

Mr Ken & Lynn,

You will find enclosed a construction tip as to how I made my stabilizer ribs. The same method may be used to build the wing ribs.

Results are excellent as all ribs are identical and can be obtained without staples or aircraft glue. The only tool required is a router and carbide bit (ball bearing type). I highly recommend using the high speed steel carbide tipped bit as it maintains its cutting edge when on epoxy glues.

Sincerely,

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PROCEDURE FOR STABILIZER RIBS

First cut out of a 3/4" plywood a jig to the exact dimensions of the rib required. (Do not forget to remove the lightening holes) So, drill two holes which will serve to align the ribs. Using your router make two 1/4" x 1/4" grooves on one face of the plywood. Now lay this grooved side down on a workbench and fix it securely. (see figure 1)

Get the 3/32" ply slightly larger than the jig, not forgetting to drill 3/8" holes to permit the routing of the lightening holes. Lay the ply on the jig. (see figure 2)

Remove aligning pins and use router to shape ply to the contour of the jig (do not forget the lightening holes) (see figure 3)

Reverse jig on bench and secure firmly. You now have the 1/4" x 1/4" grooves on the top side. Use the same cam blocks that were used to hold the side of the fuselage to hold the 3/8" x 1/4" cap strips to the jig grooves. Replace the aligning pins, sand and apply glue as necessary and place ply over aligning pins to get proper alignment. (see figure 4)

For weight place a board over jig distribute weight evenly and apply pressure with bricks or other suitable weight. (see figure 5)

Note: Since the groove is 1/4" deep and the cap strip is 3/8" deep, this allows 1/8" play above the jig and cam blocks so that it does not come an overweight rib.

By moving the cam blocks, you may now use your router to clean off excess glue from the exterior of the rib and cap strips.

