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NOTIFICATION - OCTOBER 03 2018

Issue Date

October 02 2018, Rev. 0

Subject/Purpose

Elevator Piano Hinge and Stabilizer update

Affected Models

CH 750 Cruiser

Compliance Time

Inspection within the next 50 hours

Inspection Frequency

Annual (on-going)

BACKGROUND

A CH 750 Cruiser owner reported significant dents and cracks occurred on the leading edge of the horizontal stabilizer near the tip. The aircraft was equipped with the high compression ULPower UL350iS engine which produces more thrust and possibly more vibrations / harmonics (than the less-powerful engine installed on the Zenair demonstrator aircraft).

INSPECTION:

Inspect the stabilizer and rear fuselage of the aircraft, looking for dents or cracking in the skin and for cracking or smoking of rivets. If stabilizer skins are damaged in any way (especially the leading edge areas) do not fly the aircraft until you have completed actions #1, #2 and #3 of this Service Letter. Because of the stabilizer's monocoque-type construction the leading edges are considered to be structural and any type of dents and cracks will reduce the strength. In addition to a visual inspection, pass your hands over the leading edges to feel for deformations.

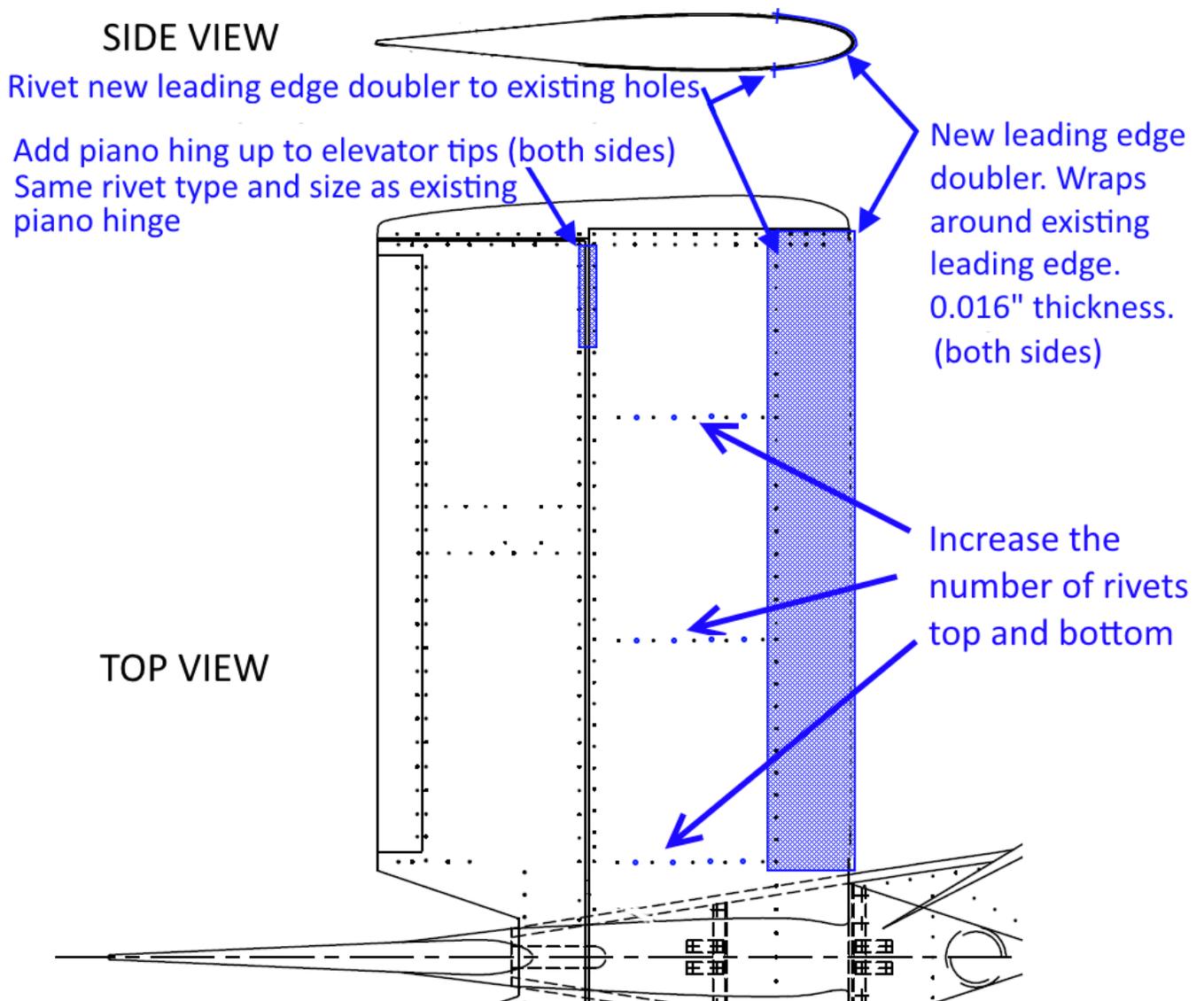
Ensure that the horizontal stabilizer attachment bracket inspection as detailed in the service bulletin dated [\(JAN. 2017\)](#) has been performed and any necessary repairs have been completed.

ACTION:

Because of possible dents and cracks in the leading edge of the stabilizer at or near the tip(s) it is recommended that the following modifications be done to all the CH 750 Cruiser stabilizers. Use the aircraft Design Standards manual and FAR 43.13-1B & 2B if required.

1, Increase the length of the piano hinge to the full length of the elevator. This can be done by simply adding small piano hinge sections to the existing piano hinge.

2, For aircraft with more power than the typical 100HP of the Rotax 912 or Continental O-200 or for aircraft with an elevator skin of 0.016" thickness, add an aluminum leading edge doubler (0.016" or greater) on top of the existing leading edge of the stabilizer over the full span. There is no need to remove the stabilizer from the aircraft.





Rivets have been doubled up in the above photo on ribs centre ribs C75T1-2 and C75T1-3.

3. On Ribs C75T1-2, C75T1-3 the rivet spacing needs to be decreased from 60mm to about 30mm, which will increase the number of rivets between the front and rear spar. On those ribs there needs to be a total of 9 A4 rivets per side as shown in the above photo. Top and bottom.

Before riveting the new doubler leading skin and piano hinge, make sure to clean the inside out for the drilled out rivets. Use the aircraft Design Standards manual and FAR 43.13-1B & 2B if required.

Once complete, check all deflections and Elevator clearances to the Rudder and fuselage including the up-down elevator deflection stops. Check your control cables for proper tensions.

Please log onto www.newplane.com for continued airworthiness documentation or onto www.zenithair.com

For additional questions and documentation, please contact Zenair Ltd.