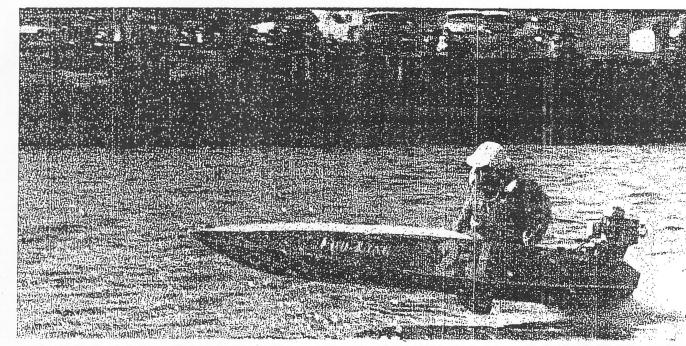
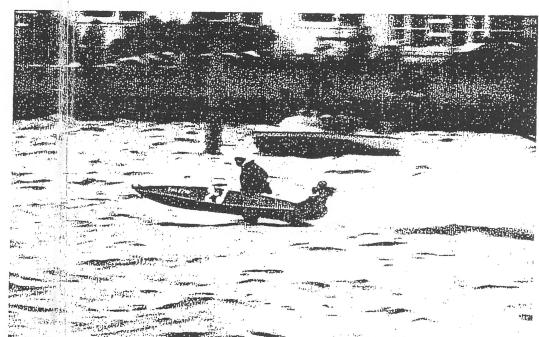


She is riding a bit too light—we were trying for top speed and got her to do a little over 53 mph.



Can she take rough water? You bet your life she can! We are way out in front at this point, and stayed there.

Notice how light she is riding-and the driver weighs 170 lbs., a bit heavy for 'A', but he got her to do 45 mph.



A first place at Elizabeth City, N.C. We won by over a third of

## BILL OF MATERIALS

BRONZE, MONEL, or EVERDUR FASTENINGS 2 dozen %" #8 flathead wood screws I gross of %" #8 flathead wood screws gross of 14" =8 flathead wood screws dozen of 11/2" =8 flathead wood screws 3 lbs. of 1" =16 Anchorfast nails 950 to lb. B carriage bolts ¼" x 4" with nuts and washers PAINT PRODUCTS 5 lbs. of Weldwood glue I lb. of Wood Dough or similar surface filler I gal. of Spar varnish for interior, decking, and exterior Decking and sides 2 sheets of marine grade plywood 2 x 4' x 8' Bottom non-trip chines, seat, and flooring 2 sheets of Marine grade Plywood 14" x 4' x 12'

SITKA SPRUCE or WHITE CEDAR Sheers and upper chine. ottom stringer. Bottom stringers. Deck frames, etc. HONDURAS MAHOGANY iside of keel at bow Transom framing.

ARDWARE

Piece of steering rope 26' Safety throttle Bowden throttle cable 5' long l Racing fin 2 Forward steering pulleys, with anchor straps 2 Steering line tieback 2 Stern lifting handles 1 Bow handle 24' of ½" oval aluminum

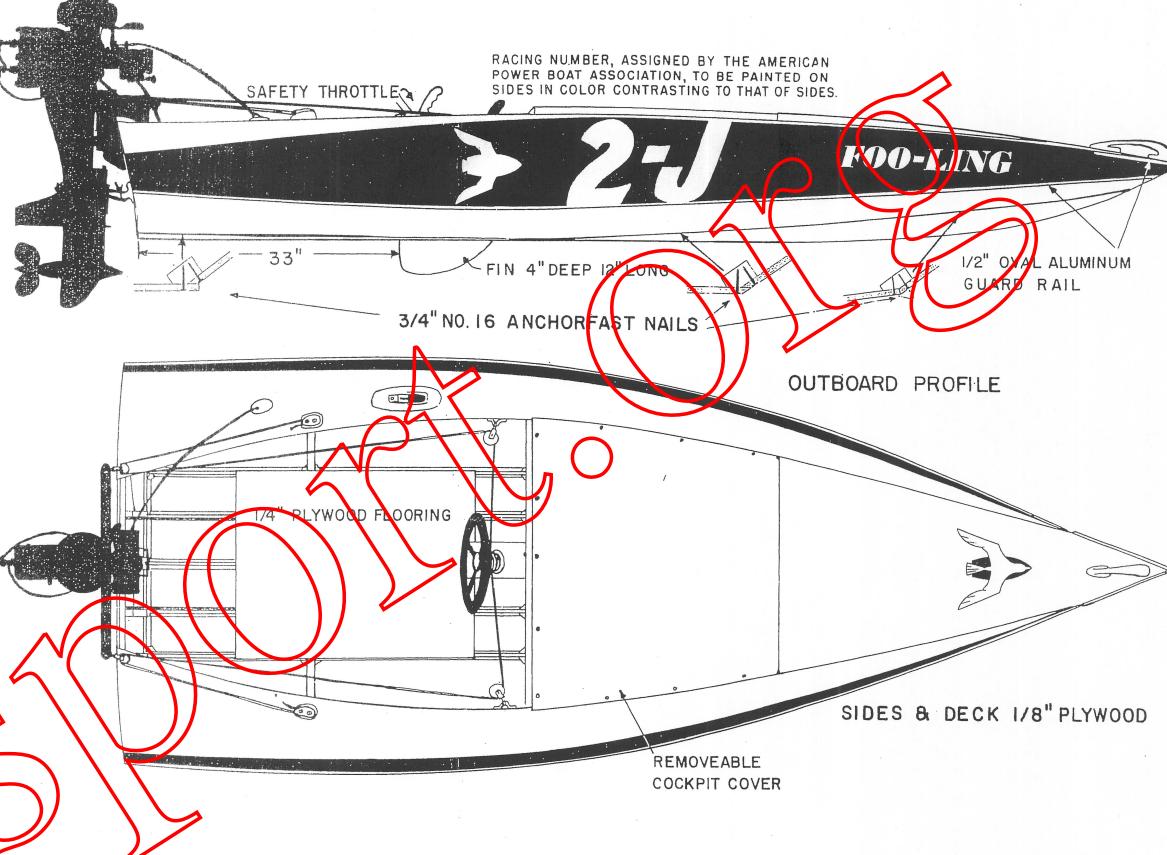
2 Steel 'S' hooks to hold rope block to steering bar

Dash and dash beam

Steering wheel

## **FIBERGLASS**

The bottom of FOO-LING is fiberglassed, up to the top of the non-trip chine at the expense of 10 extra lbs. Costs ran me a little less than 40 cents a foot. I used a medium weight glasscloth, 50" wide, which left no seam on the bottom at all. A The above may be obtained from Whitehead Metal Products Co., he, thin application of the plastic was applied to the bare wood with a brush. After it had hardened (the next day), I laid the cloth over the bottom and trimmed to fit. You need not cut out a V for the front as it drapes over the bow very well. A generous coat of plastic was applied to the bottom, the cloth laid over the bottom and smoothed out, and more plastic was applied with a squeegee to smooth. The cloth becomes almost invisible if 4 pieces 76" sq. x P applied correctly. The next day with a grinder I 1 pieces 1/2" x 11/2" x 1/2" x I piece 1/2" x 21/2" x) smooth, flat, and even, and one more coat was .4 pieces ½" x 2½" x i' applied with a brush, and carefully smoothed I piece 1/2" x 8" x 11 with a lot of elbow grease and wet sandpaper. Then a lacquer compound was used to give a I piece 1/2" x 11/2" x 1/2" plate glass finish. Fiberglass is composed of I piece 1/4" x 8" x 11 plastic and a hardener plus the glass cloth or mats. I piece 1/2" x 7' x 1" You have to work rather fast. It's a two man job he above may be obtained from; RENDALL LUMBER, MARINE as the "pot life" is short or long depending on how AINT and HARDWARE; 4116 Tonnele Ave., North Bergen, N. 1 much hardener you use. By short "pot life" I mean that the mixture hardens in the pot before it hardens on the boat. One minute it is liquid but then it starts turn into a jelly and process get very hard in a matter of seconds. that for the beginner it is a Nog job. sults are very rewarding. It is literally glass and just as smooth. The be a full discussion by any means, but just a fev words to let you know what you are in for i would like to fiberglass t



## Building FOO-LING

FOO-LING-Will qualify under the A.P.B.A. rules for both 'A' and 'B' Stock Runabout and is very fast in both rough and good water. Highly naneuverable, she will bank in a tight turn right up on her side due to the fact that the upper chine is placed on the OUTSIDE of the non-trip which keeps the boat from sliding out. This type of construction I have never seen attempted on a plywood-planked hull. On a wider turn she can be made to ride the outside chine. As a marathon boat she is great. This strip of wood on the outside of her non-trip keeps her from diving into a big wave without offering a great deal of wind resistance. She rides beautifully when going into a headwind, won't wander all over the course, and runs as straight as an arrow. She will take any motor from 7 to 25 hp, but for motors other than the Champ Hot Rod and Mercury Quicksilver units, the transom will have to be made 17" high. Most important is getting the proper propeller for your outfit. This must be done before you try any hopping up of the motor. If you will give me the motor make, year, hp, and model number, and the weight of the boat with passengers, and what use you want to put your outfit to, I will tell you the make and kind of propeller you should use, its cost and, if need be, can sell you same.

When building FOO-LING, please stick to the materials listed. With fiberglass bottom all hardware and cushions she will weigh under 130 lbs. If you use fiberglass on the bottom, you can use fir plywood-so what you save on plywood you can put into fiberglass. With fiberglass and all hardware she should cost about \$130.00 and take about 80 hours to build. After accumulating the stock listed in the bill of materials, you are

ready to start on the ribs. Due to space limitations only half of the ribs are shown, but since the ribs are the same on both sides this will offer no problem. Cut out all of your rib components and place them on the full-size rib drawings using Anchorfast nails and screws as indicated on the drawing. A piece of thin tracing or wax paper will keep the glue off The bottom of each frame is continuous from chine to chine; check

drawing for size and shape. The sides of the frames are 11/2" wide and straight-sided; the large gussets form the non-trip chines. Place the frame components on the layout and hold them in place with temporary fastenings. Place two plywood gussets over frames (one on each side) and fasten with glue and %" #16 Anchorfast nails. You will not have to drill pilot holes for this size nail. Use as many and about the same placement as illustrated on your full size rib drawings. When all 4 gussets are in place, carefully inscribe the center line on both sides. Assemble the transom and transom frame. Cut transom from 1/4" thick plywood. Transom framing is 18" or 18" thick. Assemble transom frame. All lapped joints should fit snugly. Coat mating surfaces of the joints and fasten together with 1/4" #8 screws. Carefully notch for battens, keel, bottom chine, and sheer before assembling transom fr to transom. Glue and fasten transom to transom frame with Anchorfast nails placed about two inches apart.

The keel and stem are one piece, ½" x 1½", but forward of Rib #1 it is backed by another piece ½" x 1½". Both are gloud together when the proper shape has been obtained, and steading is not necessary. This can be done now or later on, when all the rib are set up. After the glue in the frames has hardened cut the notches for the bottom chine and sheer. Note that only in rib 12 do the bottom stringers go through, on transom, rib #3 and rib #1 they bu The boat should be built on a level wooden floor, or on a wooden cradle laid on a concrete floor (see step-by-step drawings) in an area about the size of a one-car garage. Lay out the center line and frame lines on the floor or cradle according to the spacings given in the drawing, using such temporary bracing as you feel necessary. Set up frames and transom; a couple of nails will hold each frame to floor or cradle. When all is securely creeted, double check and make sure every bin lines up. Remember, no hooks or rockers in the hothern. Coat the bottom stringers and notches with glue and slip into place. T to ribs and transom with small blocks; glue and fasten in place with 1" =16 steel brads. Next slip the keel in place with glue and 11/4" =8 flathead wood screws, using two screws to secure to transom and all

ribs, and one about every 8" to the bottom stringer. The same pro-

eedure is used on all battens except that one screw is used to fasten to

transom and all ribs. Next secure the bottom chine and sheers, using glue and 11/2" #8 flathead wood screws. Where they butt against the stem and transom, bevel them to obtain a good landing; one serew at each frame, transom and stem. The bottom chine is cut thinner (%" thickness; this will allow it to bend easier and lighten the nose. Don't forget fin bracing from Rib #2 to Rib #3. Add 1" after plane to transom. Fairing is probably one of the most important phases. If you have done a good job of setting up the frames, this should not be too difficult a task. Use a plane and a good wood file. Carefully trim and fair so the plywood planking will lay on all structural members. Check the fair from time to time as you progress by springing battens around the structure. Remember that from Rib #2 to the transom the bottom must be perfectly flat, and the plywood bottom can't be flat unless the structural members are faired flat. The non-trip chines are fitted first. A large sheet of wrapping paper will come in handy to give you a rough idea of their shape. Cut the panels a bit oversize, clamp in place and mark the outline of the bottom chine. Remove them and cut out a weebit over size. Remember to glue and fasten in place the 1/8" thick by 114" sq. wood blocks at the top of the non-trip chine of each rib. The bottom goes over the edge of the chine except up towards the front where they butt each other. After the non-trip chine is fitted, glue and fasten it in place using 3/4" #16 Anchorfast nails to transom, bottom chine and stem, and one nail at the top edge of the chine at the transom and each rib.

You will have to fair the bottom of the non-trip where the bottom will rest on it, and up towards the front where the bottom butts the chine. The bottom goes on much the same way and is all one piece with a V cut in the front to allow the bottom to come to a V. Up towards the front it will take a little careful fitting to make the bottom butt into the non-trip chine. Use a few screws to temporarily hold the bottom in place while you are fitting it. Mark on the bottom from the inside where all the battens, etc., come in contact.

Glue is applied to all structural members that the bottom will to and also to the bottom where you have marked areas the batters, will contact. Put the bottom in place (a two-man job) and seresame screws that held it temporarily in place while you were fitting bottom. 3/4" #16 Anchorfast nails are used to fasten the bottom is transom, keel, battens and stem. Place about every 1%" apart an counter sink a bit (about 'a''). The bottom is best fastened to the battens forward of Rib #2 with %" #8 flathead wood screens, placed about every 4" apart, and counter sink about he". After the bottom is dr plane the edge at the same angle as the chine, except towards the back where it is allowed to remain square. This gives your little lip to help grip the water on turns.

The upper chine is to taper towards the front about 5' for the front clamped in place until the glue is dry. At this point take the boat off the flow or by and set it up on wo well-padded horses at a good workable height. Saw off the extra piece on transom and ribs.

Fashion the deck beam, coclebit coaming, and other braces according to the plant all are 'e" thick. The cockpit coaming runs from 31/2" wide at the transon to 34" write where it is fastened to the inside of the sheer. Fit transom bracing and knees in place as indicated in drawings and photos. Knees are glued and fastened to the stringers and transom bracing with Anchorfast nails and screws. If you use a flush throttle, now is the time to put in the bracing for it (see photo).

by fair off the upper chine and fit it to the sides. the side is and fastened in place with 3/4" =16 Anchorfast nails spaced 13/4" art. When the side is dry, fair off at the upper chine as shown in the ll size Rib Drawings; also fair at the sheer line. The side decking is glued and fastened in place with 3/4" =16 Anchorfast nails. The deck beam on Rih #1 is built up on one side so you can slip the removable cockpit cover in place after the front middle decking is fastened in place. See photo and full size rib drawing. Front middle decking is fastened in place in the same way as the side decking. Glue and fasten flooring in place with ¾" =16 Anchorfast nails. This forms a structural

part of the bottom and will prevent it from warping or cupp The front seat offers no problem and is not glued in place. Use 1/8" #8 flathead wood screws. Sand the entire boat down and varnish or paint to suit your taste. Remember to varnish under the floor boards SEFORE you fasten them in place. Also, it is a good idea to varnish the entire inside before the decking is put in place. Give the inside 4 coats. The bottom, to the top of the non-trip chine, is Fiberglass. Read fiberglassing instructions. Now serew fin in place and install hardware. I bolt my back lifting handles in place as I use them to tie down my

Now for that first test run! If you are racing, he sure to have a good, sound, safe helmet. Always wear it and a good life jacket with collar, even when testing. Motor angle and height are very important for racing and a motor 's" too high or low has lost many a race. A parine speedometer is handy to have while making these adjustments. Spend a little time with your outfit; learn how to handle her; get the feel; find out where the best place is to kneel in her when turning, both in columns. and rough water. The first turn in a race is no place to learn the feel of your boat. Remember, you have a great boat, but it is only as good

Some say it's luck that often wins a rice, but you will note that the best drivers make their own luck. have a good boat, but a welltuned motor and the proper prop, p' Oh yes, and the driver counts to ican Power Boat Asse

A mistake many new drive motor too ear kicke Vout too much. ater; it's nice riding and you go do at least half of my testing on puors and practice turns. I know a even have a starting clock to practice on. I'll here's nothing like an actual race for experience, but test-

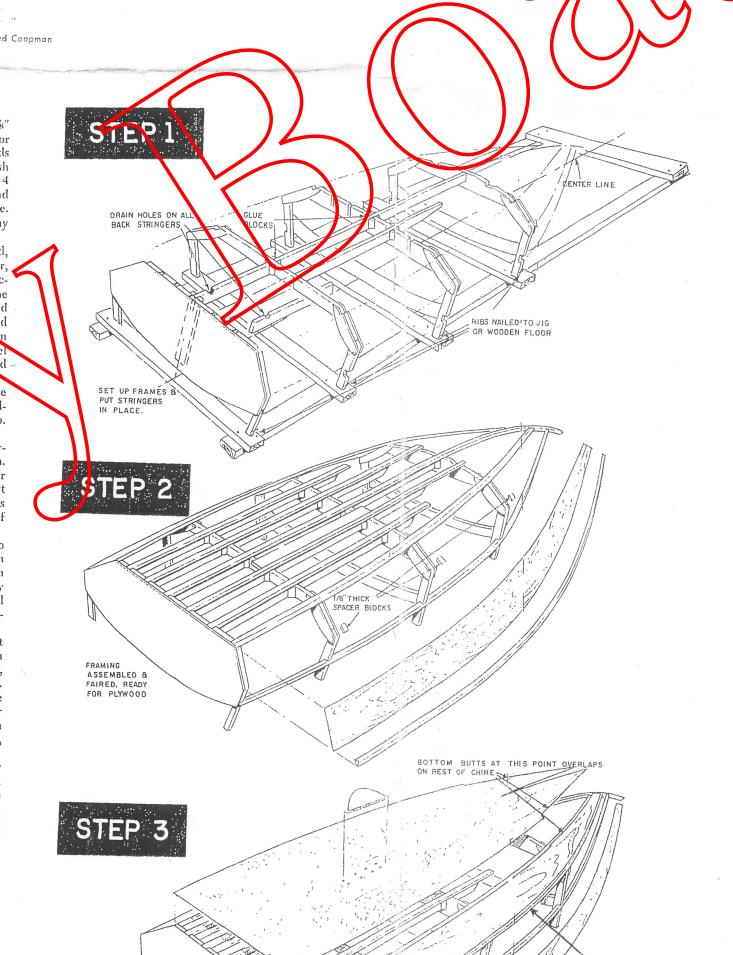
Motor vetup is not easy to learn. It's hard to know whether to kick it in (for rough waler) or out (for calm water) or how high to run. You can look around and see how the better drivers are running their boats, but frankly this is of little help because boats and driving styles differ. We seen two good drivers at a race both running the same make odro, motor, and prop: one ran on the fourth motor notch, the other on the third. Both took a first and a second, and were tied on time. I'm sure this would confuse any beginner. When you practice for a race, don't just run around. Try all kind of setups.

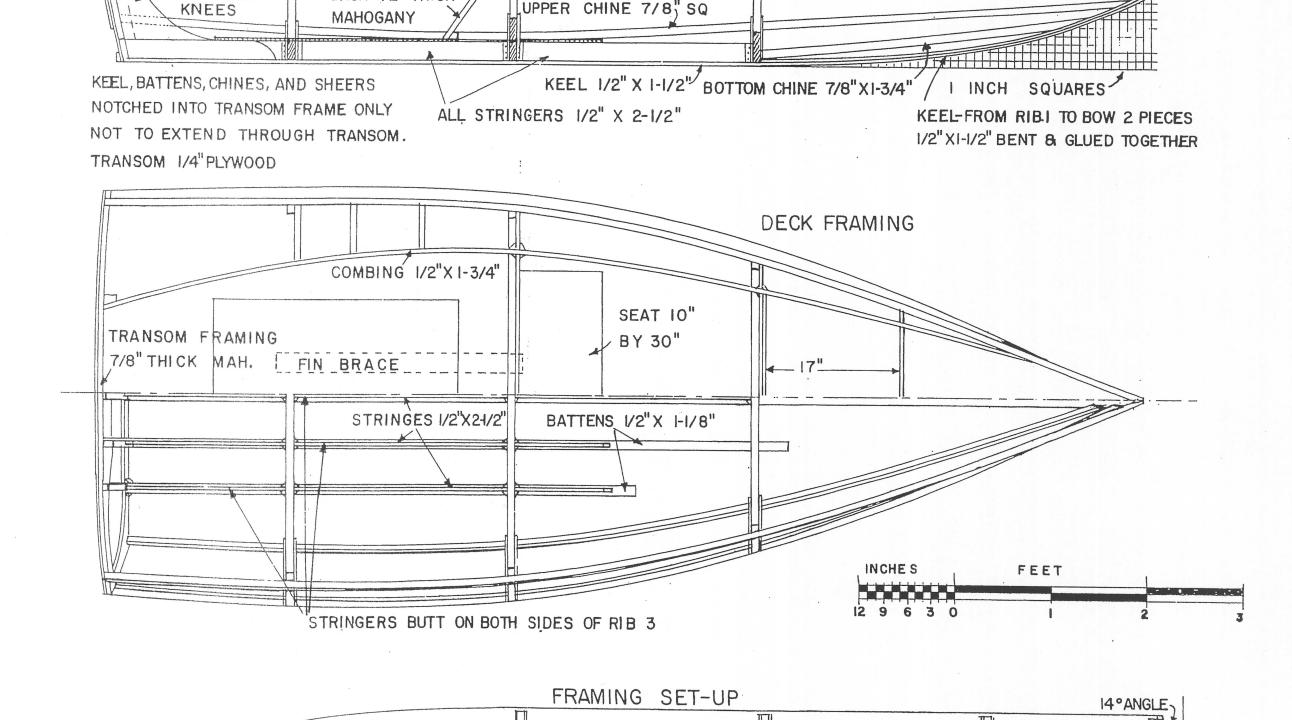
Pick-up means a lot in short-course racing and I often sacrifice a few miles of top speed for acceleration. As an example, before one race a friend of mine was passing me on a long stretch down the river. He was running faster than anyone else. With a beautiful start he hit the first buoy first in a three-buoy turn, but coming out of the turn five fellows passed him and I think he finally finished a sad sixth. I managed to steal a second in that heat,

The main thing you can do to a stock motor and remain legal is to carefully set up your reed cage and points. Run the exact amount of oil in your motor that the manufacturer recommends—no more no less. In breaking a new motor don't run a rich oil mixture, but set your high speed jet a little richer for the first hour, with the spark on two-thirds. Run the motor at half-throttle for 15 minutes. Then give the motor a five-minute break and run again for 15 minutes. Do this for about one hour running time. Now take her out and boot it wide open for a stretch, but for the next two hours running time refrain from any continuous high speed runs. I always run my motor with a full butterfly. In case of a flip it's much

safer for you and the other drivers, and will save you from a blown All in all it's a great sport and I never met a finer group of people than those within the sport. We cover about 8,000 miles each year just going to the races. When I go, the whole family goes: wife, two kids and the

dog. Win, lose, or draw, we all have a pienic. See you at the races.





RIBI

INBOARD PROFILE

SHEER 7/8" SQ