Sailboat Rigging: Control systems part II
Spin Halyard, Hyfield lever, Twings, plus sealing holes thru balsa core
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Quantum Sails One Design

Quantum sails was proud to support Interlake Nationals in three ways *(boom woopies for all, awards, $$ to event).* The goal of these articles is to help all sailors maximize their joy of this great boat and sailing.

SPINNAKER HALARD: 3/16" (5mm) polyester or Alpha rope SSR. 55' long recommended for the standard spin halyard setup hoisted by skipper near the aft of centerboard trunk. BAM!

FYI: Future article will describe the 2:1 spin halyard system.

HYFIELD LEVERS have been universal on Interlakes for decades, and with good reason. They ease stress on the boat between outings and ease stress on sailors too. How? They permit quick loosening/tightening of the rig with consistent tuning. If you trailer, you really, really want one. They make set up/down faster easier while locking in rig tune. Yet there is one detail that is often missed: "WHICH SIDE DOES THE LEVER GO ON, FORWARD or INSIDE?"

Answer: Inside.

If you fly a spinnaker, this tidbit is helpful. If no spin, not a deal.

It all has to do with the spin sheets when NOT flying the chute. Inside permits sheets to slide down. Outside, all hung up. Pics say it all.

Inside: GOOD ☺

Inside open

Inside closed ☺

Outside: BAD ☹

ICK! *Closed from outside Catches spin sheet* ☹

TWINGS: ya either love'm, or you should!

Why do I love em? Let me count the ways…
1). Easier in medium wind.
2). Easier with "crew in training" for them and me.
3). Easier and safer in breeze.
4). Optional in light air. *(under 6ish)*

I know many who love em and many who "not so much." My experience is those that don't like twings do fall for them when they give them a chance. 4-8 outings is typically the point of addiction, of no return. You've been warned.

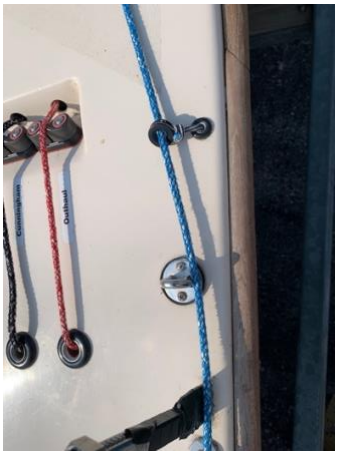
Wait…***what in the*** _____ is a ***TWING***?

Twings are historically a small block *(I like to use a modern "friction ring,")* that the spinnaker sheet/guy goes through. Twings replace the need for the guy hook. The twing ring is attached to a light (1/8") line that goes through the deck to a cleat in the cockpit.

(Yes, I also have a guy hook. Notice that it is set inboard a bit more than normal. That is to keep it out of the way of the sheet when using the twings, yet still keep it available in light air if desired as I won't run sheets through twings in a drifter. I also use the hook to keep my spin halyard and sheets tidy when not flying spinnaker as this keeps them out of the way of the jib sheets.)

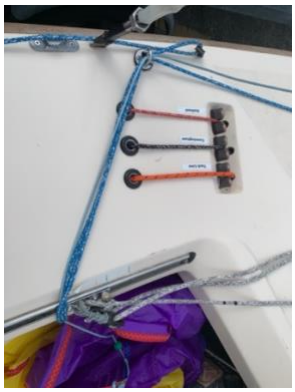
Here is my twing set up: *(I had a "tweeker" sticker so I used that…)*

Twing ring forward of inset guy hook



Twing (tweeker)Cleat inside cockpit

Guy hook primarily used
to organize spin sheet/halyard.



Placement of twing cleat inside cockpit
across from side-stay *(more on this below)*
When sailing, that thin twing line just hangs down.

Using them is simple. "Full on" or "completely released." Instead of putting the guy in the hook trim full on. Instead of releasing from guy hook release the twing from cleat. SIMPLE! Plus, no-one has to reach outside of the boat to snag a spinnaker guy. Just pull in the twing from in the cockpit. Heck, even the skipper can reach forward and do it if needed. EASY ☺

Twings are especially helpful:

- In waves *(reaching out of the boat is unstable)*
- Leeward take downs *(Twing on pulls sheet to hull. Sheet is always at hull and in the same location …again, no reaching for line)*
- Anytime the breeze is on. *(once again: elimination of reaching for line.*
  optional: partial leeward twing stabilizes spinnaker)

<u>Twing equipment suggestions:</u>

- Two micro cleats with nylon guides (one per side).
  (Harken HR471/468 ; Nylon eyestraps to reduce injury. Harken HR424)
- 1/8" line. 6/6" long for each side. (I'm working on trimming this down). Needs to be long enough to allow sheets to fly straight on reaches. *Leech line or spyder line works nice.*
- Two thru deck bushings. I always use stainless steel lined bushings. "Screwless/push in" style is real nice. *(Allen Brothers 6mm ID, 13mm deep Deck Bush and Linear works well.)*
- Two small plastic stopper balls for inside end of twing.
- Two friction rings (also called "Lead rings")
  10mm ring for ¼" sheets, could go 8mm ring for 5mm sheets.
  Available from Harken/Ronstan/…

TWING INSTALLATION:

While the detailed description is long (thorough) the process is quick. Here is the "Clift Notes" version:

1) Install thru deck at edge of deck forward of shroud. 2) Attach cleat inside cockpit. 3) Tie line to friction ring. 4) Run line to cleat. 5) Buy Bob a beer.

DETAILED VERSON:

WARNING: water mostly gets into deck core from drilling holes in a deck. Water gets in drop by drop but almost never dries. Always SEAL holes or better yet, don't drill through balsa cored parts of deck.

Sealing holes that go thru balsa core.

1) mix epoxy.
2) apply to inside of hole with Q-tip swab to soak and seal the balsa. Allow cure time.
3) Seal again when installing hardware with silicone. Use plenty. Goop up the insert or fastener. Wipe up excess with clean paper towel right away. Wait 12-24 hrs. Good to go.

Or….DON'T DRILL THROUGH BALSA SECTION!

Since the new thru deck hole is best placed near the edge of the deck it's possible not to drill thru balsa. ***Key TIP*** is to look at the balsa block pattern FROM UNDERNEATH the deck. You will see that it makes a step pattern along the edge. DRILL UP in one of the triangular sections that DOES NOT have balsa. Done. No sealing worries. Using silicone is still recommended to keep fitting in place and keep inside of cockpit as dry as possible, but the core will remain uncompromised. Yay.

Bonus TIP: use the smallest drill head possible. You don't need hardly any power. An angle or 90 degree drill head is spectacular.

Mounting the Cleat:

Recommend using bolts, nuts, washers. Seal holes front and back, plus base of cleats with silicone.

Location, Location, Location: Placing cleats flush with bottom of cockpit combing and across from side stays reduces bruising of crew. This location is far enough forward to be out of the way when hiking and back far enough to be out of the way when working the pole or locking legs into the corner of cockpit in waves. This location also permits skippers or a second crew to reach forward and help with twings if desired. *(see pics above)*

Tie or whip the line onto the friction ring. Feed line into thru deck fitting. Run line under deck combing then up into the cleat. Done. Enjoy.

All Important TIP: "Never work on your boat when you could be sailing."

to be continued….