

## Mast Raising and Lowering

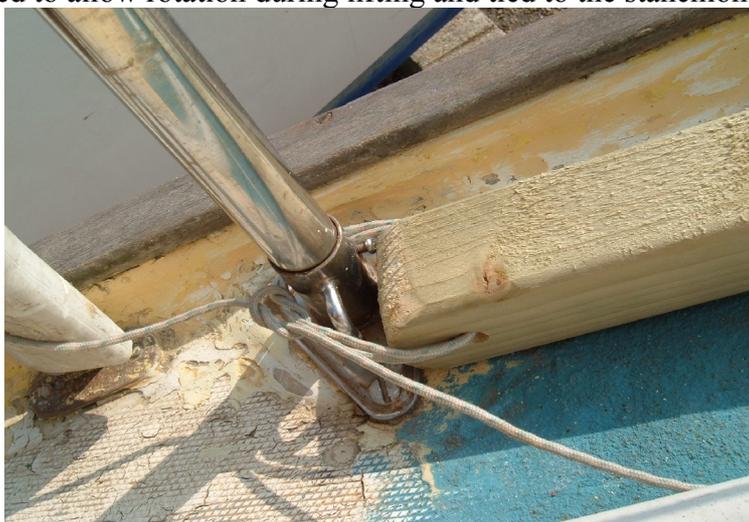
There are many reasons why we need to take the mast down and having done it – put it back up again. My club has a good deal on lift-out at the end of each season. They hire a crane for a few hours and approximately 30 boats are lifted onto the jetty for the winter. However the masts must be down before the lift takes place.

Boat yards are very happy to charge large sums of money to do this for you, but armed with a couple of bits of timber, it is a fairly simple DIY task. They need to be long enough to reach from the bow to the stanchions (the ones which are nearly level with the mast base) – for my Hurley 22 that is 7' 10”.

Simple 'A' frame made from two pieces of 2x2 (inches) ready to use.



The aft end is rounded to allow rotation during lifting and tied to the stanchion base.



The forward ends held together with a shackle (but for the first year I just lashed them together)



To prepare for lowering

- Remove the boom
- Disconnect all electrical cables from the bottom of the mast
- Check all electrical cables are disconnected at the bottom of the mast!!
- Slacken off all standing rigging bottle screws.
- Disconnect all standing rigging that terminates in front of the mast **except the fore-stay**. (In my case that is the inner fore-stay and the forward lower shrouds.)
- If the mast base has two bolts through the tabernacle, remove the lower bolt.
- Disconnect the head-sail furling from the bow (unless this is integral with the fore-stay)
- Attach the boat's main-sheet between the bow roller and the front of the A frame. Attach the top of the mast to the front of the A frame using the foresail halyard. This will support the mast when the fore-stay is disconnected.

You are now ready to disconnect the fore-stay and start to lower.



It is handy to have a helper who will look after any tangles with ropes or rigging as the mast is lowered, but all the weight of the mast is supported by the main-sheet. This can be cleated off at any time during the process, so there is no need to rush and the mechanical advantage of using the main-

sheet means little effort is involved.

I have a couple of pieces of timber lashed to the push-pit to support the mast during storage. This crutch will make it easier to get round the boat for maintenance work. However the mast can be lowered directly onto the push-pit.



Once the weight of the mast is supported by the stern of the boat, the A frame can be disconnected. The second bolt holding the mast to the tabernacle can be removed and the mast lifted forward to be supported on the pull-pit. This is the only time when a second person is essential. The mast on a Hurley 22 weighs about 100 lbs.



Note that with the mast in the crutch, it forms a useful support to lift the outboard out of the lazarette locker (once again using the main sheet for extra purchase).



### **Raising the mast.**

As they say in all the best instructions, raising the mast is just reversing the process.

Once raised, it is probably best to make the final rigging adjustment according to the instructions from Nick Vass -

“Loosen off all shrouds. By loose you should be able to move them about a foot in either direction when held at head height. Set the fore-stay so that the mast is vertical. Tighten the back-stay so that the mast is now slightly facing aft or just about vertical. Tighten the forward lower shrouds a little at a time. One turn alternately port then starboard. Tighten the aft lowers. The mast should be still vertical. Lastly tighten the cap shrouds a bit at a time. Do not over tighten the shrouds. You should be able to move them about 4 inches when held at head height. The mast should not be bent backwards as it is a cruising mast.”

There is no doubt that the first time you raise or lower the mast is the most stressful, but this procedure is undertaken by all our club boats (up to 26 feet loa.) every year without mishap. Just take your time and don't rush.