

ROTAX

AIRCRAFT ENGINES

SERVICE BULLETIN

INSPECTION OR REPLACEMENT OF ENGINE SUSPENSION FRAME PART NO. 886567 ON ROTAX® ENGINE TYPE 912 AND 914 (SERIES)

MANDATORYSB-912-028 R1SB-914-016 R1

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 (Series) to S/N 4,410.578
- 912 F (Series) to S/N 4,412.836
- 912 S (Series) to S/N 4,922.907
- 914 F (Series) to S/N 4,420.377

if they are equipped with the genuine ROTAX® engine suspension frame part no. 886567. In case of doubt contact your aircraft manufacturer.

On engines with S/N higher than the listed ones the engines suspension frame part no. 886568 was already fitted in serial production.

1.2) Concurrent ASB/SB/SI and SL

none

1.3) Reasons

One or more of the following could result in formation of cracks on the engine suspension frame part no. 886567:

- Unapproved and untested modifications
- Improper carburetor synchronization
- Unsuitable ideal speed (too low)
- Unsuitable engine suspension / non-neutralized vibrations
- Propeller balance out of tolerance
- Friction torque in the backlash range of gearbox not within tolerance
- Lack of maintenance
- Ground contact

Vibrations, impacts, forces etc. could cause cracks on the engine suspension frame part no. 886567.

▲ **WARNING:** Rectify any of the aforementioned without delay.

1.4) Subject

Inspection or replacement of engine suspension frame part no. 886567.

1.5) Compliance

- Every 100 hours of operation inspect the engine suspension frame as per the following instructions section 3, if the engine is equipped with the genuine ROTAX® engine suspension frame part no. 886567

1.6) Approval

The technical content of this Service Bulletin is approved by ACG.

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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)
- Maintenance Manual (MM)

1.12) Other publications affected

none

1.13) Interchangeability of parts

At exchange take care of the following:

- If necessary, remove the engine suspension frame as per the following instructions and send it to a ROTAX[®] Authorized Distributor or Service Center.

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

- Exchanged parts must be returned to an ROTAX[®] Authorized Distributor or Service Center.
- The damaging or costs incurred, namely with respect to shipping costs, down time, loss of income, telephone costs or costs of conversion to other engine versions or any additional work, including simultaneous overhaul, are not covered in this scope and will not be borne or reimbursed by ROTAX[®].

2.3) Material requirement per engine

For the replacement of the engine suspension frame the following parts are required:

- ◆ NOTE: The new parts volume is only necessary if cracks have been detected in the engine suspension frame.

Fig. item no	New part no	Qty per engine	Description	Old part no	application
	886568	1	engine suspension frame assy.	886567	ROTAX [®] 912 / 914
	-	1	Allen screw M10x110	941487	engine suspension frame
	-	4	lock washer	945753	engine suspension frame
	-	3 / 1	Allen screw M10x35	840947	engine suspension frame 912 / 914
	-	NB	thrust washer 10.1/20/0,5	927952	engine suspension frame
	-	NB	thrust washer 10.1/20/1,0	927953	engine suspension frame
	-	2	Allen screw M10x50	640572	engine suspension frame 914
	-	2	washer 10,5	927410	engine suspension frame

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[®] -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:** Carry out 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) Verification of the engine suspension frame part no. 886567:

see fig. 1

- Inspect the engine suspension frame assy. in accordance with the relevant Maintenance Manual 914 F. This also applies to ROTAX[®] 912 engines.

◆ **NOTE:** The current documentation (current issue) are available at any authorized ROTAX[®] distributor or their Service Centers in printed version or at the ROTAX[®] AIRCRAFT ENGINES Homepage

www.rotax-aircraft-engines.com

in electronic version.

◆ **NOTE:** Inspect the welding connections of circular tubing (1) and the struts (2) of the suspension frame. See fig. 1.

- If cracks are detected replace the engine suspension frame in accordance to specification of the airframe manufacturer and install the engine suspension frame part no. 886568. This also applies to ROTAX[®] 914 engines in accordance with the relevant Maintenance Manual 914 F.

◆ **NOTE:** If absolutely necessary, and if only one of the circular tube or struts are cracked by not more than 50%, a ferry flight is permitted. A complete fracture replacement without delay is necessary.

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

3.2) Test run (if maintenance work has been carried out)

Conduct test run including ignition check and leakage test.

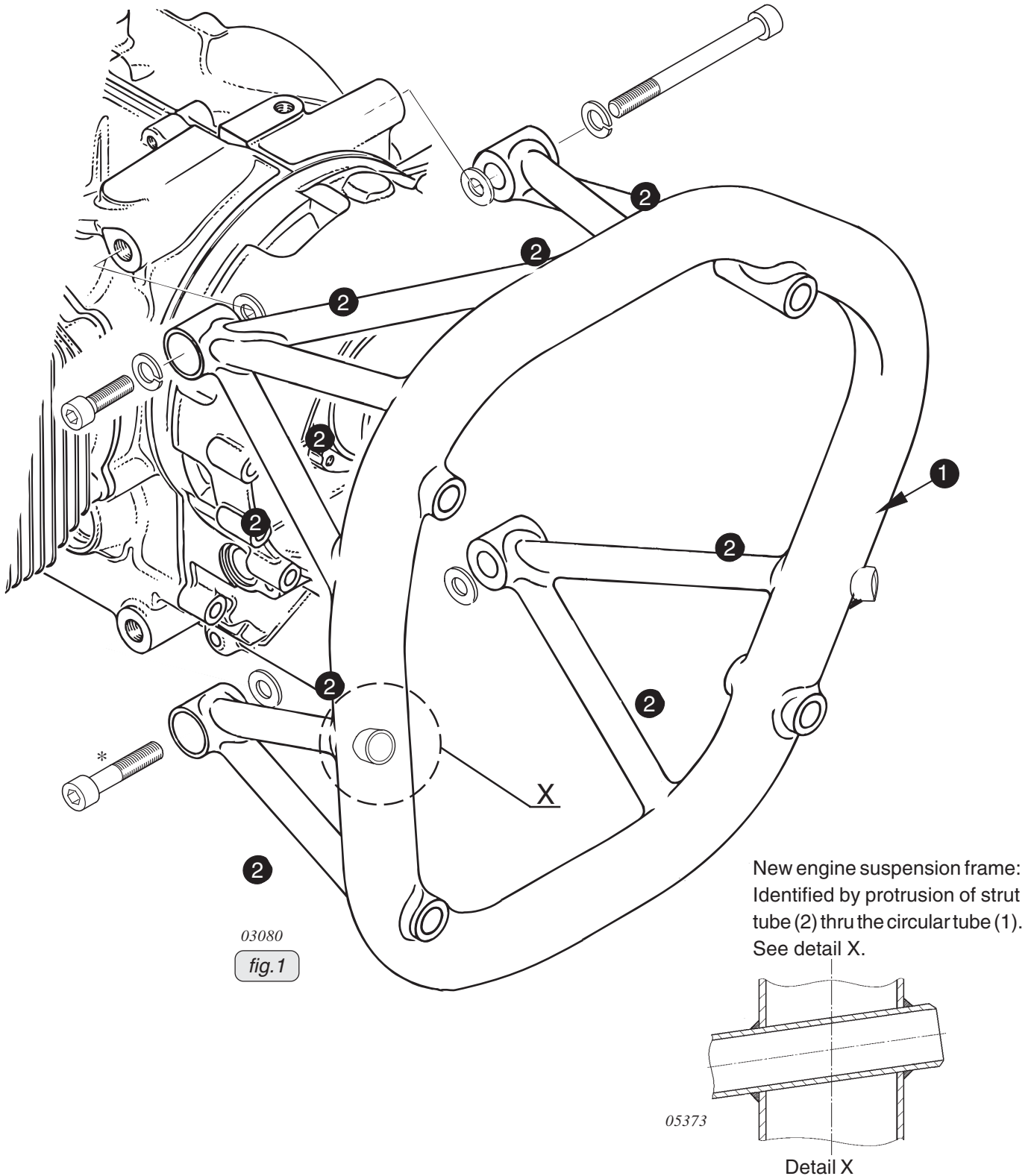
3.3) Summary

These instructions (section 3) have to be conducted in compliance with 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:



◆ 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.