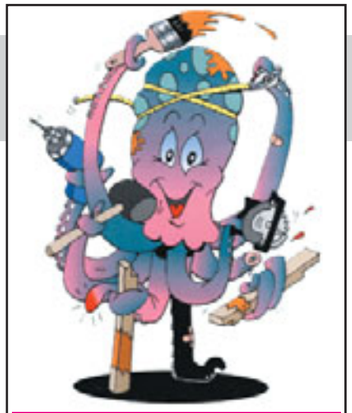
What Price Shade ? Why Not Build Your Own Hardtop!



Do It Yourself -with F&B !

It really would be going over very old ground to start talking about how trailer boats don't have enough, or any sun shade built into them. For some reason, providing sun shelter on a trailer boat is generally left to the owner of the boat, rather than the boat builder.

Even a quick glance around the boat ramp on a Saturday morning will reveal all manner of sun shelters on just about everything that floats. Since we clearly all want sun shade on our boats, why isn't it built into the boat at the factory where apart from anything else, it can be considered in the overall design of the boat. Then it could complement the appearance of the boat instead of look like a tagged on after thought, albeit a functional after thought. Never mind, this is old ground that has been covered by this magazine many times already.

Get To The Point

If your boat has no shade, then it's a good bet you want some. This I am sad to say, brings me to another of my hobby horses - so look out, here comes another tirade!

Isn't the cost of boating incredible? Some times I think that places that sell things for boats are convinced that anyone that owns anything that floats (from a small dinghy up) is a multi-millionaire.

Now I know this is unfair to some extent, because bits for boats need to be made from expensive materials and making those bits tends to be very labour intensive. Never is this more true than in the case of something to keep that sun off you when on a boat.

Finished Hardtop on Boat: The final product on the boat. The hardtop is painted in the same undercoat as the rest of the boat so this is not really final but it will show you how it will look. I'm pleased I have almost 2.0 m head room underneath the hardtop, plenty of shade and with the addition of clears it will provide a weather proof helm position. I believe the simple addition of the hardtop has made *Close Call* twice the boat she was.

If you walk into a marine trimmers or a fabrication shop and simply issue the order "make me a bimini" or much worse "make me a hard top" then you had better brace yourself, because the cost for even a simple structure will hit four figures very easily.

A hardtop structure for a 6.0 m boat for example, will probably cost between $2,000 to $5,000. So if you are like me, and the closest you've ever been to a multi-millionaire was the night I saw Kerry Packer walk into Jupiter's Casino, then you have two choices: buy a tube of 30+ or make your own.

If you do decide to build your own sun shelter then clearly we all are going to have different ideas and needs, so I can't give you a blow by blow description of how to make your own sun shelter.

However if I run you though the process of how I made the hardtop for my own boat, *"Close Call"* and why it is made the way it is, I think you will get enough ideas to organize your own solution.

And your first question will no doubt be "will a home built appendage make my Signature Seafarer Haines Cruise Craft (etc) look ugly? ".

The answer is *"Yes"* if you let it and *"No"* if you put in a bit of effort. Of course how much money you want to or need to save will also limit the final appearance. Just be assured that you can do a truly professional job yourself and spend only a fraction of the professional cost.

So what could I have made this sun shade out of? In general, I had two choices for the frame - a fibreglass Targa, or a metal (alloy or stainless steel) frame. The cover itself could have been canvas, alloy or fibreglass.

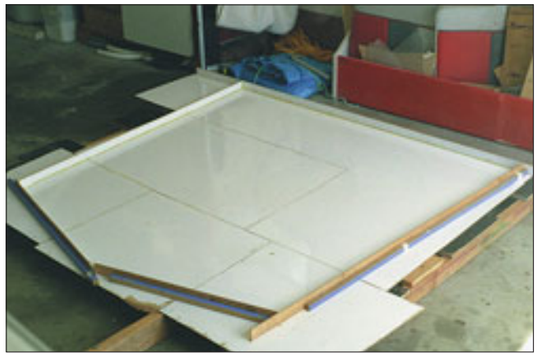
I very nearly did make a fibreglass targa but decided against it when I became concerned about weight. Anything you do make, will be acting like a lever in some circumstances, wanting to pull the boat over, so keep that well and truly in mind as you draw or at least scratch out your design. Any structure like this will raise the boat's centre of gravity to some extent. The less weight you put into it, the less likely that the change to the position of the centre of gravity will be significant enough to cause a problem.

While on the subject of weight, don't design something that invites people to climb up on to it and use it like a flying bridge. Making it strong enough to cope with that, is a very different story to being strong enough to hold up a cover. Even it you did intend it to support the weight of one person, what happens the day two get up there?

In short, put two people on the roof of (say) a 6.0 m boat, go into a moderate turn and catch the wind from abeam, and you won't even have time to say "Mayday" before you have rolled the boat over. So again, don't design something that looks like you are able to climb onto, and never let anyone do so. Finally, windage will also be a concern; you don't want to design something that acts like a sail for the same reasons that you don't want too much weight up there. Clears or storm covers are different because while they will catch the wind they can be quickly removed if necessary and should blow out before they cause the boat to be blown over.

Materials To Choose

My decision, for a number of reasons was to make an aluminum frame. Minimal weight and minimal windage were important considerations. However, there was of course another, far more powerful reason - and that, of course, is cost!



Hardtop Mold: My home made, one use mold for the hardtop. I was getting low on suitable material so this one looks a bit patchwork. It did, however, work out just fine. If you want the details on what is actually happening here then check out the report on DIY Fibreglassing in the library.

Matthew with Pipe Bender: My assistant at work bending pipe for the frame. You can see the masking tape over the end of the pipe to hold the sand packing in place. The pipe bender had one problem, that being it marked the side of the tube where it bent it. Although the marks were removed easily with emery tape followed by steel wool you may like to skip this part yourself and have the fabrication shop do the bending as well as the welding. They roll the tube rather than bend it and that does not mark the alloy.

Stainless is about two and a half times more expensive that alloy. Also, since I was doing as much of the work myself, I planned to pay someone to do the welding for me. All of the cutting and bending I was going to do at home, and stainless is very difficult to cut or bend.

Alloy, on the other hand, is very easy to cut and bend. Of course stainless *looks* better, and remember that I said this whole thing would look professional if you put in a little effort.

While some of the top boat builders are now using alloy for tuna towers and such, they are using the alloy to save weight, not money, so their alloy has an expensive anodized finish and is welded with a very complex welding process that at this stage, only a handful of welders in Australia have been trained to do.

My solution will be to powder coat the alloy frame. Powder coating is available in a wide range to colors and appearances and my phone inquiries so far indicate that I can have my frame done for well under $100. Of course, you can leave it as bare "mill finish" alloy but if you want to hold me to my promise of a professional finish, then you may like to look into it.

If you did want to go with the stainless, then here are a couple of points of interest that I discovered when I looked into it.

Firstly, there are many Standards covering stainless steel. 316 marine is the one most commonly used on boats. However, a trailer boat not left in the water and stored undercover, may be able to use a lesser grade that is also cheaper.

Secondly, all stainless steel comes from the mill a dull gray color and is polished later to that bright shiny finish we all love on a boat. However not all grades can be polished. So if you are going to order the metal yourself, and want to be able to polish it, then make sure it is a "polishable" grade.

If you did want a fibreglass structure and want a few ideas on how to start, look at F&B #31 *"Make Your Own Icebox"* and make a single use mould in the shape of a Targa using