

**50-31-01 CESSNA:** Applies to All Models 120 and 140 Aircraft, Serial Numbers 8001 to 15035, Inclusive, on Which the 0.051 Reinforcing Channel or 0.040 Reinforcing Angles Have Not Been Installed.

Compliance required as soon as possible and not later than August 1, 1950, except as indicated below.

Because two fin spar fatigue failures have occurred in flight, indicating inadequate inspection due to the difficulty of such inspection, the fin must be removed for inspection. Inspection can then be best accomplished by removing five rivets in the fin bottom rib skin attachment and all attaching rivets through the spar and doubler flanges to permit raising the adjacent skin. The front face of the spar and the spar reinforcing channel should then be carefully inspected for flange buckles or cracks with at least an 8-power magnifying glass in the bend radii and in the adjacent flange rivet or clearance holes in the region of the bottom rib attachment. Modify in accordance with item 1 or 2 herein:

1. If failure exists, the spar must be replaced with a spar incorporating an 0.051 24ST alclad fin spar reinforcing channel, Cessna P/N 0431129, or equivalent.
2. If no failure exists, reinforcing angles, Cessna P/N 0431145 and 1431145-1 or equivalent, must be installed.

(Cessna Service Letter SLN-62 issued 04-10-50 covers this same subject.)

(Cessna Service Letter SLN-62A issued 04-10-50 covers this same subject)

(Cessna Service Letter SLN-62B issued 04-21-50 covers this same subject)

Some of the first airplanes were manufactured using spot welded instead of riveted construction. The following applies to these aircraft and should be accomplished not later than September 1, 1950:

Drill out center of spots with No. 30 drill. Carefully pry skin loose from spar and root rib using a thin lever. Inspect and accomplish 1 or 2 above replacing all drilled spot welds with 1/8-inch rivets as required. In case that sheet or underlying structure is left with a damaged hole which cannot be properly filled with a 1/8-inch rivet, replace with 5/32-inch rivet or add an additional 1/8-inch rivet on each side of damaged hole.

**This supersedes AD 50-17-01.**