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TUNING THE LIPPINCOTT 30

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Racing or cruising, it's sure nice to have your boat tacking well and pointing high. Lippincott 30's will point the best. Forget it, however, if your rig has not been properly tuned. A sagging headstay or loose upper shrouds will prevent you from obtaining the maximum potential performance of the boat.

Setting up the rig has been pictured as an *ART* or *FEEL*. In fact, it is much more simple than we have been led to believe.

1. Before stepping the mast at spring launch, check all masthead fittings to make sure that all pins are in place and in good condition. Check all cotter pins for wear or broken ends. Replace any parts that are broken or show wear. If your mast has been left up all winter, then it is recommended that someone go up the mast for this annual inspection. If your rigging has been loose, there is a possibility that these fasteners will show some wear.
2. You will need a few tools for making the adjustments: 1 small (8") adjustable wrench, 1 needle nose pliers, 1 long thin blade screwdriver, 1 roll rigging tape and spare cotter pins.
3. Prepare all turnbuckles for adjustment by removing tape and cotter pins. Plan on replacing all cotter pins.
4. Loosen all halyards, main sheet, and boom vang.
5. Upper shroud adjustment - Use the adjustable wrench on the swedge fitting to keep the shroud from rotating. Insert the screwdriver blade in the turnbuckle body. Turn the turnbuckle counterclockwise to take up tension and clockwise to relieve tension. Adjust tension evenly on the port and starboard sides. Check alignment of the mast by sighting up the foreside of the mast. If the mast favors the port side, adjust the starboard turnbuckle (the port turnbuckle may also need relieving) until a vertical alignment has been achieved and the shrouds are tight. There should be no more than 1" of lateral (total horizontal) movement in the shroud at about 7' above the deck.
6. Backstay adjustment - The forestay on some of the Lippincott 30's has no turnbuckle. Therefore, to put the forestay under tension, you must adjust the backstay turnbuckle. Adjust the forestay tension so that there is no more than 2" of lateral movement about 7' above the deck. Further adjustment will be made later. Note: if your boat has a forestay turnbuckle, the above adjustment can be made on the forestay.
7. Lower forward shroud adjustment - These shrouds provide intermediate mast support and are critical to mast alignment and prevent the mast from buckling under high compression loads. The lower forward shrouds should be adjusted evenly in relatively small increments until they are tight. While making these adjustments you should constantly be checking your mast's vertical alignment. Too much adjustment on one side can pull

the mast out of vertical alignment. You will want these shrouds set up tight, but not bar tight.

8. Backstay adjustment - Now adjust the backstay to bring the forestay under proper tension, about 1" lateral movement in the forestay. This adjustment will also apply an additional load to the lower forward shrouds.
9. Lower aft shroud adjustment - These shrouds provide additional intermediate mast support when running and as such they are adjusted to be snug but not quite as tight as the forward lowers.
10. Replace all cotter pins in the turnbuckles. Turn points in and tape turnbuckles with rigging tape. Tighten halyards, vang, and main sheet.
11. The proof of a well tuned boat is how well she points. Take the boat out in 8-12 knot wind and check performance on both tacks. The leeward upper shroud should be relatively tight with very little extra movement. The forestay should have a long, very shallow curve, indicating little headstay sag. Sight up the mast. It should be vertical, without sag.
12. Further refinement - If the mast tip is falling to leeward, tighten the weather upper. If the mast center section is falling to leeward, tighten both lowers. Tack and repeat on other tack. As the rigging on the Lippincott 30 is oversize, drum tight stays are not required. The wire will stretch very little.

Peak performance can best be achieved with a rig that can be adjusted to wind conditions. Heavy air requires a very tight headstay. It just isn't practical to leave a boat under that type of stress day in and day out. A backstay adjuster will adjust the tension when and as needed. Backstay adjusters come in three types: hydraulic, wheel/lever, and block and tackle. The use of a hydraulic adjuster will void the Lippincott Warranty. Therefore, the wheel/lever or block and tackle are by far the most practical for our boats. The wheel/lever type can be installed using the present backstay arrangement and is self-explanatory. The block and tackle type requires that you revise your backstay to a "split" type with tangs located on the port and starboard stern quarter. A properly secured block and tackle with a trolley arrangement, when tensioned, will close the split, shorten the backstay length and increase the headstay tension. With the proper set-up of the lower forwards, this will also cause the mast to bend over it upper 50% of length. This will flatten the mainsail for sailing in heavier air.

Adjustable backstay or not, you will immediately recognize the improvement in both boat handling and pointing ability resulting from a properly tuned rig.