Sailboat rigging: Roller furling

Bob Sagan, Interlakes #628 – 1442, Quantum Sailor.

Quantum Sails One Design

Sadly, our sailing season in the Midwest is done for the season. The good news is that now you can work on your boat without interrupting sailing. Get R done now for the most fun sailing season ever next year 3

Roller furling, loved by crew and cruisers. Launching. Docking. Light air spinnaker flying. All jib handling made easy, even for novice sailors. Heck, it's one of my wife's top two favorite upgrades to an old boat (the other was cutting down the cb trunk). A dream when it works right. Not so much when it doesn't.

There is a surprising number of details. Grab your favorite beverage and let's go.

The usual problem for a cranky furler is friction caused by a poorly led control line. I've climbed into the bow of many boats to fix the problem of "pain in the a\_\_\_" furler for frustrated sailors. Re-running the line is fast and free. Here is what to look for.

Vital: The control line runs <u>straight</u> out of the drum. Take a look at pics of the most commonly used furler (Harken). If the line has to bend around on of the "spokes" that make the drum body...massive friction. The fix is simple: re-run the line around the spoke to the opening that permits a straight run. Done. This most always fixes the problem.

Harken furler with after-market thru deck extension rod

Incorrect: notice how the line. bends around the spoke  $\ensuremath{\mathfrak{S}}$ 

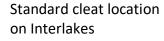


Correct: line runs free!



Way back in the day Ronstan was the furling drum that was used. Probably chosen because there were no other options for small boats. It works fine. Still available. I prefer the Harken drum. I feel that it is more robust plus I can more easily access the line and use a larger line. This Ronstan drum functions best with 1/8" line.

Rostan Furling drum.



DIY furling jib battens







## Other friction culprits:

Line type: too large &/or fuzzy. Too large may not fully or easily fit into drum. Fuzzy lines create friction with anything they touch. Most any polyester or blended line will work. 18 feet of 3/16" SSR (by Alpha ropes, pictured above) works great. It's flexibility allows it to furl well. It's light, doesn't absorb water and feels good in the hand. What's not to love?!

Rotating part of drum rubs against deck. If the drum is too large or anchored incorrectly, the top of the drum may rub against the deck. Not cool. Another part that can rub is the thru deck rod against the thru deck bushing. Also, not cool. This is caused by the anchor point being too low/far back on the bow.

## **More furling notes:**

<u>Furler Cleat:</u> A Harken micro cam cleat (HR 468) with eyestrap works well. Mount on bottom of forward cockpit with long sheet metal/wood screws. Remember your pilot holes and seal with silicone. (see pic above)

<u>FURLING BATTENS</u>: Fiberglass battens are not the right tool for furling. They stress the leech. 5/8" or ¾" tape measure works well. They need to be able to collapse or bend when furled. Ya know those ultra-professional tapes that will stay straight across the entire garage? Those are the worst. What you want is cheap. Think dollar bin specials.

<u>DIY furling battens</u>: Interlake jib battens are 12" inches. Two sections of tape measure per batten pocket. Round the ends and tape those rounded corner to protect the sail. Place pieces face-to-face. Like a watermelon seed. Do not tape them together, that will make them too stiff. Sew or use insignia sail tape to seal end of pocket. (see pic above)

<u>Train your sail right the first time:</u> Sails develop a memory. The first time a sail is furled it is best to do so perfectly, especially if the sail is the super firm dacron used by most older dinghy classes. An improperly furled sail can pick up creases. Don't want that to be remembered. The training process is not a problem, just have to be careful. The fact is that firm sails don't usually love furling. That is why some old schoolers still lower their sails as opposed to furl. Lowering requires more from the crew. This is why most Interlakers furl. Happy crew! Besides, more Interlake races are won by boats with furlers than without, so it doesn't appear to noticeably effect upwind performance.

<u>Make sure the drum is fully loaded</u>. This means that there is enough line wrapped around the drum to completely furl the jib. This must be done before the sail is attached. For Interlakes, the drum must be loaded before the forestay is attached. This because Interlakes are somewhat unique in that they don't use an upper swivel on the forestay. This results in the forestay twisting like a torsion spring. SO...Interlakers must pay attention to which way the twist of their forestay "lays." The goal is that the forestay will "twist tighter." Note: Total line length of 18' is needed for most set ups.

<u>DIY: The thru deck extension rod</u> can be made out of ½" or 5/8" thick-walled stainless tubing. 4" long works on my Interlake (#1442). Flatten the ends in a vise and drill holes for pins. Forestay pin is usually 3/16". Double check the diameter of your furler pin. Rule of thumb is to keep the side of the hole at least one diameter from hole to edge of metal.



<u>Special note for Interlakers</u>: Un-furl by releasing and completely letting go of the furling line. The system will "pop" as the loaded forestay quickly unrolls. Magic. This is also good for your sail as it reduces stress from pulling on sheets to unfurl.

Don't confuse "roller furling" with "roller reefing." Roller furling is all or nothing. All in or all out. Roller reefing permits using part of the sail...shortening sail. Roller reefing requires specially built sails that trade off top end performance for all around application. I don't know of any dinghy that roller reefs.

Don't leave your sail furled for prolonged periods such as overnight and definitely not stored that way. Roller furling can be hard on sails. Big wind can grab onto an untended furled sail and do horrible things. Sunlight/UV is brutal. Cruisers make a performance sacrifice and have a strip of "cover" sewn into the leach so that only the cover is exposed when furled.

Simple? Well, it is to use. Once working you, well your crew, just uses it. Easy peasy.

Here is to winter projects and dreams of warm breezes...

....to be continued...