

SAFETY ALERT

Issue Date

September 26, 2013

Subject/Purpose

We have received reports of several rudder pedal deformations and failures recently from an overseas operator. Upon inspection of the failed rudder pedals it was discovered that some of the 4130 chrome-moly tubes used in the welded rudder pedals assembly was thinner than prescribed in the aircraft drawings (0.035-inch wall thickness instead of 0.058-inch wall thickness).

While we believe that only a small batch of rudder pedals are affected, we ask that builders and owners of affected models and serial numbers check their rudder pedals for the correct tube thickness.

Affected Models and Serial Numbers

STOL CH 750 (part no. 75C3-4) and **CH 650** (part no. 6B9-1);
serial numbers x5-8563 to x5-8950

Compliance

Mandatory

Compliance Time

Before next flight.

Inspection

With a flashlight, check the rudder pedal weld areas, especially at the bottom welds. If you see any deformation to the rudder pedals, remove the rudder pedals. Do not fly the aircraft.

If you do not see any deformation, check your rudder pedals as prescribed below, to verify that they are made of the correct material thickness. This inspection can be completed with the rudder pedals installed. However, if you are having a hard time with the inspection, remove the pedals for easy inspection.

The upper and lower horizontal tubes can be easily checked with a pair of calipers at the open end of the tubes. Before checking, clean the end of the tubes of paint and burs so that an accurate measurement can be taken.



To check the vertical tubes, a small #40 hole must be drilled in the **INBOARD SIDE** or **OUTBOARD SIDE** (so that the drill bit is parallel to the lower horizontal tube) of the tube.

Use a clean #40 drill bit. Insert the drill bit into the hole until it makes contact with the opposite wall of the tube. Hold the drill bit perpendicular to the tube and measure length of the drill bit from the opposite side of the tube.



Subtract the length of the drill bit from the length of the tube and drill bit. This will tell you the wall thickness of the tube. (It is not necessary to fill the hole after drilling it.)

If the tubes measure 0.058" wall thickness no further action is required.

If any of the tubes measure 0.035", do not fly the aircraft until corrective actions have been taken.

Corrective Action:

If you have determined that your rudder pedals do not comply, gussets must be welded to the front and aft sides of the lower horizontal tube and vertical tube as shown in the following drawing.

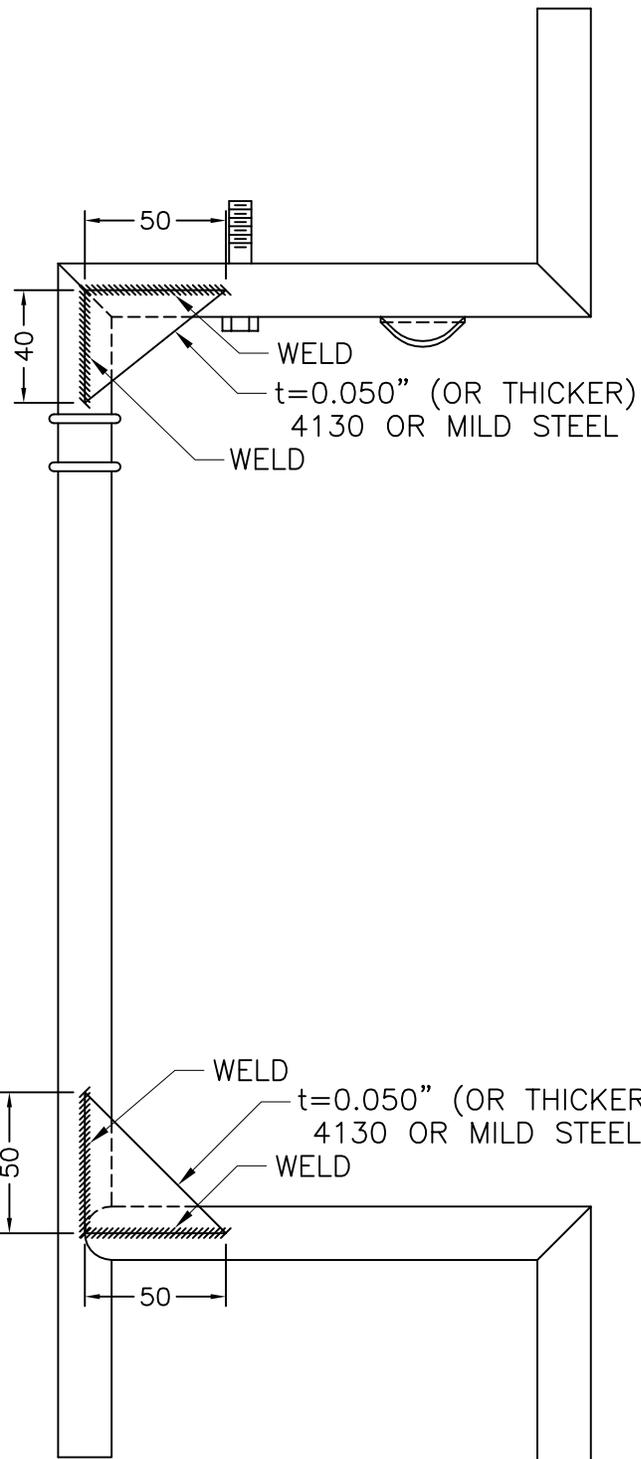
(After inspection and or re-installing the rudder pedals, check for proper safety and movement. Check that you are getting full rudder deflection when pushing on the rudder pedals.)

Once completed, make a log book entry confirming compliance.

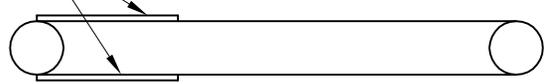
If you sold your kit or aircraft, please forward this Safety Alert to the new owner. If you have any questions regarding the Safety Alert, please contact Zenith Aircraft Co. directly.

While Zenith Aircraft Co. makes every effort to ensure that the materials, parts and assemblies that it supplies to its customers are of the highest quality and are manufactured to the specifications of the aircraft drawings, we remind builders to check the parts supplied to them in the kit (or parts sourced elsewhere) for conformity to the drawings.

(Attached drawing: Rudder Pedal Safety Alert, dated 9/26/2013)



INSTALL GUSSETS ON FRONT AND AFT SIDE OF TUBES



DESCRIPTION:	RUDDER PEDAL SAFETY ALERT	
	MATERIAL : 4130 or MILD STEEL	t=0.050"
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