

C-23 Wooden Doors *By Bob V.*

CAR DOORS ARE COMPLICATED THINGS—one of the big tooling costs involved in building a new car—separate dies are required for each door. Midget Motors designed their cars using great ingenuity and the materials readily available.

Midget Motors had no budget for door stampings and dies. Their little 55-ton press was kept busy making the Model 1 and Model 2 grilles deemed critical to the “real car” look that would elevate King Midgets out of the ranks of ordinary mail-order cars that came and went in those days. Doors got a lower priority.

When the Model 3 was designed, a key objective was to eliminate any deep-drawn parts, which Claud said “slowed production.” What actually slowed them down was the hand trimming of the parts they stamped from soft aluminum. No way Dale Orcutt wanted his workers hand-trimming door parts with snips.

All Model 1 and the very first Model 2s had no doors and that’s why those cars are so hard to enter and exit. Their designs were of the “cockpit” persuasion, and drivers were expected to be agile enough to climb in and scramble back out. If you’ve tried this on a Model 1, you know it can be quite a trick for anyone not at the peak of youthful vigor. The M3 is much better still—and customers wanted doors.



The earliest M2 doors were rather primitive, made of canvas sewn over a wire frame, with plastic windows and not so much as a flap for arm signals. Clearly a temporary fix. As soon as the founders could catch a breath, they worked out something better.

We don’t know the details of the steel door’s development but one can picture Claud stumping for proper metal doors with sliding (if not roll-up) windows, while Dale protested his factory was overworked without such complications. Marketing vs. Manufacturing, on a small scale. Anyway a nice design was created, all metal doors with proper latches and sliding plastic windows. Cute and practical.

But building those doors can be tricky. Lot’s of little details and in volume, those details were at odds with the fundamental King Midget mantra—simplicity. Besides, the King Midget was marketed as a convertible, even though its top was an option M2 owners had to take off, leave it home and risk rain or hedge your bet by leaving the top installed. The metal doors compounded the problem. For truly impressing the girls, you had to remove and store both doors as well as the top.

The wooden doors introduced in about 1954 seemed a better compromise. Easier to build, lighter in weight and functionally superior. The side curtains were more easily removed and re-installed if the weather forecast proved wrong. No top? Keep the ol’ Wisconsin floored to keep

SHOP NOTES King Midget Maintenance and Restoration

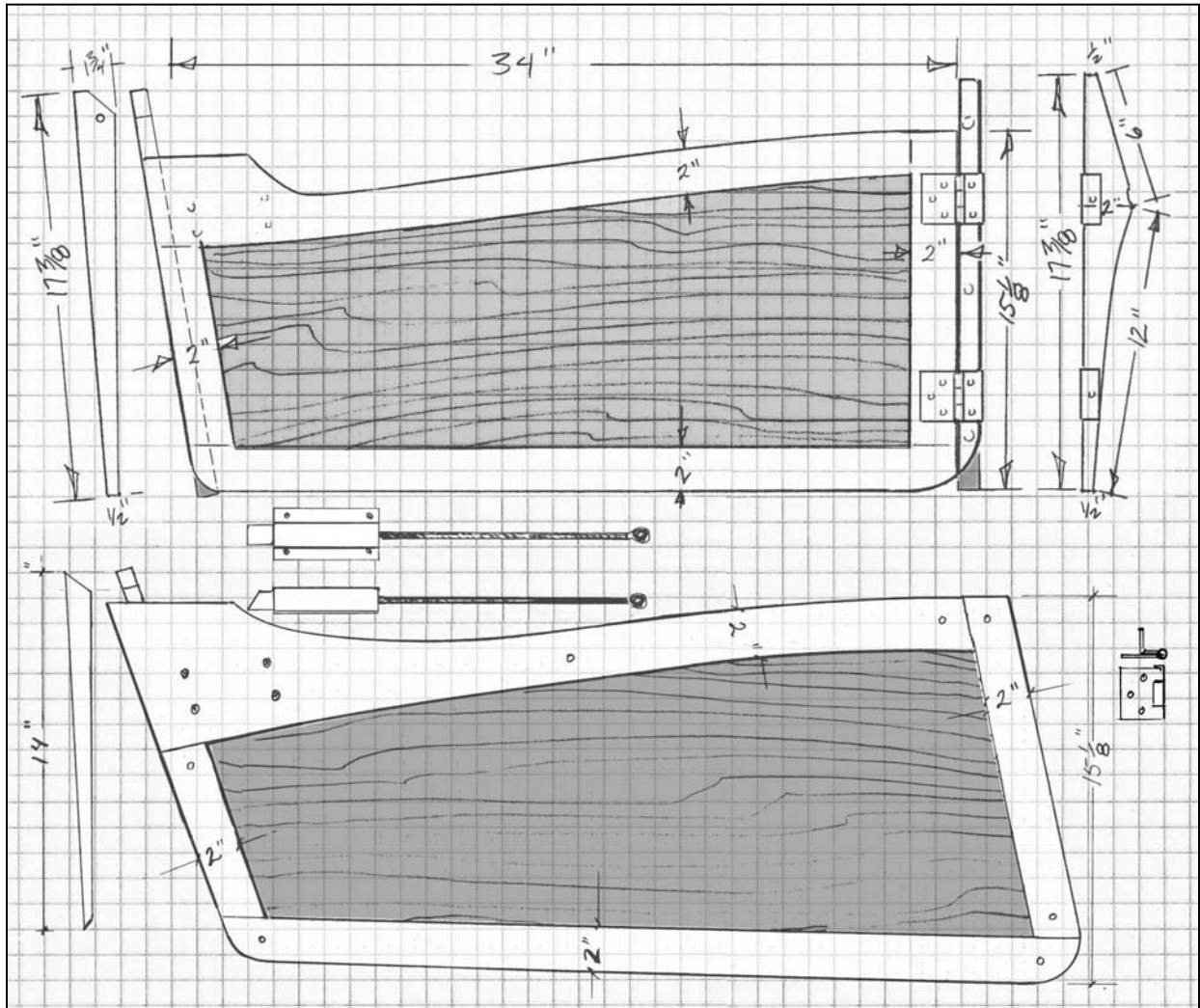
most of the rain off your girlfriend.

Wooden doors proved serviceable for the rest of the M2's production.

For the Model 3, the founders again wanted metal doors—at least Claud did. Dale, maybe not so much. Serious design issues arose. It appears that nearly all customers wanted doors, and also wanted easier entry and exit. Golf models were popular enough that the doors had to be removable, so the car could be driven with one foot on the fender's footrest.

The compromise that got worked out was removable wooden doors on a body that looked half-finished if used with the doors removed. Once again, after the initial flood of orders for the new cars tapered off, the metal doors always intended for the M3 were put into production; still removable for golf models.

It was this approach to simplified automotive design that made it possible for Midget Motors to continue the evolution and improvement of their little cars during the years when the founders were at the helm.



Each square represents one inch.

If you want an authentic set of doors, use oak for the framing and lauan for the plywood inserts. Above all, pay careful heed to the proportions of the curves on that top piece. If you have difficulties laying it out, draw a series of one inch squares on the wood and use the grid superimposed on these drawings to determine where the curves cross. Cut roughly to shape and use a belt sander to fine tune the curves before assembly.

C. Body & Frame

SHOP NOTES King Midget Maintenance and Restoration

The top drawing is a passenger side door for a Model 2 and the lower drawing is the wooden door offered on early Model 3s. The frames are made of $\frac{3}{4}$ " oak while the insert is $\frac{1}{4}$ " lauan plywood (you can choose other materials, but these are the original specs). Corners should be joined by pegs, overlaps or any good joining method and everything glued with exterior glue and finished with varnish. Both types use the same hinges, but they don't show on the Model 3, being attached directly to the doorpost. The M2 requires a tricky filler post as shown, as well as the filler at the rear. Both cars required a rear filler because of the five degree "tumblehome" of the rear section of the car. Latches are surface mounted on the inside of the door and are available from American or import sources. One problem with wooden doors, they don't age well if not cared for. Many existing King Midgets lack their original doors and we get periodic requests for details on replicating them. Several years ago at a Jamboree, I took photographs and made crude measurements based upon Model 2 and Model 3 wooden doors believed to be authentic originals. Copies have been sent to some of you upon request, with the caution that King Midget bodies vary, partly from the factory and also due to wear and tear, sag, stretch and change. In building your doors, don't take these drawings as gospel. Also, do not assume one side of your car will be perfectly symmetrical with the other. Measure and fit to suit!

Some of you have gotten copies of those early sketches and I apologize. They are less than fully correct. Most notably, I showed the overall length of the doors as 34 inches, whereas that's actually the length of the opening. The length of the doors can vary a bit since in both cases, they overlap the rear section of the body. I've also fine tuned the curves of the top pieces for this article. □