



Notification

Replacement of fuel pumps for ROTAX Engine Type 912 (Series)

RECOMMENDED

Symbols:

Please pay attention to the following symbols emphasizing particular information throughout this document.

- ▲ WARNING: Identifies an instruction, which if not followed, may cause serious injury or even death.
- CAUTION: Denotes an instruction which if not followed, may severely damage the aircraft / engine or could lead to suspension of warranty.
- ◆ NOTE: Information useful to implement the change more easily.

1. General

<u>Issued by:</u>	Remos Aircraft GmbH Flugzeugbau Franzfelde 31 D-17309 Pasewalk Web: www.remos.com - Telephone: +49-3973-225519-0
<u>Release date:</u>	October 10 th 2013
<u>Date of effect:</u>	immediately
<u>Compliance:</u>	at the next scheduled maintenance event, at the latest at May 1 st 2014
<u>Release Number:</u>	NOT-012-ROTAX-fuel-pump
<u>Superseded notice:</u>	none
<u>Referenced Document:</u>	ROTAX Service Bulletin ROTAX SB-912-063 / SB-912-063UL, latest issue available via download on www.flyrotax.com
<u>Models affected:</u>	G3/600, GX



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Affected S/N: Aircraft with engine serial no. as per referenced document, plus additional fuel pumps part no. 892542 and 892546 with serial numbers as per referenced document which have been installed at engine repair / general overhaul

◆ NOTE: The fuel pumps part no. 893110, 893114 and 893115 are not affected.

Reason: As per referenced document: "Field observation over the years have shown that in isolated cases failures of the mechanical fuel pump (part no. 892542 and 892546) can occur, which may subsequently lead to malfunctions. To prevent possible problems with the fuel systems, the fuel pumps have to be replaced."

Subject:

- Replacement of fuel pumps for ROTAX engine type 912 (Series)

Time required:

- check for applicability: approx. 20 min
- replacing fuel pump: approx. 3 hours

2. Material Information

Tools needed:

- As per referenced document and instructions of chapter 5

Parts needed:

- As per referenced document and instructions of chapter 5

3. Compliance

Schedule for Inspection:

- at the next scheduled maintenance event
- replacement of fuel pumps has to be carried out till May 1st 2014 at the latest

Level of maintenance:

- check for applicability: none
- replacing fuel pump: heavy

▲ WARNING: As per referenced document: "Non-compliance with these instructions could result in engine damages, personal injuries or even fatal injuries."

License required:
(US-LSA)

check for applicability:

- owner/operator with Sport Pilot Licence (or higher)
- LSA Repairman, or
- A&P Mechanic, or
- Part 145 Repair Station



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for fuel pump replacement:

- LSA Repairman with ROTAX Heavy Maintenance Training, or
- A&P Mechanic with ROTAX Heavy Maintenance Training, or
- Part 145 Repair Station with ROTAX Authorization

License required:
(EASA-LSA)

check for applicability:

- owner/operator
- REMOS Service Center

for fuel pump replacement:

- REMOS Aircraft GmbH Flugzeugbau or REMOS Service Center

4. CHECK for APPLICABILITY

Check Engine SN:

The engine serial number is named on the aircraft equipment list and on the engine data plate, which is found on the ignition cover, on the left, opposite the electric starter. See ROTAX Maintenance Manual (Line) for further information.

Check fuel pump PN / SN:

If fuel pump has been replaced before, check documentation for respective part number and, if applicable, serial number of the fuel pump. If not found in the documentation, check fuel pump for respective information.

Applicability:

In case the engine is not affected by the referenced document, sign off aircraft and engine logbook by a licensed person. Include engine SN and both part no. and SN of the fuel pump in the logbook entry.

In case the engine is affected, it is recommended that the referenced document is complied with to the full extent.



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5. INSTRUCTIONS for REPAIR

5.1 Instructions: Follow the referenced document and instructions given below.

- ◆ NOTE: Before maintenance, review the entire documentation to make sure you have a complete understanding of the procedure and requirements.
- ◆ NOTE: All work has to be performed in accordance with the relevant Installation Manual and Maintenance Manual.

5.2 Safety notice:

- ▲ WARNING: Proceed with this work only in a non-smoking area and not close to sparks or open flames. Switch off ignition and secure engine against unintentional operation. Secure aircraft against unauthorized operation. Disconnect negative terminal of aircraft battery.
- ▲ WARNING: Risk of scalds and burns! Allow engine to cool sufficiently and use appropriate safety gear while performing work.
- CAUTION: Should removal of a locking device (e.g. lock tabs, self-locking fasteners, etc.) be required when undergoing disassembly/assembly, always replace with new ones.
- CAUTION: Ensure the fuel supply is turned off before disconnecting any hoses.

5.3 Preamble:

The fuel system of all REMOS aircraft – both the G3 and the GX – incorporates two fuel pumps: one mechanic pump attached to the engine and an electric one located underneath the fuel tank. The mechanical fuel pump attached to the engine is replaced by a different type that requires a modified installation. This document describes the installation of the new fuel pump in existing aircraft.

The fuel pump itself is approved by ROTAX.

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5.4 Bill of Materials:

- Tools: standard metric tools, round file
- Parts: as per referenced ROTAX document (see table in section 2.3)

Pos.	ROTAX P/N	Quantity	Description
1	945752	2	Lock washer A8
2	881360	1	Fuel pump set, consisting of:
2a	893110	1	Fuel pump assy
2b	942674	2	Hex. Nut M8
2c	851453	1	1-ear clamp 12.8-15.3 mm/0.50-0.60 in.
2d	851463	1	1-ear clamp 10.8-13.3 mm/0.43-0.52 in.
2e	851663	1	1-ear clamp 22.4-25.6 mm/0.88-1.01 in.
2f	853313	1	1-ear clamp 17.8-21.0 mm/0.70-0.83 in.

- additional parts required:

Pos.	REMOS P/N	Quantity	Description
3	100 218	1	locknut M5
4	100 224	2	locknut M8
5	100 239	2	washer M8
6	100 131	1	bolt M5x25
7	100 994	1,5m / 5 ft	hose, inside dia 6mm / 0,25in
8	100 930	1	clamp
9	100 873	5	tie wraps
10	100 903	1	adel clamp

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5.5 Procedures:

5.5.1 Removal of old Fuel Pump

- see referenced document and latest revision of the heavy maintenance manual of ROTAX 912 ULS

5.5.2 Modification of Oil Cooler Bracket

- detach the front-left oil cooler bracket (fig. 1)
- modify contour as shown in fig. 2
- re-install oil cooler

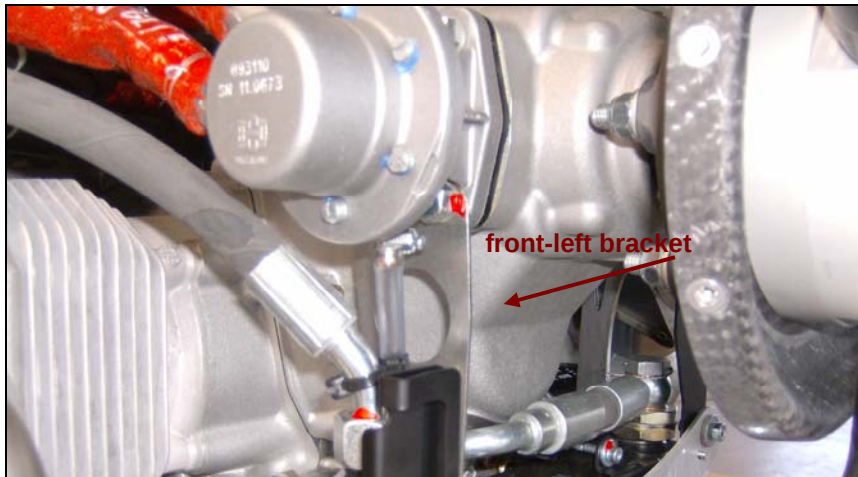


fig. 1 - front-left bracket



Fig. 2 - modification of bracket

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5.5.3 Installation of new Fuel Pump

- required parts: pos. 1 and pos. 2
- see referenced document and latest revision of the heavy maintenance manual of ROTAX 912 ULS
- use new washers (pos. 5) and locknuts (pos. 4)

5.5.4 Installation of Drainage Hose

- attach the draining hose (pos. 7) to the fuel pump and secure it with the clamp (pos. 8)
- route the hose as shown in fig. 3 through fig. 5
- attach the draining hose by means of tie wraps (pos. 9) and adel clamp (pos. 2, pos. 6 and pos. 10)



fig. 3 - attachment of the drainage hose to the fuel pump

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fig. 4 - routing of the drainage hose



fig. 5 - adel clamp fixing the drainage hose at the firewall



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5.6 Maintenance:

Use latest revision of REMOS Service and Maintenance Checklist as well as latest revision of ROTAX maintenance checklist as provided in the Line Maintenance Handbook of the engine. In addition to the described inspection of all fuel lines the drainage hose installed by the procedure above needs to be inspected at maintenance events, too.

6. DOCUMENTATION:

Execution of this Service Bulletin must be entered in both the aircraft and engine logbook by a licensed person. Include engine SN and fuel pump part no. and SN in the logbook entry.

**REMOS wishes you safe and fun flights!
Always check your aircraft before you fly!**