



Yngling Tuning Guide



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Spreaders

The spreader length should be 60 cm measured from the base of the spreader to the center of the shroud at the tip. The spreader angle (sweep aft) influences mast bend when the upper shrouds are tensioned. The spreader angle should be measured from a string tied between the spreader tips and the aft edge of the mast. This distance should be between 21 cm and 22 cm.

Mast Step

The mast step should be positioned 192.5 cm measured from the center of the forestay pin to the front face of the mast.

Mast Rake/Headstay Length

Once your mast is stepped, adjust your headstay turnbuckle before tensioning the shrouds. Attach a tape measure to your main halyard and hoist and position it in the halyard lock. Measure your rake to the intersection of the deck and the center of the transom. Adjust your headstay so that your rake is between 8.000 m and 8.050 m

Upper Shroud Tension

Check the upper shroud tension using the PT-1 Loos gauge. First adjust each upper shroud (with the lowers still slack) so that the mast is centered in the boat. You can check from shear line to shear line with a tape measure locked in your main halyard.

- Light Air (under 7 knots) uppers should be set less than 8 on the gauge
- Medium Air (3-14 knots) uppers should be tensioned from 9–12 on the gauge
- Heavier Air (15+ knots) shrouds should be tensioned from 13–20 on the gauge

The best way to determine the correct tension while sailing to windward is that your leeward upper shroud will just begin to go slack. (The leeward lower will always be slack while sailing to windward in all wind speeds.) If the upper shrouds are over tensioned the headstay will become too tight in lighter wind speeds and the boat will feel bound up. Err on the looser side of upper tension since it is better to be caught too loose as the wind speed increases than to be caught too tight as the wind speed drops.



Lower Shroud Tension

Start by adjusting the lower shrouds so that they are even side to side. While sailing, sight up the backside of the mast and adjust the lowers so that the mast sags to leeward at the spreaders 1 cm. In winds speeds over 14 knots the mast should be straight side to side (no leeward sag). As the wind speed changes you will need to adjust your upper and lower tensions to achieve the correct settings.

Mainsheet, Traveler, Backstay and Vang Trim

For optimum windward performance the mainsheet should be tensioned enough so that the top batten is parallel with the boom (the leech tell tale will stall 50% of the time). Adjust the traveler car to windward so that the boom is positioned at centerline (the boom can be above center in light air). The backstay will be slack going to windward except in heavier wind speeds over 14 knots when you will begin to need to use the backstay to de-power the mainsail and keep the headstay taught. Lower the traveler car closer to position the traveler car near or at centerline and use vang and backstay tension to de-power the mainsail and reduce weather helm. Be sure to slack the vang and the backstay if the wind speed drops below 15 knots. If the backstay is over tensioned the headstay will become too tight as the wind speed drops and the boat will become under powered and too bound up.

Outhaul

The outhaul should be adjusted to close the foot shelf in over 8 knots. In light air you may want to ease 1 cm from this position and in heavy air the foot of the main should be taught with the foot shelf completely closed smooth luff.

Cunningham

The mainsail cunningham should only be used in over 15 knots to help reposition the draft when the mainsail is de-powered with backstay and vang tension. Release the cunningham in under 15 knots.



Jib Lead, Luff Tension and Jib Trim

Start with your jib leads positioned 2.000 m from the forestay pin to the center of the jib lead block. Your jib lead may need to be adjusted one hole fore or aft depending on the wind speed and the amount of mast rake you are using. The jib halyard should be adjusted so that the jib luff has some scallop in light air. As the wind speed increases to over 10 knots increase the jib halyard tension enough to smooth out the scallop in the luff. For most conditions the jib will sheet 8cm to 10 cm inside the spreader tip. Monitor the leech telltales on the jib to keep them flying 90% of the time. If the leech telltale is stalled most of the time while going to windward then the jib may be over trimmed.

