



KEITH-RIDER R1 "SUZY"

By TOM NALLEN . . . A special and unique event had its first Nationals showing in Dayton, Ohio. This was the winner of what we hope will become a classic, the Thompson Trophy Race for rubber scale.

• If you think you'd like to try your hand at turning a pylon, here is a representation of the Keith-Rider R1 as campaigned in 1936 by Rudy Kling. The R1, spanning only 21 ft., was powered by a 544 cu. in. Menasco engine rated at 260 HP. It began its racing life, as the all silver "San Francisco I", and from 1939 through 1936, was among the most consistent money winners on the air racing scene. During her racing life, she served as the mount of such noted speed flyers as Ray Moore, Steve Wittman and Roger Don Rae. After her acquisition by Kling in 1935, the R1, now wearing blue and yellow colors and dubbed "Suzy", garnered a world light-plane closed course speed record as she scorched a 100 kilometer course in Denver at 228 MPH. "Suzy" passed from the racing ranks at Los Angeles in 1936 when Kling, having been beaten by the Caudron of Detroyat for the Greve Trophy, rolled her into a ball while swerving to avoid a movie truck that came into his path during his landing. Kling escaped serious injury and went on to achieve even greater acclaim for his work aboard the Folkerts aircraft.

This little speedster typifies the race-planes of the era, and is fun to fly. "Suzy's" best official time to date is 86 seconds. She consistently does 50 to 60 seconds, having gone over a minute many times.

The fuselage is built using the keel and former method. The only points perhaps needing mention are the need for

care in maintaining fuselage alignment, and the slot for the stab. Stringers are added alternately side-to-side, attached first at the middle of the fuselage and working toward the nose and then toward the tail. As the stringers are brought to the rear post, a slot for the stabilizer is created that is tapered, but closed off at the rear by the post. At the post, which runs from upper to lower keel, fill in between the glued-on stringers with scrap sheet. The tail post should be cut through just below the upper keel to allow insertion of the stab and, when in place, glue lightly at the rear. After covering and assembly, but without prop and rubber, add clay to the noseblock to place the CG at the front spar of the wing and test glide over that well-worn tall grass, changing stab trim as required for optimum glide. The tapered opening provides shimming room for the leading edge and is covered over when final glide trim is achieved.

As a starting point, drill about 5° downthrust and 2° left thrust into your noseblock. The original flies in wide left circles. The left wing is slightly washed-in, and tweaks of left rudder give precise control of circle size. If "Suzy" oscillates longitudinally in flight, add a little more downthrust. A prop of 7-1/2 inch diameter, carved of pine, is used on the original (plastic is fine), swung by four strands of Pirelli (2mm) about 26 inches long when new. The rubber stretches with use, and after the Nats and a subsequent FAC meet, "Suzy's" motor measured close to 31

inches in length and had nothing left. With a new motor, I like to work up from about 145 to 160 turns, with a 9:1 winder, as the heats go along. I don't use a free wheeler on my racer because dependability is paramount, and Murphy's Law is big in elimination type flying. However, most of the guys use them, and if you are confident in your device, it should add to your time.

The airplane is covered entirely with blue Japanese tissue, with the exception of the rudder and noseblock, which are yellow. Adhesive-backed yellow plastic shelf liner, purchased in a local department store, was used for all of the trim on the plane but the written "Suzy" on the cowl and the small registration numbers on the fin. These were painted on with a triple 0 brush. My model, less prop, noseblock, and rubber weighs in at .7 oz.

"Suzy" is a veteran of over 200 flights, and though wearing many patches, and with a lube-spattered fuselage and the subtle warps of old age marring her beauty, she still loves to fly.

**MODEL
BUILDER**

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