## Outfittting a Kayak: Rigging a Painter By Ralph Heimlich

I am currently outfitting a new (to me) kayak and thought it might be useful to the larger community to share the process through a series of articles. This is the 10<sup>th</sup> or 12<sup>th</sup> boat I've outfitted, so I've learned a few things from many mentors and through experience itself.

A painter is a line attached to the bow of a small craft to allow you to tie up to docks, trees, or other fixed points ashore. The origin of the word is the Middle French *pendeur* which originally pertained to the line attaching the anchor to the side of ship when it was aweigh and catted.

A painter on a kayak is useful in many instances. When you don't want to land on a rocky or cobbly shore, you can deploy your painter and attach it to a tree, holding the kayak afloat off the beach. When onshore overnight while kayak camping, you can secure the kayak to a tree or rock to avoid it washing out to sea when the tide or wind rises and may shift the boat. If you have to raft up with others while afloat, you can use it to tie the boats together while hands are busy with other tasks. It can be used as an emergency tow line, especially if rigged as I describe below with quick-release snap hooks. It is usually one of the first things I do when outfitting a kayak: Everyone should have a painter. Of course, the minimalists among you can just get a piece of clothesline and tie it onto the boat: All done. But a more thoughtful approach will yield dividends in the long run.

The line I use is 3/16" braided Dacron polyester, which is preferable to nylon because it does not stretch (especially when wet) and resists UV deterioration better then nylon or other materials such as polypropylene, and does not rot when exposed to moisture like cotton, hemp or other natural fibers (see sources at the end of the article). The working load on this line is about 150 pounds, so it won't support your and your loaded kayak if you go over a waterfall, but it will hold the empty boat securely to a pier or tree. Color aesthetics are important (to me) so pick a color that coordinates with your kayak. One one boat with red trim, I used all red line and bungee, but on this aqua boat, I chose basic black. My rule of thumb is to make the painter three times as long as the distance from the bow to the cockpit. This is not a mathematically provable thesis, but that length is a nice compromise between having enough line in most situations and too much line on deck in others. To better manage the length on deck, I "daisy chain" the line (see below) which reduces the length of the line and allows you stow it relatively tautly from bow to the bungee or perimeter line nearest the cockpit within easy reach. Measure the line on the boat and cut, melting the cut ends with a lighter or candle to prevent fraying. Careful!! The melted Dacron polyester is very hot for a while after melting.

An easy way to attach your painter to the kayak is with a knot, but knots suffer from several drawbacks: They untie; unless you want them to in which case with wet or gloved hands, they don't; and they create big glumps at the attachment points that may catch on things or otherwise impede handling the line. I use stainless steel or brass (impervious to saltwater) swivel snap rings at both ends of my painter to attach it to the boat, and to attach it to itself around bollards, cleats or trees. Plastic S-hooks or other gated hooks are alternative, but are usually not as strong as metal ones. Be sure the metal springs or gates are corrosion resistant, not always the case on cheaper plastic or aluminum carabineers or S-hooks.



Figure 1 3/16" braided Dacron polyester line



Again, you could just tie a knot to secure the snap hook to the painter, but that kinda defeats the purpose of avoiding knots in the first place. I use a method of sewing the ends of the bight of line, referred to nautically as sewn eye (vs. a spliced eye in laid rope). I use regular polyester sewing thread and a medium needle to sew the end of the line passed through the loop on the snap hook to itself using a dozen or so stitches back and forth. BEFORE you start sewing, slip a 3/8" or ½" length of electrician's shrink tubing (see below for sources) onto the line. Once finished with the stitching, you slip the shrink tubing over the sewn eye shaft and apply heat from a heat gun or hair dryer to shrink it over the stitching. This is cosmetic and doesn't add much to the strength of the join, but makes it look neat. If you use a contrasting color shrink tubing (I used white on my black line), it helps mark the end of the line where the snap hook is located.

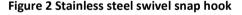






Figure 3/8" to 3/16" Heat Shrink Tubing



Figure 4 Snap hook, line and heat shrink tubing

Once you have the painter constructed with a snap hook on both ends, you can attach it one snap hook to the metal loop on the bow (if you don't have a metal look or a security bar, you can loop it through the front of the perimeter lines and attach the snap hook to the painter itself). Now daisy chain the excess length of the line to reduce it's length on deck. To daisy chain a line, start at the end attached to the kayak, form a loop, draw the standing part of the line through the loop an inch or two, then draw the standing part through this bight, and so on until you reach the end of the line where the other snap hook is attached. To secure the daisy chain, pass the end with the second snap hook through the last bight. You can now attach the second snap hook to the bungee or perimeter line nearest the cockpit. To release the full length of the line, simply pass the end of the line with the second snap hook through the last bight in the opposite direction and pull...All the previous daisy chain loops will release giving you the full length of the line (see video).



Figure 5 Snap hook attached with sewn eye

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A related project is a "pig tail" with two snap hooks on either end. This is a very useful piece of rigging whose main function is to attach you to your kayak when you capsize to keep the boat from drifting away as you arrange the self-rescue. It can also be used for a hull-to-hull contact tow or just to keep two boats together when rafting. It is the constructed in exactly the same way as the painter above but the length is only 2-3 feet. Many old-timers actually wear the pig tail on their PFD, but I store mine on the deck immediately in front of the cockpit doubled over once or twice.



Figure 7 Snap hook attached with sewn eye covered by heat shrink tubing gloves.



Figure 6 Heat Shrink slipped over sew eye shank

To use the painter as an emergency tow line, detach the second snap hook nearest you, release the daisy chain, run the line around your waist or the cockpit rim and attach the snap hook to the painter. Have the towee or someone else detach the snap hook from the bow and attach it to the towee's bow perimeter lines, snapping the hook to the painter itself (I would NOT attach to the bow loop on the towee's kayak as it could pull out). This rig is not as comfortable, easy to release or as safe as a real tow line, but it will serve in a pinch to get someone off of rocks or out of the surf. The value of the snap hooks should be obvious in this situation, vs. struggling with wet, jammed knots, particularly if you are wearing

## Sources:

3/16 inch Black Dacron Polyester Rope - 100 Foot | Solid Braid - Industrial Grade - High UV and Abrasion Resistance - Low Stretch \$16.45/ \$0.16 per Foot <u>https://a.co/</u> <u>d/91Au2q3</u>

SHONAN 2.65" Trigger Snap Hooks, Marine Grade Stainless Steel 316 Swivel Trigger Snaps, 130 Lbs Capacity Scissor Snaps, 2 Pack Lobster Claw Clips \$14.99 <u>https://a.co/d/bhJL3C2</u>

3/8 in. Heat Shrink Tubing, White (3-Pack) \$2.40/bag https://www.homedepot.com/p/Commercial-Electric-3-8-in-Heat-Shrink-Tubing-White-3-Pack-HS-375W/311129135

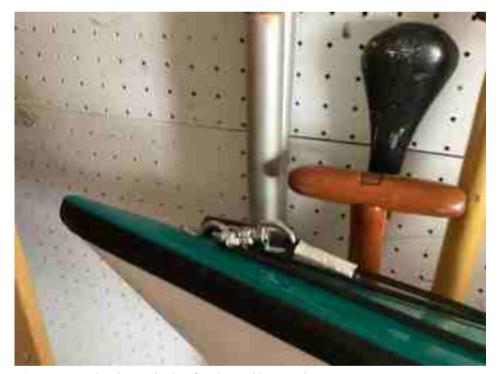


Figure 8 Snap hook attached to fixed metal loop on bow



Figure 9 Daisy chained painter deployed on kayak deck