

Service Letter: 459

Date: April 24, 2025

Title: Inspection of Rudder & Vertical Stabilizer Upper & Lower Hinge

Models: All American Champion / Bellanca 7AC, 7BCM, 7CCM, 7DC, 7EC, 7FC, 7GC, 7GCB, 7HC, 7JC, 7KC, 7GCA, 7GCBA, 7ECA, 7GCAA, 7KCAB, 7GCBC, 7ACA, 8KCAB, & 8GCBC.

Background: There have been reports of the welded bushing attachments for the rudder and vertical stabilizer failing on high time aircraft.

Description: This service letter outlines the inspection of the upper and lower bushings, welds, and attach hardware that act as the hinges between the vertical stabilizer and rudder.

Inspection: Visual inspection with 10-times magnification or dye penetrant. Inspect the upper and lower bushings, welds, and attach hardware on the vertical stabilizer and rudder at every 100-hour or annual inspection. Reference appropriate service manual.

Note: This service letter should be considered mandatory on all aircraft frames above 2000 hours.

1. Remove all contaminants (dirt, grease, deposits, etc.) on and around the upper and lower hinge points for the rudder and vertical stabilizer. Ensure the entirety of the attach hardware, bushings, and surrounding area are fully visible.
2. Verify the attach hardware and bushings are not warped, bent, or misaligned.
3. Visually inspect for obvious signs of corrosion or mechanical damage on and around the attach hardware, bushings, and surrounding area.
4. Visually inspect the weld surfaces shown on Figure 1 Detail A for cracks, porosity, undercut, and/or lack of fusion. Ensure to inspect the material around the weld as cracks can propagate from the weld. With a 10-times magnification lens, methodically inspect the entirety of each of the weld beads shown on Figure 1 Detail A. Ensure to pay close attention to the toe lines (where the weld meets the metal) as this is the most common initiation point for cracking. Identify if there are any micro-cracks, voids, small holes, pores, or other irregularities in the welds. Consult FAA AC 43.13-1B, paragraph 4-78 to determine if the welds are within acceptable limits.
5. If no irregularities are found and the welds are within acceptable limits per FAA AC 43.13-1B, paragraph 4-78, record satisfactory inspection to SL 459 (initial revision, dated 4-16-2025 or later) in the aircraft logbook.
6. If the welds or other irregularities are found to not be within acceptable limits, the relevant components need to be replaced.

7. All results, satisfactory or unsatisfactory, are to be reported to American Champion Aircraft via email at aca.aircraft.engineering@gmail.com.

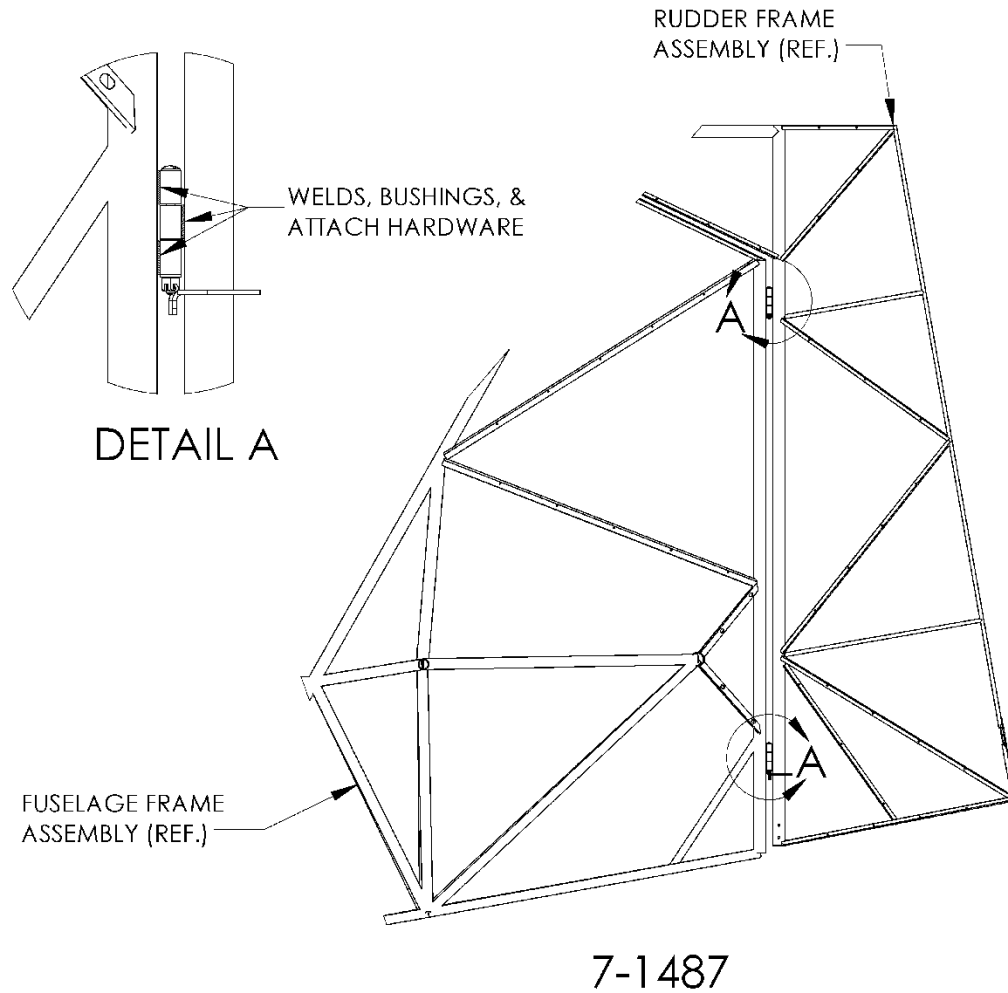


FIGURE 1 : TAIL SURFACE INSTALLATION