	Safety Alert	
	Flight Design GmbH Sielminger Str. 51 D-70771 L.-Echterdingen Tel.: +49(0)7021 80460-0 Fax: +49(0)7021 80460-69 E-Mail: airworthiness@flightdesign.com	SA-ASTM-CT2K-02; SA-ASTM-CTSW-04; SA-ASTM-CTLS-01; SA-ASTM-CTHL-01; SA-ASTM-MC__-01 Revision 02

Safety Alert

Checking of the Crankshaft Journal for ROTAX® Engine Type 912 and 914

**SA-ASTM-CT2K-02
 SA-ASTM-CTSW-04
 SA-ASTM-CTLS-01
 SA-ASTM-CTHL-01
 SA-ASTM-MC__-01**

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 aircraft or could lead to suspension of warranty.
- **Note:** Information useful for better handling.

1 Planning Information

1.1 Affected Aircraft

Type: CT and MC
 Model: CT2K; CTSW; CTLS; CTHL; MC
 Serial Number: Verification if the aircraft is equipped with an affected engine or spare part as per Rotax Alert SB [1]:


CT2K: All S/N;
 CTSW: All S/N up to S/N D-11-07-08 (inclusive);
 CTLS: All S/N up to S/N F-11-07-06 (inclusive);
 CTHL: All S/N up to S/N C-11-02-01 (inclusive);
 MC: All S/N up to S/N A-11-01-31 (inclusive).

Conduct of the referenced Rotax Alert SB [1]: Those S/N that are either equipped with an engine S/N identified as affected in [1], or that have received affected spare parts identified in [1].

Applicable Countries: Not limited

1.2 Concurrent Documents

Alert Service Bulletin ASB-912-059UL / ASB-914-042UL, Initial Issue, 15. November 2011 „Checking of the crankshaft journal (power take off side) for ROTAX® engine type 912 and 914 (series)” [1] (see documentation section of www.rotax-aircraft-engines.com)

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		Date of Initial Publication: 18-Nov-2011 Publication Date of this Revision: 28-Nov-2011	

1.3 Reason

According to the information from the engine manufacturer ROTAX: "Due to a deviation in the manufacturing process some crankshafts may have a crack formation occur on the power take off side. These cracks can cause a breakage of the crankshaft support and lead to engine stoppage."

1.4 Subject

Check of the crankshaft journal (power take off side) for ROTAX engine 912 and 914 (series) according to [1].

1.5 Compliance

According to [1]: Required before next flight, but at latest before 01 January 2012. The checking of crankshaft journal (power take off side) identified by the engine serial number (S/N) listed in section 1.1) of [1] must be conducted according to the instructions in section 3) of [1].

- **Note:** According to [1]: If a ferry flight is required, a magnetic plug check prior to next flight must be conducted (see latest applicable Rotax Maintenance Manual Line Chapter 12-20-00 Check of magnetic plug). If no deviation from normal operation (chips, excess metal filings) is found continued flight is allowed for max. 4 hours in operation, but at latest before 01. January 2012.
- **Note:** Flight Design is forwarding this information originated by the engine manufacturer by means of this SA. With this SA the Rotax Alert SB is set mandatory for engines installed in the listed Flight Design aircraft.
- ▲ **Warning:** Non-compliance with these instructions could result in further damages, personal injuries or death.

1.6 Approval

This SB is approved by the aircraft manufacturer i.a.w. ASTM F2483-05 for conduct on aircraft as defined in 1.1. Subsequent to complete and correct conduct of this SB the aircraft will still meet the requirements of the applicable ASTM design and performance specification.

1.7 Type of Maintenance


Heavy

1.8 Personnel Qualifications

- Identification if the aircraft is equipped with an affected engine or engine spare part: Owner / Operator.
- Conduct of the referenced Rotax Alert SB: Refer to [1], Section 3).

1.9 Release to Service

Conduct of this SA must be logged in the aircraft log book with date and signature of the responsible person according to the national regulations.

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1.10 Weight and Balance

Not applicable

1.11 References

Latest issues of:

- [1] Alert Service Bulletin ASB-912-059UL / ASB-914-042UL, Initial Issue 15. November 2011

1.12 Superseded Documents

This document supersedes:

- SA-ASTM-CT2K-02, Revision 01, Revision Date 23-Nov-2011;
- SA-ASTM-CTSW-04, Revision 01, Revision Date 23-Nov-2011;
- SA-ASTM-CTLS-01, Revision 01, Revision Date 23-Nov-2011;
- SA-ASTM-CTHL-01, Revision 01, Revision Date 23-Nov-2011;
- SA-ASTM-MC__-01, Revision 01, Revision Date 23-Nov-2011.

1.13 Contact Details

For further information on conduct of this SA, or to report any Safety of Flight or Service Difficulty issues contact your Distributor responsible for your country. Your Distributor can be located via the Flight Design website: www.flightdesign.com under "Dealer Location".

Specific contact in USA:

Flight Design USA
P.O. Box 325 South Woodstock, CT 06267
Tel: 860 963 7272 / Fax: 860 963 7152
Web: www.flightdesignUSA.com
E-Mail: airworthiness@flightdesignUSA.com

In cases where the local distributor is not known or available contact Flight Design GmbH directly: airworthiness@flightdesign.com.

1.14 Disclaimer

This Safety Alert has been generated with utmost care. Nevertheless errors and misunderstandings can never be fully excluded. In case of any doubts the applicant of this Safety Alert is requested to contact Flight Design immediately to clarify the issue.


2 Resources

2.1 Parts

Refer to [1]

2.2 Materials

Refer to [1]

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2.3 Tools

Refer to [1]

2.4 Special tools

Refer to [1]

2.5 Manpower

Refer to [1]

2.6 Cost

Refer to [1]

3 Instructions

3.1 Accomplishment

Verify if one of the following is true:

- the aircraft is equipped with one of the affected engines as per [1] 1.1).
- the engine in the aircraft, regardless of engine S/N, is equipped with one of the affected spare part crankshafts as per [1] 1.1) as a consequence of a maintenance or overhaul event.

The list of affected crankshafts as per [1] 1.1) must be enhanced by the crankshafts identified in Table 1 below.


Table 1 –
Further affected crankshafts with P/N 888164 (Illustrated parts catalog ROTAX 912)

40232 thru 40267 inclusive
40293 thru 40374 inclusive
40408 thru 40433 inclusive
40435 thru 40507 inclusive

When one of the above is true, full compliance must be shown with the Rotax Alert SB [1], under all provisions provided in [1], also for crankshafts of the enhanced list, even when not named affected in [1] itself.

When none of the above is true, the Alert SB of Rotax must not be complied with.

In case of doubt contact your nearest authorized ROTAX aircraft engine distributor.

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3.2 Documentation

Conduct of this Safety Alert must be logged in the aircraft log book with date and signature of the responsible Person conducting the inspection. The entry must include the following information:

- Identified engine S/N
- Spare part crankshaft S/N (if applicable)
- Rotax Alert SB [1] is applicable – yes or no
- Documentation of the conduct of the Rotax Alert SB [1] (when applicable)

4 Appendix

4.1 Changes to Previous Revision

Chapter 3.1: Table 1 has been added on the basis of information provided by EASA.

4.2 Feedback Template

No specific feedback required