

Rigging the Interlake ... MAST

Bob Sagan...Quantum Interlake Sailor, IL #628 - 1442

[Quantum Sails One Design](#)

The Interlake mast is an aluminum telephone pole. While that is not an attractive description, this reality does have its advantages. It is robust. Cost effective. Simple to rig...no spreaders or backstay. This simplicity aids in mast up/down and most significantly, makes a great equalizer on the race course. Still, the mast has many systems attached and having them working smoothly can provide better performance through easier crew work, plus better operating systems just make sailing more fun...*here we go!*

MAST STEPPING: There should be pin attached to the mast step (*mast step pic*). This pin inserts up the mast bolt rope slot to anchor the base when stepping/unstepping the mast. The pin stays in place while sailing. Pressure on the bolt rope groove from the pin during stepping will eventually cause the bolt groove to open. A stainless plate fastened over this area is the cure. However, I suggested using a smaller piece. I cut the standard plate into thirds. All the force is in the entry area, the rest is unneeded. (*FYI: for a quick fix a stainless pipe clamp can be used, just be aware of where the adjustment screw is so that it does not catch lines.*)

HYFIELD LEVER on forestay is highly recommended. It makes stepping/un-stepping simple while instantly repeating rig tune, a no brainer. This also lets you be nice to your yacht by easing tension between sailing days even with mast up. Standard Interlake equipment. Don't have one? Just get it.

Hyfield lever



mast base



mast step



The mast step is a busy place. Here is what's going on clockwise starting at about Noon: Cunningham hook, at 3 o'clock there is the vang attachment plate, thru deck vang control line, and stepping pin. Then at 5 is an open thru deck (w/stainless bushing) for spinnaker halyard, wire control (green), cloth attachment, finally at 9 is the "down haul" shock chord (black, running to bow) and grey topping lift. Fortunately, newer decks (about 1430+) have solid resin blocks under the mast to stop water intrusion and deck compression.

But before stepping, all the control lines/systems should be checked out.

GOOSENECK: ONLY USE STAINLESS RIVETS. *Big load in breeze.*

Location of gooseneck: place so that the track of the boom is 22" (+/- 1/2") above deck. Do you have the ancient "gooseneck track?" If so, the next question is, "When will it fail?" Do yourself a favor and replace it with a fixed gooseneck.

CRUISING SET UP: Jib wire/cloth on roller furling:

Want to keep things simple? Take out the luff wire and just use the cloth adjustment for halyard. This means you will use the cloth adjustment as the halyard. Connect this halyard/cloth control to the grommet in the head of the sail. You will still be able to adjust the jib entry. Removing the wire makes rolling the sail much easier. You get to use a single block at the mast. This all leads to less weight aloft, less rigging, less to do, more sailing. 😊

RACING SET UP: Jib wire/cloth on roller furling:

Roller furling rigs require a "double halyard" set up. Both the wire & cloth controls go up from the head of jib to a double turning block and the mast and finally down to the deck. (*mast hounds pic*). This configuration is required because there is not enough room for downward led control lines to wrap around the base. That will create a jamb-fest that no-one would enjoy 😞

Jib/wire for either step up cont': The proven Interlake standard for decades has been that the upward led wire/cloth lines wrap around the top of the forestay when furled and then unwrap when unfurled. It works. (*Note: there is no swivel at the top of the head-stay. The head-stay twists tighter when furled acting like a torsion spring which aids in un-furling.*) Traditionally, Interlakes use flex cable leads, in this case a double wire sheave is needed. I prefer to use "rope" rigging...specifically spectra SK75+ (or dyneema/depending on manufacture) @ 7/64." Spectra rigging permits using a more standard sheave (although look for a High Load, or a stainless ball bearing one), hand tying lengths and attaching. It is lighter, cheaper, easier to acquire, does not get spiral twists in it from furling nor does it develop "fish hooks" common in cable. Spectra is extremely UV stable and slippery. I aim to replace mine about every 4 years out of caution. (It would probably last longer.)

These two control lines are led to the base of the mast where they connect to the adjustment control lines that go to the purchase systems under the deck. Small hooks are often used to mate the ends. I prefer small snap shackles as they prevent lines from getting snagged as may happen with hooks. (*mast step pic for all of this*)

*mast "hounds"
with dual sheave*



*spin hoist block
& all taped up.*



*mast head wire cheek
for main halyard*



MAIN HALYARD:

- Use endless system...check blocks at both ends of loop, eliminates clutter.
- 3/16" line in hand. Most any polyester line works fine.
- Harken micro block HR233 works good for base where the line turns.
- 3/32" flex stainless cable with crimped eyes at both ends. Include 2-3 crimped on stops for the hoist hook. Note: Flex cable is made of many smaller cables which allows it to ... wait for it ... flex (without fatiguing).
- Recommended to have 2-3 stopper balls crimped on at 1" intervals for hooking into when sail is hoisted. This provides adjustment as sail ages.
- Wire cheek block HR301 for mast head where the cable turns.

(see pic of mast base with main halyard cheek and stepping bolt strap, mast head pic with wire cheek, and mast step pic with thru-deck control lines.)

STANDING RIGGING: 1/8" standard stainless cable for both side stays and forestay.

- Side stays should have fork terminals.
- Forestay should have "aircraft eye" terminals on both ends.

MAST RACING BANDS (*electrical tape works*) 21" apart measured from inside of bands. Lowest band 22" (+/- 1/2") above deck. Mainsail needs to be between these bands during all racing.

SPINNAKER HOIST: Maximum of 18' 6" above deck. A smaller swivel block (less weight, less windage & less expensive) works great. 3/16" line for the standard direct pull. 52' length if run to aft of center board trunk. (*spin hoist block pic*)

SPINNAKER TOPING LIFT BLOCK. Higher is better. Higher makes crew work much easier thus faster because of the reduced angle of line from up high. Attaching the upper block 4' down from the hounds makes for happy crew. 4mm (bit less than 3/16") Alpha Ropes SSR is real nice for the adjusting section. One end terminates to the pole hook, the other leads up to a block, then down to cleat. The other section is shock cord. It also attaches to the pole hook. Shock cord runs down. It's mission is to keep an unloaded hook from skying. It will not keep a loaded spinnaker in control. *(mast base pic for guy hook with line & shock cord)*

Two popular systems for the shock cord both include blocks near mast step...either on the mast and turn back up, or turn and go forward to base of forestay. The need to use one of these systems is to have sufficient shock cord length that it can stretch far enough when the pole is attached yet still have tension on the hook when not in use.

SPINNAKER POLE RING: Consider attaching two. A high one which will help keep the spinnaker pole square to mast thus increasing projected sail area. A lower one which will aid shorter or weaker crew. The lower ring made it possible for my 12 year old daughter to "work the front of the boat." She could get better leverage at this more appropriate for her height. The result was safer, faster and more fun maneuvers. Also, having a back-up is never a bad thing. Heights of deck: 48" & 36." *(I can't believe she is now in college...)*

WORD OF CAUTION: water loves going into things *(like deck cores)* but resists coming out. Make sure that all thru decks have an uncompromised liner and that everything is well sealed. Failure to do so is the TOP TEN reasons why cored decks go bad. Just sayn.

LAST ITEM: Tape all rings. Wrap any pins and rings in tape to prevent snagging or working loose. Electrical tape gets 'er done. Redo taping each year. Also, plug any rivet holes, or even the rivets themselves with silicone to keep your mast dry and light. *(notice the taping on pic with spin halyard and silicone holes on mast hounds & step pics.)*

Now that your rig is ready and stepped it's time for **BASIC TUNING:** 240-260 lbs. tension on the side stays. Rake 25' 2-3" as measured from full hoist to center of rear deck. You may wish less rig tension in light air, more in big breeze. Dialing in is a matter of what feels good, confirmed by your performance compared to that guy/gal sailing next to ya.

Quantum Sails Interlake rig tuning guide.

<https://www.quantumsails.com/en/sails/one-design/inshore/interlake>

GOOD NEWS: once your mast systems are working and rig rake/tension set, they take precious little maintenance to provide years of reliable & enjoyable performance.

Interlake sailing with family & friends. The best of times both on and off the water. Cheers!