



IMPULSE 21

TUNING AND RIGGING GUIDE

Set up your mast (with backstay loose and no pressure on boom or main halyard).

1. Measure the headstay 24' ^{plus 24" or so above the deck} 4-1/2." Hoist a tape measure up the jib halyard all the way (beyond halyard - lock balls) and measure to pin (about 3/4" above deck).
2. Center rig in boat, using tape measure hoisted on jib halyard to the rail on either side.
3. Tighten the upper shrouds to 300 lbs. on "Loos" tension gauge.
4. Tighten lowers so they are just hand tightened, not enough to pull any reverse bend in mast. (lowers should be in aft chain plate hole). This should measure around #15 on "Loos" scale, too low to measure any lbs. on gauge.

Only in the heaviest air - tighten uppers to 350 and lower shrouds to 250 lbs.

RIGGING IDEAS:

JIB - Replace jib halyard to a wire to rope spliced one, or use an all rope one with Kevlar, Spectra, or pre-stretch.

- Rig up an uphaul for jib halyard instead of down-haul, this keeps jib tack in same place and keeps the foot on deck.

SPINNAKER - Use (Soling Type) roll up snaps on spinnaker for easier launching from cockpit.

- Tie end of spinnaker halyard to head of spinnaker, snap shackles have a habit of opening at the wrong time.
- Twing lines are easier than guy hooks, and give you more control.



Traveller: Adjust so that boom is 2"-6" off of center line. 2" in heavy air, 6" in light wind.

Backstay: Off in most conditions, start to pull on when all three crew is on rail.

On all the way in heavy air.

Sheet Tension: Adjust so top batten is parallel to boom. In lightest and heaviest wind it should point 5° to leeward of the boom. Top leech telltale should be flying 70% of the time.

SPINNAKER - Adjust pole height so that clews are even, and so that spinnaker breaks 40% down the luff. Lower the pole on runs to make it fuller.

- Make sure boom is perpendicular to apparent wind.
- Keep 4"-8" of curl in luff.

The Impulse is a fun lively boat to sail in all wind conditions. It is also extremely sensitive to weight placement. Sit with two crew to leeward and forward in light air, helmsman should straddle the main traveller. Adjust weight as wind increases to keep boat as flat as possible. In medium to heavy wind, sit on weather rail as close together as possible. In heavy air, move slightly aft to keep bow-spinnaker launcher from burying in the waves.

The Impulse 21 is still a relatively new boat, and new tuning ideas are popping up all the time. If you have any questions, suggestions or helpful hints, please call.

This guide was written in the late 1980's and so much has changed since then that you should only take this as a starting point for your personal tuning.

John Schnorr
North Sails East

If you are using the newer grand prix full battenn sails less will apply.

If you would like to post and tuning thoughts or questions please do so as this is the formum to do it. Making us all sail better is the goal.

Warren. 921 #149 Warp Drive

- Take bridles off spinnaker pole, add padeye to center of pole and hook pole lift to this.

TRIMMING THE SAILS

JIB - Traveller position controls pointing ability. Measure from centerline in front of mast out to center of traveller car, make marks at:

8" - Almost never in this far, only in pure pointing conditions: Flat water and good wind.

10.5"- Normal position: in medium wind and slight chop, or high wind and heavy chop.

13" -Medium wind and heavy chop or, light wind and flat water.

15.5"- Light wind and heavy chop with sheet eased, or in over-powering conditions with the heaviest wind.

Clew board position controls power: Set jib sheet in correct hole to make luff telltales break evenly. Generally the lower holes are never used:

Upper Hole - light to medium wind

2nd Hole Down - medium wind, flat water

3rd Hole Down - heavy wind

JIB SHEET - controls leech tension. Keep the leech telltale flying 90% of the time.

Middle batten should be parallel to center line of boat in normal sailing. In the lightest wind it should point to the spreader end.

MAIN - Halyard: Pull to black band, it will stretch in heavy air.

Outhaul: Judge the outhaul tension at the center of the boom. The seam where the lens foot is attached to the sail (the bottom seam in the sail) gets closer to the boom or further away as the outhaul is tightened and loosened. When the outhaul is tight, seam lays next to the boom and the lens foot is closed up.

For light air the center of this seam should be 1"-2" from the boom. For more wind and waves loosen the outhaul to move it 4" away from the boom. Then, when it is heavy enough for everyone to hike start tightening it again.

Cunningham: When not overpowered leave cunningham loose enough so that there are considerable wrinkles in the bottom of the luff. Pull to make the sail smooth when everyone is hiking and you're overpowered.