

# SERVICE BULLETIN

## REPLACEMENT

### OF OIL PUMP ASSY. OR OIL PUMP SHAFT ASSY.

### ON ROTAX® ENGINE TYPE 912 A (SERIES)

### SB-912-032

## MANDATORY

### 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:

##### **Group A)**

912 A (Series) from S/N 3,792.551 to S/N 3,792.943

##### **Group B)**

912 A (Series) from S/N 3,792.944 to S/N 4,076.067

◆ **NOTE:** Engines listed in Group A and B may not be affected, if they have already been modified during an engine repair/general overhaul and are equipped with the new oil pump or new oil pump shaft and show following amendment status:  
amendment no. 32-07 and/or  
amendment no. 36-09

Following engines were already modified during an engine repair/general overhaul and are not affected:

3,792.541 / 3,792.605 / 3,792.661 / 3,792.679 / 3,792.701 / 3,792.794 / 3,792.796 / 3,792.876 / 3,792.896 /  
3,792.897 / 3,792.899 / 3,792.956 / 3,792.991 / 4,005.013 / 4,005.016 / 4,005.017 / 4,005.050 / 4,005.062 /  
4,005.082 / 4,005.083 / 4,005.134 / 4,005.158 / 4,005.159 / 4,005.160 / 4,005.194 / 4,005.209 / 4,076.008 /  
4,076.011 / 4,076.014 / 4,076.019 / 4,076.023 / 4,076.034 / 4,076.037 / 4,076.043 / 4,076.045 / 4,076.046 /  
4,076.056 / 4,076.065 / 4,076.066

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

Further to this Service Bulletin the following additional Service Instructions must be observed and complied with:

- Service Instruction SI-20-1994 Lubrication system for all ROTAX engines 912, latest issue.
- Service Instruction SI-04-1997 Venting of lubrication system, latest issue.

#### 1.3) Reason

In isolated cases traces of wear on the dowel sleeve of the oil pump shaft were noticed.

#### 1.4) Subject

Replacement of oil pump assy. (group A) or oil pump shaft assy. (group B) on ROTAX® engine type 912 A (series)

### **1.5) Compliance**

- at the next 100<sup>h</sup>-check

but at the latest by February 1<sup>st</sup> 2002 a „Replacement of oil pump assy. or oil pump shaft assy.“ must be conducted according to the following instructions in section 3.

### **1.6) Approval**

The technical content of this Service Bulletin has been approved by ACG.

### **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

- Operator's Manual (OM)
- Illustrated Parts Catalog (IPC)
- Maintenance Manual (MM)

### **1.12) Other publications affected**

none

### **1.13) Interchangeability of parts**

At replacement take care of the following:

- The oil pump assy. or the oil pump shaft assy. must be removed according to the following instructions if necessary and must be returned to a ROTAX<sup>®</sup> Authorized Distributor or Service Center.

## 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

- Shipping cost, down time, loss of income, telephone costs etc. or cost of conversion to other engine versions or additional work, as for instance simultaneous engine overhaul is not covered in this scope and will not be borne or reimbursed by ROTAX<sup>®</sup>.

### 2.3) Material requirement per engine

◆ NOTE: For relevant amendment numbers of following parts see the JAA Form One Authorized Release Certificate.

#### Group A)

For replacement of the oil pump assy. following material requirement is necessary:

◆ NOTE: The new parts volume is only necessary if the oil pump assy. has not been modified yet.

<u>Fig.no.</u>	<u>New p/n</u>	<u>Qty/engine</u>	<u>Description</u>	<u>Old p/n</u>	<u>Application</u>
	889 590	1	oil pump assy.		ROTAX <sup>®</sup> 912
consisting of:					
	810 805	1	oil pump housing assy.		oil pump assy.
	432 680	1	ball		oil pump assy.
	838 122	1	pressure spring		oil pump assy.
	227 055	NB	shim 8,2x1,5		oil pump assy.
	841 981	1	plug screw		oil pump assy.
	924 420	1	oil filter nipple		oil pump assy.
	825 701	1	oil filter		oil pump assy.
	840 449	1	hose nipple		oil pump assy.
	837 129	1	oil pump shaft assy.		oil pump assy.
	232 730	3	needle pin		oil pump assy.
	956 277	1	suction inner and outer rotor		oil pump assy.
	430 405	1	o-ring 57x3		oil pump assy.
	911 711	1	oil pump cover		oil pump assy.
	950 410	1	o-ring 30x2,5		oil pump assy.
	250 460	2	o-ring 11x2,7		oil pump assy.
	945 751	4	lock washer		oil pump assy.
	241 761	4	allen screw M6x50		oil pump assy.
	230 150	2	gasket ring		oil pump assy.

#### Group B)

For replacement of the oil pump shaft assy. following material requirement is necessary:

◆ NOTE: The new parts volume is only necessary if the oil pump shaft assy. has not been modified yet.

<u>Fig.no.</u>	<u>New p/n</u>	<u>Qty/engine</u>	<u>Description</u>	<u>Old p/n</u>	<u>Application</u>
	837 129	1	oil pump shaft assy.		ROTAX <sup>®</sup> 912

### 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:** Carry out work on a cold engine only.

▲ **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 current Maintenance Manual of the respective engine type.

#### 3.1) Checking of the oil pump shaft assy.:

see fig. 1

- Remove oil pump assy.
- Check if solid drive pin 5x26 (1) is installed. If the solid drive pin is already installed, the oil pump must be inspected for proper condition and oil pump assy. has to be reinstalled.

▲ **WARNING:** If the old style dowel sleeve is installed proceed as per section 3.2) or 3.3)

#### 3.2) Replacement of oil pump assy. (only group A):

- Remove old oil pump assy.
- Install new oil pump assy. p/n 889 590.

#### 3.3) Replacement of oil pump shaft assy. (only group B):

see fig. 1

- Remove oil pump.
- Inspect oil pump for proper condition.
- Remove oil pump shaft with dowel sleeve 5x28 (1) and install oil pump shaft with solid drive pin 5x26 (2) p/n 837 129.
- Install oil pump.

#### 3.4) Venting of the lubrication system

- Vent lubrication system in accordance with the current Maintenance Manual of the respective engine type and the current Service Instruction SI-04-1997 „Venting of lubrication system“.

#### 3.5) Test run

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

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

#### 3.6) Summary

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

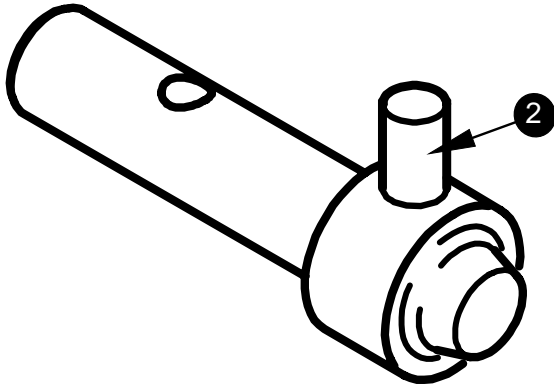
Approval of translation to best knowledge and judgement - in any case the original text in German language and the metric units (SI-system) are authoritative.

#### 4) Appendix

Following drawings should convey additional information:

### neu / new

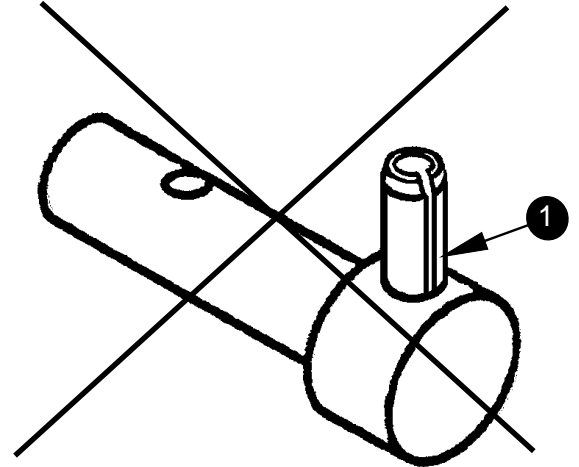
Ölpumpenwelle kpl. TNr. 837 129 mit eingepreßtem  
Kerbstift /  
oil pump shaft assy. p/n 837 129 with solid drive pin



05156

### alt / old

Ölpumpenwelle kpl. mit Spannhülse /  
oil pump shaft assy. with dowel sleeve



05152

Bild / Fig. 1

◆ NOTE: The new oil pump shaft p/n 837 129 is only supplied with solid drive pin.

◆ 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.