

# SERVICE INSTRUCTION

## AIRFILTER

### FOR ROTAX® ENGINE TYPE 912 (SERIES) AND 2-STROKE UL-AIRCRAFT ENGINES

SI-912-017

SI-2ST-006

#### Repeating symbols:

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

▲ **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 engine or could lead to suspension of warranty.

◆ **NOTE:** Information useful for better handling.

#### 1) Planning information

##### 1.1) Engines affected

All versions of the engine type:

- 912 Series
- 2-stroke UL-engines

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

none

##### 1.3) Reason

- Directives for correct installation of the airfilter

##### 1.4) Subject

Airfilter for ROTAX® Engine Type 912 (Series) and 2-stroke UL-aircraft engines.

##### 1.5) Compliance

NONE

##### 1.6) Approval

The technical content is approved under the authority of DOA No. EASA.21J.048.

##### 1.7) Manpower

Estimated man-hours:

engine installed in the aircraft - - - manpower 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

- Illustrated Parts Catalog (IPC)
- Installation Manual (IM)
- Maintenance Manual (MM)

◆ 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 is the revision status. Compare this number to that listed on the ROTAX WebSite: [www.rotax-aircraft-engines.com](http://www.rotax-aircraft-engines.com). Updates and current revisions can be downloaded for free.

### 1.12) Other publications affected

The following documentations must be replaced as a consequence of this Service Instructions and will become invalid therefore.

Description	p/n	Issue	Date	Rev.	Chapter	Page
SI-07-1995	-		Feb. 1999	1		

### 1.13) Interchangeability of parts

none

## 2) Material Information

### 2.1) Material - cost and availability

Price and availability will be supplied on request by ROTAX<sup>®</sup> Authorized Distributors or their Service Center.

### 2.2) Company support information

none

### 2.3) Material requirement per engine

parts requirement:

See table section 4 fig. 1

### 2.4) Material requirement per spare part

none

### 2.5) Rework of parts

none

### 2.6) Special tooling/lubricant-/adhesives-/sealing compound - Price and availability

none

### 3) Accomplishment/Instructions

#### Accomplishment

All the measures must be taken and confirmed by the following persons or facilities:

- ROTAX<sup>®</sup> -Airworthiness representative
- ROTAX<sup>®</sup> -Distributors or their Service Centers
- Persons approved by the respective Aviation Authority

▲ **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.

▲ **WARNING:** Should removal of a locking device (e.g. lock tabs, self-locking fasteners, etc.) be required when undergoing disassembly/assembly, always replace with a new one.

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

#### 3.1) General

Outline dimensions of the actual generation of air filters differ only slightly from the previous type, thus no fitting problems should arise at replacement for the new type.

For dimensions of safety wire tab see fig. 4. The significant modifications of the new air filter are the tab for safety wiring (1) and the warning note (2).

◆ **NOTE:** Fig. 2 shows single airfilter, part no. 825551.

##### 3.1.1) Securing tab (1)

This securing tab is reinforced by an inner metal part and is therefore adequately protected against cracks and fractures.

◆ **NOTE:** The securing tab provides the aircraft manufacturer with a simple method of securing the air filter. See fig. 4.

As points of attachment on the carburetor we recommend the cast fin (3) which can be furnished with an approx. 2 mm dia. hole.

■ **CAUTION:** When carrying out this work pay attention to generally valid safety directives and prevent any contamination of the carburetor.

▲ **WARNING:** All parts liable to become loose have to be secured.

##### 3.1.2) Warning note (2)

This note serves as advice and request to secure the air filter adequately against loss without fail

#### 3.2) Application

In the table (fig. 1) find which airfilter is suitable for which engine.

### 3.3) Position notes

For symmetric airfilters normally a restriction of feasible position is not necessary.

- CAUTION: For unsymmetric filters like part no. 825711 incorrect installation may lead to problems in fuel distribution and may damage the engine. Thus it is necessary to check the feasible position of the airfilter.

#### 3.1.1) Position notes for airfilter part no. 825711 on engine type 912 Series

a) Visual inspection of the airfilter to check for damage and contamination.

b) Install the airfilter in accordance with airfilter manufacturers specifications.

- CAUTION: Check to feasible position and location of the airfilter part no. 825711 when installing at engine type 912 Series. See fig. 3.

##### **Allowed position:**

Vertical over (fitting position 1) or under (fitting position 2) the airfilter midpoint.

##### **Not allowed position:**

From the airfilter midpoint to the side left or right (fitting position 3, 4).

- ▲ WARNING: Airfilter must be lockwired to prevent loosening on the assigned lug. See fig. 4.

c) Install lockwire.

#### 3.1.2) Position notes airfilter 2 stroke UL-engine type

See current Installation Manual.

- ▲ WARNING: Observe and follow all specifications regarding **attachment** and **cleaning of airfilters**.

▲ WARNING: Non-compliance with these recommendations could cause engine damage and personal injury.

- Restore aircraft to original operating configuration.
- Connect negative terminal of aircraft battery.

### 3.2) Test run

Conduct test run including ignition check and leakage test in accordance with the current Maintenance Manual of the respective engine type.

### 3.3) Summary

These instructions (section 3) have to be conducted in accordance with compliance in section 1.5.

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

#### 4) Appendix

The following drawings should convey additional information:

identification	new part no.	Qty/engine	old part no.	application
Single air filter	825711	2	825710	912 Series
Single air filter	825551	2 1*	825550	912 Series, 2 stroke UL engine
Single air filter	825511	1	825510	2 stroke UL engine (configuration intake silencer)
Double air filter	825721	1	825720	503 UL
Double air filter	825723	1	825722	582 UL, 618 UL (only configuration with oil pump)

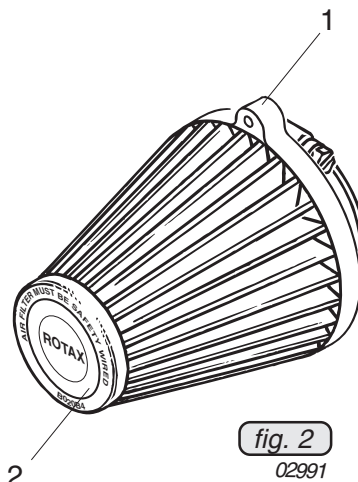


fig. 2  
02991

\* depending on engine type

fig. 1

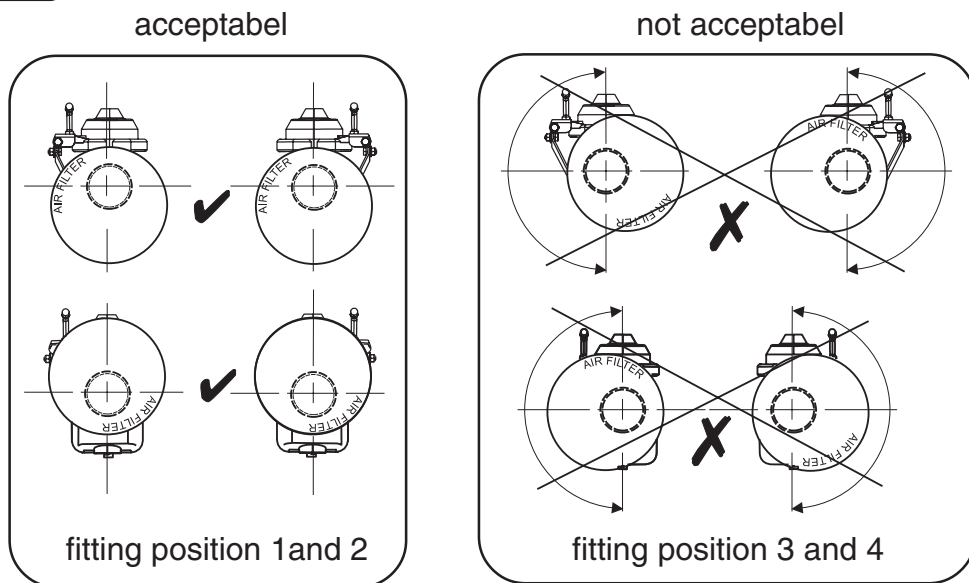


fig. 3  
07823

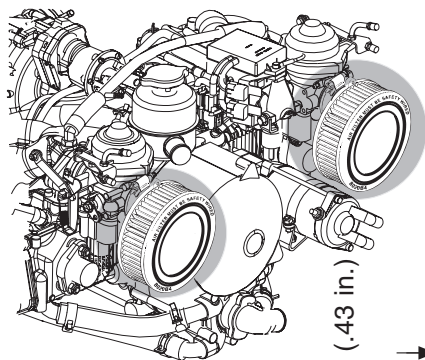


fig. 4

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◆ NOTE:

The illustrations in this document show the typical construction. They may not represent full detail or the exact shape of the parts which 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.