



## Repairing a Cracked Deck

(caused by DBS - Dry Boat Syndrome)

By Sherwood Heggen

**Some** things seem impossible to fix.

Case in point is an open crack in the deck of a boat resulting from storing it in a dry, heated shop during the winter months. How does one fix that? You could just leave it alone and wait for it to swell up next spring when it goes back into the water. But, that crack will continue to be an eyesore, and, if you are about to varnish it, no amount of varnish applied over the crack will ever make it go away. In fact, if you do varnish over the crack, the varnish will seep into the crack and when the deck does swell up the varnish will squeeze out and leave a long lump on the surface. So what do you do? Make it disappear, and here is how.

Recently a boat came into my shop for varnish with a crack the full length of the foredeck, and another, the full length of the aft deck. The cracks were as wide as the thickness of a dime. It was obvious something had to be done.

The first step to correct the matter was to get moisture back into the wood to swell the deck planks. To accomplish that, moisture had to be brought into the boat by some means. I chose to use my steamer which is a five gallon metal container with a water heater element in it. A small humidifier could also be used. However you do it, the moisture should be directed to the problem area. Do not get nuts with moisture. You do not want to saturate the boat and cause the deck to buckle. A

watchful eye on the swelling of the cracks is important. When the cracks begin to close, it is time to shut off the moisture. If the cracks do not fully close at first try, introduce additional moisture. Patiently work the plan.

It took a few days of waiting to see progress in the deck swelling, and subsequently, the cracks closing on this boat. It was not necessary to keep the steamer running constantly, but long enough to get the underside of the deck wet. Once there was moisture, the steamer was shut off and the moisture was allowed to do its work of migrating into the dry wood. In doing so, the crack began to close up. Continuing with the introduction of moisture, the crack closed completely.

This process is the preparation work leading up to the gluing of the crack to hopefully keep it from opening again. But, if the crack is completely closed, how will you get glue into the crack? Here is where skill and luck and some special equipment come into play. You will need some clear epoxy, a putty knife, and a hair dryer or a heat gun. Devcon makes a clear two-hour epoxy that has worked well in this application.

Considering you are doing the repair in the winter time, it is not likely that the crack will stay closed in a heated workshop. Therefore, the process for the fix is this: After the swelling, monitor the crack to see when it begins to open up just a little bit. To get glue into the crack, it will be necessary to have a small gap exist. It only needs to be a hair's width in size which is barely noticeable. That would be the time to get the epoxy into the crack. Since epoxy is typically heavy-bodied, a method for getting it to coat the depth of the crack is necessary. That is where the putty knife and heat gun come into play.

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Apply a line of epoxy over the crack with a small application stick and then gently warm the epoxy with the heat gun or hair dryer. In doing so, the epoxy becomes runny and it can be pressed into the crack with the putty knife. Work the puddle of epoxy back and forth over the crack and soon you will realize there is very little epoxy left on the surface. It has gone into the crack to bond the two adjacent surfaces together after it cures. Continue the process until the entire crack is filled with epoxy.

After the epoxy has cured you will have to sand away any high spots flush with the varnish surface. To properly sand the epoxy flush to the surface, a sanding block is necessary. I simply use an inch wide

piece of scrap wood with a small piece of 220 grit paper wrapped around it and gently sand away the excess. After sanding the epoxy flush, you

might realize a fine hairline depression still existing in the surface of the deck. Another application of epoxy, localized to the problem area, will be necessary after cleaning away the sanding dust from the crack followed by another sanding after the epoxy has cured. If the surface is crack free, it is time to apply varnish. It is important to know that some varnishes react to epoxy and consequently do not dry well. As a precaution, apply a coat of Pettit Clear Sealer as a buffer over just the epoxy area. Then proceed with varnishing.

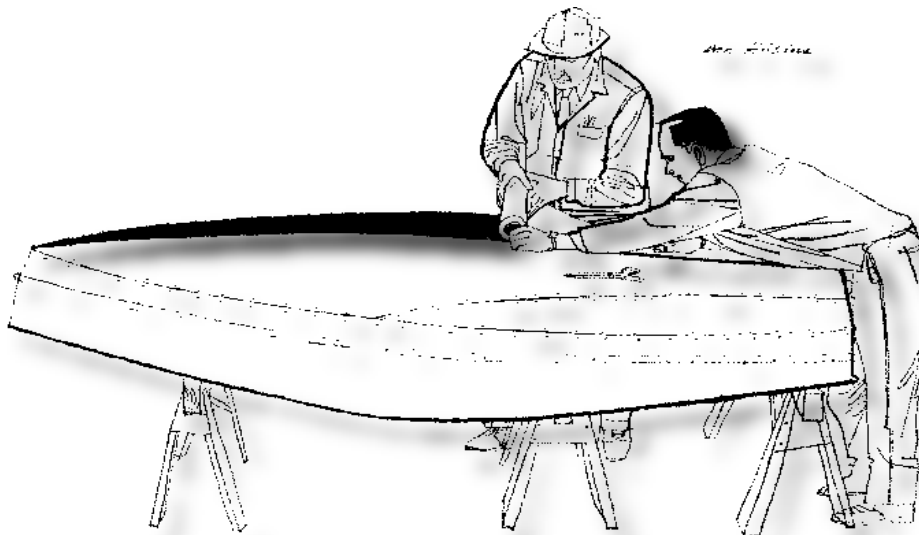
It is amazing how the crack will most likely dis-

appear to the point where you have to hunt to find it. Not all cracks will totally disappear and that is dependent on how well the crack closes upon swelling. Even so, the crack that does remain will blend with grain lines and not be too noticeable under the glossy varnish. The process takes time and patience, but is well worth the effort to bring the beauty back.

There is no guarantee that the crack will remain closed, although it is likely that it will. Drying wood has an immensely powerful force as the moisture migrates out of it. The epoxy bonding the crack will do a good job in bonding the crack together, but the glue is only as strong as the wood around it. If nothing else was accomplished, you have kept varnish out of the crack.

Your best bet to protect the boat from cracking is keeping the boat away from a dry, heated environment to protect the beauty of the finish on your treasure.

I hope this helps. Remember, I am willing to



become involved in your restoration project or problems by offering advice just for the asking. If I cannot come up with a reasonable answer, I have a network of knowledgeable boat restorer contacts that might be able to provide one.

**You may contact me at  
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Good luck with your restoration or maintenance project!**

