

## A method for raising and lowering a Lightning mast

For folks who may want a slower but easier method of raising or lowering the Lightning mast, various methods have been devised. I decided to make a “gin pole” that could be supported in a portable “tabernacle”. This method has worked reasonably well for me, but should be regarded as a work in progress. I would love to receive feedback and suggestions for improving the system.

To build the “tabernacle” I used a single piece of 2 x 4. There is one athwartship piece with wedge shaped additions to fit the deck curvature, all covered with carpet to sit on the deck just forward of the mast partners (literally up against the forward “V” of the coaming). This has 18 inch vertical pieces attached, with a pivot bolt and a second securing bolt for the gin pole itself. It is secured with lines to the bow and the jib cars to prevent movement (even better would be some way to attach it to the trailer but I haven’t figured that out yet). See picture below:



The next step is to make the gin pole itself. Mine is made from 2 pieces of 2 x 4 scarfed together to make a total length of 15 feet. I used fir lumber because it was available and lighter than standard pine. At the top of the gin pole I fashioned a “crane” to permit attachment of the 4 part block and tackle system. On the way to or from the launch site this pole is tied alongside the mast itself. See picture below:



The gin pole is attached to the pivot bolt in the tabernacle and can be raised easily by one person. When raised it is bolted into the tabernacle and rises just forward of the mast, which is conveniently raked. I use 3 rope “stays” to hold the gin pole in place. One goes to the jib cloth shackle at the bow so it can be tightened using that adjustment and the two side ones go to the spinnaker twing lines (also adjustable on my boats, but one could easily use the chainplate attachment for the lower shrouds). At this point the mast itself is standing upright with the forestay and the 2 upper stays still attached. There is a 4 part tackle (which I made from some used Harken double bullet blocks and about 60 feet of ¼ inch line). The lower portion of the tackle attaches to a loop of line that is just large enough to slide up and down the mast itself.

When raised by the 4 part tackle system this loop of line “catches” just below the spreaders and serves to lift the mast upward out of the step. The total lifting distance is about 2.5 feet (the vertical distance from the step to the partners at deck level). When raising the mast it is also important to attach another piece of rope to the loop so it can be pulled back down to deck level once the mast is up. When I use this system alone it takes me about 30 extra minutes to set up the gin pole – probably not so good if you just want to go sailing for one day.



To operate the system, I tighten the rope through the four part tackle and find that I can easily raise or lower the mast with one hand. The other hand is used to stabilize and guide the butt of the mast. When lowering the mast, once the butt is clear of the deck, I guide it forward until the mast is nearly horizontal. Fortunately the balance point of the spar is right at the lifting point below the spreaders, so tilting the mast is relatively easy to accomplish. The mast is then lowered to the deck with the butt at the forward end and the masthead aft. The mast then lies on the deck alongside the tabernacle.



The same position is the starting point for raising the mast, with the steps occurring in the opposite order. As you raise the mast with the tackle, it naturally wants to become vertical, with just a small amount of steadying by your other hand at the butt. Once the butt is raised high enough to go through the partners, it is lowered into the step, and the tackle supporting it is cleated off. In this position it is upright and stable and you can walk around the boat at leisure to secure the stays.