	<b>SERVICE BULLETIN</b>	
	<b>Flight Design GmbH</b> Sielminger Str. 51 D-70771 L.-Echterdingen Tel +49 (0)711 90287-0 Fax +49 (0)711 90287-99 E-Mail: <a href="mailto:airworthiness@flightdesign.com">airworthiness@flightdesign.com</a>	<b>SB-SECS-CTSW-05</b> <b>Revision 00</b>
		Date of Initial Publication: <b>30-Nov-2009</b> Publication Date of this Revision: <b>30-Nov-2009</b>

# SERVICE BULLETIN

## Stabilizer Rear Wall Stiffening SB-SECS-CTSW-05

### 1 Planning Information

#### 1.1 Affected Aircraft

Type: CT  
 Model: CTSW with full span trim tab  
 Serial Number: S/N range 06-09-01 to 07-05-03, when equipped with full span trim tab, plus aircraft that do have trim tab balancing weights but do not have performed stiffeners supporting each individual trim tab hinge point. Also see:  $\Delta$ Warning at the end of Subject 1.4  
 Applicable Countries: Not limited

#### 1.2 Concurrent Documents

Service instruction:  
 [1] SI-SECS-CTSW-03 (Stabilizer Rear Wall Stiffening)  
 [2] SI-SECS-CTSW-04 (Removal / Installation of Trim tab)

#### 1.3 Reason

Increasing play in the trim tab control system can lead to vibrations in the trim tab in flight at high speeds. This vibration can be clearly felt by the pilot when exceeding a certain speed and stops again when slowing down.


Even when this typically can be solved by removing all play from the trim tab control system Flight Design decided that the best and most lasting solution is a stiffening of the rear wall of the stabilizer applied as a preventive measure to all aircraft in the affected S/N range.

#### 1.4 Subject

Stiffening of the rear wall of the stabilizer by installation of ribs in the cut-outs for the balancing weights, and direct support of the individual hinge points with small ribs.

Earlier aircraft than listed as affected do not have balancing weights attached to the trim tab and therefore no cut-outs and later aircraft already have the stiffening of the hinge points. Both variants do not require this stiffening.

Pictures in the Appendix of this SB illustrate balancing weights with cut outs and the small ribs, which supports each hinge point.

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**△Warning:** Aircraft that received a trim tab or stabilizer replacement might be affected as well, even when outside the affected serial number range, as they might have balancing weights but no hinge point stiffening ribs yet installed. Therefore it is mandatory to inspect each CTSW aircraft explicitly whether it is affected or not.

## **1.5 Compliance**

General compliance must be shown at the next annual inspection. In cases where the next annual inspection comes within three months from issuing of this document it is permissible to extend compliance to the time limit of three months from issuing of this document.

In cases where the described vibration has been observed, compliance must be shown within 4 (four) weeks after issuing of this SB. Until then exceeding of the speed where the vibrations were observed must be avoided.

## **1.6 Personnel Qualifications**

National maintenance and inspection regulations as applicable for heavy maintenance, composite structure repairs, apply.

Task Specific: Can be completed only by a responsible individual with experience in composite repairs.

## **1.7 Approval**

Conduct of this SB must be inspected by an aircraft inspector according to the national applicable regulations for the country of registry of the aircraft.


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

Confirmation of Completion of this SB (chapter 4.3) has to be submitted to Flight Design.

## **1.8 Weight and Center of Gravity**

The effect to empty aircraft weight and cg is significantly below 1 lb (0.45 kg). Therefore, in compliance with FAA publication AC 43.13-1B re-scaling of the aircraft is not required due to this measure alone.

**△ Warning:** When this exemption has been used already for earlier maintenance events on the aircraft, or when other maintenance events are conducted in parallel and the weight changes of the individual events add up to more than 1 lb (0.45 kg), re-weighing of the aircraft is required for the sum of the effects.

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## 1.9 References

- [1] SI-SECS-CTSW-03 (Stabilizer Rear Wall Stiffening)
- [2] SI-SECS-CTSW-04 (Removal / Installation of Trim tab)
- [3] Latest issue of Flight Design CTSW Parts Catalog

All referenced documents can be obtained by repair stations from Flight Design in electronic format.

## 1.10 Superseded Documents

None

## 1.11 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](http://www.flightdesign.com) under "Dealer Location".

Specific contact in USA:

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

To obtain necessary spare parts and the retrofit kit required by the referenced SI, use the order information of the feedback template in Chapter 4.3

## 2 Resources

All required resources are listed in the referenced Service Instructions [1] and [2].

The retrofit kit used for SI [1] can be obtained free of charge from Flight Design using the feedback template in Chapter 4.3.


## 3 Instructions

All applicable instructions are provided by the referenced Service Instructions [1] and [2].

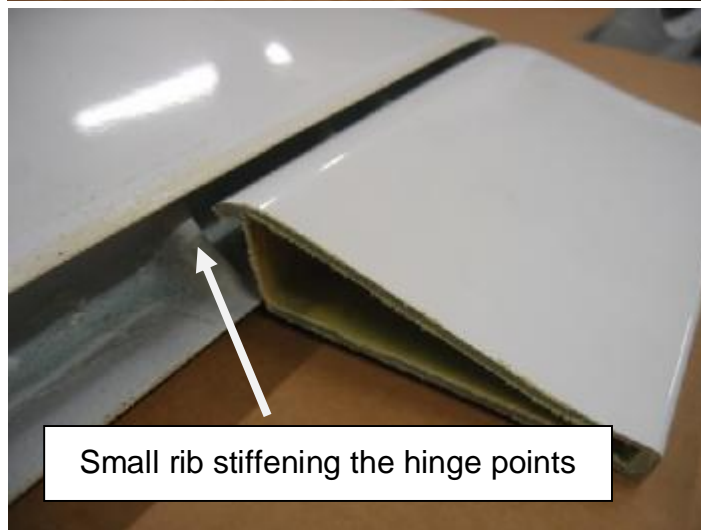
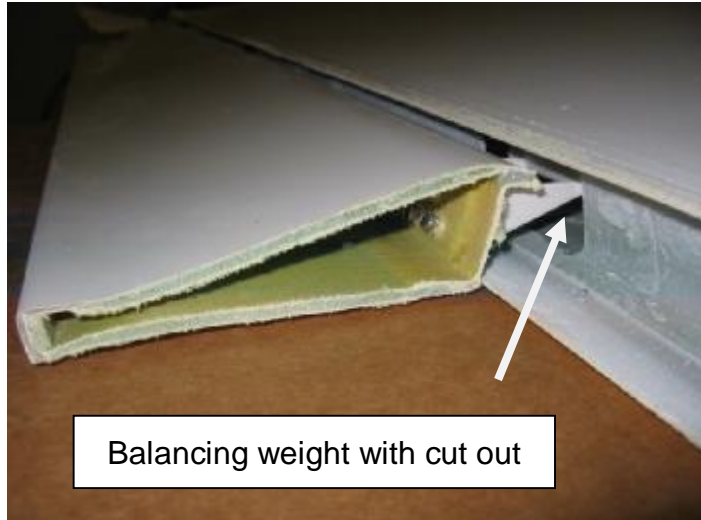
## 4 Appendix


### 4.1 Changes to Previous Revision

- none -

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#### 4.2 Pictures



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**4.3 Feedback Template**

This form must be used to coordinate with Flight Design the required spare parts and to communicate the completion of the SB listed in the header of this page.

Submission can be done by regular mail, Fax or as scanned copy per e-mail to Flight Design GmbH (address see header of this page) or to your national Flight Design Distributor who will forward the information for you.

**Information to Obtain Spare Parts**

CTSW Serial Number: \_\_\_\_\_  
 Aircraft Owner, Name and Address: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Please send the Retrofit Kit to the Address: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

**Confirmation of Completion**

Compliance with this SB has been achieved at the following workshop:

\_\_\_\_\_ Responsible Mechanic:  
 \_\_\_\_\_

Date: \_\_\_\_\_ Location: \_\_\_\_\_ Signature: \_\_\_\_\_

Verification of trim speed range in flight was conducted following SI-SECS-CTSW-04

Yes	No
<input type="checkbox"/>	<input type="checkbox"/>

**Warning:** Maintenance check flight report in accordance to SI-SECS-CTSW-04 (Removal / Installation of Trim tab) must be attached.

**Warning:** As long as this form has not been completed and submitted to Flight Design, this SB is considered not complied-with for the respective aircraft!