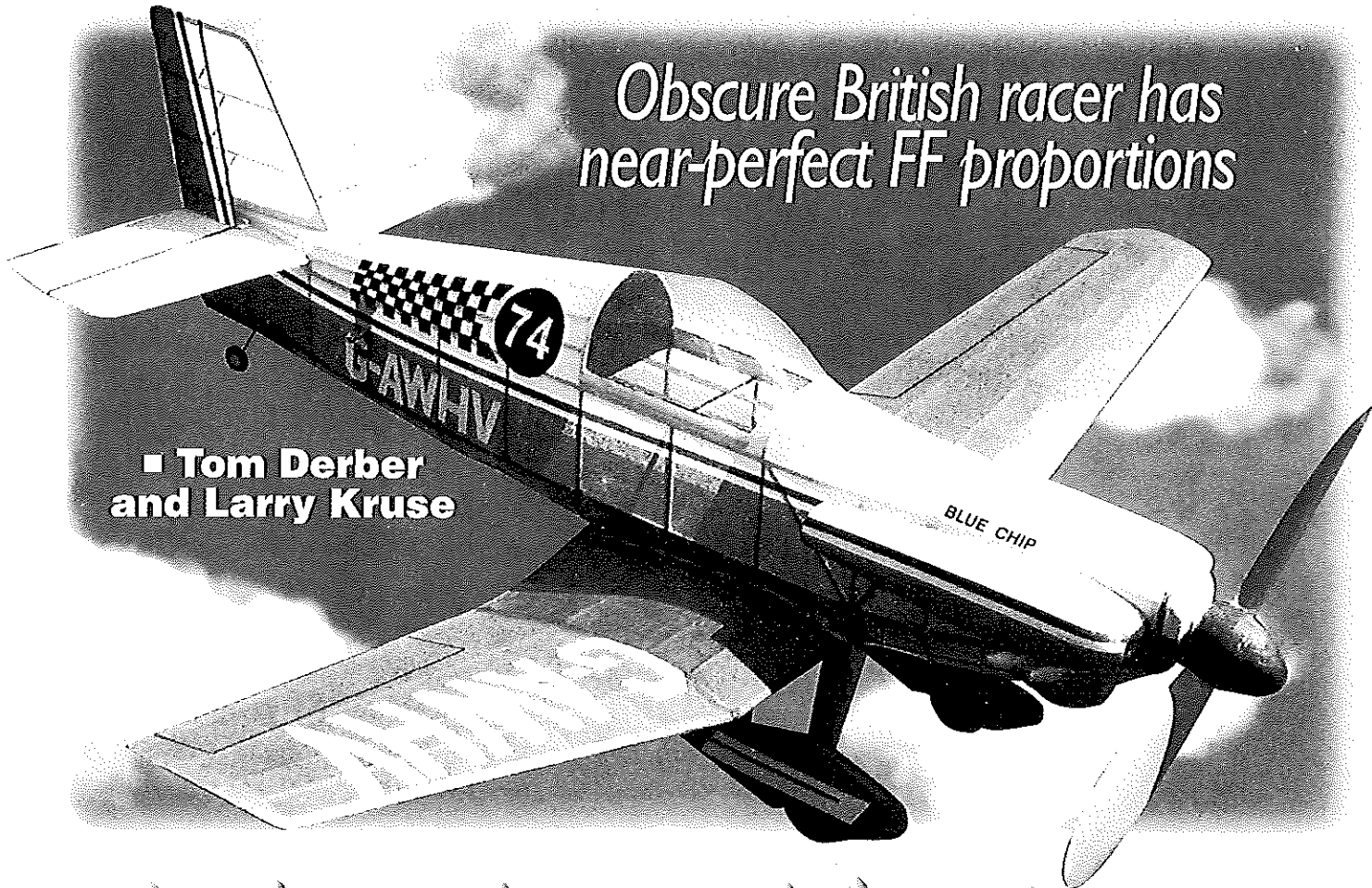


Obscure British racer has
near-perfect FF proportions



■ Tom Derber
and Larry Kruse

Beta Blue Chip Racer



Tom Derber prepares to launch his jaunty racer. The spiffy trim scheme duplicates that of the original full-scale aircraft.

IN 1965 the British firm Rollason Aircraft and Engines, Ltd. sponsored a competition for ultralight sport airplanes. The aircraft that the well-known lightplane firm Luton GP entered in the competition proved to be a very attractive design in a low-wing racing configuration, weighing only 564 pounds but capable of speeds close to 220 miles per hour.

The prototype Beta racer, as it was named, spawned two designs that were basically clones of each other. The Forerunner, sporting the number "56" on its turtledeck, flew in 1970 and bore the license G-ATLY. Its crisp red-and-white paint scheme was accented by sharp black trim lines that began at the rear of the pronounced check cowls and extended aft and up through the top of the rudder.

A refined version of the Forerunner with a slightly shorter wing was dubbed the Blue Chip and emerged three years later bearing the license G-AWHV. In contrast to its sister aircraft, the Blue Chip was done in a dark-blue-and-white paint scheme with a black-and-white checkerboard field flowing aft of its "74" racing number.

Both airplanes were flown exclusively in British events such as the Heineken Trophy and the Mackenzie Hill Trophy races. Because of that limited competition, the designs are not nearly as well known as some of their American counterparts such as the Shoestring and the Rivets.

The fact that the Blue Chip (and its sister aircraft) was not as widely known made it the perfect subject for designer Tom Derber when his Flying Aces Club Squadron decided to start a new mass-launch event for Goodyear- and Formula One-type racers.

Tom also picked the Blue Chip for its good proportions, substantial tail volume, and structurally advantageous low-wing

trim to the vertical fin, again making sure to line up all smaller trim pieces with the main fuselage trim.

The canopy is "plunge"-molded from thin celluloid sheet using a balsa-wood male mold sanded carefully with 600-grit sandpaper to eliminate any scratches that might show up later in the celluloid. Trim the finished canopy carefully to the fuselage contours, and attach it using Wilhold R/C-56 or similar glue. Cover the canopy edges with tissue-covered bond-paper strips, as shown in the photos.

Give everything a last coat of 50/50 thinned nontautening nitrate clear dope. Apply the control-surface lines with a permanent marker on the wing and tail surfaces. Cut the spacer at the back of the stabilizer slot to slide into the stabilizer, then reglue the spacer.

Shim and tack-glue (no cyanoacrylate glue here!) the stabilizer into place so that adjustments can be made if needed for flight trim. Glue the vertical fin and tail-wheel assembly in place. Finally, apply the race-number circles, the checkerboard trim, and the Blue Chip name you have copied and sealed with clear Krylon® on frisket film.

Trimming and Flying: Make a braided rubber motor as recommended on the plan, install it, and give it a few hand turns to take out the slack. Use clay ballast as required to balance the model at the center of gravity (CG) shown on the plan.

Test-glide the model by adjusting the CG and stabilizer incidence as needed to achieve a smooth descent from a hand launch. Tall grass is preferable to concrete for this portion of the flight regimen.

Start power flights at low power, making incremental thrust adjustments to get a gentle left turn. A bit of washin (TE down) in the left wing may be necessary to keep the wing up in a turn, particularly as power is increased and torque builds.

Add turns to the motor in an incremental fashion, and make thrust adjustments to control the power burst. Once the airplane is trimmed out properly, it should fly in large, climbing left circles and transition to the right for the glide because of the effect of the freewheeling propeller.

You can expect flights of a minute or more from this saucy little British racer. Good luck with your Beta Blue Chip! **MA**

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Scale Documentation Source:

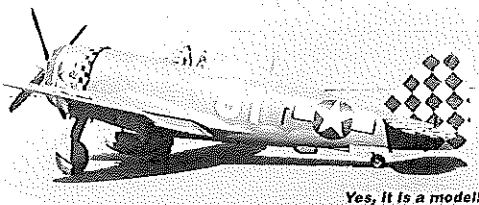
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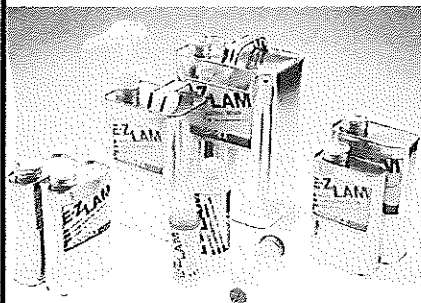
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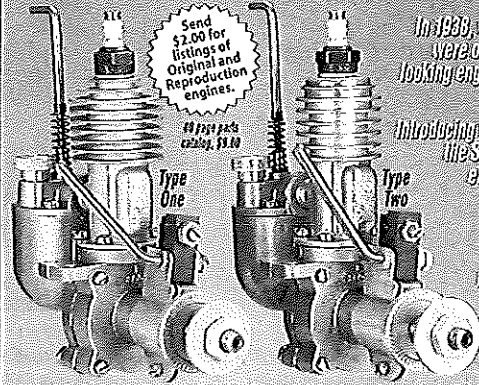
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