

KITFOX SUPER SPORT Model Guide

KITFOX SUPER SPORT is a piston single-engine aircraft from Kitfox. The documents supplied for this guide are builder and maintenance manuals on fabric covering and horizontal tail assembly. They give no performance, weight or V-speed figures, so none are listed. Use the guide to judge build and covering quality.

KEY TAKEAWAYS

- Covering follows the Poly-Fiber system. Kitfox recommends covering the wings first, since the trimmed wing fabric can cover the tail surfaces.
- Do not final heat-tighten wing fabric above 325°. More heat can deform the aluminum wing trailing edge.
- The tail has shaped wooden ribs bonded into a welded tube structure. Pitch trim pivots the horizontal stabilizer about its trailing edge.
- Rib stitching on the wings is recommended by Poly-Fiber and Kitfox, though earlier Kitfoxes did not require it.

WING FABRIC AND FINISHING

Check that the fabric is bonded to the rib capstrips and rib stitched. Look for reinforcing doilies at the fuel tank fill neck, lift strut brackets, jury strut brackets, pitot tube and tank drain. Look for inspection rings and drain holes in the lower fabric. Finishing tapes should be 2" over ribs and 4" on the trailing edge.

FUSELAGE COVERING AND ACCESS

The fuselage is covered by the blanket technique, belly first, then the sides, then the top. Fabric wraps 3/4 of the way around the tubes and is heat tightened up to 350°. Inspection rings are suggested for the rear idler bellcrank, the trim actuator and the empennage. Check that they are present.

HORIZONTAL TAIL AND TRIM

The stabilizer attaches to the fuselage at a rear pivot mount, with a left and a right brace. It must sit perpendicular to the vertical tail. The distances from each stabilizer tip to the top of the vertical tail must be equal. Check the hinge bushings and bearings, and the stabilizer pivot bearing.

SAFETY NOTES

- The manual warns that if the fabric is not applied properly, the aircraft may be unsafe in flight.
- Check the horizontal tail rigging. Both stabilizer tips should be equidistant from the vertical tail tip, and the brace check nuts should be tight.
- Wood parts should be varnished with an epoxy varnish. Look for unprotected wood when inspecting.