

Browsing the <u>HunterOwners.com</u> archives, I read several threads from owners who'd found their compression posts completely rotted away. The pictures were enough for me to bare my compression post, and sure enough, mine had rotted away to the point where it didn't provide any structural support.

The compression post is hidden inside the post upon which the oil lamp is mounted in the photo to the left. There's three strips of mahogany nailed to it on the cabin side and the back side is covered by the bulkhead and door jam to the head.



I wedged a very dense 2"x4" between the top and bottom cross-members to support the mast when I removed the post.

Here it's just resting in place, waiting to be pounded in. This turned out not to be enough support, as I had to pound the old post out. I should placed another 2x4 on the other side of the post with a jack so I could force the cross-members apart. I'll need to do that before reinstalling the new post or I'll tear it up while putting it in.



Here we see where the door jam to the head (backside of the post) has been pulled away, exposing a small portion of the post behind the mahogany cover boards.

The post doesn't look too bad here, but when I poked it with a screwdriver the old wood just crumbled.

Half of the brass screws had to be drilled out to remove the door jam because the heads were easily stripped trying to unscrew them.



Here's a close-up that better shows the rot.



Here the door jam has been completely removed, showing half of the compression post.



The seat has to be dismantled in order for the post to be removed.



In this photo the post has been removed.

A jack would have made this removal much easier and was absolutely necessary for reinstalling the post. The post had to be repositioned three times once the new bulkhead was installed and the jack made that very easy.

It's now apparent that the portion of bulkhead hidden behind the post has rotted away as well.

I had to decide whether to just cover it up with the new post or completely replace the bulkhead. I decided upon the latter.



Closer view of the rotted bulkhead.

There's nothing left for a few crumbs of plywood sticking to the laminate on the head side.



Close-up of the rotted portion of the bulkhead.

These are the original wiring going up inside the mast. The black wire is a 6ga. grounding wire.



I was surprised to discover that the original compression post was nothing more than two untreated 2"  $\times$  4" fir studs with a 1" channel cut down the center for the wires. No wonder it rotted away.

Apparently, the masts are never stepped at the Hunter factory. Stepping the mast and sealing the contact was a dealer responsibility; some dealers were better at this than others.





Prying off the mahogany cover boards.

It appeared as though these boards might have once been glued on and set in place with a few brad nails. However, the glue had long ago disintegrated, making the boards easy to pry off.



The the mahogany boards removed from the rotted post.

Note the cracked board on the far left. This was because I only had one support 2x4 in place during removal. I'll need to jack-up the cross-member to reinstall.



I whittled-down a pretreated 4"x4" post to the proper size, then cut a 1" dado channel for the wires.

Before assembling the new post with the old mahogany sides I covered it with a wood sealer (after these photos).





Dimensions of the old post.







Removing the main bulkhead.

There were a number of hidden screws inside cabinets that had to identified and removed before the bulkhead would come free.

When the boat was manufactured, this bulkhead was placed inside before the cabin top was lowered-on. Thus, once freed from its mounts, the bulkhead won't fit out the companionway and must be cut.

The new bulkhead will need to be constructed in two pieces so it'll fit through the companionway.



The bulkhead isn't glassed into the boat's hull. Instead, there's a molded channel in the fiberglass top liner into which the bulkhead is slid and then screwed in place.

Also pictured here are the wires passing through the cabin top to the mast above.



Screws in the dark wood cabinets were hidden under the burlap carpet type material that lines these storage areas.

Others were hidden on the head side, again, inside the cabinets.



It's rather freaky to look across the cabin and see the exposed head.



Using the old bulkhead as a template for its replacement.

This is a 4'x8" 1/2" piece of plywood. I couldn't find such a piece with a finished mahogany side in 1/2" width. I'm hoping the surface will be good enough to stain and varnish and have it look nice. We'll see.

Notice the vertical cut in the old bulkhead about 16" in from the right side. This is where I made the cut to get the bulkhead through the companionway.

The dull section on the bottom is where the seat rests up against the bulkhead and the back of the storage area beneath the seat..



Unfortunately, the bulkhead is slightly larger than your standard 4'x8' sheets of plywood.

I'm going to cut it out anyway and hope the missing portion won't be critical.

<u>Update</u>: This short section didn't turn out to be very important. Nevertheless, since I had already cut out a replacement, I just slipped it in place once the bulkhead was mostly pushed in. The only thing it may accomplish will be to keep small items from falling off the shelf in the head storage cabinet.



A close-up measurement of the overlapping size.

The new plywood cutout (not marine grade).

I wrote the folks at <u>Practical Sailor Magazine</u> asking whether marine grade plywood if really worth the cost and here's their technical expert's response:

Marine plywood has a much higher void reduction standard and the wood species used are stronger (Okoume, Sepele, Mahogany) with fewer defects (knots, checks, internal splits) and more rot resistant than off the shelf construction grade plywood. A simple test is to cut two uniform  $2^{\text{u}}$  by  $12^{\text{u}}$  samples from two sheets of  $1/4^{\text{u}}$  ply wood. The first, a low grade Luan veneer ply and the second from marine grade ply, Bruynzeel being the best.

Look at the cut edge and note the decrease in voids in the marine ply sample. Check the even density of the mid layers in the marine ply and compare it with the pulpy low density mid layer of the Luan sample. Bend each over an edge until they break. The marine ply will prove to be much stronger than the Luan sample. Add to this advantage, better rot resistance and stronger layer attachment due to the elimination of low density higher void content cores.

Marine ply is indeed a much better material, but is it worth the extra cost?

The answer is yes if you are replacing a chainplate gusset or bulkhead but only "maybe" if you're building a quick and dirty rowboat. As a good rule of thumb, if your counting on long lived

## **Bulkhead/Compression Post**



lasting structural reliability or you are investing a huge number of hours in a structure and you want longevity in -- spring for marine ply. If a cost effective flower box shaped skiff is being built, go for exterior A finished fir ply and put a layer of fiberglass cloth over the exterior.



This new plywood didn't take the stain (red mahogany) as well as I'd hoped. The grain won't match very well either.

By comparison, you can see the old bulkhead at the top of this photo.

I've ordered a sheet of mahogany veneer to cover this side from <u>veneersupplies.com</u>. I think this is the only way it'll look acceptable.



For the head side of this bulkhead, I bought a 4'x8' piece of bright white FRP board (fiberglass reinforced plastic) from Home Depot.

This a very tough waterproof covering that should look nice and be very functional (easy to keep clean) in the head.



FRP board requires its own special adhesive. Other adhesives will work for awhile, but a few months later the adhesive will work its way through the board and you'll see the lines.

Don't do like I did and try placing the two boards together alone. It was a very messy affair, with only minutes of working time before the adhesive dries.

Here's what it looks like after I've routed the edges of the FRP board clean. (*Photo taken in the shadows of a banana tree.*)



The mahogany veneer has been glued to the main cabin side of the bulkhead, and a couple of coats of varnish applied.

To achieve this hue, I first coated the mahogany with a 10/90% mix of varnish/turpentine. Once that was dry, I applied the red mahogany stain. Then subsequent coats of varnish.



The new two-part bulkhead and compression post are in place.

The cut across the bulkhead was made 44" down from the top. This was just enough to fit the top section through the companionway, and when assembled, be hidden by the back seat cushion (as seen in the following picture.)

An extra inch was needed to fit the top piece through the companionway, which was easily obtained by removing the bottom teak stop board on the underside of the hatch cover.





The head side of the new bulkhead.

The last task will be to glue a matching cover strip on this side of the join.



Ta-Da!

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