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## **SERVICE LETTER / NOTIFICATION - AUGUST 2017**

**Issue Date** 

AUGUST 2017, Rev. 0

Subject/Purpose

Rudder Inspection.

Affected Models

CH 701 rudder inspection.

Compliance Time

Within the next 50 hours.

Inspection Frequency

Annual (on-going) and after skidding/hitting the rudder on take-off or landing.

## Subject/Purpose

A CH 701 was inspected and the following was noticed; rudder top hinge area was damaged.

## Inspection:

Carefully inspect the top and bottom rudder hinge areas very carefully. On the rudder, and the top and bottom fuselage. Look for cracks around the hinge bolts, dents, wrinkles loose rivets etc. Also perform the complete tail inspection as per **Horizontal Stabilizer inspection mandatory of January 2017.** If you did not build the aircraft, hire a certified aircraft mechanic to perform the inspection.

## Fix:

Add new longeron doublers as per following photo. Use the FAA AC 43-13 1B and 2B manual and the aircraft drawings and design standards manual for proper material rivets etc. Use a 6061-T6 aluminum angle with 0.040" thickness. Rivet this on top of the existing parts. If rivet holes are oversized, add extra rivets between. If the fuselage side skins are damaged, replace the damaged area by following the instructions in AC 43-13-1B section 4-58, or replace the skins. Once the rudder is re-installed, have an aircraft mechanic inspect the area, control system and cables for proper cable tension, attachment etc.



Damaged near the top hinge, easy to see after removing the top hinge bracket. When taking off or landing at an extreme angle, it is possible that the rudder can hit the ground damaging the bottom of the rudder but also the areas on the fuselage near the hinges.



Installing new angles with 0.040" thickness and A5 rivets.