

# North Bay Yacht Club

## *How to Use the Mast Crane*

### **Preparatory Work**

If you are new to this process or simply unsure please get help from some of the more experienced members. We are currently working on a list of experienced operators\*. You need a minimum of 5 persons to operate the crane and take down or install a mast. Preferably there should be 6 – especially for larger boats and boats with furling.

The mast crane is located at the end of the point past the clubhouse and has a weight limit of 350 lbs. This is sufficient for most boats up to around 34ft but should there be a question on weight contact the club safety officer to check the actual weight beforehand.

Prior to motoring to the Mast Crane location:

When stepping the mast in the spring, most masts have generally been on the boats over winter supporting a tarp. You should be able to balance the mast between the pulpit and pushpit rails with some support from a 2 x 4 reinforcement in the middle.

If you have stored your mast off the boat on the mast racks, place the mast on the mast dolly and push it along to the crane area.

Prepare the mast for stepping by putting on the spreaders, attaching the shrouds and ensure that all standing and running rigging is routed correctly and not tangled up. Don't forget to mount the "windex", VHF antenna and other instruments.

### **Mast Stepping**

Pick a day with *calm winds* and *little wave action* – if the boat moves too much it puts an undue load on the crane and can damage your boat. Remember that the skipper is the only one responsible for his or her boat. There should only be *one person* in charge and instructions should be given in a clear and concise manner.

With the mast already at the dock or on the boat and fully assembled with spreaders attached, motor your boat to the crane dock on a "first come, first served" basis. In our club it is expected everyone helps out on this area if needed. There should be two people on board to watch for interference between your mast and the other boats and mast projections in the harbor.

1. Secure the boat with bow, stern and *spring lines*. Bow should face the west. You don't want the boat to move during the operation. There is a mark on the dock that should be opposite the base of the mast step or deck hole.

2. Ensure that you have all the standing rigging pins ready and available.
3. The short “lifting sling” is usually available in the club house. Ensure that you have a “hold-down/pull-down” line attached to the end of the hook. This line is used to retrieve the sling. The sling and line are then attached and secured. Warning, make sure the mast is laid down with the forward-face up (leading edge). This prevents damage to the instruments on the top of the mast.
4. Generally the sling goes below the spreaders, outside the inner shrouds so as to prevent any jamming when the mast is raised.
5. Now it is ready to hoist. Have two people on the crane, one to hoist, one to swing. Swing the boom so the winch cable hangs over the mast step.
6. Have one person ready at the middle of the mast over the mast step and another in the cockpit to sort out any tangles and install rigging.
7. Always keep in mind that one day that mast might slip and fall. *Consequently always stand to one side of the mast when hoisting it.* This would especially apply to the person in the cockpit.
8. Take up tension and gradually lift mast. The person at the mast step keeps a hold of the mast and as it is raised applies gentle pressure to tilt it to a vertical position.
9. Once it is upright and over the step, lower to just over it or down into the mast hole to the step on the keel. Never place fingers etc between the bottom of the mast and deck.
10. The bow person meanwhile hooks up the forestay and then the shrouds and tightens up the back stay. (on some boats the owner may recommend attaching the backstay before the shrouds) Once attached release the pressure on the hoist to allow for movement of the boat.
11. Check all connections and then release tension on crane – remove sling and tie off cable to base of mast if no one else needs it. Take sling back to club house. (Note: NEVER tie off to floating dock as this could wreck the crane!)
12. Return to your slip ASAP to free up slot for next boat.
13. Watch out for the rocks just in front of the dock – best way to leave the mast dock is to reverse out.
14. Go sailing!

## **Mast un-stepping**

Ensure that the boat is prepared for removal of the mast. All sails removed, boom removed and all running rigging that is not required should be secured and tied-off. Remember to remove all flag halyards and furling lines and disconnect all electrical cables/antenna wires from the mast. Prepare the mast boot for un-stepping. Only the standing rigging should remain. Then proceed to the crane dock.

1. Secure the boat with bow, stern and spring lines. If taking the mast off the boat ensure you have sawhorses or the mast dolly at the dock to support the mast after it is removed.
2. Again place a person at the base of the mast, in the cockpit and at the mast crane.
3. Install the mast sling as for the mast install process.
4. Very lightly tension the crane cable and then disconnect the head stay followed by the shrouds. If necessary disconnect the back stay, but have the cockpit guy maintain tension to stop the mast from swaying too much.
5. The mast can now be lifted sufficiently to start the process to tilt the mast to the horizontal. This should be controlled by the person at the base of the mast.
6. Gradually lower the mast until it can be placed on the deck or swing it (horizontally) across to the land side onto the sawhorses or mast dolly.
7. After the mast is on the deck or the saw-horses or mast dolly, the crane cable is disconnected. The spreaders, windex and wind instruments should now be removed and the standing rigging neatly secured to the mast. You can now transport the mast to the mast cane storage racks in the parking lot.
8. If the mast is on deck, secure it to the rails and motor back to your slip. Be very careful of the mast overhang when negotiating past the other boats on the docks. You should have two people on board to help fend off from any possible collisions.
9. Put the boat to bed and go south for the winter!

\*Due to some incidents over the years with the crane, a short training and certification course is required prior to using the mast crane. Upon completion of the training, you will receive a small card indicating you have completed training. Before using the crane, at least one member of your group must have their mast crane training.