

## BUILDING INSTRUCTIONS

Congratulations! You have just purchased one of the most elaborate and distinctive stunt models ever produced. The model will show off good workmanship, so put your best efforts into it. A Fox-35 was used by the designer with excellent results. However, any good 29-35 will do.

Start by studying the plans and all materials contained in the kit. The wing, fuselage and horizontal tail may be started simultaneously.

### WING:

1. Lay out all ribs over wing plan and identify them by checking their lengths against the plan. Label them No.1, No.2, etc.
2. Pin down lower half of the 1/16" x 1 1/4" sheet trailing edge. Cement and pin the trailing edge of all ribs on this, lining up end of rib with back edge of trailing edge.
3. Add the 1/4" square leaning edge, noting that this will have to be blocked up to proper height. Measuring vertically to the front edge of the 1/2" square leading edge, this height should be approximately 1-3/4" in front of both ribs R-12 and 1-15/16" in the center of the wing.
4. Add the top trailing edge sheet and the top 3/16" square spar. Be careful not to bow the wing when adding the spars or leading edge sheeting. Check this with a straight edge along the top of the spar.
5. Turn wing over. Pin trailing edge down. Block up leading edge, as described above, and add the bottom 3/16" square spar (check for bowing wing), the short center 3/16" square segment and all bottom center sub sheeting. Note that sub sheeting at the leading edge runs out to R-4.
6. Add the 1/16" vertical fill in trailing edge and then the 1/8" x 1/4" trailing edge back up.
7. Add leading edge sub sheeting on top. Sheet the leading edge bottom and then top. Check for warps and bowing. Pin down again and measure leading edge heights, as previously described.
8. Add 1/8" sheet tip form and other tip components. Sand entire wing.
9. Slide 1/8" ply horn reinforcements over flap horn and assemble this to flaps. Hinge to wing with a good strong cloth. Keep the horn axis on the centerline of the hinges to prevent binding. For longer life, bushings are advised in both control horns and bellcrank.
10. Fasten leads to bellcrank; assemble to platform and slide in place. Bend pushrod carefully. Locate bellcrank platform and glue securely. Stagger leads to prevent their "catching". Trim clearance holes in ribs to clear leads. Add tail pushrod and tighten bellcrank pivot bolt.
11. Complete wing by adding remaining sheeting, cap strips, etc. We prefer adding the landing gear assembly after the wing is installed in the fuselage. Check all glue joints and look for possible warps.

### HORIZONTAL TAIL:

1. There is a lot of wood in the tail of this model. Extra light wood should be used here. Hollow spars and blocks as much as possible. Build the stab over the plan as shown, blocking up the leading edge with shims indicated.
2. Assemble elevator segments, shimming the trailing edge. Slide 1/8" ply horn reinforcements over the control horn and install horn, being careful to keep it on the hinge centerline. Sand all components and hinge with strong cloth.

### FUSELAGE:

1. Glue motor mounts to plywood doublers. Assemble two fuselage sides (one left and one right) by gluing the nose doublers in place along with the 1/8" balsa side doublers, stab reinforcement and the 1/8" square strip that runs along the fuselage bottom. The top edge of the fuselage sides should be straight. Check this carefully, as this is important for wing-stab alignment.
2. Lay out formers over the drawing and label each. Note that the pushrod holes are located towards the outside of the flying circle. Assemble the basic fuselage, omitting tops of formers F-5 through F-8. Turn it upside down; pin it over the top view of the fuselage and align.
3. Next, mount engine, using blind mounting nuts. Build up top rear fuselage segment, sheeting it with 3/32" balsa.
4. Tack-glue all blocks on fuselage top and bottom. Sand close to shape; remove and hollow them out as indicated. Remember to hollow the rear blocks as much as possible, as tail weight is detrimental.

### FINAL ASSEMBLY:

1. Install a 3½-oz. stunt tank. Install wing in fuselage and align carefully. You will have to cut slots in the formers to allow the pushrod to slide in place. Be sure to slide 1/8" ply guides in place on pushrod before you locate wing. Glue wing solidly and replace short lower section of fuselage.
2. Lay horizontal tail in place carefully, bending the pushrod to proper length so that zero degree on the flaps will yield zero degree on the elevators. Align at zero degree incidence and glue in place. Replace former segments and glue pushrod guides to formers. Reinforce the wing leading edge and stab leading edge joint with the fuselage sides with cloth. Glue all horn reinforcements in place along with all remaining internal fuselage components.
3. Glue all blocks back in place. Install landing gear platform assembly in wings, measuring wing tip heights to get model to set level. Note two sizes of platform. Cut instrument panel from plan. Glue this to 1/16" balsa back-up shown and overlay with enclosed piece of plastic. Finish cockpit floor; install headrest as indicated on plan, and complete all cabin detail, including colored interior trim. Recess wood surrounding cabin to accommodate formed plastic canopy and glue this in place. Tissue-cover all edges.
4. Install the twin rudders and the sub rudder. Hollow as much as possible. Cut lightening hole in sub rudder as indicated for lightness. Slide 1/16" wire axle through tail wheel; solder washers in place and install in rudder.
5. Construct cowl. Leave a hole for access to glow plug. Assemble wheel pants. Slot sides to clear wire and glue in place after carefully aligning. Cut a piece out of the outboard sides and slide wheels on axles. Solder retaining washers and glue this piece back. Add 3/8" balsa struts and all other wood components. Fillet all joints of wing-fuse-stab-rudders with "pulp" soft balsa or balsa putty.

### FINISH:

1. Sand entire model. Mask off cabin to dope outline. Apply two thin coats of clear dope to all wood surfaces. Apply a coat of filler or silk and sand. Cover the wings with silkspan. All other wood surfaces and stabilizer to be covered with tissue. Apply two thin coats of clear, then a coat of filler (1 part talc, 1 part clear, 1 part thinner and 1 part color of your finish). Colors advised are orange with metallic blue and a cream pin stripe. Wet sand filler with #400 paper, removing all excess filler, especially in the aft areas of the model. Repeat with another coat of filler. Add a thin coat of clear. Apply colored finish and a clear top coat. Rub down entire model with compound and wax.

### FLYING:

There are no tricks in flying this model. Give it a careful check for alignment, warps and C.G. location. Fly the model and make minor trim adjustments to suit your own personal feel for a stunt model.

Good Luck and Happy Flying!