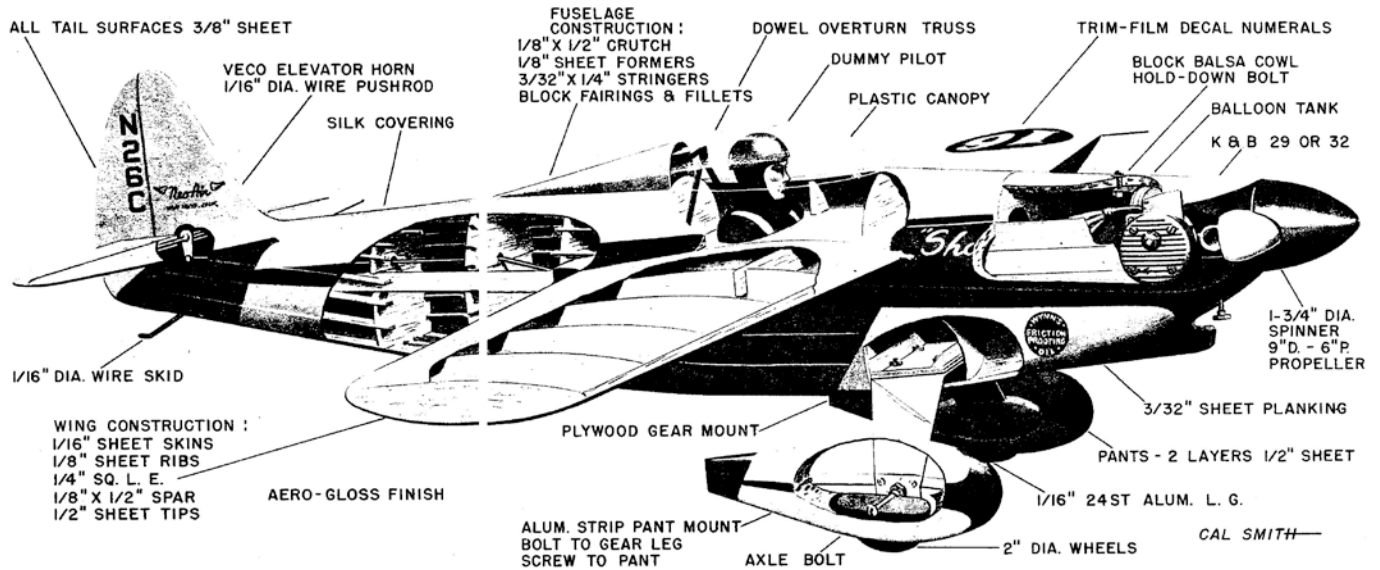


# Shoestring

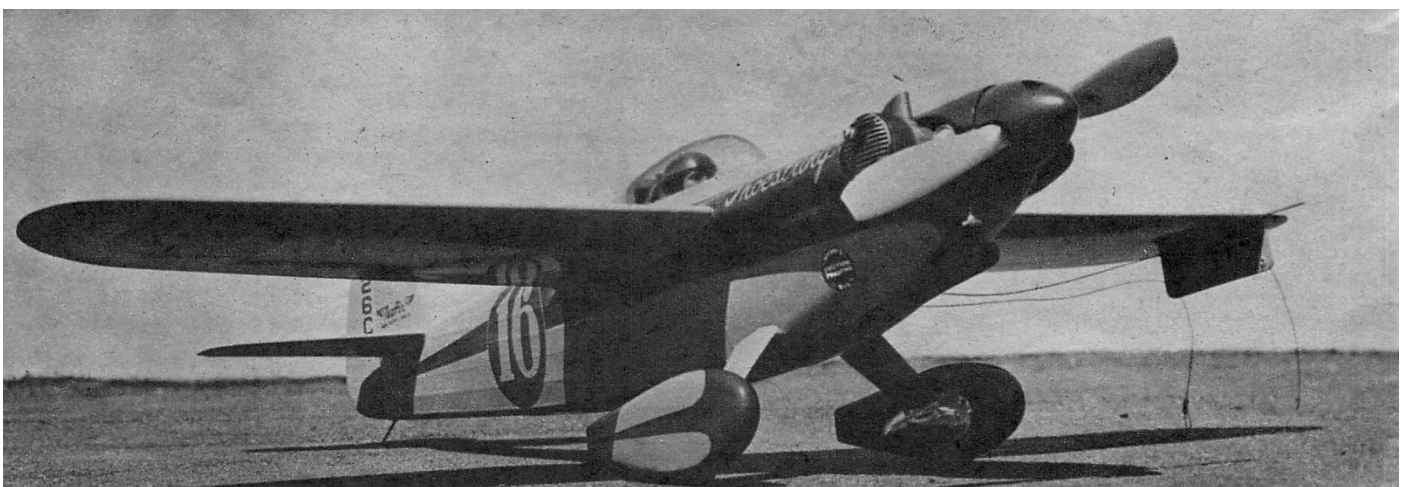


**Right from the design drawings, this U control flying scale's accuracy is something to rave about. Let's go, men! By S. Calhoun Smith.**

Since the inauguration of the Midget racing class in 1947 under Goodyear sponsorship, the basement-built pylon polishers have shown remarkable progress-in design and performance. Race speeds have jumped from 165 mph (1947) to 200 mph, and the airplanes themselves have demonstrated the high degree of craftsmanship and ingenuity of the individual builders in gaining so much performance from the 85hp Continental engine.

Now sponsored by Continental Motors, the midget races held in Detroit in September 1951 saw Shoestring a second-time winner of the big prize.

Pilot John Paul Jones, from Van Nuys, Calif., turned in the highest qualifying speed of 197.2 mph, and flew the race to win at an average speed of 199.778 mph. Which meant that some of the laps flown were well over 200 mph. Equal credit must be given to both pilot and airplane designer. Jones flew the course like clockwork, emphasizing the value of precision flying as a race winning factor. Rodney Kreimendahl, designer of Shoestring, turned out a beautiful design with much attention given to the other race winning factor cleanness. .



If it wasn't for that K&B engine and control line guide, you'd swear this is the full scale Shoestring. Ain't she a mighty purty job?

# Shoestring

The ship is a high mid wing with engine fairing following through into the wing fillet the most desirable arrangement. All flying surfaces are filleted well into the fuselage. The flat plate Cessna type landing gear has a generous fairing, and the wheel pants are relatively large, making for good streamlining of the chubby wheels. The bottom of the oil tank is shaped to lie flush with the lower cowling line, and external fins are welded directly to the tank to aid in oil cooling.

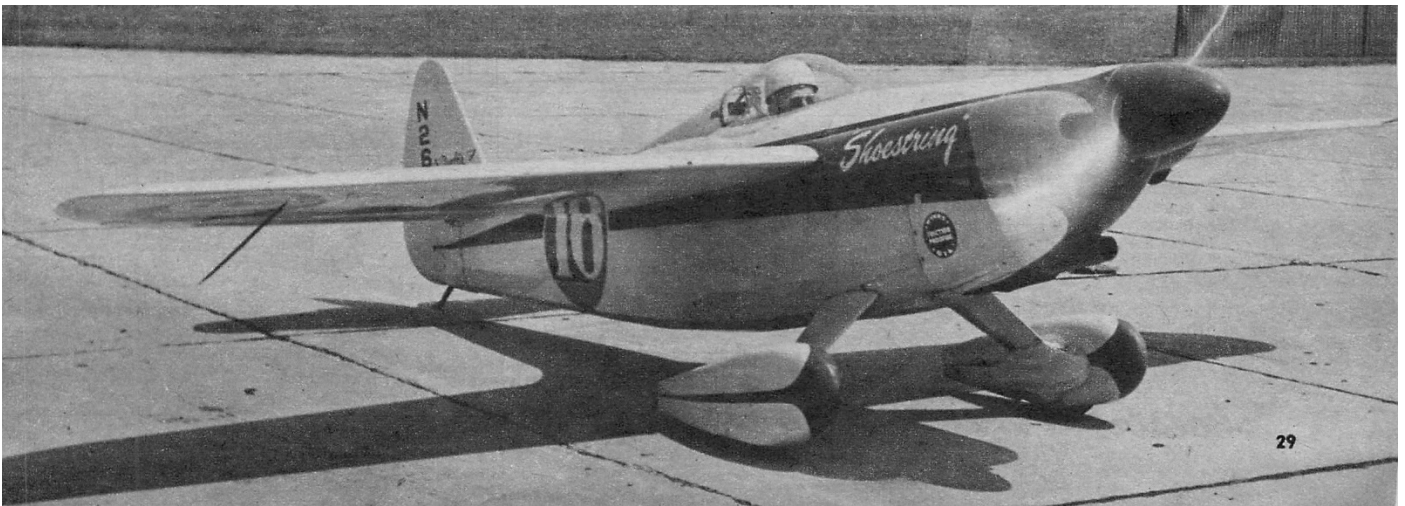
A reworked Macauley metal racing prop is used and engine exhaust stacks are pointed rearward for the small advantage gained by jet action of exhaust gases. The overall impression of the airplane can only be described as "solid." Proportions, moment arms, and aspect ratios are all sensible, straightforward and honest. Span is 19 ft., length is 17 ft. 9 in.

The little speedster has welded steel tube fuselage, stringered and fabric covered, with all wood plywood covered wing and tail surfaces. Engine fairings, cowl, struts and pants are aluminum. The most outstanding feature of the airplane is the finish. The color scheme is a bright chartreuse and fire engine red, rubbed down and waxed to the highest gloss seen at the races. You can barely stand to look at the ship in the sunlight!

Modeling Shoestring is a natural for flying scale. The plans presented are scaled directly from accurate three-view drawings supplied by the designer. The odd scale of  $1\frac{3}{4}'' = 1'$  was chosen so the ship would have a reasonable size and wing loading. Every effort was made to keep the construction light so good flight performance would result.

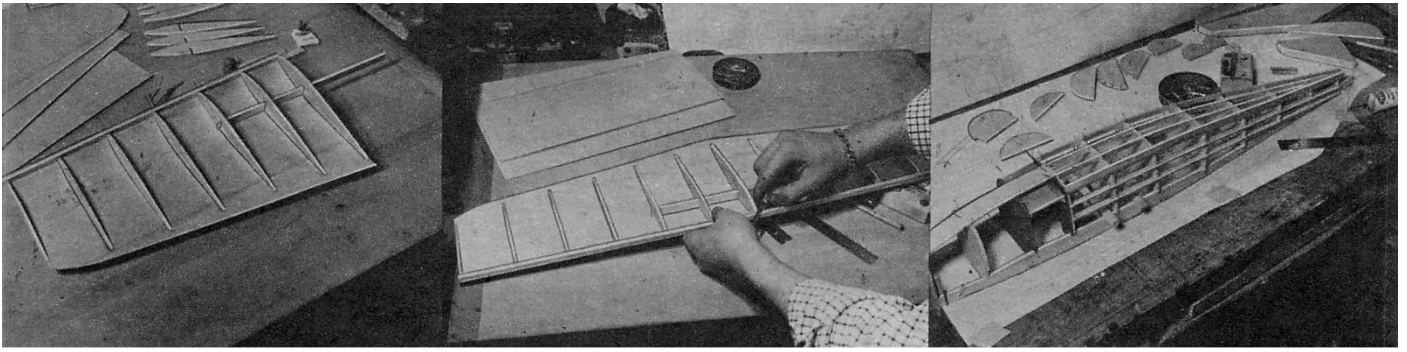
Span of the model is 33" and length 31". Wing area is 200 sq. in. and weight 28 oz., giving a wing loading of 14 oz./100 sq. in. With the K&B .32 engine the ship really moves and the symmetrical airfoil permits some stunting, although the ship is not light enough to compete as a pure stunt model. The symmetrical wing is the main departure from scale on the model.

Construction details on full size plans available.



**Shoestring spans a mere 19 feet, yet flies at more than 200 mph! Sleek Continental racer took top honors at two National Air Races.**

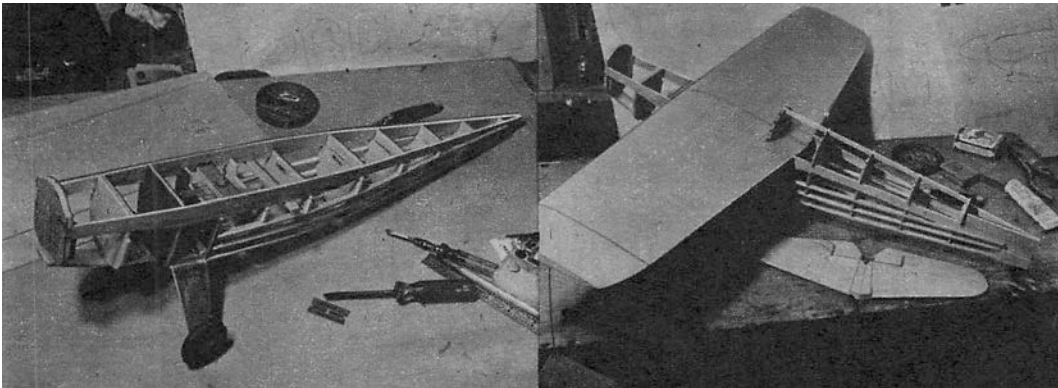
# Shoestring



Construction begins when you lay out wing skins cut out ribs, cement to skin add L.E. repeat for other wing.

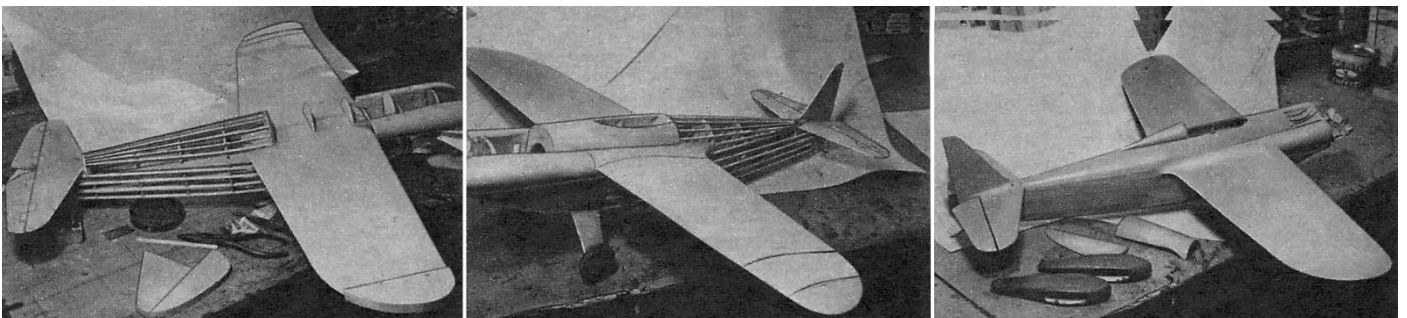
Next step is to bevel the leading and trailing edges put wing skins in place, pin to ribs and leading edge tape the trailing edge into position.

Build fuselage crutch upside down over the plan top view add the formers, bottom halves and the stringers. Then let dry.



Take fuselage off board, make the landing landing gear and install add the bell crank, control line lead outs as well as pushrod.

Glue the wing in permanent position, add the top formers build up the stabilizer platform and also skid block make the horizontal tail.



Install the stabilizer connect pushrod add top stringers, and the top formers in front rough carve, add engine fairings, tip blocks.

Add fin build up tail fillets plank the nose section proceed to carve fillets for the wing, then complete wing tip carving.

Carve fin, pants and nose cowl cover and prepare for doping prime and fill all the surfaces spray if it is at all possible.

This flying scaler is no project for the novice but Joe "Average" Modeler can turn out a super copy in this manner.