

Lowering and Raising the Mast

By Chuck Rose

When it becomes necessary to perform maintenance or, as in this case, modifications to the mast, the optional tabernacle mast step on the Vega is a very handy item. Recently we needed to replace the flag halyards and blocks and install a block and bail for a spinnaker pole topping lift on Lealea. Taking some tips from **Bruce Bingham's "Sailor's Sketchbook"**, makes lowering and raising the mast a one man job (Though having an extra pair of eyes and hands is always a good idea.) Here's how we did it:

What you'll need: 40 feet of 1/4 inch line, a spool of waxed sail twine and one snap hook. If you want to be fancy, like Bingham, you could also use six more snap hooks and two stainless steel rings or shackles the same size as the pins in your rigging screws (Turnbuckles). A four part tackle (Like your mainsheet) rove with 125 feet of 3/8 or larger polyester line. **Caution:** **If you try this with your mainsheet, you will run out of rope on the tackle when the mast is halfway down!** (Or you could rig your mainsheet with way too much rope as I have done.)



The First Step is to make a bridle to hold the boom steady: Middle a piece of 1/4 inch line long enough to reach from the after end of the boom to the



upper shroud turnbuckles on either side (25 feet will be plenty) and seize in a snap hook as shown in the photo at left, then snap the hook on the fitting at the end of the boom. You need not remove the mainsail.



Next make up two short pieces of the same line, seizing a loop in the middle which you will then attach to the upper shroud at the level of the mast step. On Lealea, this is exactly at the bottom of the shroud, just where the eye attaches to the upper end of the turnbuckle. Although not shown in these photos, I recommend that you remove the clevis pin from the eye fitting in the upper shroud (Carefully replacing it in the turnbuckle fork and laying the turnbuckle down, still attached at the bottom) and replace it with a shackle with the same size pin. Attach the loop to the shackle and the two legs to the fore and aft lower chain plates on either side and adjust until tight. This will require some adjustment so I recommend you use half hitches to get the tension right. Later, when you're sure of the measurement, you can



splice snap hooks to the lower legs of the short bridle.

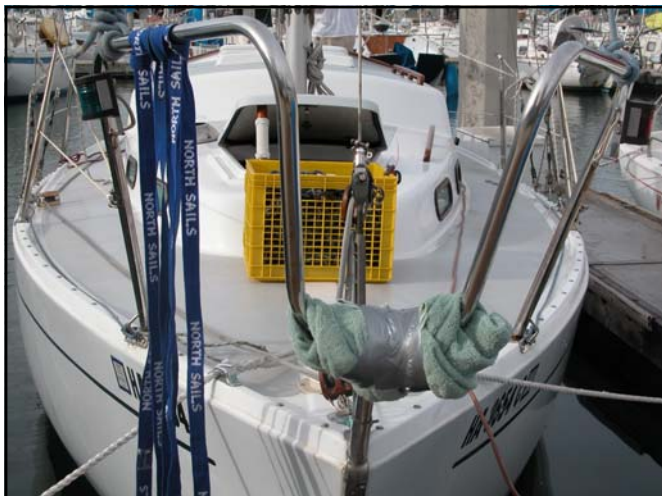
Now set up your tackle as you would normally set up the mainsheet, attaching the main halyard to end of the boom. Do not use the topping lift. Attach the long bridle ends to the top loops, rings or shackles of the short bridles which are attached to the upper shrouds on either side.



Square up the boom and snug up the bridle so the boom is centered and at right angles to the mast. The weight of the mast will be supported by the halyard and the tackle. The bridle will keep the boom centered and prevent it from flopping to one side as you lower away while keeping tension on the upper shrouds.



Stop: take a careful look around the boat. Make sure everything you need is handy and organized. Tape or tie a pad in the pulpit just in case. Check the forward lower shroud turnbuckles. If you tied the bridle in with half hitches, the turnbuckle will be supported so it will lay forward without fouling, if you used snap hooks, tape the



chainplate to keep the turnbuckle from dropping down when the tension is removed. Make sure you have sail ties and/or tape handy to secure the shrouds. Make sure the halyards, topping lifts etc are secured to the mast so they won't get in the way.



Now you can disconnect the after lower shrouds and back stay. First disconnect the backstay and take it to the mast. If you don't have a helper, tape it or tie it. Then bring the after lower shrouds to the mast and secure them. The forward lowers and the forestay do not need to be disconnected. The upper shrouds are attached to the bridles

If you are working alone, lead the working end of your tackle to the foredeck and give the forestay a tug. Ease the tackle and the mast will come forward. Control the rate of descent with the tackle and keep your eye on the mast as you slowly lower it into the pulpit. If you have a helper, one of you work from the

cockpit, the other on the foredeck to help guide the mast to rest. If you have set up every thing correctly, the mast will gently drop straight into the pulpit. Now you have the mast at a level where you can work on it safely.

To raise the mast, simply reverse the process. Haul away on the tackle, keeping an eye on the still attached forward turnbuckles making sure they do not bind—they will bend if you are not careful or have not supported them properly with tape or rope.

Once the bridle system is rigged and fine tuned, the mast goes up and down surprisingly easily. This sys-



tem can be used to lower the mast to pass under bridges as the mast can be left in the down position while the boat is under power in calm water. For variations and more ideas on the bridle system, see:

“The Sailors Sketchbook”
Bruce Bingham
1983 McGraw-Hill

Mahalo to my neighbor Gus for helping with this project. Photos by Laura

