Mini CAMPER-CRUISER

A 12' amphibious home away from home !

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39 Pages
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An original design by Craig Titmus of Australia.

Print in Landscape Mode

SPECIFICATIONS :
BOAT
*** OAL = 12 feet**
*** OAW = 4 feet**
*** OAH = 34 inches (top of cabin)**
*** Occupants = 4 max**
*** Capacity = 750 pounds max.**
*** Power = Row or 3 HP motor max.**
CAMPER
*** OAL = 7 feet**
*** OAW = 4 feet**
*** OAH = 4.5 feet**
*** Occupants = 2 max (sitting or sleeping)**

*** Finished Weight = 125 pounds, no load**

A Truly Unique and Practical Concept

In Transition

From BOAT . . .

To CAMPER . . . in just a few minutes !

M-C-C

FEATURES :

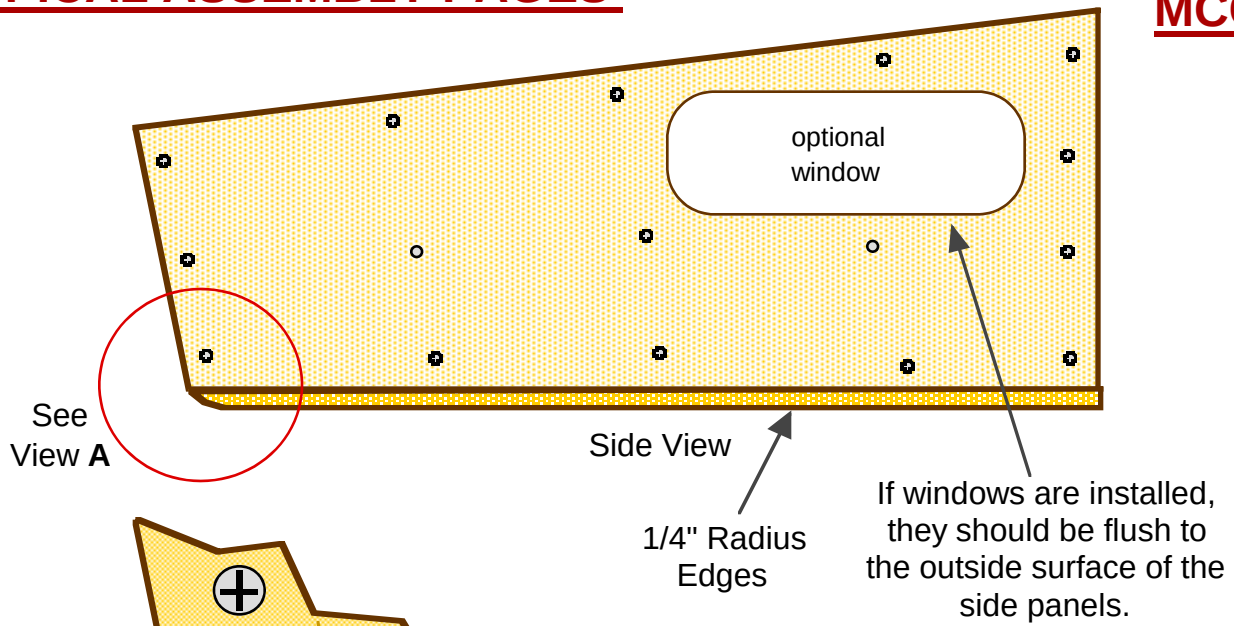
*** The primary feature is it's multi-functionallity !**
*** Shallow draft, about 4" at full load of 750 lbs.**
*** Ability to sleep 2 adults in comfort, and seat 4.**
*** Hull speed of about 6 mph with a small motor.**
*** Easily trailerable, and fits in larger pickups.**
*** Stable and roomy, great for fishermen.**
*** Converts from camper to boat very quickly.**
*** Cuddy cabin cover for inclement weather.**
*** Easy to build by anyone with common tools.**

STEP 9 Base Finishing

Trim the base so that it is flush on all 4 sides. Next, round all base edges about 1/4". I use a small hand router for this purpose, but a good wood file and sandpaper will do just as well.

Now round the lower transom to approximately a 1 inch radius, as shown. This improves the water flow from beneath, and assists in manouvering the hull on land.

All outside edges will have the T&G Process applied, after all construction is complete.

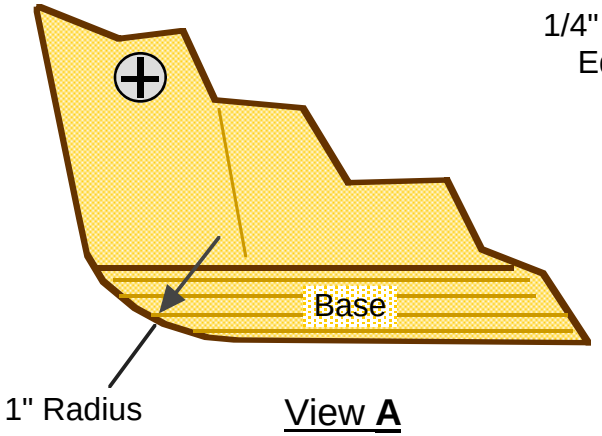


STEP 10 Rubrail Assembly

Note: If you are going to add windows to the side panels of the rear module, cut the openings prior to applying the rubrails. Remember, windows let in the light, as well as allowing you to see out.

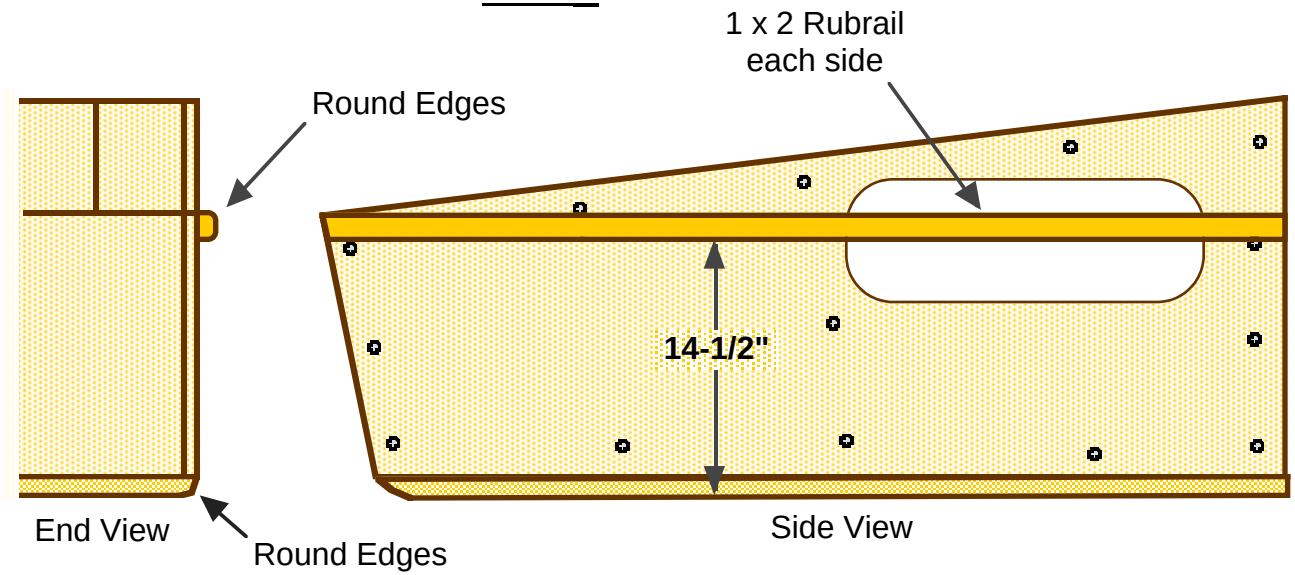
Rubrails are made of 1 x 2 lumber. Be selective in your choice, no knots and straight. Mark the location with a pencil, apply Glue and hold in place with masking tape. Screw from the inside with #6 x 3/4" SS Wood Screws. Allow to cure. Round the outside edges, as you did the base. If you are doing this by hand, round the outside edges prior to installation.

Note the rubrail may pass over any window cutouts you have made. This is your choice, so plan early.



View **A**

NOTE: Rubrail location is your choice. It should be positioned where it will provide the most protection, usually on the vertical center of the hull, or along the gunwal.



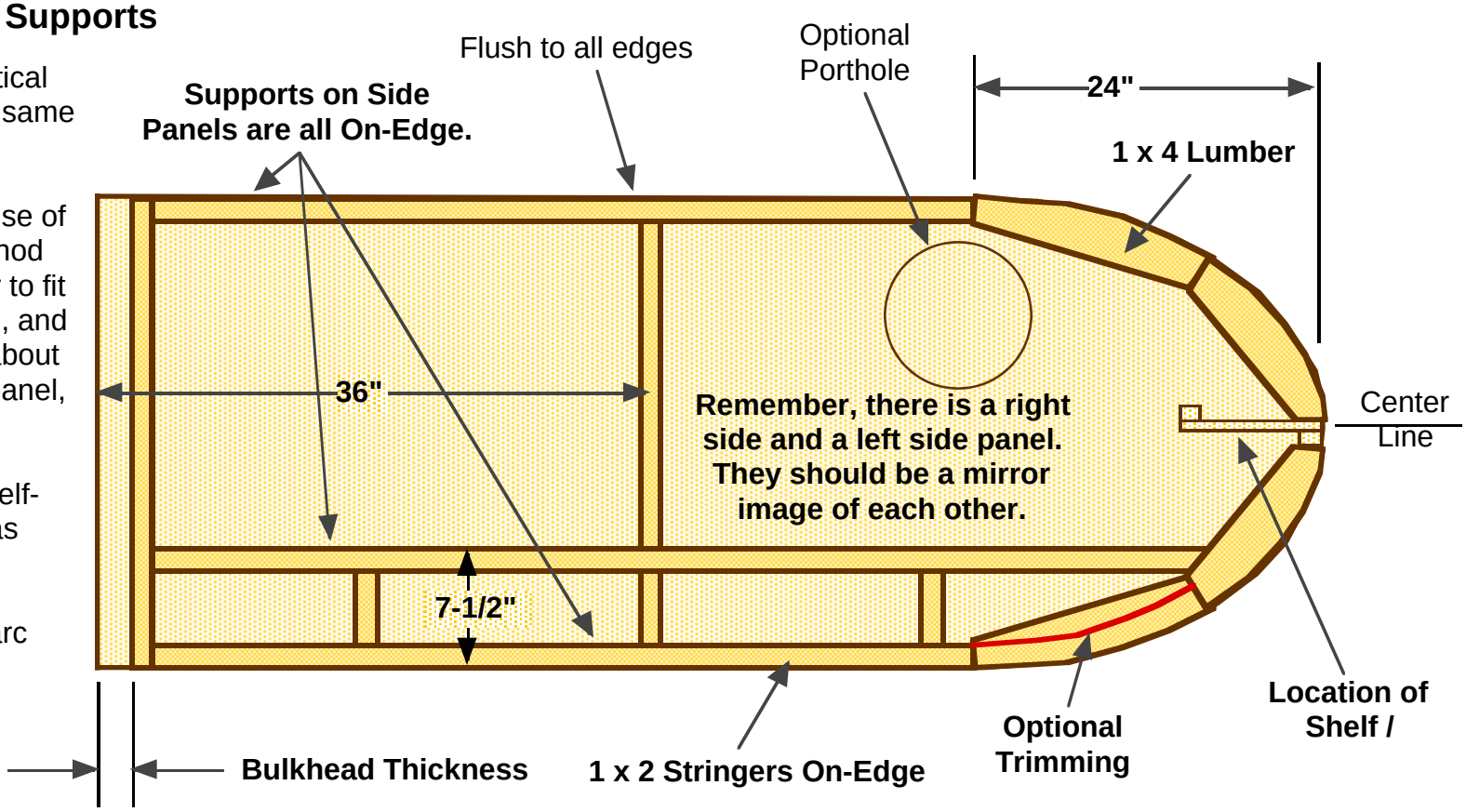
STEP 17 Side Panel Supports

The 1 x 2 horizontal and vertical supports are assembled the same way as the Rear Module.

The Bow area requires the use of additional material. The method involves cutting 1 x 4 lumber to fit the bow arc, trace the shape, and cut to size. 4 pieces, each about 16" long, required for each panel, as shown at right.

Make allowance to fit the Shelf-Support in the center area, as shown.

Finally, glue and screw the arc supports in place.



Remember there is a Right and a Left Side Panel, mirror images of each other.

It's extremely important that these 2 side panels be kept perfectly flat !

Not to Scale

General Assembly Notes:

The fit and finish of the completed hull is directly related to the attention to detail in the placement and fit of each individual component. If gaps between supports are allowed, for example, then the attachment of mating panels can become compromised. Furthermore, this may cause unequal stress in load bearing areas that could eventually lead to joint failure. Take your time, pre-plan each assembly step, and take pride in your work.

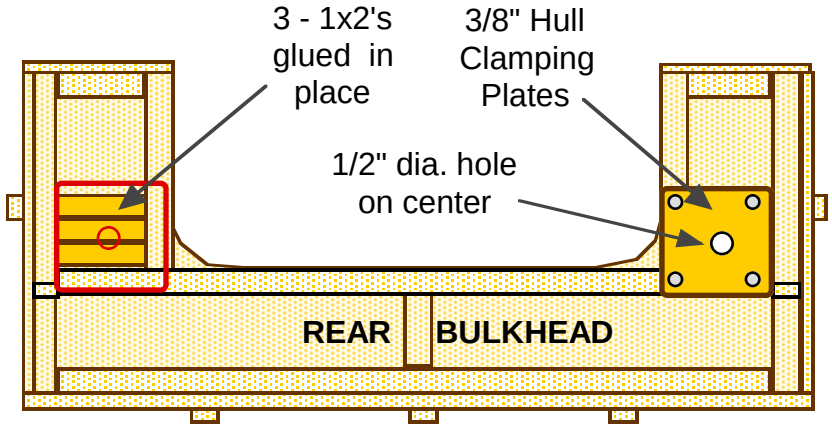
The screws suggested in the plans can be substituted depending on your experience. Always use a screw that is about 1/8 inch shorter than the total thickness of the parts being assembled, to compensate for over drilling of the pilot hole and countersink. Stainless screws are suggested, but brass can also be used. Don't be fooled by brass screws at some stores, they may only be brass plated steel screws, and may corrode over time. Test them with a magnet. Also, brass screws are softer and require that you do not overtighten and possibly strip the head.

SECURITY ASSEMBLY PLATES & BOLTS

The necessity for assembly bolts is obvious, but the placement and type are more subjective. First there has to be a structurally sound mounting place, and second. the hardware must be time proven. The following will provide the strength and assembly ease of the hull modules.

Cut 3 lengths of 1x2's, and glue and screw into the location shown. Do this for both sides of the Bulkhead. Next, glue and screw the 3/8" Clamping Plate to the hull supports.

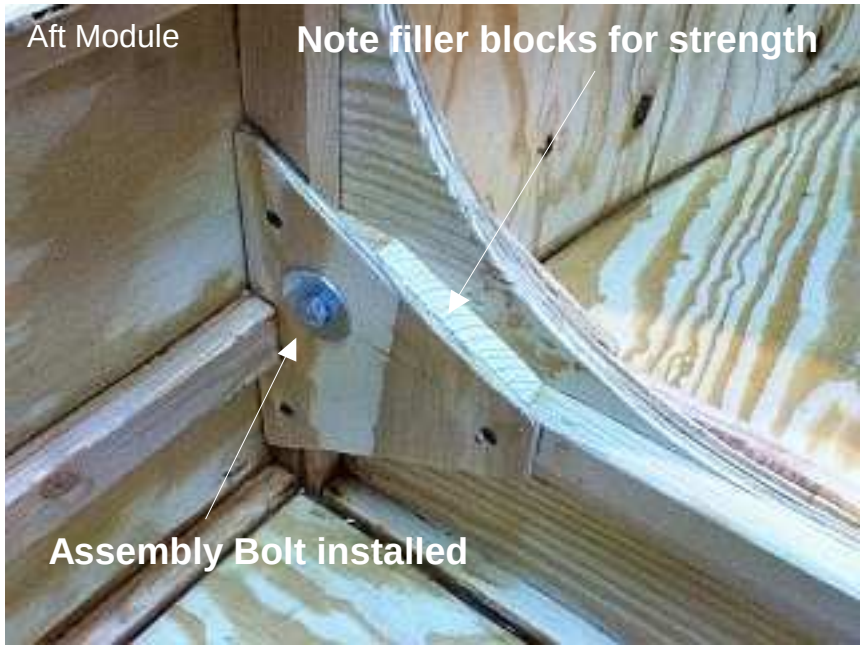
Repeat this process for the Forward Module.



The structure for the Forward Module is identical.

Align and clamp the two modules together. Insure sides and bottom surfaces are flush. Pencil mark the exact center of each Plate, and drill a 1/2 inch hole through both modules. A sharp spade wood drill bit is recommended. When the drill starts to break through the second hull plate, stop, and finish the hole from the opposite side. This eliminates splintering.

TYPICAL SECURITY BOLT ASSEMBLY



Refer to the Assembly Bolt drawing on page 33.

Quick-Set Epoxy is recommended to secure the T-NUT.

Use Stainless Steel Bolts, or High Strength Steel, Cad Plated Bolts.

This should be the end of the construction phase: The next steps are as follows.

Sand smooth all surfaces, inside and out. It may be difficult to achieve a good faired edge on the T&G seams, as the glass cloth edge is difficult to taper, and the TB3 glue might ball up on the sandpaper, if overheated. So, apply a thin bead of TB3 and fair it into the taped edges, if necessary.

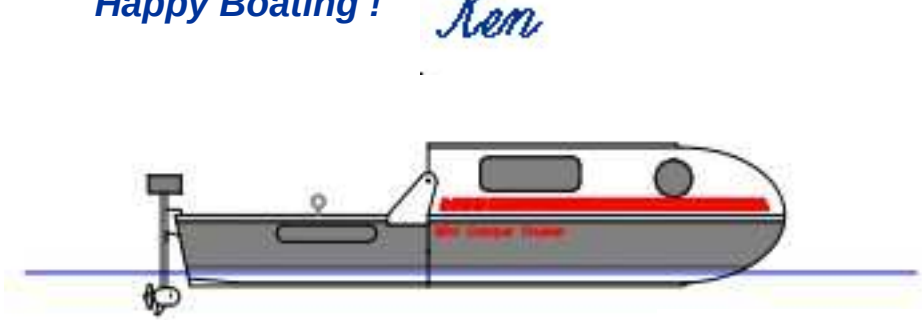
Now you have to decide how you will **Seal** the wood prior to painting or varnishing. I use Thompsons Water Seal, but it requires long wait times before a finish can be applied, and all surfaces must be re-sanded prior to a finish. The choice is yours, just use good quality waterproofing materials.
You may also want to **Fiberglass** the bottom & sides for durability. Now would be the time to do so.

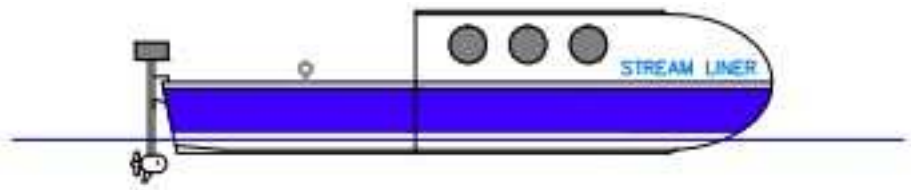
Again, you will have to decide on the final **Finish**, paint, varnish or poly coat. I use Marine Spar Varnish, clear gloss finish, because I like the look of a real wood boat, but use whatever suites your taste. Just remember, most paints breath, and will absorb moisture over time. Whatever finish you decide, it is strongly suggested that you do not leave the boat in the water for extended periods of time (days). And, when you do take it out of the water, wipe it down and check for any water seepage into the wood (dark spots, soft spots or cracking), especially at the edges below the waterline.

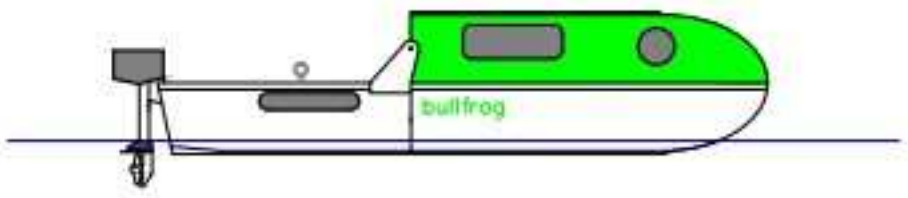
If water **Damage** is found, it is essential that you repair the area prior to your next outing.

Always wear a personal flotation device (PFD), and practice safe boating.

Happy Boating ! *Ken*







Models and boat renderings made by Craig Titmus.

Plans and sketches by Ken Simpson

The MINI CAMPER CRUISER

BOAT

CAMPER

On TRAILER