



Santana 20 Tuning Guide

The goal of rig tuning is to set the mast up so the mast is at the proper rake to balance the helm; is centered in the boat; and is set for the current wind and wave conditions. To set the rake, tie a tape measure to the main halyard – not the shackle – and raise it until it is two-blocked. Pull on enough backstay tension so the forestay is just tight without slack. Measure to the center of the transom where the hull and the transom intersect near the waterline. This rake number should be 31 feet. You can adjust the mast rake with the forestay turnbuckle.

Once the rake is set, the next project is to center the mast in the boat. Place a mark on both rails, equidistant from the tack fitting and about 10" forward of the chain plates. This is a reference mark for centering the mast. Hoist the tape measure on the spinnaker halyard until it is two-blocked. Measure to each reference mark and adjust the upper shroud turnbuckles until the measurement number is the same.

After the mast is centered, sight up the mast track on the aft side of the mast and adjust the lower shrouds until the middle of the mast is in column with the mast tip. The mast should now be centered and straight. The next step is to use a Loos Model A tension gauge to measure the shroud tensions. Set the shroud tensions to the following numbers:

Upper Shrouds: 33 (320 lbs.)
Lower Shrouds: 33

The adjustable aft lower tension should be set so the tensions are the same on both sides of the boat. When they are in their maximum aft position, the mast has 3-4" of inverse pre-bend, approximately 11 on the tension gauge.

Now go sailing and sight up the mast for the final rig tune. The mast tip should remain centered on both tacks. Adjust the lower shroud tension so the mast is straight and remains in column at the spreaders on both tacks.

Light Air: 0-5 Knots

Set the adjustable aft lower shrouds so the mast is perfectly straight with a slight bit of backstay tension.

Light to Medium Air: 6-12 Knots

Tension the aft lowers to invert the mast 1-2".

Medium to Heavy Air: 13-18 Knots

Set the aft lowers with 3-4" of inverse bend.

Heavy Air: 19+ Knots

Set the aft lowers to their maximum setting of 4" of inverse bend