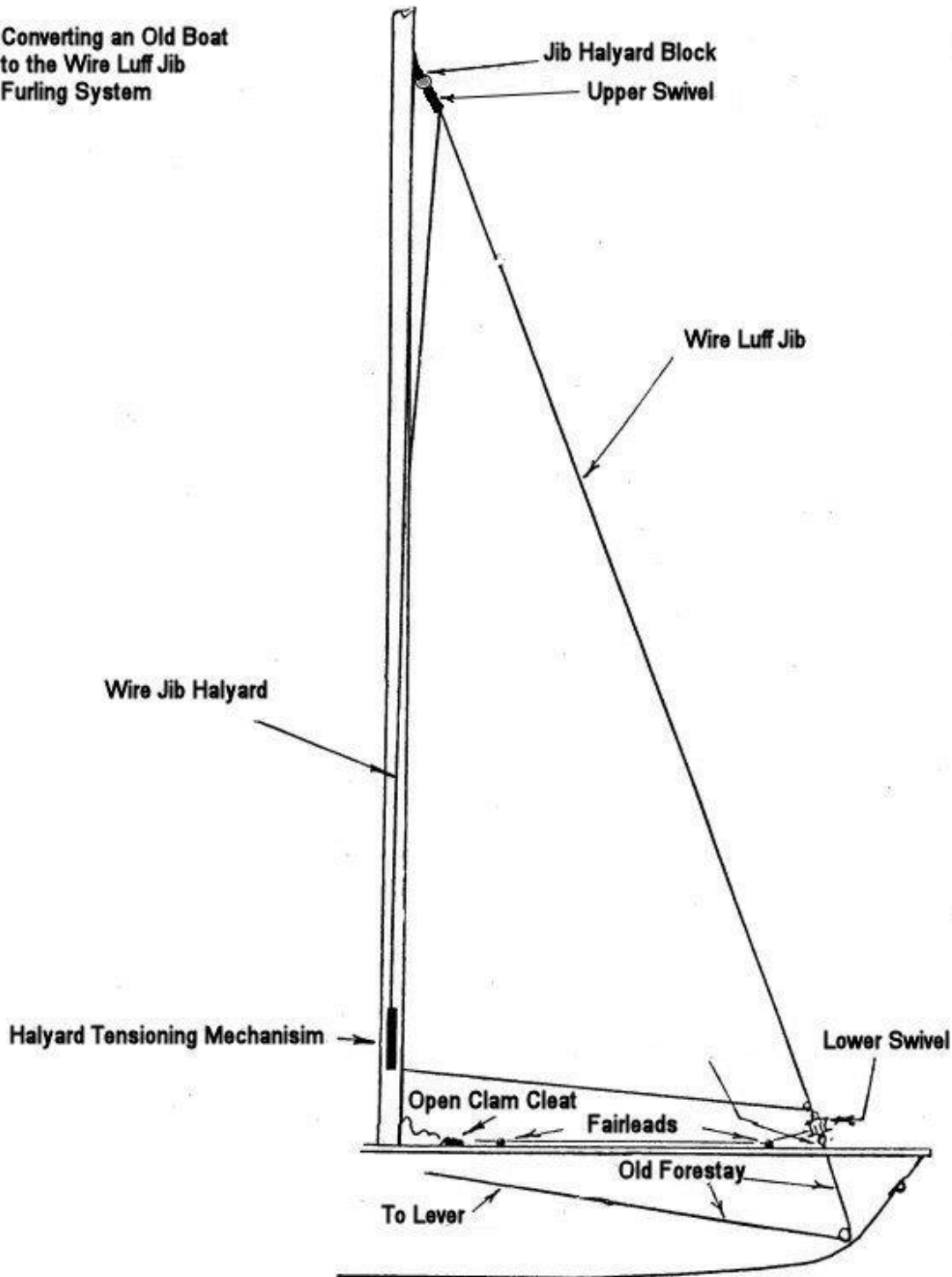


## Tube-on-tube to wire luff conversion by Rey Garza

I recommend changing from the old tube-on-tube furling system to the wire luff system. I did it and I think that the boat is now easier to rig, plus I can now remove my jib and store it properly so that it will last longer.

**Converting an Old Boat  
to the Wire Luff Jib  
Furling System**



There are a couple of methods to this task, I used the one that Harry Sindle recommends. The diagram above should give you a good idea of how this is done. In this procedure you will need:

Two small thimbles, 1/8<sup>th</sup> inch, RF482



Two Nico swage fittings, 1/8<sup>th</sup> inch, LSSL24P



Harken bullet block H082



Small shackle to attach block to tang, RF 6212

Harken small boat furling system, H435



Bolt cutters

Swage tool

The current forestay on your boat runs from a tang on the mast down through the tube that goes through the hole in the foredeck. Down below the deck it continues through the block connected to the bow of the boat and then back to the Highfield lever just inside the cuddy, under the mast step. This is the original configuration, your boat may have been modified but it should look something like that.

First secure the furling drum to the deck. What I did was disconnect the forestay from the tang on the mast and remove it from the tube system, I ran it through the hole in the foredeck down through the block in the bow and connected it to the Highfield lever, just like you would if the mast was standing.

Now, back at foredeck where the wire goes through the hole you are going to prepare to cut the wire, but first you need to think about it a bit. You will be cutting the wire and attaching a thimble to the wire that remains and goes into the foredeck. This is what you will attach the drum, (the bottom portion of the furling system), to. What you want is for the drum to end up fairly flush with the deck when the Highfield lever is locked in place, but still have room to move. You will need to measure twice, maybe even three times, and cut once. I left a couple of inches extra when I cut mine so that I would have a little extra to work with while I was swaging the thimble in place. When you have determined where the cut should be, go ahead and cut the wire. I used a large pair of wire cutters that I have and it cut, but it wasn't easy. Bolt cutters are the way to go.

The goal here is to end up with the drum fairly flush with the foredeck when the Highfield lever under the mast step is locked in place. I attached the Highfield lever end of the wire in the mid location on the lever to give me some adjustment room. I locked it in place while I was measuring before I cut, then released it to cut and attach the thimble. Once the thimble is attached, you can attach the drum and lock the Highfield lever in place. I used a wire to ensure that the Highfield lever did not release. You are now done with this portion of the task and you can move to the connection on the mast.

Now for the jib halyard - the tang on the mast where the forestay used to attach you will now attach a small bullet block. I used a Harken H082. This will be the new jib halyard block. I took the remaining end of the forestay and used it as my jib halyard. I ran it through the block and attached the other thimble so that I could attach the furling swivel to it and use it as my connection to the head of my jib. The other end of the wire was run down the side of the mast and used to anchor the halyard. I used a couple of double blocks mounted on the mast to anchor and adjust my halyard and rig tension, but some folks use another Highfield lever mounted on the side of the mast to do that. I chose the block method because it works like a magic box and gives me more flexibility in my adjustments. That's simply personal preference though, I'm sure that a Highfield lever works just fine.



Highfield lever designed to tension jib – R4470

Harken double block, you need two to create a Poor Man's Magic Box plus a clam cleat.



An alternative for rig tensioning is a Magic or Muscle Box. More expensive, but works great.



## Internal Halyard option by Jerry Thompson

It is fairly easy to run the jib halyard inside of the mast. Overall this results in a cleaner setup. Here is how to rig an internal jib halyard:

1. Instead of a block, remove the front mast tang. Install a sheave box designed for wire like the HA9B where the lower portion of the tang was located. It is better to locate the sheave box a little too high than a little too low.



Create a hole in the mast to fit the sheave box, 1-23/32 x 1/2. I used drill with a 1/2 " drill bit to make a hole at both ends. I then used a round file to connect the dots (holes). It is important to have round

ends which will prevent the mast from cracking under pressure. Use the sheave box to check progress being careful to make the slot just big enough. Use 3/16" drive rivets to secure the sheave box in place.

2. Create an exit hole, same method as in step 1, located a couple of inches above the location of the Highfield lever, double blocks or Magic Box.

3. Attach a permanent messenger line to the halyard to facilitate lowering and raising the jib.