ROTAX®
AIRCRAFT ENGINES

SERVICE BULLETIN

USE OF THE ROTAX® SUPPLIED AIRBOX FOR ALL ROTAX® ENGINE TYPES 912 A / F (SERIES)
SB-912-044

OPTIONAL

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 A all
- 912 F all

if they are to be operated or retrofitted with the original ROTAX® airbox part no. 867756.

◆ NOTE: Engine types 912 S are not affected, as the airbox has been available for these types since the beginning of serial production.

1.2) Concurrent ASB/SB/SI and SL

None

1.3) Reason

Standardization of the engine type 912 Series.

1.4) Subject

Use of the ROTAX® supplied airbox for all ROTAX® engine type 912 (Series).

1.5) Compliance

Optional if retrofitting is being done.

1.6) Approval

The technical content is approved under the authority of DOA Nr. EASA.21J.048.

1.7) Manpower

Estimated man-hours:

Engine installed in the aircraft - - -manpower time will depend on installation and thus, no estimate is available from the engine manufacturer.

1.8) Mass data

Change of weight - - - approx. 1.3 kg (2.87 lb).

Moment of inertia - - - negligible affect.

1.9) Electrical load data

No change

1.10) Software accomplishment summary

No change

d03344

1.11) References

In addition to this technical information refer to current issue of

- Operator's Manual (OM)
- Illustrated Parts Catalog (IPC)
- Installation Manual (IM)
- all relevant Service Bulletins (SB)
- Maintenance Manual (MM)

1.12) Other publications affected

None

1.13) Interchangeability of parts

Not affected

2) Material Information

2.1) Material - cost and availability

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

2.2) Company support information

None

2.3) Material requirement per engine

For the optional retrofitting of the original ROTAX® airbox part no. 867756, the following parts are necessary.

Parts requirement:

Fig.no.	New part no.	Qty/engine	Description	Old part no.	Application
	867756	1	airbox assy.		ROTAX® 912
consisting of:					
-	-	1	airbox assy. with drip trays		ROTAX® 912
-	851060	4	hose clamp 60	-	Airbox
-	851370	4	clamp 8	-	carb. ventilation
-	853010	1	cable clamp 32/M6	-	Engine suspension frame
-	860660	200 mm	hose 4x7	-	Airbox
-	860660	200 mm	hose 4x7	-	Airbox
-	860982	2	vent hose 35 mm	-	carb. ventilation
-	960150	1	rubber buffer 20x15xM6	-	Airbox
-	927941	1	washer 6.0/12/1	-	Airbox
-	842040	1	lock nut DIN 985-M6	-	Airbox

■ CAUTION: For engines of type 912 A/F, the CD carburetor 1/3 part no. 888804 and CD carburetor 2/4 part no. 888809 must be used or the existing carburetors must be retrofitted to main jet 155 part no. 268984. See chapter 3.1.2).

2.4) Material requirement per spare part

The drip trays including attachment material are also available under part no. 874680 as a spare part.

2.5) Rework of parts

None

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

Price and availability

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

Parts requirement:

Fig.no.	part no.	Qty/engine	Description	Old part no.	Application
-	899785	as required	LOCTITE® 221		Airbox

3) Accomplishment / Instructions

Accomplishment

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

- ROTAX® -Airworthiness representative
- ROTAX® -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: Perform work on a cold engine only.

▲ WARNING: Should removal of a locking device (namely lock tabs, self-locking fasteners) 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) Instructions

3.1.1) Dissassembly of any aircraft-specific air intake systems or filters

- Loosen the clamps on the air filters and remove the filters.
- Refer to the aircraft manufacturer's instructions to remove any aircraft-specific air intake systems.

3.1.2) Changes to the carburetor jetting and adjustment. See chapter 2.3).

(see fig. 1 and 2)

- Replace the existing main jet 158 (1) of carburetors 1/3 and 2/4 with a main jet 155 (1); refer to the applicable Maintenance Manual.
- Do the modification of the main jet (1) and thus change the model phase by applying the BING designation of type 64/32/416 B= carburetors 1/3 part no. 888804, 64/32/417 B= carburetors 2/4 part no. 888809 to the carburetor housing(3). Cross out the existing BING designation of type.
- Adjust the jet needle position (2) of carburetors 1/3 and 2/4 to position 3; refer to the applicable Maintenance Manual.

■ CAUTION: The jet needle position described above is the basic adjustment for the airbox part no. 867756.

3.1.3) Pre-installation

(see fig. 3 - 5)

◆ NOTE: The airbox has been factory pre-assembled as far as possible.
(see fig. 4 and fig. 5, drawing shows asymmetrical drop troys)

- Attach the two symmetrical drip trays (5) to the drip tray holder with hex. screws M5x12 (6) and washer and nut M5 (7).

3.1.4) Attaching to engine

- Put pre-assembled airbox (4) in position with the connection tubes (8) and 2 hose clamps (9) each as far as they go on the connections of the carburetor (10). Afterwards adjust airbox such that it is positioned parallel to the engine suspension frame/ignition housing and is level. Attach the airbox with the 2 hose clamps (9).
- Slightly coat threads of rubber buffer (11) with LOCTITE 221 film and screw into airbox at the front. Tightening torque 3 Nm (27 in.lb.)
- Slide cable clamp (12) on engine suspension frame and connect to rubber buffer (11) of airbox. Screw on lock nut (13) with washer (14).

■ CAUTION: If original ROTAX® engine suspension frames are not used, a suitable support of the airbox must be installed.

- Slide vent hose (15) onto the float chamber ventilation connections of both carburetors as far as they will go and attach with clamps (16). The other end of the hose is to be connected to the air fittings (17) on the airbox.

◆ NOTE: Make sure that the air connections of the airbox are correctly connected for fresh air and pre-heated air. (see fig. 4)

- 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.

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

4) Appendix

The following drawings should provide additional information:

fig. 1
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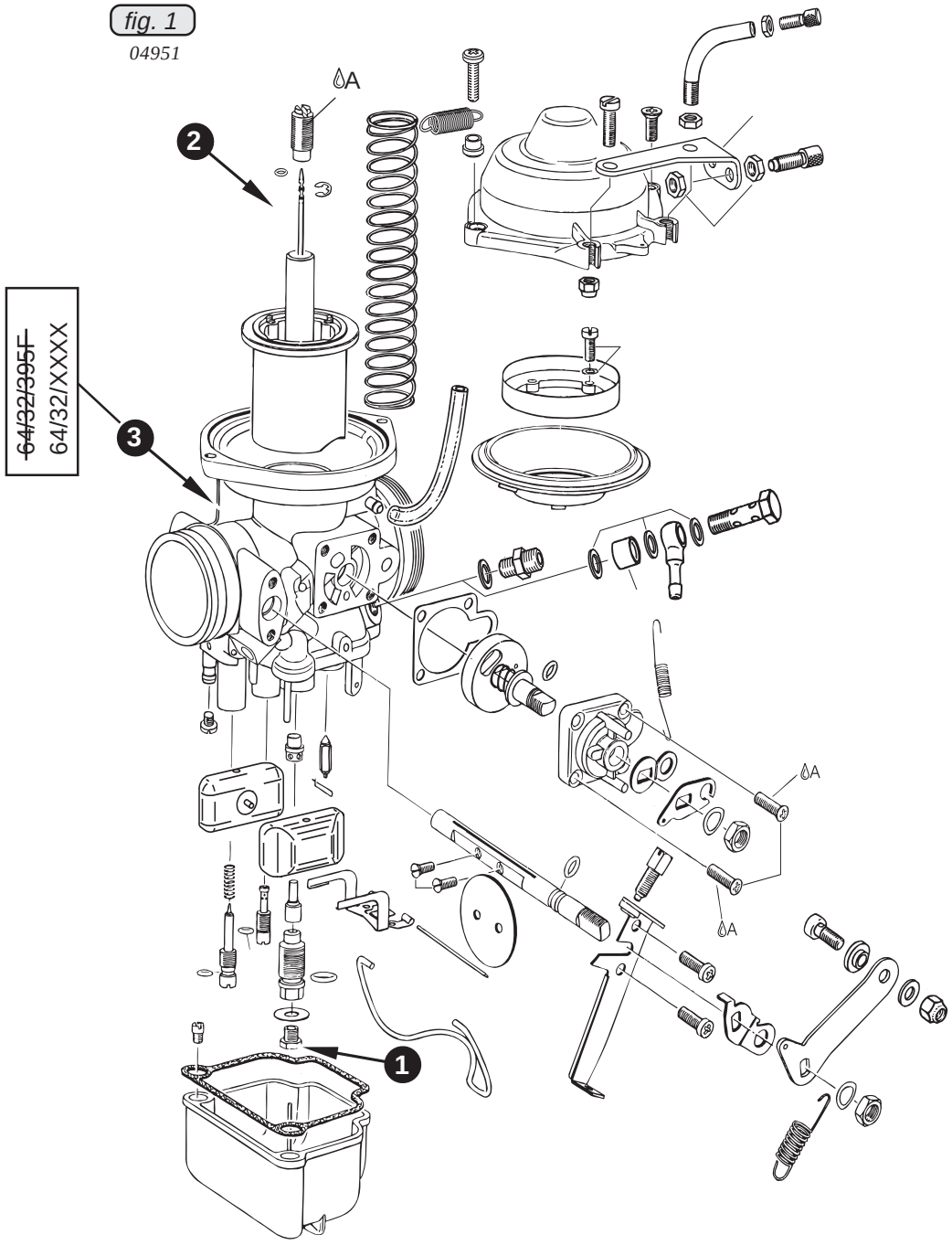
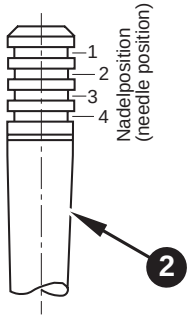


fig. 2
00033



A: LOCTITE 221

fig. 3

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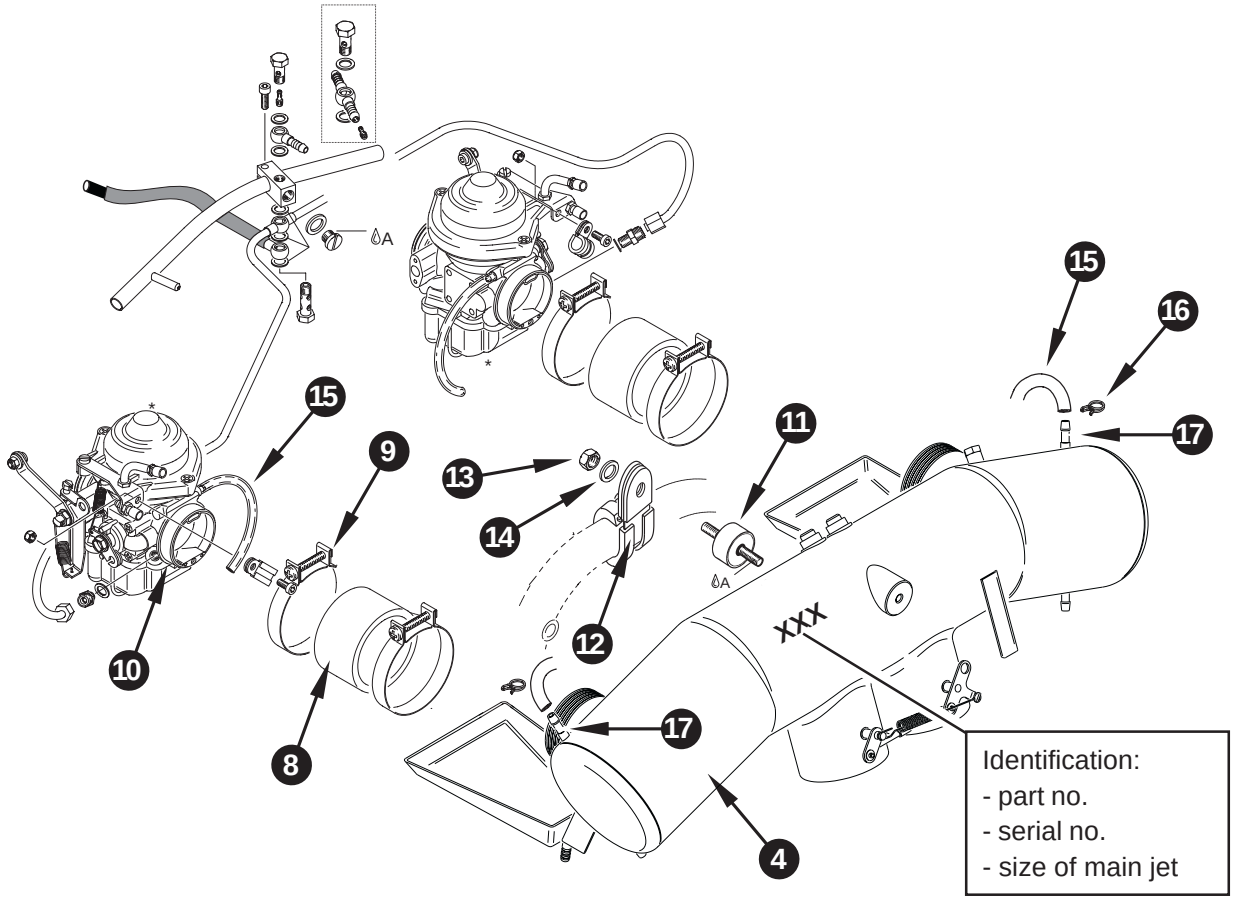


fig. 4

05896

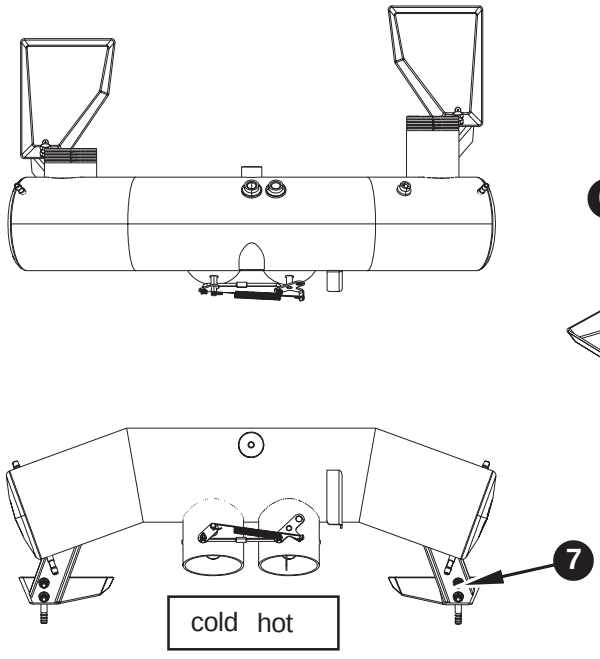
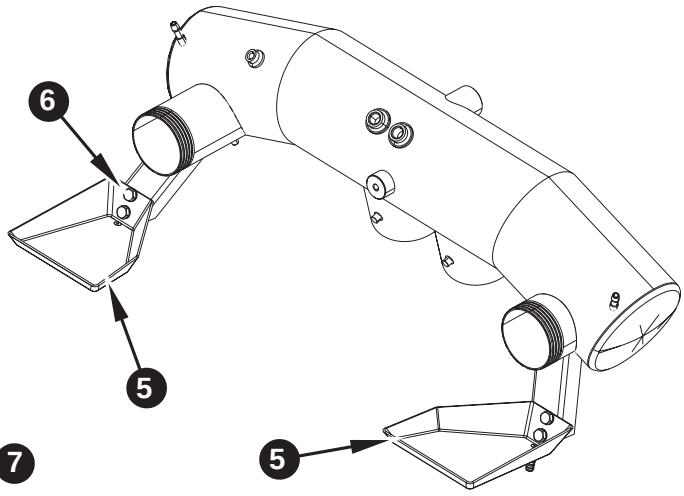


fig. 5

05895



A: LOCTITE 221

◆ 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 **not technical** drawings and are for reference only. For specific detail, refer to the current documents of the respective engine type.