

Flight Design GmbH

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SAFETY ALERT

SA-ASTM-CTSW-02 Revision 0

Date of Initial Publication: **15-Oct-2008**Publication Date of this Revision: **15-Oct-2008**

SAFETY ALERT

Servo Tab Spring

SA-ASTM-CTSW-02

1 Planning Information

1.1 Affected Aircraft

Type: CT

Model: CTSW

Serial Number: All serial numbers

Applicable Countries: All Countries where ASTM standards are in effect

1.2 Concurrent Documents

None

1.3 Reason

Re- issue of existing document in order to implement it to the new Service document numbering system

1.4 Subject

All information see paragraph 3

1.5 Compliance

All information see paragraph 3

1.6 Personnel Qualifications

All information see paragraph 3

1.7 Approval

All information see paragraph 3

1.8 Weight and Center of Gravity

All information see paragraph 3

1.9 References

All information see paragraph 3



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1.10 **Superseded Documents**

Technical Advice No. 12 Safety Directive No. 14

1.11 Contact Details

For further information or to report any Safety of Flight or Service Difficulty issues contact your Distributor responsible for your country.

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

For all other countries and in cases where the local distributor is not known or available contact Flight Design GmbH directly.

2 Resources

2.1 Materials

All information see paragraph 3

2.2 Manpower

All information see paragraph 3

2.3 <u>Cost</u>

All information see paragraph 3

3 Instructions

The following is the 1:1 copy of the existing document following the old numbering system.



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FLIGHT DESIGN USA SAFETY DIRECTIVE No.14

Servo Tab Spring

Safety Alert

Flight Design USA

Woodstock Airport 91 Route 169, P.O. Box 325 South Woodstock, Ct. 06267 Tel: 860-963-7272 Fax: 860-963-7152 Airworthiness@flightdesignusa.com

• Pages: Three (3)

Date Issued: October 20, 2006

Scope: CTSW serial No. 05-11-09 to serial No. 06-09-05

Discussion

An accident during a recent production test flight prompted a complete review of the CTSW 2006 flight control system.

While it has not been determined that the flight control system was a contributing factor to the accident, during the review it was determined that one aspect of the design, the trim control system, could be improved upon.

It was found that the anti-servo tab spring could, under extreme conditions, cause a sudden change in trim force pressure. This could result in a pitching down movement of the aircraft that is most pronounced as Vne is reached or exceeded.

Corrective Action

Flight Design is mandating a modification of the trim system on the affected aircraft that consists of replacing the original spring and associated spacer and washer with a new spring and telescopic spring guide assembly.

The modification will be performed within the next 25 hours, or at the next maintenance interval, whichever occurs first.

The procedure will be performed for free at the nearest Flight Design dealership. Should an owner decide to have the work done locally, a credit of \$75.00 will be issued upon return of the old spring tagged with the serial number of the aircraft and the registered owner's name. The task specific training will consist of consulting with the nearest Distributor prior to performing the modification.

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Procedure

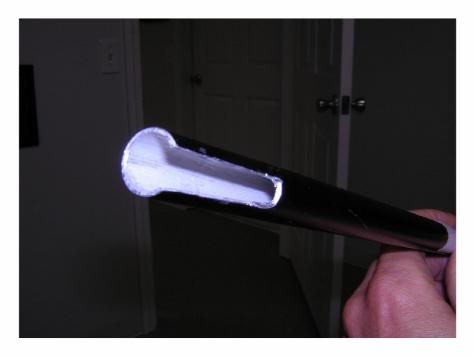
- 1. Remove the stabilizer from the airplane according to the maintenance manual.
- 2. Perform the maintenance procedure "Trim Tab Spring Modification CTSW2006" dated 13-10-2006.

Important:

- A. The new spring is longer than the original (37 windings instead of 35 windings). The original is too short and must not be used.
- B. The movement of the original, shorter spring is limited at one end by a plastic spacer (KA6060008) and at the other end by a washer (KA6060006). These are also not re-used.
- C. During assembly, the gliding surfaces of the telescopic parts must be lubricated by use of Aeroshell Grease 6 or equivalent.
- 3. Mount the stabilizer in accordance with the Maintenance Manual and check for correct operation.
- 4. Tag the original spring with the aircraft serial number and return to Flight Design USA.

Note: The U.S. distributor has found that a tool as shown in the Modification document, with an additional slot to allow for the Ball-joint (Fig.A), works well for disassembly and that safety wire works best for holding the spring compressed during assembly.

Fig. A



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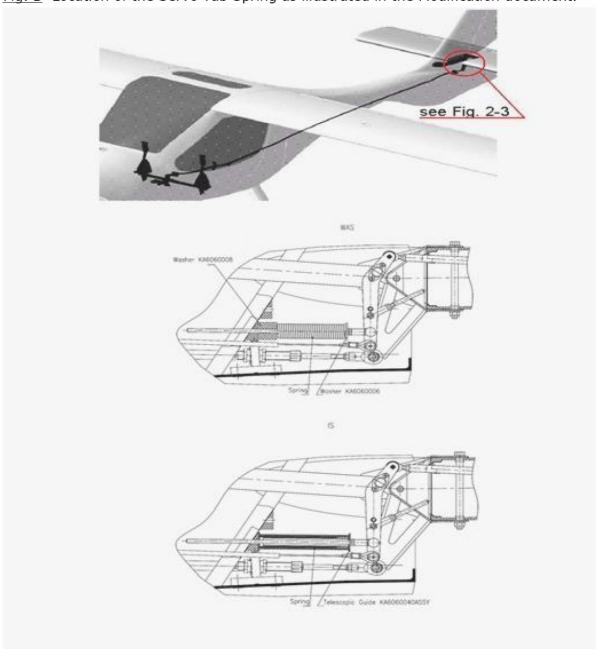
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Fig. B Location of the Servo Tab Spring as illustrated in the Modification document.



Reminder

Flight Design reminds the Owner/Operator of a Flight Design aircraft that compliance with all Safety Directives, Aircraft Operating Instructions, Maintenance Manuals as well as the reporting of any and all Safety of Flight or Service Difficulties by the Owner/Operator is *mandatory* for the operation of an S-LSA aircraft.

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4 Appendix

4.1 Changes to Previous Revision

No content changes - re-issue of existing document to new numbering system

4.2 Feedback Template Flight Design

All information see paragraph 3