	Service Bulletin	
	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	SB-ASTM-CTSW-09 Revision 00
	Date of Initial Publication: 23-Dec-2010 Publication Date of this Revision: 23-Dec-2010	

Service Bulletin

Correction of Gross Weight Metric Conversion to Pounds SB-ASTM-CTSW-09

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
 Model: CTSW 2006
 Serial Number: All serial numbers with applicable Aircraft Operating Instructions (AOI) revision 5, 5a, 5b, 6, 7, 8.
 Applicable Countries: all where operated as LSA with MTOW 600 kg.

1.2 Concurrent Documents

- none -


1.3 Reason

Clarification of the gross weight conversion from Kilograms to Pounds. A request for correction of the stated maximum takeoff weight in pounds was received from the FAA Light Sport Aircraft office.

1.4 Subject

The operating weights found in the Aircraft Operating Instructions (AOI) for the CTSW 2006 Rev. 5 to Rev. 8 states the conversion from 600 Kg to Lbs by using the conversion factor to the third decimal point, resulting in 1323 Lbs. The FAA uses the conversion factor with one decimal point only, leading to the maximum allowable gross weight of 1320 Lbs, as per 14 CFR 1.1.

It is the purpose of this SB to correct this mismatch by updating the affected Aircraft Operating Instructions to the values resulting from the conversion used by FAA.

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1.5 Compliance

Compliance is mandatory and must be shown before 30 days after the issuance of this notice.

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

Not applicable.

1.8 Personnel Qualifications

Task can be conducted by owner/operator.

1.9 Release to Service

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

1.10 Weight and Balance

Not applicable.

1.11 References

1. Drawings:

Not applicable.

2. Documents:

Aircraft Specific issues of:

- [1] AU 010 01000 Flight Design CTSW Aircraft Operating Instructions (AOI)

1.12 Superseded Documents

- none -

1.13 Contact Details

For further information on conduct of this SB, 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".

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

1.14 Disclaimer

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

2 Resources

Not applicable.

3 Instructions

1) Replace pages 3-3 and 3-4 of the affected manuals with the pages provided in Appendix 4.2 of this SB.

- **Note:** Page 3-3 shows differences only on revision 5. For all subsequent revisions page 3-3 looks identical. However, for simplification of this SB, and to avoid misunderstandings, all manuals are required to exchange both pages.

2) Manually update Record of Revisions on page ii with the following entries at the end of the table:

- a. Revision No. "9"
- b. Revision Date "23-Dec-2010"
- c. Approved "i.a.w. SB-ASTM-CTSW-09"
- d. Short-sign the manual entry at the end of the line.

3) Manually update List of Effective Pages table:

- a. Strike revision number indicated for pages 3-3 and 3-4
- b. Insert "9" behind crossed-out previous revision number
- c. Short-sign those two changed entries.

- **Note:** Please note that the aircraft specific weight and balance calculation sheet and all other references specify 1320 Lbs maximum takeoff weight, and therefore do not require updating.

4 Appendix

4.1 Changes to Previous Revision

Original Issue – no changes

4.2 Manual Update Pages

See attached two sheets, replacing sheets 3-3 and 3-4 of the affected manuals.

§ Oil

Only brand-name semi-synthetic or full synthetic 4-stroke motorcycle oil should be used.

	ROTAX 912 UL2	ROTAX 912 ULS
Oil, normal operating pressure (below 3.500 RPM)	2.0 – 5.0 bar 29 – 73 psi	
Oil, min operating pressure (above 3.500 RPM)	0.8 bar 12 psi	
	on very cold start momentarily 7 bar allowed	
Min/max temperature measured at the oil inlet of the engine	50 / 130 °C 120 / 266 °F	
Optimum operating temperature	90-110 °C 190-230 °F	
Oil capacity	3.0 l, min 2.0 l 6.4 liq pt, min 4.2 liq pt	
Max oil consumption, L per hour / liq pt per hour	0.06 / 0.13	

The engine is equipped with a friction clutch to guard against sudden propeller stoppage: for this reason, oils with friction modifiers or additives that favor clutch slippage should not be used.

Diesel engine oils are unsuitable because of their lower temperature tolerances.

For oil change intervals see the Maintenance and Inspection Procedures Manual.

Note: If the engine is primarily run on AVGAS, more frequent oil changes will be required because of possible lead build-up.

For complete oil specifications see the Rotax 912 Operator's Manual

§ Operating weights and loading (occupants, baggage, fuel, ballast)

Operating weights

	LSA registration			
	USA		Australia	
	kg	lbs	kg	lbs
Max. take-off weight	600	1320	544 / 600	1199 / 1320
Empty plane	314*	693*	303	668
Typical payload	297	654	241 / 297	531 / 654

* - with BRS 1350 HS

	BFU / LTF-UL registration	
	kg	lbs
Max. take-off weight	472.5	1042
Empty plane	268	590
Typical payload	180 / 114.5*	396 / 252*

* - with full tanks

	BCAR Section S registration	
	kg	lbs
Max. take-off weight	450	922
Empty plane	265	584
Typical payload	185	407

Loading

	LSA registration	BFU / LTF-UL registration	BCAR(S) registration
Maximum weight per seat	118 kg 260 lbs	100 kg 220 lbs	100 kg 220 lbs
Maximum baggage weight per side	25 kg 55 lbs		
Minimum single pilot weight	54 kg 120 lbs	70 kg 155 lbs	55 kg 122 lbs
Maximum fuel weight	93 kg 205 lbs		
Minimum fuel weight	9 kg 20 lbs	8 kg 18 lbs	13 kg 29 lbs