

2006 • Over a Decade with Dr. Gel • 2017



Ask

Dr. Gel



Dave Weakley is the owner of American Boat Restoration and has been helping Northeastern boaters keep their boats in fine trim and good repair for over 40 years.

by Dave Weakley

"Email me or call me with your questions! I'll be happy to help you out"

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What's in Your Transom?

If you have mushrooms growing on your carpet you may have a problem!



Trash barrel full of rotted transom core.

A customer called from Downstate NY and wanted to get back into boating after twenty-five years. He previously owned a 23' Sea Ray back then. Now he was looking to buy a 25' and found a 1989 Sea Ray on Craigslist at a good price. It needed work which he proceeded to do. He put it in the water and found out it leaked and needed a new transom. After doing so much work on it already he felt he had to go ahead and have a new transom done.

He asked how much and I told him what others had run but I needed to see the boat to do an estimate. So he drove 3 hours and brought the boat in. We did the estimate, the work was Ok'd and we proceeded to install the new transom. A new transom can run

anywhere between \$1500. - \$7000. plus, depending on the type of boat fiberglass or aluminum, size of boat, single or twin engine, how rotted it is, how much access there is to the transom, etc.

As the years pass and new boats become more and more expensive people are buying older boats. 70's 80's and 90's models are plentiful. Every boat has a history. You can find older well built boats that are pristine and were well cared for. Unfortunately, some boats have serious unseen problems. I see this happen all the time. I can't tell you how many people have brought their "deals" to me to inspect after they bought them and I have to be the guy that is the bearer of bad news. "Sorry but your boat is not worth putting money into"

A transom can have different stages of deterioration. Most of the time all can be repaired.

Usually it's soaked up flotation staying wet that starts to rot the floor and stringers. From here the wetness works its way back to the transom. There can be good floors and stringers and a rotted transom. Each case is unique.



Inside transom -old fiberglass cleaned off & ready for layup.

How does the flotation become soaked up? There are many reasons and here are just some;

Loose fasteners and hardware that's been installed with no sealant allowing water to wick in, Leaving the boat outside (full of leaves) uncovered, Stuffing the ski locker

with fermenting wet lines, towels,etc., not ventilating, covering a soaking wet boat after a weekend of use and left for the week during hot humid weather, delaminating fiberglass on decks, floors, stringers and or transom, accumulated bilge water,etc.



Original inner fiberglass "skin" becomes template for new marine plywood.



New third and last layer of plywood. Ready for final fiberglass covering.



The first thing I do when there are transom decay concerns I look across the outside and inside of the transom and look for indentations where anything is thru bolted. When the transom was new it was really solid and bolts were tightened. In a soft transom the bolts have indented themselves into the transom. Next I use the handle end of a screw driver and do the ole' tap test on the entire transom. I am looking for a nice crisp solid ring tone indicating solidness. If there is a thud sound it means moisture and softness is present.

I continued to examine other parts of the boat. I check stringers and engine mounts. First I check to see if the engine mount bolts are tight. If they spin, it's likely there is moisture and softness present. The screw driver tap test can be done along the stringers also. Stringers can be built out of many different materials e.g. wood/foam/composite. The tap test will give an idea of what the condition of the stringer is but the best indicator would be to use a moisture meter.

How is the transom repaired?

In the case of the Sea Ray, the first step was to remove the engine, all the hardware, hydraulic pumps, wires, trim tabs, hydraulic lines, speedo lines, depth finder, fish finder, etc.etc.

The bilge was cleaned, scrubbed, and degreased. Every bit of oil removed. Inside the transom the fiberglass "skin" was strategically, carefully and surgically removed using special equipment. This cut out "skin" was used to make a



Hole for intermediate housing hole cut out and new bilge paint. Ready for assembly.

cardboard template. The rotted core material was removed using chisels, pry bars, flat bars, hammer, vacuum, electric chain saw. I used whatever tool it took to clean out the water soaked core material.

Next I ground out the area and sanded it flat. I used the cardboard template to cut sheets of 3/4" and 1/2" marine plywood. These were laminated together using vinyl ester resin and fiberglass cloth. I had to achieve a thickness of 2-1/4" for the new transom. This piece was inserted and secured. All the original holes including the large hole for the outdrive were recut. The entire project was painted with bilge paint to finish.

Know what you are buying! The structural backbone of the boat is the stringers and transom along with cross members. It needs to be solid and kept in good soundness just like the foundation of your house needs to be strong. The boat may look beautiful and sleek, run well but can have major hidden problems. If it needs floor, stringer and or transom repairs it will be costly!

Have the boat inspected by someone who knows what they are looking at before you make an expensive purchase.

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