

Roland

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fighters in which case a fixed Spandau machine gun was added forward of the pilot's cockpit. While the deep fuselage afforded a spacious, comfortable cockpit, the wing hindered downward visibility so windows were fitted in the fuselage side. Due to good streamlining the craft

ROLAND C-II LIST OF MATERIAL

(Medium balsa unless otherwise noted) Two 1/4'' x 3'' x 36'' for fuselage sides, top, and bottom, wing tip and center section; (2) 1/4'' x 1/4''bottom, wing tip and center section; (2) $\frac{1}{4}$ x $\frac{1}{4}$ x $\frac{1}{4}$ x $\frac{3}{6}$ for fuselage interior strips; (2) $\frac{1}{4}$ x $\frac{3}{6}$ for fuselage interior strips; (2) $\frac{1}{4}$ x $\frac{3}{6}$ for wing ribs; (2) $\frac{1}{4}$ x $\frac{1}{2}$ x $\frac{3}{6}$ for wing leading edge; (1) $\frac{1}{4}$ x $\frac{1}{2}$ x $\frac{3}{6}$ for wing trailing edge; (1) $\frac{3}{6}$ x $\frac{1}{2}$ x $\frac{3}{2}$ x $\frac{3}{6}$ soft balsa for empennage and wing struts; (1) $\frac{1}{6}$ x $\frac{2}{2}$ x $\frac{3}{6}$ for fuselage bulkheads, wing tip and center section; (1) $\frac{1}{4}$ x $\frac{6}{2}$ x $\frac{1}{2}$ plywood for wing joiners and fuselage bulkheads; (11) $\frac{3}{6}$ x $\frac{5}{6}$ x $\frac{1}{2}$ x $\frac{1}{8}$ hardwood for engine and belicrank mounts; (1) $\frac{1}{4}$ x $\frac{2}{2}$ x $\frac{1}{2}$ x $\frac{1}{2}$ for nose block cowl and spinner. $\frac{1}{1}$ dia. music wire for control rod and tall skid; $\frac{3}{3}$ dia. music wire for landing gear; white Aristo-craft silk wing covering; $\frac{3}{1}$ 6 x $\frac{3}{1}$ x $\frac{1}{2}$ hardwood elevator spar; white and black Wondur-cal insignia; $\frac{3}{2}$ oz. can Aero Gloss Curità with the prosession of the strip of the s

Balsa filler coat; 4 oz. can Aero Gloss Curtiss Blue Dope; 6 oz. can Aero Gloss Swift White Dope; (1) tube Aero Gloss Plastic Balsa; one ounce bottle dark gray Aero Gloss dope (optional); Flex-i-Grit sanding mylar; (1) large tube Ambrodi Cement; (3) 2/0 and 3/0 sandpaper; 8 oz. can Aero Gloss Clear Dope.

Miscellaneous: Straight pins, nuts, bolts, Per-fect large belicrank and control horn. Acme "U" plastic fuel line, miniature Wheel Co. 2½" dia. World War One wheels.

Paint Notes: Mix white and blue dope for the sky blue color.

landed at fairly high speeds so some early models were equipped with a drag brake to shorten the roll when landing. The "Wahlfisch" was so successful it remained in action until the Autumn of

The plans reveal the Roland makes an ideal control liner. The absence of cabane struts means solid attachment for both wings; fuselage is rugged and its streamlining enhances appearance. An engine .23 to .35 cubic inch displacement should provide ample power. Rib spacing as shown is exact scale.

Construction instructions appear on the full-size Hobby Helpers plans.

Tempo

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pan as shown. Drill two 7/64" holes for 4/40 hold down bolts.

FUSELAGE: Top crutch is next. We used maple but basswood is lighter and would probably do just as well. Fit the pan-engine unit to the crutch. A recess will be needed to clear the engine lugs and mounting bolts. Mark and drill the pan hold-down holes in the crutch making certain that you keep the right side outboard. Attach "blind" retaining nuts. Cut the bottom crutch, laminate it to the top crutch. Draw two lines lengthwise down the center of each 2" side of 2" x 1" bottom fuselage block. Tack 2" x 1" bottom fuselage block. Tack glue it to bottom crutch making sure block center line is on body center line. Cut landing gear mounting platforms, tack glue one in place on bottom fuselage block. Trace air outlet onto bottom fuselage block just behind landing gear platform. With all these parts in place

carve bottom fuselage block to shape. Remove landing gear platform and block, hollow to outline shown.

Tack glue top block and rear former

in place, shape with razor-blade plane. Remove and hollow. Rear former shape and front end of top block will vary slightly with type of pan used.

WING: Choose hard and soft %" balsa for wing, butt-join with resin or white glue. Trace wing outline onto balsa so leading edge is hard balsa its entire length. Shape airfoil with razor-blade plane. Insert ½" x ¾" maple stub spar, block sand wing. Mark wing position for bell crank and lead-outs. Using \(\frac{1}{8} \)" wide router blade in an X-acto knife cut lead-out grooves in wing top. Install 3/32" aluminum tubing and leadout cap strips. Sand cap strips flush. Bend ends of 3" bellcrank down at 90° angle and attach lead-outs. Recess wing for bellcrank clearance, attach on stub spar. Attach pushrod, check clearances.

Mark wing mounting position on bottom crutch and trim. Pin wing in place on crutch, trim bottom fuselage block to fit around wing. Cut and fit upper and lower baffles and permanently attach wing, baffles and fuselage blocks. We prefer making this assembly with resin but white glue should serve equally well.

LANDING GEAR: Laminate two landing gear platform pieces. Cut music wire. Make 90° bend where two pieces join. Cut brass tube bushings to fit retaining clips. Bend rest of gear, attach to mounting platform. Recess bottom fuselage block to clear landing gear, attach unit with resin or white glue. Cut openings for compression screw, needle valve, and exhaust.

STABILIZER, ELEVATOR, AND