

# Reconstructing the Anchor Locker

Article and photos by George Colligan, 1971 T34C #162 *Temujin*

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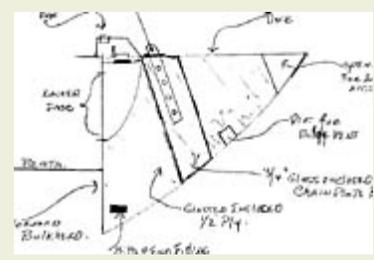
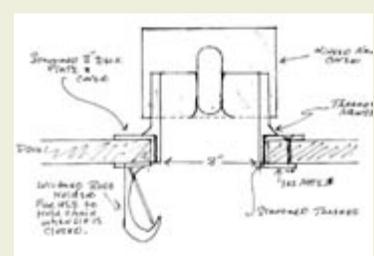
## Introduction

When the Ted Hood designed Bristol 39 was making its transition to the Bristol Custom 40, a phenomenon that only seems to happen in boat building as the actual hull remained unchanged in any way, the company began doing a lot of things to the boat inside that could only be considered major upgrades and also encouraged owner customization. In terms of the rig, Bristol offered the "Custom 40" as a sloop, yawl or a cutter, with a beautiful bowsprit and a stays'l stay.

The method for attaching the stays'l stay is instructive as it was done by building a heavy-duty partition in the anchor locker, which had the effect of dividing the anchor locker into halves enabling the use of two rodes at the ready through two separate hawse pipes. The stays'l stay chainplate was through bolted to the partition, in the same manner as any other chainplate would be bolted to a knee glassed into the hull.

The net result was that the forward section of the hull was significantly stiffened and strengthened, the deck was made stronger and less prone to flexing under severe loads, the stays'l stay was very strongly anchored, and the utility of the anchor locker was greatly enhanced. Not bad!

Applying this methodology to *Temujin* was an arduous process. But I think, as you will see, the results were worth the effort.

<p style="text-align: center;"><b>Reconstructing the Anchor Locker</b></p>  <p style="text-align: center;">Drawing 1 Locker Cross Section</p>	<p style="text-align: center;"><b>Getting Started:</b></p> <p>The first step was to be sure that a new fore'n/aft anchor locker bulkhead could be fit without having to remove the forward athwartship's bulkhead. At this point the final design of the bulkhead, as shown in drawing #1, needs to be considered because, first, after it is in place, space must be left to permit some access to the locker. So the after end is cut away somewhat. Secondly, the forward end cannot extend all the way into the bow. Room must be left to get to the headstay chainplate in the event it needs to be replaced at some time.</p> <p>Once the design was completed, I carefully measured all the relevant dimensions inside the locker, so that I could fashion a template from a sheet of scrap plywood left over from some other project. (You could use a piece of cardboard, which begins life as a 4'x4' piece.) Once all the dimensions were taken, the piece was cut and fit. It took a little doing but, by cutting a small piece from the bottom aft corner, it slid into the locker and was tapped into place with a mallet. Seeing the template fit, a 1/2" piece of exterior grade plywood was cut to serve as the</p>
 <p style="text-align: center;">Drawing 2</p>	

## Hawse Pipe Detail



Photo 1

Bulkhead Ready  
for Installation



Photo 2

A View of the Locker

Print Versions  
of the Drawings:  
(8.5"x11")

[Drawing 1](#)  
Locker Cross Section

[Drawing 2](#)  
Hawse Pipe Detail

(both 42kb pdf)

core of a finished bulkhead, made as follows.

The plywood bulkhead was set into the locker and marked where the stays'l chainplate is going to be bolted. Then, a  $\frac{3}{4}$ " piece of plywood is attached, as shown in the drawing, to the  $\frac{1}{2}$ " piece along the line of the stays'l chainplate. This strengthens the bulkhead and makes for a good bed for the  $\frac{1}{2}$ " through bolts which will anchor the chainplate. Then the entire bulkhead is encased in fiberglass mat, woven roving and finishing cloth to strengthen it further and to make it impervious to water. (Photo 1) On the line along which the chainplate will rest, there are five layers, a combination of roving, mat and cloth; and, on the other side there are four layers of roving and cloth. The entire assembly is completely sealed with fiberglass cloth and resin.

## Glassing the Bulkhead:

At this juncture, when you are ready to set the bulkhead and lay up a considerable amount of fiberglass material, be sure to make adequate provision for a limber hole at the base of the anchor locker forward bulkhead. I suggest inserting two PVC tubes on either side of the new partition to carry water out of the locker and into the bilge. When all this is glassed in place, they will remain secure and prevent water from attacking the bottom end of the bulkhead, which would occur if you simply cut holes in the bulkhead when the work is finished.

Then, after washing the areas with acetone, alternating layers of roving and mat at the top and bottom are used to secure the bulkhead. (Photo 2). The lay-up schedule consists of mat and woven roving (3 layers consisting of mat and roving stitched together- 6 layers of material.)\* out to about 4"-5" from the center. Then the lay-up is covered with finishing cloth and finishing resin. Additional lay-up was also added to the anchor locker main bulkhead as it was only lightly tabbed in place originally.

## Finishing Up:

When all the resin has cured, the finished partition and the rest of the anchor locker interior can be painted. Then, preparations can be made to install the stays'l stay chainplate. (This part will be covered in a separate article.)

In addition, a second anchor rode hawse pipe can be fitted. I have designed a new kind of hawse pipe, which is being fabricated. Drawing #2 shows the deck pipe,

which is designed to be removable so that the deck can be sealed off from any water intrusion in a seaway. The pipe also retains the anchor rode attached to the deck plate-backing ring when the pipe itself is unscrewed and stored away. (A screw in deck pipe will be available from ABI in the near future.)

It is also important to install the hawse pipe so that water cannot enter the deck. This is, of course, true for all fittings; but, often the deck under the hawse pipe flange is left exposed to water intrusion and this practice can lead to the failure of the deck laminate.

Once the locker is painted it is ready for the new hawse pipes and a solid stainless fitting at the base of the partition to hold the "bitter end" of the anchor rode.

George Colligan

## Notes:

- It is important to point out that this is very nasty work. When doing it, be prepared with an OSHA approved respirator, gloves, eye protection and protection, generally, for your head and skin. Paper suits and head covers which you can get in lots from Jamestown Distributors are a worthwhile investment. Also, buy lots of grinding discs for your equipment. A small high-speed grinder is recommended. (The faster and lighter the better.)
- Make sure you have a resin roller and some squeegees on hand as well as lots of rags, a drop cloth, acetone, and a 55-gallon drum of patience! Oh, when you're all done, do not have a beer or a smoke. You'll likely get a glow or flush sensation that will not be pleasant. Boat yard guys live for this!
- It is good practice to line limber holes with PVC pipe to prevent water from being soaked into wood wherever a limber hole is required.
- I recommend that you use laminating resin while you are laying up the glass. Then finish it with high quality finishing resin and finishing cloth. The laminating resin will remain tacky during lay-up and will give you more working time per pot as you go along. But, if you set it all up correctly, this part should not take very long. The heart of the job is in the preparation.
- When laying up the fiberglass material, it is recommended that you pre-cut all the lay-up that you'll be using and have someone wet it out for you so you don't have to keep climbing up and down in the v-berth. Be sure to squeegee the resin out of the fabric to get close to a 30% resin/glass ratio. That's what your boat was built with. If the cloth isn't dripping, it will be much easier to handle. Put an exhaust fan in the forward hatch, too, so you don't kill the both of you.
- Tartan built the forward compartment with a deck level vent which brought a certain amount of fresh air from above through ducting to a fitting that leads through a bilge cover. I changed the arrangement a bit, replacing the plain deck cowl with a Dorade box. (Underneath the deck, the Dorade box is fitted with a bug screen and bronze plate so the box can be entirely sealed off from green water in a seaway.) The anchor partition made it necessary to eliminate the ductwork; but I left the bilge vent opening in place. While it will not vent the bilge as well as before, it will vent it some; and, some is better than none. Besides it makes a convenient place to insert a hose every so often just to freshen things up - rather like "une bidet pour le bilge!"
- As in every other job, this job was planned with the scale drawings of the Tartan 34C obtained from Sparkman & Stephens. The plans are #1904.
- It is important to have these drawings, as they will enable you to plan work in sequence. As you can see from the above, there are two other jobs related to this job: the installation of a cutter rig and interior cabinet modifications. If you do things out of proper sequence, you may be condemned to doing certain things twice or three times. So, get the drawings and learn how to scale and plan your work directly on them. You'll be very glad you did.

- Mat and woven roving can be bought from Defender Industries stitched together as a single piece. This enables a fast and strong build-up of glass and excellent resin absorption. If it is precut before you start it will save you a lot of time and effort in laying up the glass to retain the anchor locker partition. It is \$13.95 a 50" wide yard. Well worth the money!

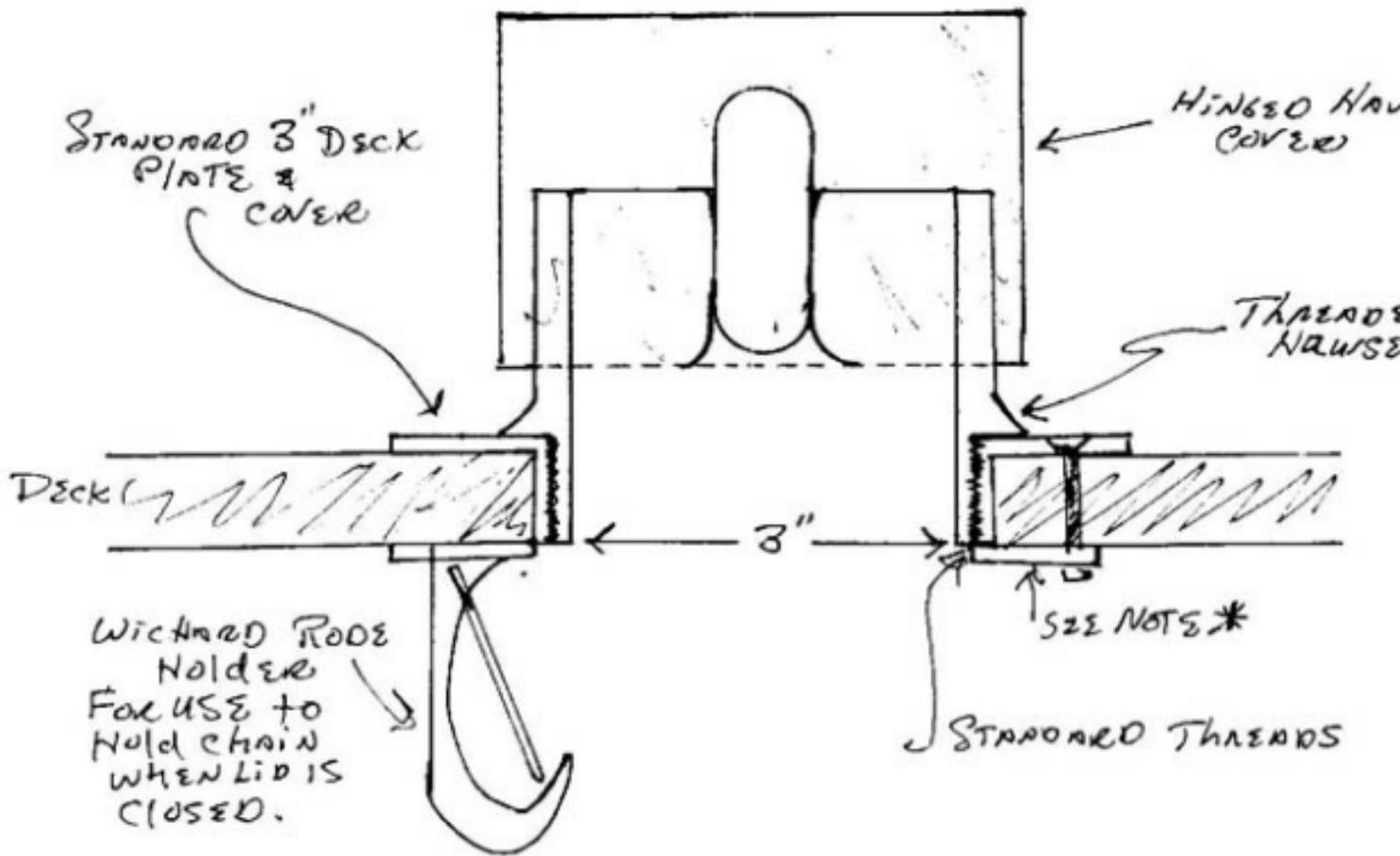
## Addendum:



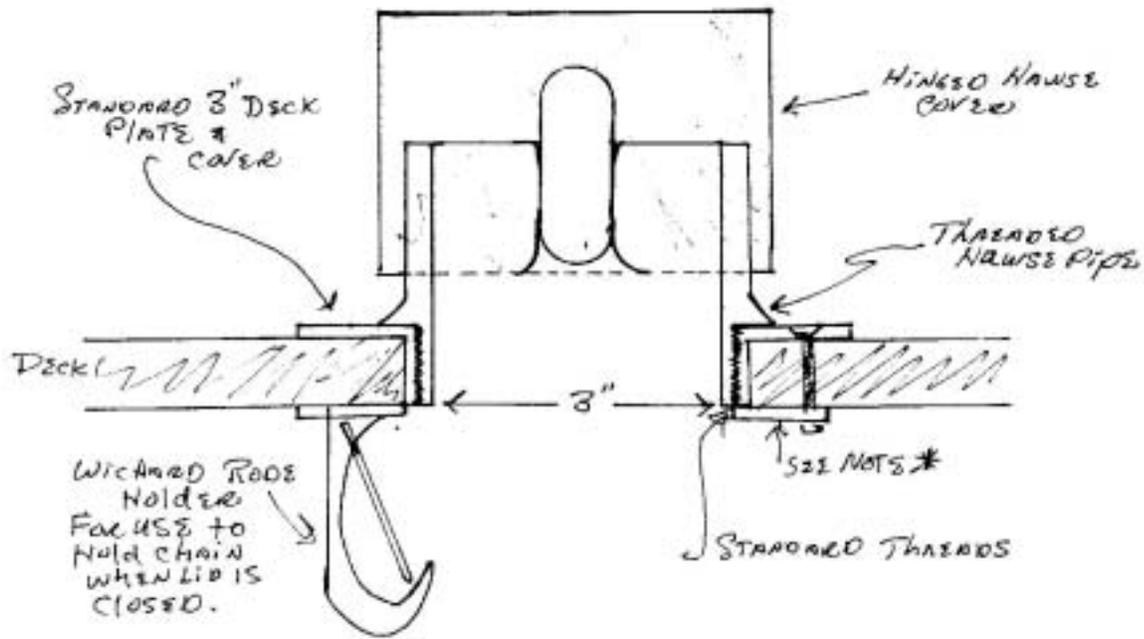
This is a picture of the new deck pipes from ABI. They are designed to unscrew so that deck plates can be inserted to seal the anchor locker from seawater. My article calls for two pipes, one for regular use, and one for a storm anchor rode to be kept at the ready on the port side anchor locker.

ABI has just introduced these pipes and I can tell you, if the pictures don't quite do them justice, that they are beautifully made. Moreover, compared to other less ingenious fittings for anchors, they are very reasonably priced.

If you are interested in them you can contact ABI directly. Ask for Madison. He's the guy who took care of this for me. I hope you like them. GHC.



LEAK PROOF HAWSE



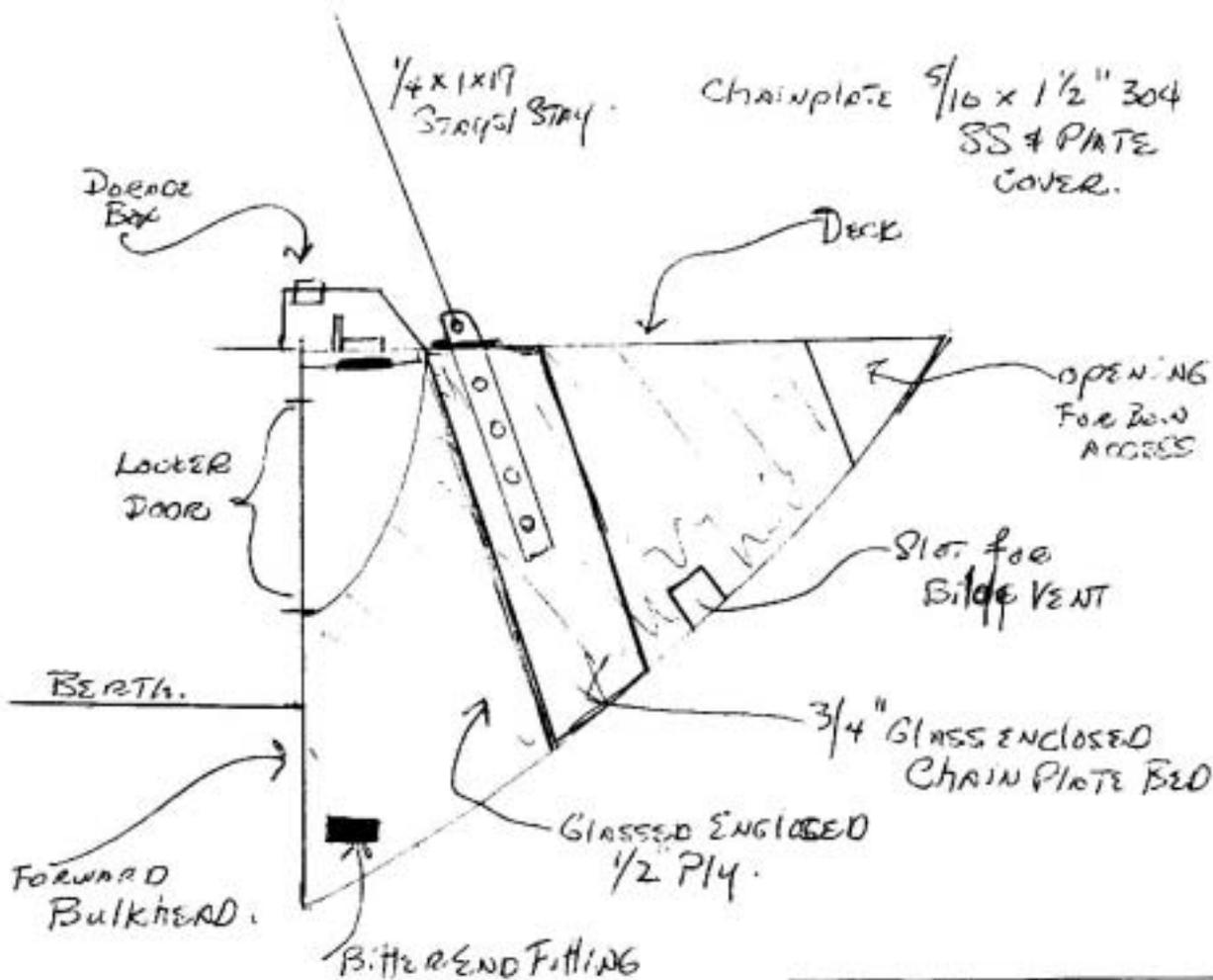
\* NOTE: INTERIOR FINISHING PINS  
TO HOLD RODS RETAINED  
OR YOU COULD JUST USE  
A TIE RODER HOOK.

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George H. Colligan  
CAST BRONZE CLOSABLE  
HAWSE PIPE  
SENT TO MARINERS  
HARDWARE 2/6/03



# Bow Drawing #1



BOW PARTITION DESIGN  
 S/O3 - TEMUJIN  
 S&S # 1904  
 DWG: GMC.

TARTAN 34C - #162 - 1971

