

# Shrimper rigging set up and other 'bits and bobs'

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**Raising the mast:** The weight of the mast is more than many people can lift easily. This means that some form of aid should be considered for raising the mast. Crabbers are now producing a hinged bowsprit as a standard option for a new boat. An article (Bowsprit Hinge on "Bumble Chugger") on the Web Site describes how this can be made and operated. The jib halyard can be attached to the bowsprit in its raised position. Then by pulling on the jib halyard the mast can be raised. The raising is completed by bringing the bowsprit down to its final position.

Some owners have built an 'A' frame to fulfil a similar function. In this case the jib halyard should be attached to the end of the bowsprit and is passed over the 'A' frame to provide a sufficient lever.

If the mast can be raised simply then it is helpful to have a second person to haul on the forestay and make it fast when the mast is raised.

If there is a connection to the aerial through the bottom of the mast is important to ensure that the cable is not trapped when the mast is raised.

**Mast rake:** The mast rake can be measured with the hull set as it would be on the water. The rake is measured by hoisting the peak halyard with a thin line attached to it. A weight at the bottom will indicate the rake at deck level. I have set this to 300mm (for some years earlier I set it to 350mm).

**Side stays:** Once the adjustment on the side stays has been completed it is essential to lock off the turn buckles with a piece of wire to ensure that they cannot become loose. A number of incidents have occurred (including on Bumble Chugger) where one of the stays has become loose and the mast has been in danger of falling down. Fortunately it has usually been the leeward stay and the connection has been repaired before any damage has occurred.

**Rig tension:** The required rig tension is related to how the sails have been cut. For most sails the sail design assumes that the luff of the jib is as straight as possible. This means that the rig tension must be as tight as possible. On boats without a winch the blocks on the jib halyard provide a purchase of three times. In order to get sufficient tension on the jib it is necessary to:

- a) sweat on the halyard and take up the slack at the cleat or
- b) provide an additional double purchase at deck level. This makes a total purchase of six times. This has been achieved by a making a loop knot in the jib halyard at deck level, or by a more complicated device (see Figure 1 as fitted to Bumble Chugger)).

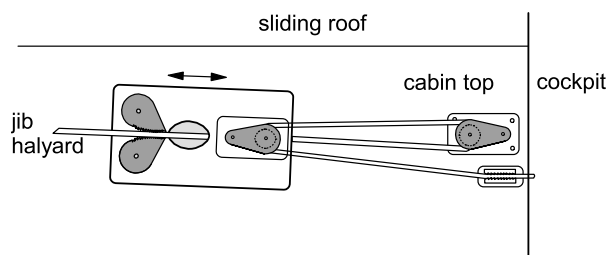


Figure 1: Jib halyard tightening device

In order to avoid the jib being wrapped around a loose forestay when the jib is being furled, it is important to ensure that the forestay is tightened after the jib halyard has been tightened. Recently on many boats the forestay is taken up to the top of the mast to provide a larger gap between it and the jib luff.

**Jib luff tension:** The tension in the jib luff can be adjusted by the ties at the head and tack of the sail. This is independent of the tension in the jib halyard. The aim is to ensure that the jib is not creased at the luff. If there are horizontal creases more tension is required. If there are vertical creases (OK for strong winds) less tension is required. In most rigs the connection at the tack is via a split pin. To provide more adjustment a tie is inserted between the tack and the pin.

**Jib furler:** Jib furlers on many of the older boats do not have any means to stop the control line from coming off the reel. When this happens it is often in strong winds when one is trying to approach a mooring or berth. This means that the jib flaps madly out of control. It is possible to stop the controls line coming off by fitting a piece of plastic around the reel. This is described in an article on the Web Site under 'Jib furling guard' in 'Deck and above'.

**Mainsail luff tension and other settings:** The tension in the mainsail luff is dependent on several controls:

- a) The tie at the top of the gaff. This should be tight enough so that vertical creases will appear when the sail is fully hoisted but disappear when the peak halyard is let off. The peak halyard should be tightened when sailing up wind and loosened when sailing down wind. It should be adjusted so that the sail is not creased.
- b) The main halyard is tensioned fully (in light winds let off slightly) and the peak halyard tensioned to suit.
- c) The lacings should not be tight and when the sail is set they should not affect the air flow on the sail.  
For sails with a luff rope stitched into the sail, the mast lacings should be looped around the eyelets and mast. The gaff lacings can be looped around the eyelets and gaff or hitched at each eyelet.  
For sails with a loose luff rope both the gaff and mast lacings should be looped around both the mast and gaff.
- d) The kicking strap should be set to stop the boom rising when running or on a broad reach.
- e) The tension in the foot of the sail should be tightened in strong winds especially up wind to flatten the sail.

**Sheeting the jib:** The correct position of the jib fairlead on the track is at a point that allows the jib to provide maximum power throughout its height. This is critical upwind. If the sail has tassels then all the tassels should be flying. If the top inside tassel is flying but not the lower ones then the fairlead should be moved forward and vice versa. Generally in light winds the fairlead should be moved forward to give a tighter leach and in strong winds moved back to give a looser leach and more twist. When on the beat the jib sheet should be pulled so that it lies about 40mm outside the side stay. This means that for stronger winds it has to be pulled in harder.

**Sheeting the main:** The correct position for the blocks on the horse track is a matter of choice. If they are set further out (say 150mm from the end) then, when beating, the sheet

will pull the sail down as well as in. This will have the effect of tightening the leach and reducing twist in the sail. If they are set further in (say 150mm either side of centre) then, when beating there will be less down force and it will allow the sail to be fuller with more twist.

In light and medium winds the kicking strap will have some effect on the setting of the sail. Taking into account the position the blocks on the horse track and the sheeting of the mainsail, there are an infinite number of permutations of settings which provide similar effects.

**Centreboard position:** Generally the centreboard should be fully down when beating and fully up when running. In strong winds there may be less weather helm if it is raised a bit. However the weather helm will also depend on how much the mainsheet is played. It is possible for the centreboard rope to slip off the drum reducing the number of turns. The effect is that it cannot be fully retracted. This can happen when the centreboard hits an obstruction and the tension in the lifting wire is suddenly released. A simple way to correct this is to let the centreboard right down and then wind on another turn (or as many as is required).

**Use of whisker pole:** Using the whisker pole on the run when goose winged increases the boats speed. In order to gibe without taking down the pole it should be just short enough to be able to swing inside the jib.

**Weight distribution:** The boat travels faster when the weight is distributed forward. This appears to be most effective when running in medium and light winds.

**Water in the hull:** If water gets into the hull it can get to any part of the boat. It will remain in the compartment where it started until the boat tips for any reason. When the boat is tipped it can run fore and aft to any point in the boat (except the cockpit). Typical places where leaks occur include:

- a) The drain hoses from the fore well or the cockpit (Mark 1)
- b) Loose screws holding the rudder pintle bracket to the keel. The keel is hollow and any water will leak into the hull from there
- c) Cockpit lockers if not properly sealed.

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