



This ASB revises ASB-912-069 / ASB-914-051 dated 14 July 2016.

## ALERT SERVICE BULLETIN

# Exchange of floats on ROTAX® Engine Type 912 and 914 (Series)

ATA System: 73-00-00 Fuel system

**MANDATORY**

### Symbols used:

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

#### General note



**Identifies an instruction which, if not followed, may cause serious injury or even fatal injury.**



**Identifies an instruction which, if not followed, may cause minor or moderate injury.**

**NOTICE**

**Denotes an instruction which if not followed, may severely damage the engine or could lead to suspension of warranty.**

### ENVIRONMENTAL NOTE

Environmental notes give you tips on environmental protection.

NOTE: Information useful for better handling.

| A revision bar outside the page margin indicates a change to text or graphic.

To obtain satisfactory results, procedures specified in this publication must be accomplished with accepted methods and prevailing government regulations.

BRP-Rotax GmbH & Co KG. cannot accept any responsibility for the quality of work performed in accomplishing the requirements of this publication.

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### 1) Planning information

#### 1.1) Applicability

All engines of Series 912 A, 912 F, 912 S and 914 F are affected, if at least one of following criteria applies:

#### Criterion A) Engine Serial number:

Engine type	Serial number
912 F	from S/N 4 413 066 up to S/N 4 413 067 inclusive
912 S	S/N 9 563 830 / S/N 9 563 832 / S/N 9 563 833
914 F	from S/N 4 421 572 up to S/N 4 421 590 inclusive

#### Criterion B) Carburetors:

The part numbers and serial numbers of the carburetors:

Carburetors	Cyl.	Serial number
912 A/F	1/3	Part no. 892500 - from S/N 161138 up to S/N 161143 incl. / from S/N 161483 up to S/N 161490 incl. / from S/N 161493 up to S/N 161507 inclusive / from S/N 161516 up to S/N 161518 incl. / S/N 161526
	2/4	Part no. 892505 - S/N 162193 / S/N 162194 / from S/N 162196 up to S/N 162199 incl. / S/N 162205
912 S	1/3	Part no. 892530 - from S/N 161528 up to S/N 161531 incl. / S/N 161534 / S/N 161535 / S/N 161537 / S/N 161542 / S/N 161558 / S/N 161560 / S/N 161567 / S/N 161568 / S/N 161570 / from S/N 161937 up to S/N 161939 / from S/N 161941 up to S/N 161951 incl. / from S/N 161953 up to S/N 161980 incl. / from S/N 161982 up to 161989 incl. / from S/N 161992 up to S/N 162042 incl. / from S/N 162044 up to S/N 162051 incl. / from S/N 162053 up to S/N 162055 incl. / from S/N 162235 up to S/N 162250 incl. / from S/N 162252 up to S/N 162275 incl. / from S/N 162277 up to S/N 162282 incl. / S/N 162294 / S/N 162298
	2/4	Part no. 892535 - S/N 161583 / from S/N 161585 up to S/N 161587 incl. / from S/N 161837 up to S/N 161868 incl. / from S/N 161870 up to S/N 161873 incl. / from S/N 161875 up to S/N 161919 incl. / from S/N 161921 up to S/N 161936 incl. / from 162102 up to S/N 162120 / from S/N 162122 up to S/N 162143 incl. / S/N 162145 / S/N 162146 / from S/N 162400 up to S/N 162411 incl. / from S/N 162413 up to S/N 162430 incl. / from S/N 162432 up to S/N 162435 incl. / from S/N 162437 up to S/N 162440 incl. / S/N 162442 / S/N 162444 / S/N 162445 / S/N 162449 / S/N 162450

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914 F	1/3	Part no. 892520 - from S/N 161412 up to S/N 161426 / S/N 161428 / S/N 161430 / from S/N 161637 up to S/N 161662 / from S/N 161664 up to S/N 161680 incl. / from S/N 161800 up to S/N 161814 / from S/N 161816 up to S/N 161819 incl. / from S/N 161821 up to S/N 161824 incl. / from S/N 161826 up to S/N 161829 incl. / from S/N 161834 up to S/N 161836 incl.
	2/4	Part no. 892525 - from S/N 161681 up to S/N 161700 / from S/N 161702 up to S/N 161706 incl. / S/N 161708 / S/N 161709 / from S/N 161711 up to S/N 161730 incl. / from S/N 161733 up to S/N 161736 / from S/N 161739 up to S/N 161761 incl. / S/N 161765 / S/N 161768 / S/N 161773 / S/N 161774 / S/N 161777 / S/N 161779

### Criterion C) Spare parts:

Further all engines are affected, which have been equipped with floats with the part no. 861185 during engine repair, maintenance or general overhaul as of May 09, 2016.

NOTE: The carburetor and/or the float may have been removed from the initial engine and used on another one.  
Engines and/or carburetors with serial numbers higher than in criterion A or B have already been equipped with tested floats.  
For relevant information, see the maintenance records and/or the logbook.

### 1.2) Concurrent ASB/SB/SI and SL

In addition to this Alert Service Bulletin the following Service Instruction must be observed and complied with:

- Service Instruction-SI-912-021/SI-914-023, „Inspection of carburetors“, current issue.

### 1.3) Reason

Due to a deviation in the manufacturing process of the floats a partial separation of the outer skin because of resonance vibrations during engine operation may occur. These separated particles might lead to a restriction of the jets in the carburetor. As a consequence the fuel supply to the affected cylinder bank may be reduced or blocked. Possible effects are a rough engine running behavior with reduced fuel flow, up to a major power loss or engine shut down with blocked fuel flow on the affected carburetor.

### 1.4) Subject

Exchange of floats on ROTAX® engine type 912 and 914 (Series).

### 1.5) Compliance

- Before the next flight
- Immediately, on undelivered engines / spare parts
- Before the initial installation of engine and/or spare part



**WARNING**

Non-compliance with these instructions could result in engine damages, personal injuries or even fatal injury.

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### 1.6) Approval

The technical content of this document is approved under the authority of DOA ref. EASA.21J.048.

### 1.7) Labor time

Estimated labor time:

- engine installed in the aircraft: labor time will depend on installation and therefore no estimate is available from the engine manufacturer

### 1.8) Mass data

change of weight - - none.

moment of inertia- - - unaffected.

### 1.9) Electrical load data

no change

### 1.10) Software accomplishment summary

no change

### 1.11) References

In addition to this technical information refer to current issue of

- Maintenance Manual (MM) Heavy
- Maintenance Manual (MM) Line

NOTE: The status of manuals can be determined by checking the table of amendments of the Manual. The 1<sup>st</sup> column of this table shows the revision status. Compare this number to the one listed on the ROTAX® WebSite: [www.FLYROTAX.com](http://www.FLYROTAX.com). Updates and current revisions can be downloaded for free.

### 1.12) Other Publications affected

none

### 1.13) Interchangeability of parts

- All affected parts cannot further be used and have to be returned F.O.B to ROTAX® Authorized Distributors or their independent Service Centers.

## 2) Material Information

### 2.1) Material- cost and availability

Price and availability will be provided on request by ROTAX® Authorized Distributors or their independent Service Centers.

### 2.2) Company support information

- Any possible support from BRP-Rotax will be provided on request by ROTAX® Authorized Distributors or their independent Service Centers.
- Replaced parts must be returned F.O.B to ROTAX® Authorized Distributors or their independent Service Centers.

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- Shipping costs, downtime costs, loss of income, telephone costs etc. or costs of conversion to other engine versions or additional work, as for instance simultaneous engine overhauls, are not covered in this scope and will not be borne or reimbursed by ROTAX®.

### 2.3) Material requirement per engine

Parts requirement for exchanging the floats and for restoring the initial configuration:

NOTE: Use only parts indicated in the following table.

Parts requirement for replacement of the floats:

Part no.	Qty /engine	Description	Application
861185	2	Float (pair), guided	Engine type 912/914, 2-stroke Series
830724	2	Gasket	Float chamber 912 Series
830720	2	Gasket	Float chamber 2-stroke Series
830728	2	Gasket	Float chamber 914 Series
631771	2	O-ring 15.6x1.78	Attachment screw 914 Series

### 2.4) Material requirement per spare part

none

### 2.5) Rework of parts

none

### 2.6) Special tooling/lubricant-/adhesives-/sealing compound

none

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### 3) Accomplishment/Instructions

NOTE: Before maintenance, review the entire documentation to make sure you have a complete understanding of the procedure and requirements.

#### Accomplishment

All measures must be implemented and confirmed by at least one of the following persons or organizations:

- ROTAX® - Distributors or their independent Service Centers
- Persons with approved qualifications for the corresponding engine type. Only certified technicians (iRMT-Level: Line Maintenance) are qualified to work on these engines.

NOTE: All work has to be performed in accordance with the relevant Maintenance Manual.

#### 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 equipment while performing work.

#### 3.1) General

Adhere to the installation instructions defined in the ROTAX® Installation Manual regarding the carburetor venting or purging and the drip tray.

#### NOTICE

Do not modify the floats!  
Should removal of a locking device (e.g. lock tabs, self-locking fasteners, etc.) be required during disassembly/assembly, always replace with a new one.

Step	Procedure
1	Check the criteria given on page 2, section 1.1, if the aircraft /engine/spare part is affected by this ASB.
2	Check the engine logbook and maintenance documentation, if this ASB has already been accomplished.

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### 3.2) Removal of float chamber

See Fig. 1.

Preparation for dismantling the float chamber according to the installation instructions of the aircraft manufacturer.

Step	Procedure
1	Remove drip tray (1), if installed.
2	Visual inspection of the carburetor and its mechanical actuation.
3	Remove spring clip (5) or for ROTAX 914 Series remove safety wire, loosen cap screw (6) and remove with O-ring (7).
4	Remove float chamber (3), gasket (4) and the two floats (2)

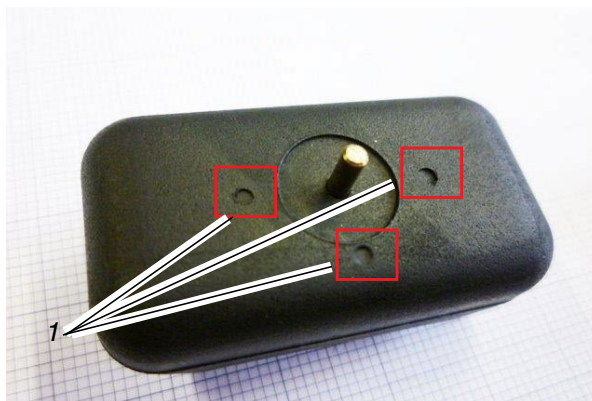
NOTE: In case of contaminations of the float chambers first the cause must be found and the relevant measures need to be taken. Possibly the whole fuel system including carburetors needs to be cleaned and checked.

### 3.3) Exchange of the floats

- Exchange of the floats must be carried out according to the latest Maintenance Manual (Heavy).
- All floats, which are defined in section 1.1) must be replaced without exception.

NOTE: Floats with serial numbers not contained in the serial number range listed in this document do NOT require exchange.

NOTE: Floats with 3 dots have already been checked for the characteristics described in chapter 1.3) and therefore do NOT require replacement.



1 Dots

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NOTE: These dots have no effect on the function of the floats.

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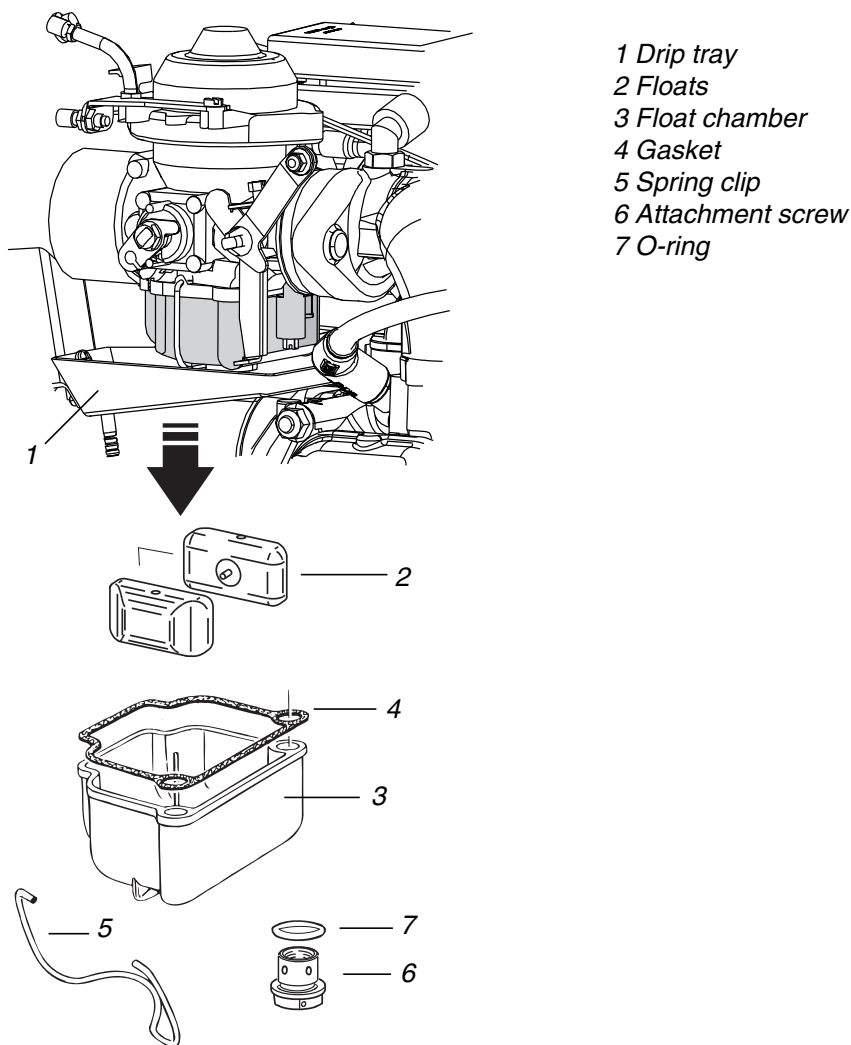
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### 3.4) Installation of float chamber

See Fig. 1.

Step	Procedure
1	Renew the gasket (4) of the float chamber and for ROTAX 914 Series exchange the O-ring (7).
2	Install float chamber (3) with gasket (4) and both floats (2).
3	Close spring clip (5) or for ROTAX 914 Series install the attachment screw (6) including O-Ring (7). Tightening torque of attachment screw 5.5 Nm (48.7 in.lb). Apply safety wire.
4	Install drip tray (1) and/or accessories according to the instructions of the aircraft manufacturer.

Fig. 1





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### 3.5) Finishing work

- Restore aircraft to original operating configuration according to the instructions of the aircraft manufacturer.
- Connect negative terminal of aircraft battery.

### 3.6) Test run

Conduct test run. See also chapter 12-20-00 current issue of Maintenance Manual Line of the respective engine type.

### 3.7) Summary

These instructions (section 3) have to be followed in accordance with the deadlines given in section 1.5. The execution of this Alert Service Bulletin must be confirmed in the log-book.

Approval of translation to best knowledge and judgement-in any case the original text in English language and the metric units (SI-system) are authoritative.

### 3.8) Enquiries

Enquiries regarding this Alert Service Bulletin should be sent to the ROTAX® authorized distributor of your area. A list of all distributors is provided on [www.FLYROTAX.com](http://www.FLYROTAX.com).

**NOTE:** The illustrations in this document show a typical construction. They may not represent full detail or the exact shape of the actual parts but have the same or similar function.

Exploded views are **no technical drawings** and are for reference only. For specific detail, refer to the current documents of the respective engine type.