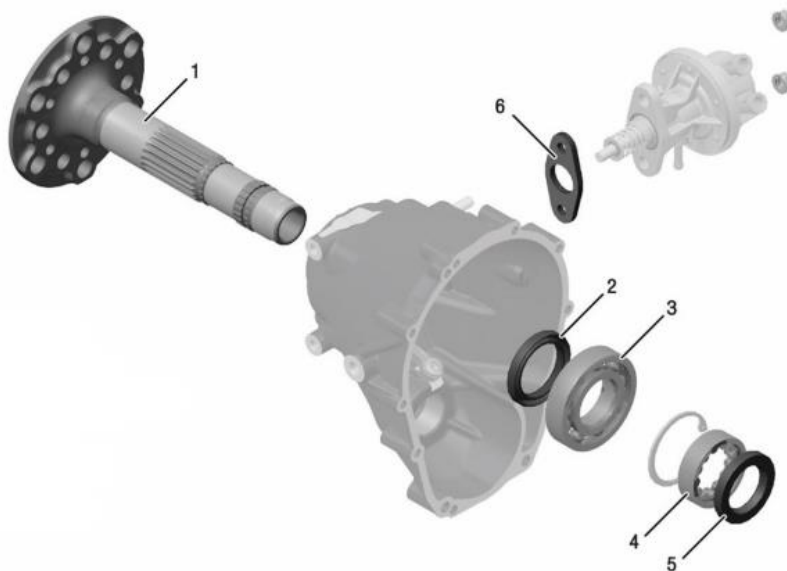
**MATERIAL:**

| PART No. | QUANTITY | DESCRIPTION           | APPLICATION            |
|----------|----------|-----------------------|------------------------|
| 937047   | 1        | Propeller shaft       | Version 2              |
| 832587   | 1        | Ball bearing 35-72-17 | Gearbox side           |
| 950470   | 1        | Oil seal 40x55x7      | Gearbox side           |
| 232246   | 1        | Roller bearing        | Crankcase side         |
| 950200   | 1        | Oil seal 30x52x7      | Crankcase side         |
| 950228   | 1        | Isolating flange      | Fuel pump (912 Series) |

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## ACCOMPLISHMENT INSTRUCTIONS:

NOTE: During the implementation of this SB follow AC43-13 and SC-AMM-1-0-00.



- 1 Propeller shaft
- 2 Oil seal 40x55x7
- 3 Ball bearing 35-72-17
- 4 Roller bearing
- 5 Oil seal 30x52x7
- 6 Isolating flange

Fig. 2: Propeller shaft

- 1) Check the criteria given on page 1, if the aircraft engine is affected by this SB.
- 2) Check the engine logbook and maintenance documentation, if this SB has already been accomplished.
- 3) Move the aircraft to a place suitable to perform the work.
- 4) Following instructions in the current Maintenance Manual Heavy (MMH) and Maintenance Manual Line (MML), perform the following tasks:
  - Remove gearbox assy. from the engine.
  - Disassemble gearbox and press out affected propeller shaft.
  - Reassemble the gearbox using a new propeller shaft, oil seal and ball bearing.
  - Remove crankcase side propeller shaft roller bearing and oil seal and replace with new.
  - Attach gearbox assy. to crankcase.
  - In the case of an engine installed in an aircraft, perform an engine test run.

NOTE: Only authorized personal (iRMT, Level Heavy Maintenance) are entitled to carry out this work.

- 5) Perform engine run test (see SC-AMM-1-0-00, Chapter 10).
- 6) Make an entry in the engine logbook stating the corrective actions performed.

NOTE: See Chapter 12-20-00 of the latest Maintenance Manual Line (MML) for the respective engine type.



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NOTE: If engine is still within its original packaging the (blue) plastic bag must be carefully re-sealed after performing this inspection. The plastic bag contains a Volatile Corrosion Inhibitor (VCI) essential to maintain appropriate storage conditions.

- 7) Update aircraft records to reflect compliance with this Service Bulletin.
- 8) All used parts are unserviceable and must be returned FCA (Free Carrier) to ROTAX authorized distributors or their independent Service Centers.

## APPENDIX 01:

| ENGINE TYPE | S/N                                 |
|-------------|-------------------------------------|
| 912 S       | 10000403                            |
| 912 S       | 10000405                            |
| 912 S       | 10000406                            |
| 912 S       | 10000408                            |
| 912 S       | 10000409                            |
| 912 S       | from 10000411 to 10000414 inclusive |
| 912 S       | from 10000472 to 10000475 inclusive |
| 912 S       | 10000789                            |
| 912 S       | 10000790                            |
| 912 S       | 10000792                            |
| 912 S       | 10000793                            |
| 912 S       | 10000832                            |
| 912 ULS     | from 10000421 to 10000445 inclusive |
| 912 ULS     | from 10000833 to 10000867 inclusive |
| 912 ULS     | from 10000898 to 10000914 inclusive |
| 912 ULS     | from 10000931 to 10000978 inclusive |
| 912 ULS     | from 10001008 to 10001021 inclusive |
| 912 ULS     | from 10001037 to 10001065 inclusive |

## APPENDIX 02:

| PROPELLER SHAFT<br>PART No. | S/N    |
|-----------------------------|--------|
| 937047                      | 222444 |
| 937047                      | 222459 |
| 937047                      | 222465 |
| 937047                      | 222472 |
| 937047                      | 222480 |
| 937047                      | 222485 |
| 937047                      | 222492 |
| 937047                      | 222496 |
| 937047                      | 222517 |
| 937047                      | 222548 |
| 937047                      | 222588 |

| PROPELLER SHAFT<br>PART No. | S/N    |
|-----------------------------|--------|
| 937047                      | 222596 |
| 937047                      | 222615 |
| 937047                      | 222622 |
| 937047                      | 222626 |
| 937047                      | 222632 |
| 937047                      | 222641 |
| 937047                      | 222644 |
| 937047                      | 222665 |
| 937047                      | 222700 |
| 937047                      | 222715 |



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## APPROVAL:

This Service Bulletin has been approved by:

|                                |   |  |
|--------------------------------|---|--|
| <b>TITLE:</b>                  | Head of Design Organisation   | Airworthiness Manager  |
| <b>NAME:</b>                   | David Bilík   | Jan Pejchar  |
| <b>HAND WRITTEN SIGNATURE:</b> |  |  |



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