



## WESTSAIL TUNING THE MAST RIGGING

First loosen all of the turnbuckles about three or four turns. You may need to remove the locking cotter pins, or loosen the locknuts, depending on the type of turnbuckles you have. Spray some lubricant on the threads to make it easier, and prevent galling of the threads. Check to see the turnbuckles all operate in the same direction. The right hand thread should be towards the wire, and the left hand thread towards the chainplate.

On the Westsail 32, if you have not done so already, it would be a good idea to install the bolts through the deckbeams and the main bulkhead to help the mast support post do its job properly. The bobstay and boomkin whisker stays should be checked to see they are snug, and the bowsprit and boomkin should be straight, or with a slight hint of bending down, which will be brought back straight when the rig is tightened. Check to see that the bolts holding the bowsprit and boomkin have not shifted or bent.

Since you are adjusting the rigging, it is a good time to visually check all of the swaged fittings for signs of hairline cracks starting. Clean off the stainless with a Scotchbrite pad, and use a magnifying glass, or some dye penetrant wiped on the fittings to indicate cracks starting. Carefully check the strap ends of the turnbuckles for cracks, and also the area of the barrel between the slot and the end, if you have the stainless barrel turnbuckles that Westsail used on many of the boats. Also look at the ends of the chainplates for signs of cracks starting. If you have a Westsail 32, and the boomkin tangs are the original 1" wide ones, replace them with wider ones, as these have failed on many other boats.

The next thing to do is to get the mast rake correct in the boat, using the headstay and backstay to adjust it. Check to see the boat is floating level with the waterline, and then tie a weight to the main halyard, and suspend it just above the boom on the aft side of the mast. The line should hang about 6" behind the mast, as the Westsail 28 and 32 should have the mast almost vertical. The Westsail 42 and 43 should have the line about 18" behind the mast. Adjust and tighten the headstay and backstay to achieve the correct rake, and the wires should be very snug.

Next get the mast centered in the boat, using the upper shrouds. Use the halyard, and check the distance to the upper chainplate hole on each side. Adjust the upper shrouds until the length of the halyard is the same on both sides, and these shrouds should be just snug. Next to adjust are the four lower shrouds. Sight up the track of the mast to see if the mast is bending to either side, or fore and aft. Tighten the shrouds evenly, continually checking to see there is no bend in the mast when sighting up the sail track. The four lowers should be set very snug, being careful to balance them so that the mast does not bend and get out of a straight line.

The staysail stay should be adjusted next. Since there is no permanent stays to resist the pull of the staysail stay, it cannot be set too tight. Just tighten it enough so that the mast just starts to bow forward where it is attached, then back off about a half turn on the turnbuckle.

If you have access to a tension gauge, use it now to balance the stays so they all have an even tension on them. If not, pull and shake each wire to see if they feel the same. The four lowers, headstay and backstay should all feel very tight, the uppers slightly less, and the staysail stay the loosest of all.

Take the boat out sailing, and sight up the mast on each tack to see that the track is still straight, and the mast is not bending. Tighten the locking nuts, or replace the cotter pins to secure the turnbuckles from unscrewing with vibration.