

Kit C-30

developed by Randy Wilging for today's stiff competition.



DUMAS PRODUCTS INC. / BOX 6093 / TUCSON, ARIZONA 85716

CONSTRUCTION OF THE SPECTRUM

The Spectrum is a rugged, fast combat plane developed by Randy Witting for today's cost-efficient competition. Quick and easy to build, with formed plastic, bubble for a fuel tank, spruce booms and a recessed engine incorporating a spruce leading edge doubler, makes the Spectrum a really top competition airplane for the combat circuit.

- (1). Place beam L.E. flange building board. Pin bottom spar, 1/8 x 1/4 x 36 and T.L. plank, 1/16 x 1/8 x 36 on drawing. Glue ribs as shown. Locate numbered holes by measuring from centerline of rib cap and carefully lay out trailing edge pinning, 1/16 x 1-1/2 x .36, in position. Allow to dry.
- (2). Build up engine mount. Cement engine mounts on top of motor mount center, (1/2 x 1/4 x 2-9/16) and angle with 1/8 dowels (2 places). Set aside until glue has cured. Shape.
3. Glue spruce center L.E. doubler to L.E. and allow to dry.
4. Cement L.E. to front of ribs, making sure each rib is centered on the L.E. Allow to dry.
5. Turn wing over with bottom up - cut notch in L.E., making for L.E. doubler. Glue pinning (1/16 x 3/8 x 18) from spar to base of L.E., making sure all joints are covered. Pinning and rib cap struts (1/16 x 1/4).
6. Center plank and rib cap struts (1/16 x 1/4).
7. Drill 3/16" pin hole for 3/32" pin hole and attach lead out cable. Bend & 2/32" push rod as shown in Fig. 2. Turn wing over with top up. Trim all assembly nut. Check for ease of movement. Glue in place. Seal with epoxy or solder nut to prevent loosening. Glue in place. Make sure pin hole and cable work freely.
8. Glue in L.E. pinning and center plank on top of wing. Glue wing nuts (Ets) between ribs and T.L. and tighten against spar. Also glue wing tip stiffeners (Ets) to outer notch in L.E. for the engine. Before cementing to oval shape and before cementing to cutout, cement L.E. to cutout of L.E.

3. Carefully cut out plating (between 2 center section ribs) that overlaps engine mount as shown in Fig. 2. Do not glue. Mark and drill engine mounting holes. Glue engine mount and nacelles in place using excess epoxy. (If available, for added strength coat engine pod with fiberglass or epoxy resin and glue, for cloth or nylon cloth across joint between nacelle and wing.)

10. Assemble tank end by cementing the two white styrene halves together. The plastic should be cut so that the flange will fit over the opening for rubber hose. After assembly, make sure these are sealed. Drill opening for rubber hose after my contact. This is VERY IMPORTANT! Make an opening for the hose on the bottom wall to be made about 1/8" larger to allow the hose to slide through easily. If you have a hole saw or drill bit large enough go around the tank wing joint with glue and nylon reinforcing tape added.
11. After attaching all springs and edges round, plane may be covered with aluminum foil covering and dope. Other coverings let the wing flex more and are not recommended.
12. Shape stabilizer and horn, then assemble as shown. Drills 7/16 diameter holes through booms 1/4" from end, making sure all the holes are lined up. Insert the stabilizer x 1-1/2" into the holes in the booms and secure in the matches in the L.E. of the stabilizer with 3/4" wide tape and glue.
13. After wing has been finished, place booms in position. Mark outline on wing and then puncture wing covering (both top and bottom sides) with a pin in the center of each boom. Then punch holes in the wing with a 1/16" hole size glue to bond the booms to the wood of the wing, not to the covering only.
14. Install control bar (not supplied) and solder tailt control to 2C' in each direction. An excessive amount of control will cause only plane to stall in one direction.

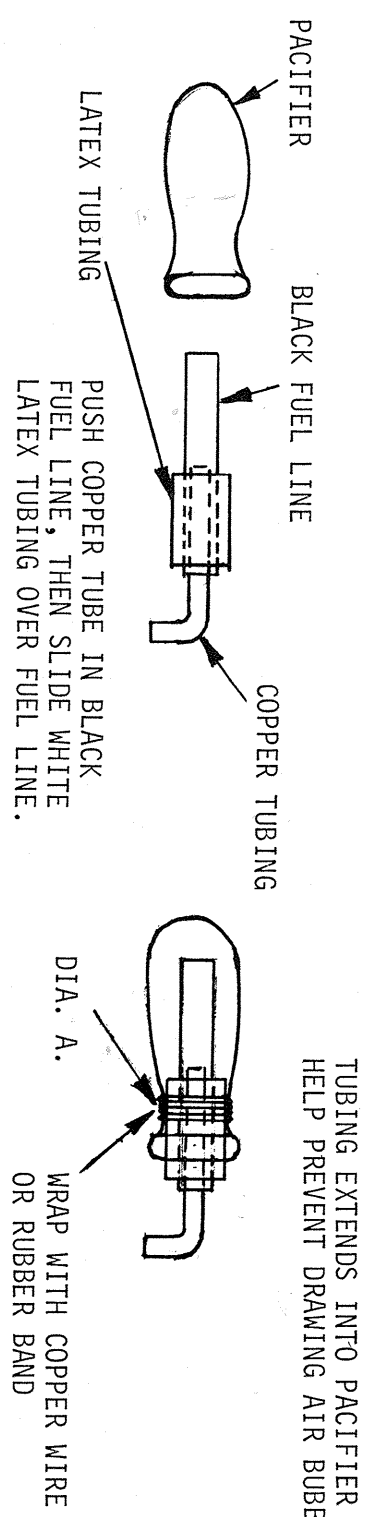
the Spectrum is designed for a .35 engine

The type of prop used depends greatly on the weight of the plane, the individual engine, the fuel and the altitude. 8-8, 9-6, and 9-7 Rev-Ups, 9-6 power props and 8-8 nylon tornado will all perform quite well, but the right one depends on the specific conditions.

Note: Fly on .015 lines for maximum performance.

HOW TO CONSTRUCT A PACIFIER FUEL TANK

PURCHASE BINKY PACIFIERS AT LOCAL DRUG STORE. PACIFIERS SHOULD HAVE A WHITE PIECE OF LATEX TUBING IN IT.



This final system is very reliable when done properly. The main objective is to keep all sharp objects (drift, grass, plastic bags, etc.) out of the fuel pod – one way that he is to drill the hole in the pod only as big as DIA, thus leaving rubber-11p covering hole which will help keep out drift and grass. Note: if DIA is drilled too small a vent hole may be necessary for displaced air to escape (drill 1/4" on top of pod if necessary).

FUELING AND STARTING

Fill pacifier like a balloon, using a 4 ounce fuel bulb or syringe and your favorite hot fuel. Open needle valve a slight amount until it drips at a constant rate. Start engine, controlling the fuel by pinching the fuel line. Once it starts, release fuel line and tune.

