

Walt Mooney's LAIRD LC-DE



A conventional yet challenging biplane Peanut for scale buffs.

• This Peanut Scale model of the radial engine version of the Laird LC-DE biplane was scaled up from Robert Hirsch's excellent scale drawings. It makes a very interesting little model of a classic airplane, and although it will not get higher durations than a *Fike* or a *Lacey*, it does fly very stably in smooth, clean circles. Best duration indoors so far is 35 seconds.

The model is very conventional, so there will not be a put Part A against Part B type of article here, rather, specific details will be considered. It is assumed that a modeler who decides to build this knows how to read plans and how to build balsa structures over a plan.

The structure at the front end is relatively massive because of the radial engine cowl and the large diameter wheels and the pants enclosing them. Use lightweight (rather than hard) balsa for these parts to keep the total model weight low. A Peck-Polymers plastic propeller was used on the model shown. This can be replaced with a carved balsa propeller if desired, and some weight will be saved. The original model turned out to be a little nose heavy. Balsa wheels were used and are recommended rather than hardwood wheels.

The three formers at station A should be laminated together cross grained. The two at B should be done similarly, the forward part of C can be laminated if desired (it was a single layer on the model shown). Note the top, side, and bottom formers just aft of the shaped piece. The top of the fuselage from C to F is covered with a wrapped piece of 1/32 sheet balsa. The drawings of the formers (below the side view) also show the approximate size and the location of the basswood body stringers.

The plywood outer wing struts are faced on each side with soft 1/32 sheet balsa and then sanded to a streamlined cross section. The cabane struts are model railroad basswood sanded to a streamlined cross section. They extend down through holes in the top fuselage skinning, and are cemented to the top longerons as well as to the skinning and to each other at the top wing.

Williams Brothers dummy cylinders are used to simulate the seven cylinder Warner Scarab engine. Cut the outside edge of the nose plug to a septagonal (seven-sided) shape as indicated in the front view to simulate the crankcase. Then slice about a three thirty-seconds thick slice off of a dummy cylinder and cement it onto the front of A centered in

the appropriate positions as indicated by the seven radial centerlines. The slice will have to be trimmed to fit between the forward cowling ring and the trimmed thrust button.

The cylinder head rocker box clearance bumps are carved from soft balsa.

Although the trailing edges of the wings and the tail surfaces are drawn as if they are tapered down to a near knife edge, they should probably be left about one thirty-second of an inch thick to provide a little resistance to surface warping.

The wing dihedral angle indicated in the front view is relatively moderate for a Peanut, but has proven to be quite adequate for this model. The model should balance on the leading edge of the bottom wing.

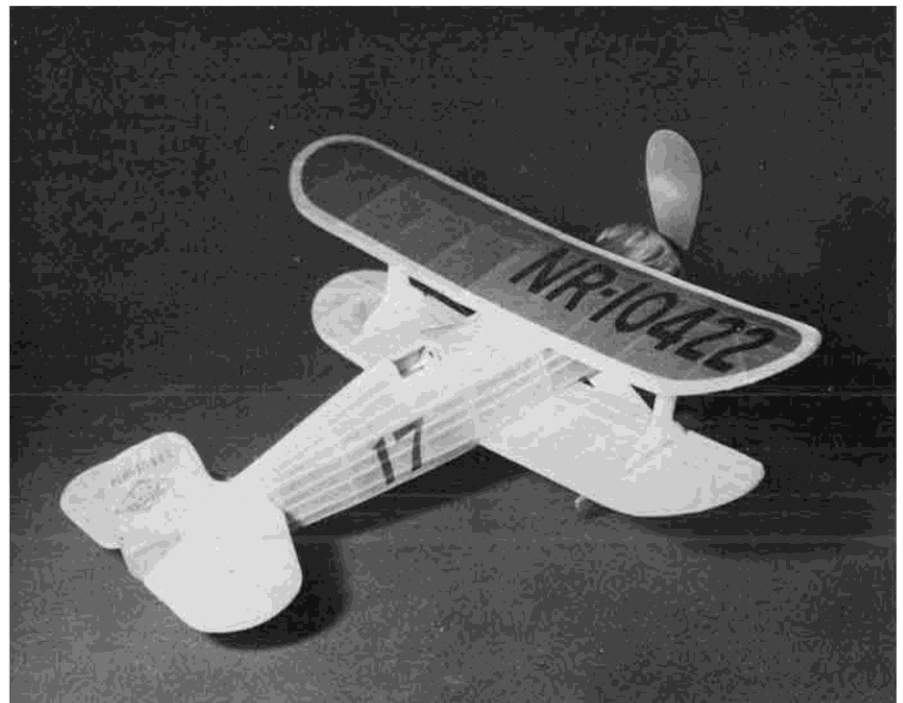
Monofilament fishing leader was used for all brace wires. Use six-pound test leader or lighter.

The color scheme shown is one those depicted by Hirsch. The model shown was overall white, with red trim and black registration numbers on the wings. Red felt pen was used to color the cowl and the wheel pants after they had been given several coats of sanding sealer. A fine lined red pen was used to do the

vertical tail lettering. The wing numbers and the racing number "17" were cut from tissue. The color pane on the top wing was put on after the white tissue had been water shrunk and then given two coats of thin dope. It was cut to shape and carefully glued in place with thinned white glue. The glue was only applied in a very thin line along the exact outer edge of the color panel. When the glue was completely dry, the color panel was water shrunk. Then, when this was dry, it was given one coat of dope. Then, the registration numbers were doped in place.

The model shown was flown in left circles indoors. It required a little left rudder and had about an eighth of an inch of washout on all wings. Because it turned out a bit nose heavy it also required all the up elevator adjustment provided for in the design. That is, the horizontal tail spar rested against the top longeron. A loop of 3/16 flat rubber twice the length of the motor base provided about the right power for the model.

Have fun flying the Peanut Scale version of the round engine Laird LC-DE. •



Walt Mooney's Peanut Scale version of the Laird LC-DE is a really sharp looking model. Flight times may not be the highest, but it will sure get attention!