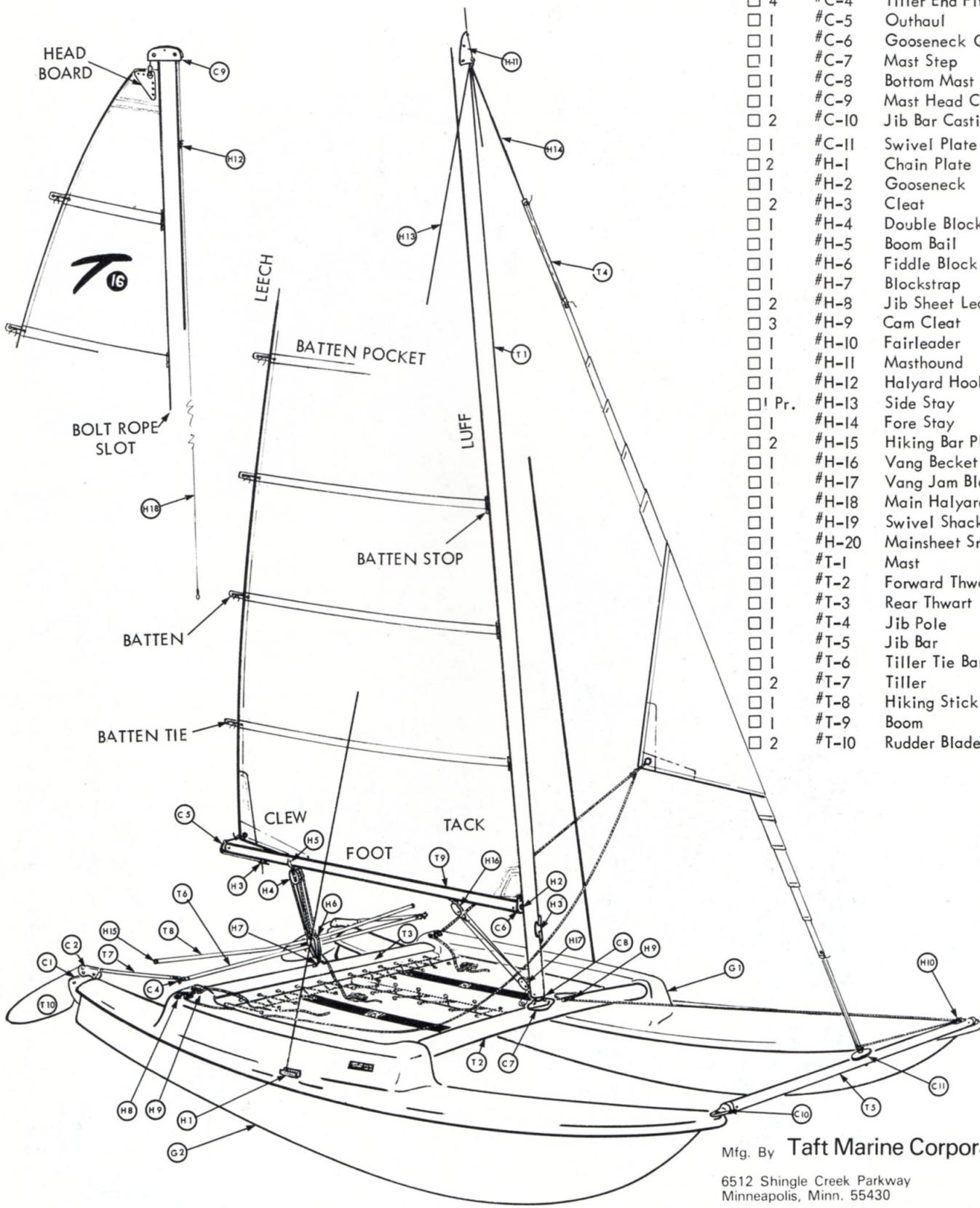


ASSEMBLING INSTRUCTIONS

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Catamaran



Mfg. By Taft Marine Corporation

6512 Shingle Creek Parkway
Minneapolis, Minn. 55430

ASSEMBLING INSTRUCTIONS

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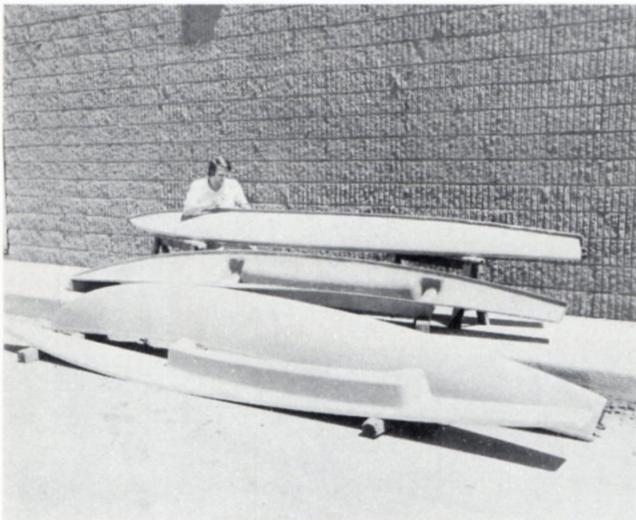
Six cubic ft. polystyrene foam is used to hold the four fiberglass sections in place during shipping. Do not throw these sections away, these sections are used for flotation inside the hulls.

Read the entire instructions thoroughly and familiarize yourself with fiberglass mixing procedures. Lay the corresponding parts together in order to note the variation in the thickness of each part. It will be necessary to remove some of the larger lumps in order that the double layer of mat will permit a good seal between the two parts. Use a surf plane, coarse sand paper or rotary disk.

Before assembling the bottoms and deck, the following items must be completed. Use this list as a check before assembly.

1. Attach rudder brackets
2. Attach trampoline channels
3. Install flotation

Small indentations on the transom are used to locate the holes for the rudder bracket (note the shape of the top of the casting), and install as shown. Use two each 1/4" X 2" bolts and nuts. A layer of mat over the nuts during the matting operation will prevent leaking and retain the nuts in case the bolts must be removed.



Holes are predrilled for the ends and the center to position the trampoline molding. Attach moldings in the predrilled holes, drill and attach the balance with screws furnished. Again a layer of mat over the nuts will prevent leaking.

INSTALL FLOTATION

Separate into two equal piles and set this important item right in your way as this is too frequently omitted in error.

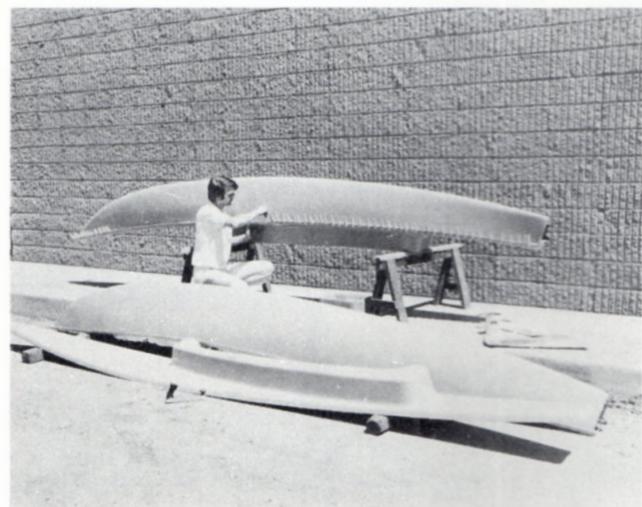
HULL ASSEMBLY

You can start a dry run of the hulls. Packing tends to flatten the hulls. It will be necessary to pull out the sides to fit the deck.

You will need 400 clamp type clothes pins to assemble the hulls.

The purpose of the clothes pins are more than an economical means of clamping.

One clothes pin does not hold very much but 400 of them do. This forms an even light pressure. Do not assist them with some other type of clamping device that will squeeze all the resin out and distort the rails. The only possible exception is the stem, see photo. The purpose is to hold the rails firmly but softly and permit the resin to drain down into the folded mat and make a water tight seal.

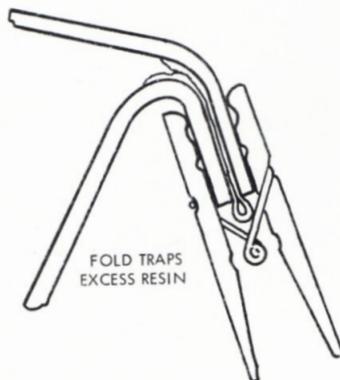


Try several practice runs of clamping with the clothes pins. You are now ready to assemble the hulls. A good wax job of the outer fiberglass surfaces will eliminate resin drippings from sticking. Automotive wax will be fine for this purpose.

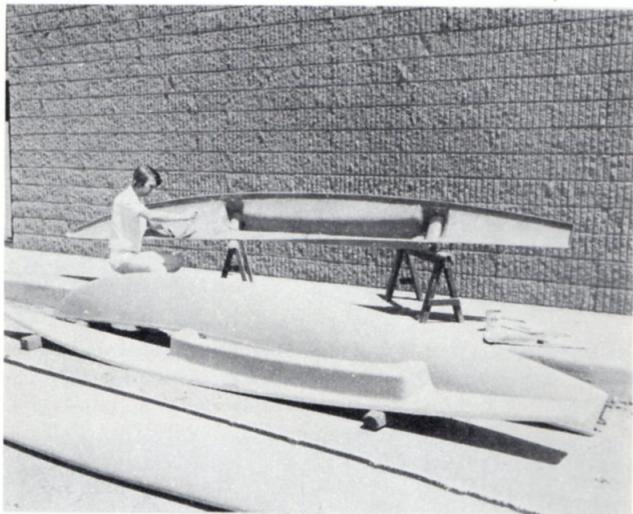
Materials needed:

1. 400 clamp type clothes pins
2. 2 2" hard bristle brushes
3. Cardboard approx. 5 ft. long
4. Several stirring sticks

To allow ourselves plenty of time we will catalyze very lightly, about 1/4 oz. to the quart, mixing very well. Mix only one quart at a time and as needed. You will have approximately 40 minutes working time. Catalyze at 1/4 oz. or 1/2 bottle per quart at 70 degrees.



Wet out the mat by rolling or brushing on a piece of cardboard. Apply enough resin and work the resin into the mat until the mat is semitransparent. Fold the mat strip in half and work most of the air bubbles out while the mat is still on the cardboard. Carefully lay the mat strip on the inside perimeter of the upside down deck with the fold up. Be sure the fold is even with the edge of the deck. It will take approximately seven strips to cover the entire perimeter. Do not lap these strips. Tearing of the strip ends will make for an even joint. Follow this fearing practice on the transom corners and the bow.



Carefully lay the hull section into place, disturbing the mat little as possible. Don't forget the foam flotation. Adjust the bottom fore and aft and attach clothes pins 1" apart.

Turn the boat right side up as soon as you are satisfied with your job and allow the excess resin to run into the fold. (see ill.)

The resin will turn jelly like in a few minutes. The excess resin runs on the outside of the boat, should be removed before this time with acetone on a clean rag. Do not be afraid to remove clothes pins in sections and wipe underneath them. Replaced with clean ones. Allow to dry approximately 12 hours.

TRIMMING

Determine a fairing line. (Suggestions) Use the edge of masking tape stuck to the side of the rub rail and trim to its outer edge. The masking tape may have to be removed and re-stuck many times until a fair line is determined. Remove little as possible of the outer edge, but do not be afraid to grind as much as 3/8", in some spots, to insure a fair even edge.



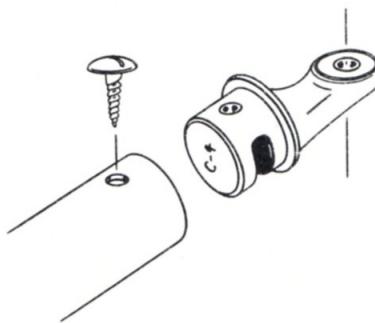
A rotary grinder will save considerable time in trimming. However, be very careful not to scratch the sides of the boat. Balance a thin piece of plywood or cardboard on the rub rail lip to prevent any mishaps (see ill.). A slight bevel will add to the general appearance see ill.

VOIDS AND REPAIRS

It is not uncommon to run into voids while you are trimming. Do not be alarmed and finish the major trimming. Pour catalyzed resin into these areas and finish trimming.

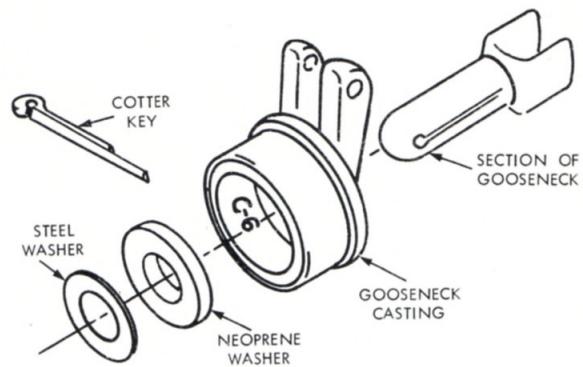
Finish sanding with fine wet dry abrasives.

No matter how careful, even the most successful craftsman scratches or chips the outer pigment layer of the fiber-glass. Furnished with the kit is a 2 oz. jar of jell coat. This material can be painted or dabbed into a chip or scratch and then when dry carefully sanded and buffed to surface. Note this material is not paint but a resin material and must be catalyzed to the same proportion as the resin used in the kit.



RUDDER ASSEMBLY

Attach as shown the tillers to the rudder cap castings using one each 3/4 X 10 screw, predrill using a 1/8" drill. Note the 1/4" hole in the tiller end fitting is parallel to the flat sides of the tiller cap casting. The small end fittings fit loosely in the 1" tiller pipe, and must be allowed to move slightly. Finish bolting the remainder of the tiller bracket assembly. (fig.) On all 1 1/4" bolts used in the rudder assembly back off one full turn after snug.



BOOM ASSEMBLY

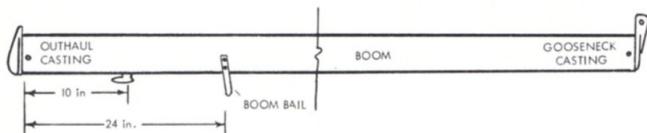
With the washers in the proper sequence pin the goose-neck to the gooseneck casting. The square stamping of the gooseneck must move freely in and out of the square hole of the casting. Attach this assembly to one end of the 2 1/4" boom. Predrill using a 1/8" drill, 3/4" from end of boom use two 3/4 X #8 screws.

Predrill and screw outhaul casting in the same manner. Note the position of the castings and align carefully.

Position the boom bail 24" from the outhaul and on the bottom side of the boom.

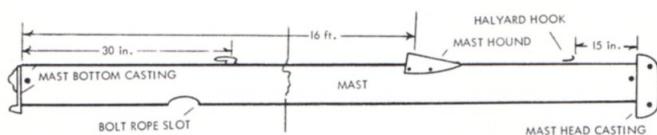
Predrill with 1/8 drill and attach using 3/4 X #8 screws.

Follow the same procedure and screw the outhaul cleat 10" from the end of the boom, note the direction of the cleat.

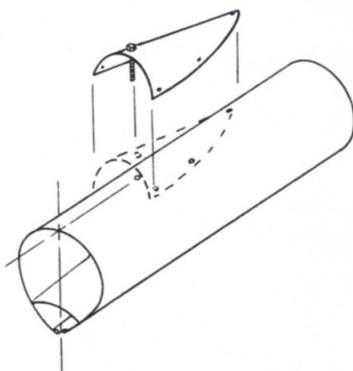


MAST

Insert the nylon sheaves in the mast head casting and the carriage bolt in the bottom mast casting. Note which ends of the castings face the slotted side of the mast. Predrill and attach these castings to the mast using 1/8" drill and 3/4" screws. Use plastic sealer furnished during assembly to prevent the mast from leaking.



Most important in this assembly is the distance of the mast hound pin from the bottom of the mast extrusion. Measure carefully 16 ft. and drill a 1/4" hole on the fore side of the mast.



Attach and tighten the 1 1/2 X 1/4" bolt and nut to the mast hound. Position this assembly on the mast so that 3/8" of thread are exposed. Predrilled 1/8" hole and attach one 3/4 X #8 screw on center and very top of mast hound, 1/2" from its edge. Maintaining the 3/8" thread exposure. Predrill and screw 2 more screws to each side of the mast hounds.

Unscrew the hound pin and attach the stay wires. Note the side stays should be first against the mast. Plastic sealer should be used throughout.

Predrill and screw using 1/8 drill and 3/4 X# 10 screws the halyard hook and cleat. Fig.

JIB BAR

The jibbar castings are drilled and counter bored to except carriage bolt heads. Be sure the counter boring is to the top side. Drill and attach castings to the ends of the 2" jib bar. Be sure the holes are parallel.

CHANNEL PLATES

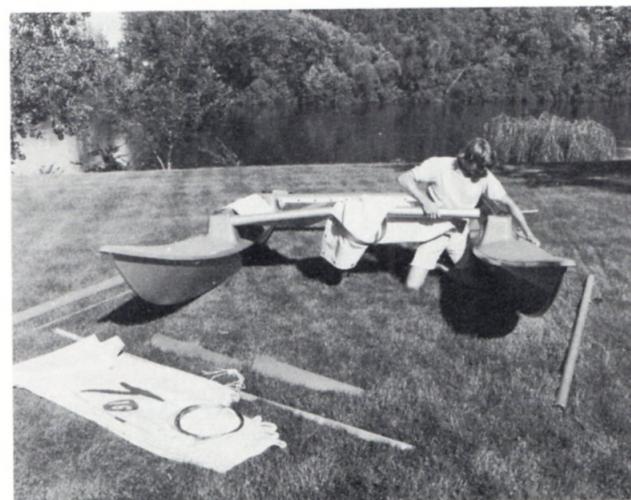
Center the channel plate on those designated molded spots. Predrill and bolt using 1 1/2 X 10# bolts and nuts. Be sure to center your drilling on the fitting below. Use plastic sealer throughout. Completely cover the bottom reinforcing plate and exposed nuts with plastic sealer.

Check each sleeve hole carefully for excess resin. Ease slightly the edges of the holes with fine sand paper. Wax thoroughly all contact surfaces of the sleeve and cross bar. Use parifin bar wax. A good wax job will ease the initial assembly and prevent excessive wear especially if the boat is to be moored.

Measure carefully and pencil mark center lines athwartship of both fore and aft crossbars. Insert both crossbars into one hull. Listen for this member to bottom in the fiberglass sleeves.



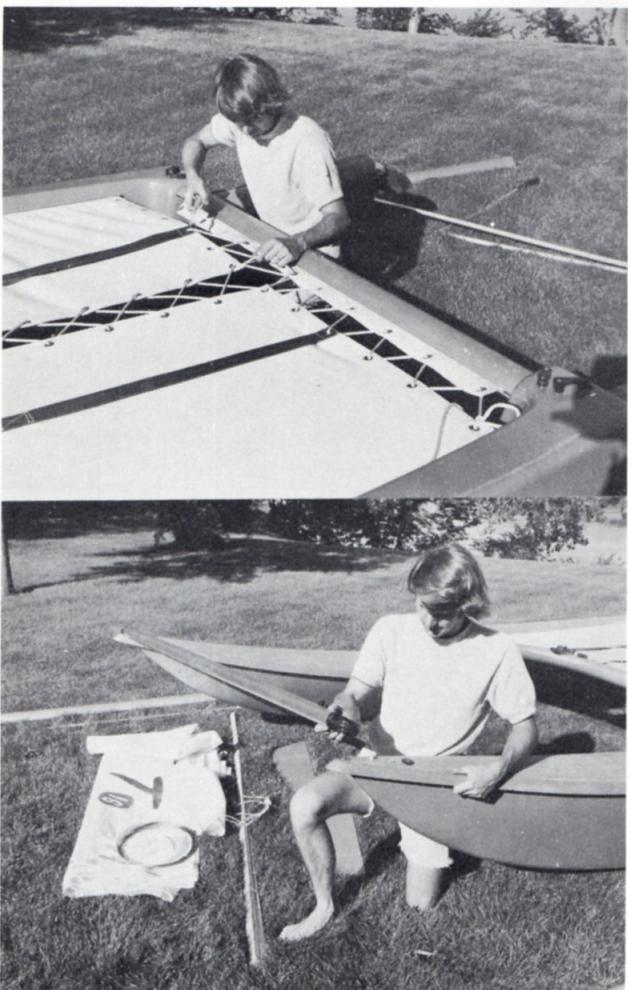
Slide the three vinyl trampoline panels into the cross bar slots. Do not insert the trampoline into the side molding at this time.



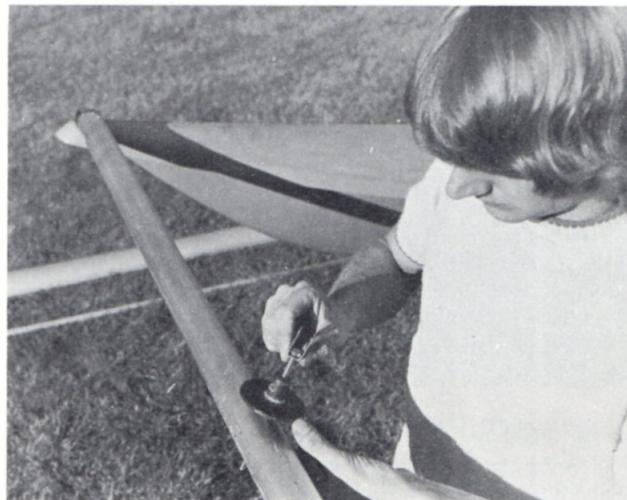
Start the rear crossmember into the second pontoon. Move to the front crossmember and start the forward crossmember into its sleeve. Carefully roll the boat on its side and pull the two pontoons together. Listen for the crossmembers to bottom.



Insert the trampoline panels into the side moldings at this time. Start at the mast step and shoestring lace the two larger pieces fore to aft. Divide the remaining cordage and zig zag lace the rear gap center to side. Use one piece of 30 ft. 1/4 dacron cord.



Bolt the preassembled jib bar on the front of the boat. Predrill through fiberglass tips using 3/8 drill. Be careful that your drilling is centered on the fillet below. Use four neoprene washers against fiberglass surfaces. Bolt using two 5/16 X 2" carriage bolts, lock nuts and washers. Estimate the intersection of the forward shroud of the jib bar. Drill a 1/4" hole parallel to the front shroud in the center of the jib bar. Using a 1/4" bolt, lock nut and washers attach the jib furrowing plate and swivel shackle as shown.



Center the mast step on the premarked centerline of the forward crossmember. Predrill and attach using 2-1 1/2 #10 screws and 1/8" drill. Be sure that the bottle top of the mast step is parallel to the trampoline to insure proper rotation of the mast.

Center and attach the main sheet, block strap to the rear crossmember. Use 3/4 #10 screws predrill 1/8".

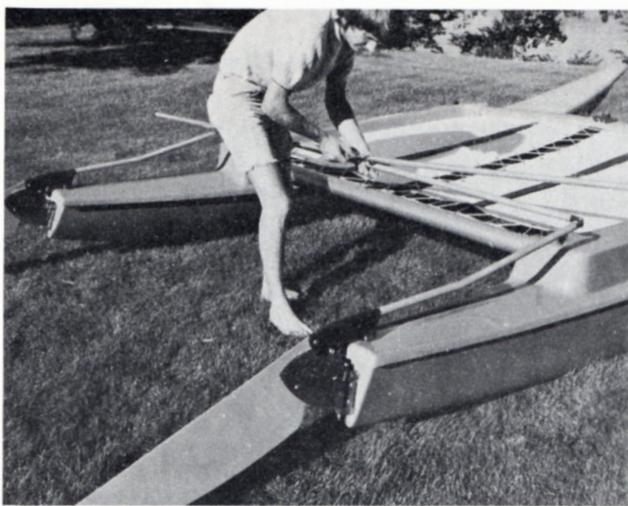


Rudder

Install as shown preassembled tillers, rudder blades and rudder cheek. On all 1/4" bolts used in the rudder assembly back of one full turn after snug. Note that the 6" gudgeon bolts are attached nut up.

Small burrs may have to be removed, by filing, from the ratchet slot to insure proper movement and eliminate binding.

Pound the hiking bar plugs into the hiking stick ends. Attach the hiking stick using 3" bolts and neoprene washer to the tiller tie bar.



DRAIN PLUGS

Predrill on designated dimples, below the rudder gudgeons, two 1/8 in. holes. Run two 3/4 in. screws into these holes. These removable screwswill serve as drain plugs. It has been our eperience that the major cause of leaking problems originate at the drain plug. This simple solution is satisfactory.

JIB FAIRLEADERS AND CAM CLEATS

The positions of the jib fairleaders and cam cleats are clearly designated by small dimples molded in the rear fiber-glass seats. See photographs for the proper facing of these items. Predrill with a 1/8 in. drill and attach using 1 1/2 in. and 3/4 in. screws. Be sure to drill plumb to surface. Do not drill into the rear thwart bar sleeves.

JIB FURROWING FAIRLEADER AND CAM CLEAT

Position the jib furrowing fairleader on top of and 2 in. from the end of the jib bar. Position the jib furrowing cam cleat, on the top of and center of the forward thwart bar, 2 in. from the mast step.

STEPPING MAST

Thread the main sheet halyard over the mast head sheaves and through the halyard hook plate. Familiarize yourself with the ball-stop on the halyard and the halyard hook.

Slide the 14 ft. jib furrowing pole into the leading edge of the jib sail. Tie the sail, using a 12 in. piece of 3/16 in. cord, 4 inches from the top of the 14 ft. jib pole. Tie a 16 ft. piece of 3/16 in. cord to the bottom grommet on the leading edge of the sail. Rap the sail and loose cord tightly around the pole.

Prior to the stepping of the mast tie the ends of the main sheet rope to the ends of the halyard. This will form one continuous loop over the top of the mast and provide a means of grabbong either end of the halyard in the event the halyard may be tangled during mast stepping.

Lay the mast across the trampoline assembly so that the side stays can be attached to the chain plates. Use 3/4 in. clevis pins and keys. Stand on the ground to the rear of the trampoline and start the end of the mast into the mast step, step on the trampoline, be sure that the shrouds do not snag on

the tiller assembly and step the mast. "Suggestions" Do this facing down hill on a incline if you are attempting to step the mast by yourself or for the first time. The mast will stand without being held.

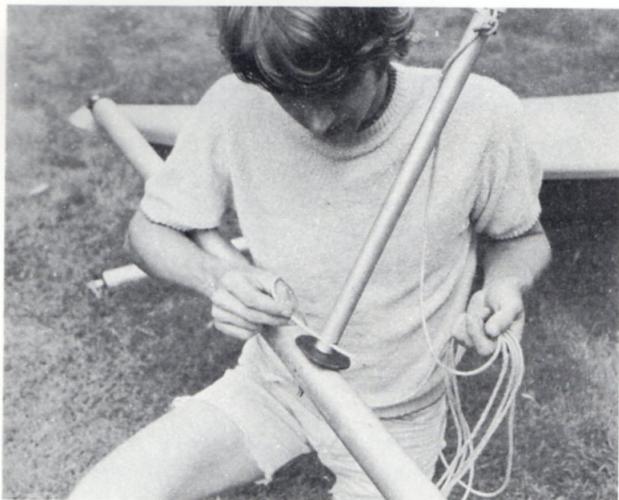


Slide the prewound jib sail and jib pole over the front stay.



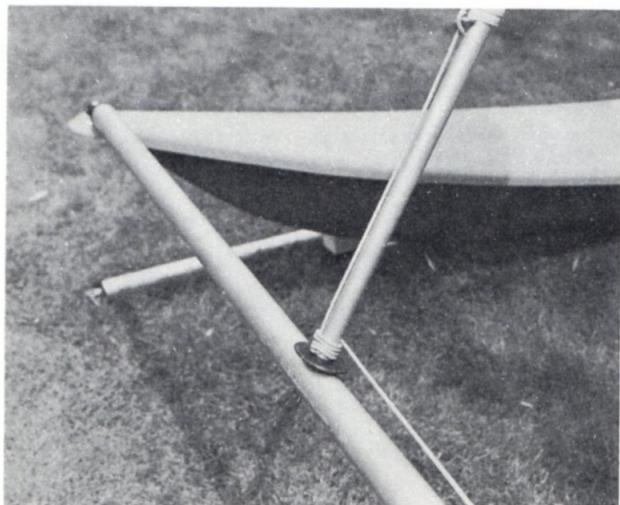


Attach the front stay using 5/8 in. clevis pin and key.

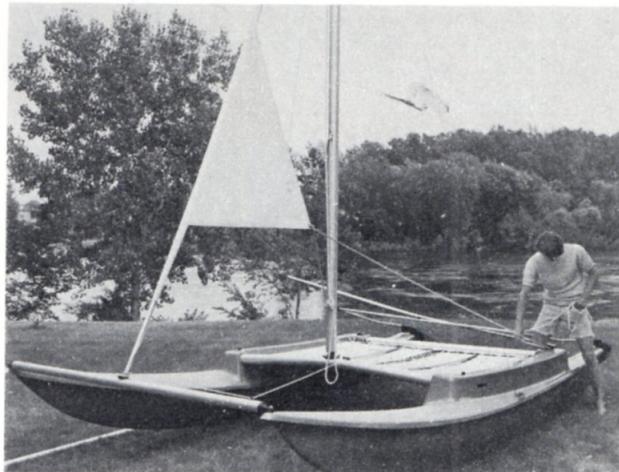


Slide the entire jib pole assembly over the shackle. Align the off set notch in the swivel plate with the off set hole in the jib pole.

Thread the 16 ft. roller reefing line through the swivel plate, fairleader and the cam cleat on the front thwart bar.



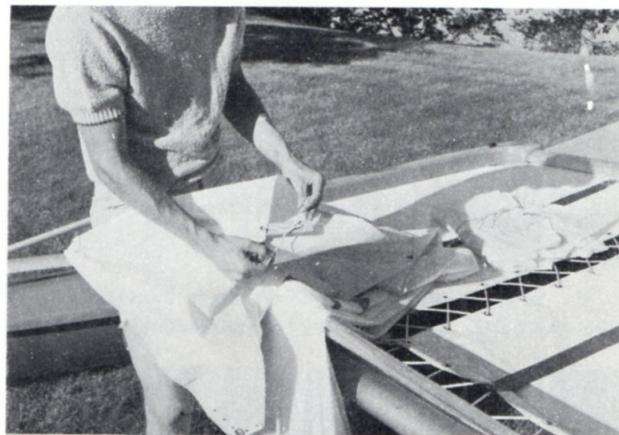
Divide and tie with one knot, the 30 ft. jib sheet rope to the trailing edge of the jib sail. Thread the two equal length ropes through the rear jib fairleaders. Be sure that these jib sheet ropes are to the outside of the side stays.



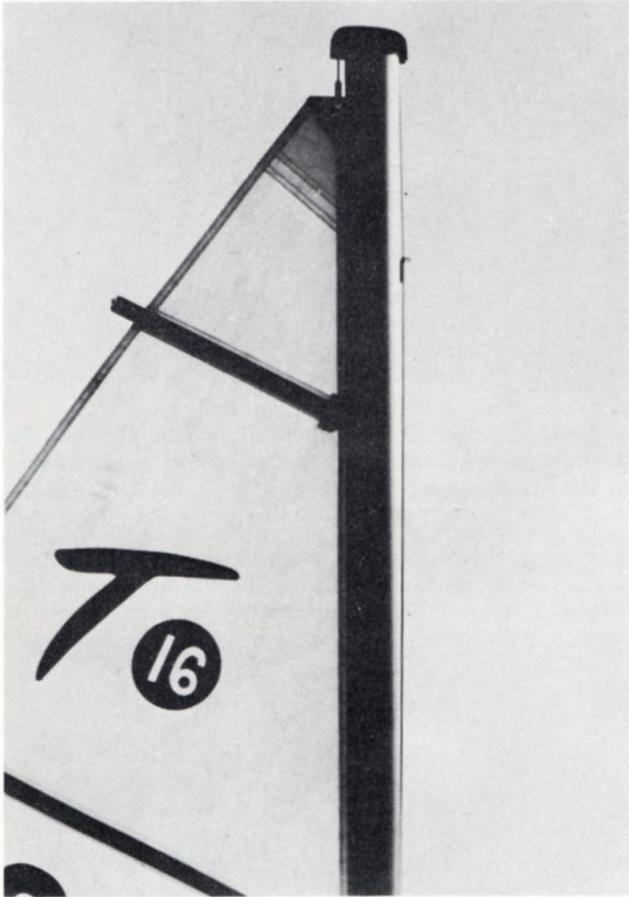
MAIN SAIL

Ease all edges of the battens with a fine abrasive. Be sure that the smaller ends of the tapered battens bottom into the nylon batten stops.

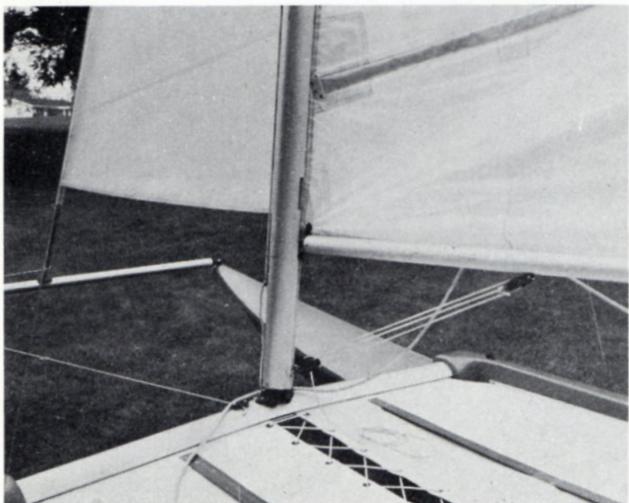
Tie as shown the battens into the batten pockets with approximately three pounds of compression tension. This will form a set in the sail for use in light to moderate winds. Different settings can be tried with experience.



Unhook the main sheet rope from the halyard shackle. Start the head of the main sail into the bolt rope slot of the mast. Attach the halyard shackle to the head of the sail. Use the main sheet rope and hoist the sail. When the halyard ball is secured in the halyard hook unsnap the main sheet line and cleat the remaining halyard. Use a rubber band or short cord, not furnished.



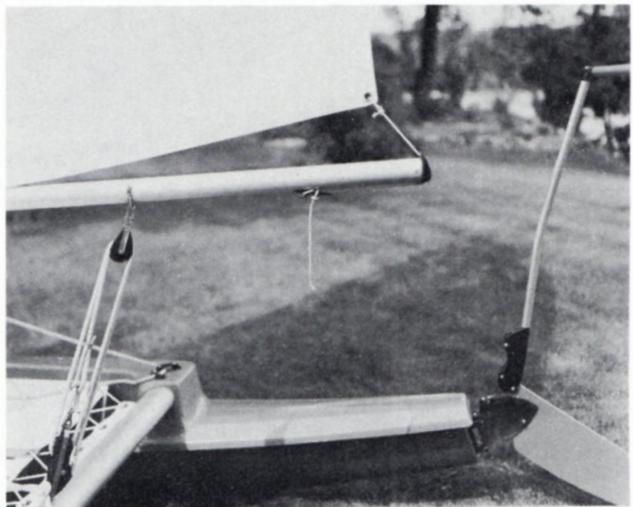
Pin the gooseneck end of the boom to the tack grommet in the main sail. Use the 1 in. clevis pin and cotter key.



With the gooseneck turned, stop screw down, slide the gooseneck into the lower bolt rope slot of the mast. Apply

enough downward pressure on the sail to eliminate sail wrinkles. Apply approximately 10 to 20 lbs. of downward pressure for use in light to moderate winds. Different settings can be tried with experience.

Tie and cleat the 3 ft. X 1/4 in. dacron outhaul rope to the clew of the sail and to the end of the boom.



MAIN SHEET

Clevis pin the double block to the boom bail and the becketed fiddle block to the rear thwart member. Note the longitudinal direction of the fiddle block. Snap the main sheet rope into the becket on the lower block. Lace, see photo.

BOOM VANG (optional)

This accessory consists of a block and tackle assembly design to add additional downward pressure to the boom when running down wind. When used properly it will keep the clew of the sail and the end of the boom from riding up and expose more sail broad side to the wind. Used improperly this accessory can only add unnecessary stresses to the sail and gooseneck hardware.

INSTALLATION OF THE BOOM VANG

Attach one of the two block straps, parallel and 30 in. from the gooseneck end of the boom. Use 3/4 in. screws and predrill with 1/8 in. drill. Tighten the second block strap and 2 in. tube into the bottom bolt rope slot. Clevis pin the jam block, jam down, to this strap. Attach the becket block to the boom and lace using 10 ft. of 1/4 in. dacron line.

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