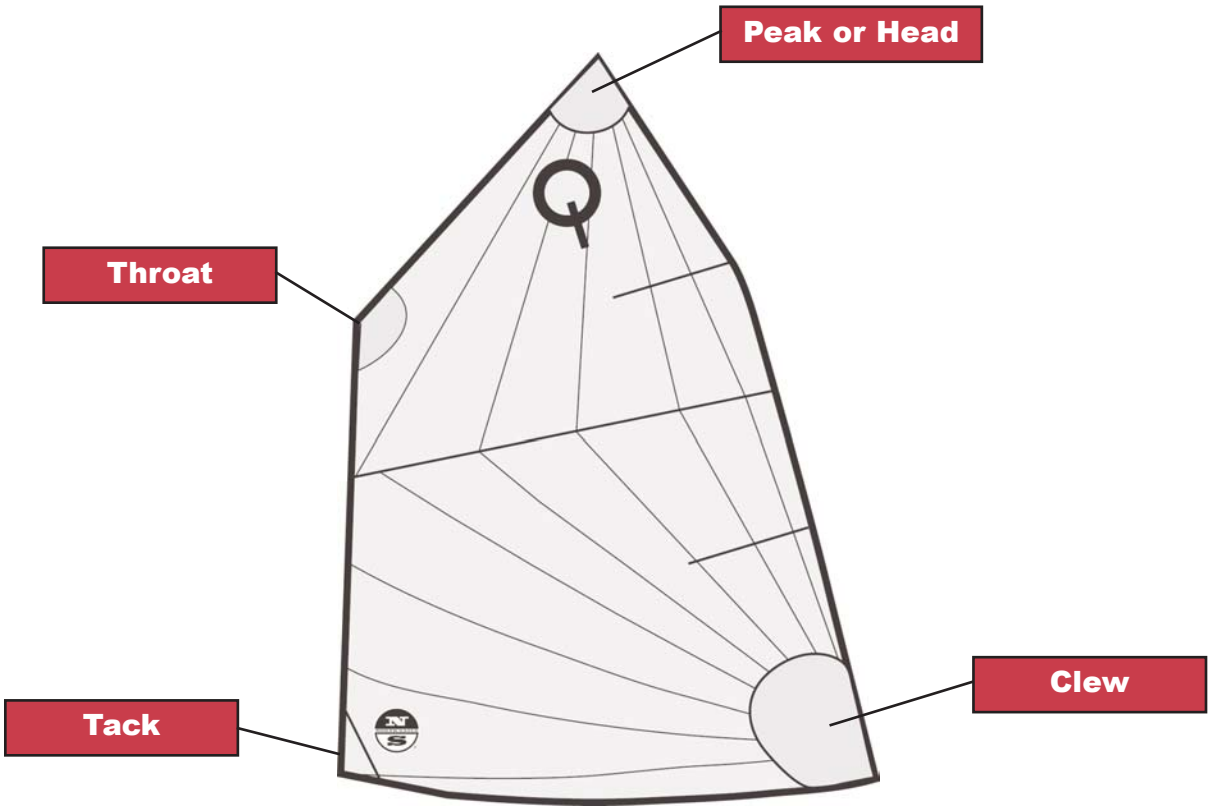
One Design

Optimist Tuning Guide



Thank you for choosing North Sails for your Optimist. Whether you are just starting out in the Opti or are an experienced racer read this guide carefully to make sure you get your new North Sail set up for maximum speed. While we have tried to make this guide as self-explanatory as possible if you have any questions as you go along please do not hesitate to contact our Opti experts. We are here to help you get the most from your new sail and your boat! See our contact information at the back of this guide or check our web site at www.OneDesign.com.

This tuning guide is designed to provide you with the information for the key controls that influence the shape of your sail. Having the correct sail shape can be the biggest determining factor in the speed of your boat and your success on the race course. We divided this guide into two sections, leech and luff, each one with its controls and we have also provided details for the centerboard height, hiking straps, etc. With this information you will know how to set up your sail and boat for all conditions.

Getting Started, Rigging the Sail

If you are an advanced Opti racer you can skip this part.

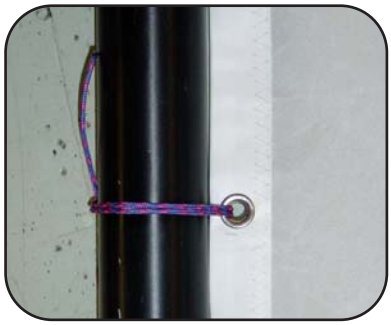
To start tie the line at the three corners, clew, tack and throat first, starting from the clew. To do this you will want to use the larger diameter lines provided with your sail (3mm Diameter). See the pictures for how to tie the throat and tack.

Once you have these three corners tied, rig up the sprit. Note that the sprit has a point on each one of the ends, and the peak of the sail has a looped line, put the upper sprit end through this looped line. Loop the short wire that controls the sprit tension over the opposite end. Note that the sprit has a little plastic cover, to protect it from chafing on the mast, make sure that you rig the sprit with this end down. The other little suggestion is to rig the sprit on starboard side. Usually you would start the race on starboard tack, and doing this will give you the best speed off the start line.

Once you have everything on (Outhaul, sprit, vang, top and vang preventer, and corners), put a little bit of tension on them, and then tie the sail ties to all the remaining grommets using the 3mm diameter line provided. The way to tie these lines is with square knot. We suggest you tie these with two wraps around the boom. Keep in mind that the lines on the boom are tied loose (not more than 10 mm away but as close to that as possible), and the lines on the mast go tight (not tighter than 1 mm). See pictures. Don't forget to tighten your knots very tight. If not, the knots will come undone when the sail luffs.

How to tie the sail to the tack

How to tie the sail to the throat



Tie the sail tight to the mast.

Tie the sail loose to the boom.

The North Opti experts are always available to help you! Call them if you have questions!

Section 1: The Leech

Mainsheet: Upwind

Trimming the mainsheet properly is key. Consider it the accelerator on your boat and do not be afraid to play it. The best sailors are constantly adjusting their mainsheet as their boat sails through the water, adjusting it for each change in the water and wind.

In general, the sail should be trimmed so that the boom is always above the

wrinkles at all. (see picture of too much sprit tension) A little wrinkle perpendicular to the sprit is not a problem and is preferred (see picture). In light air you actually want to have this small wrinkle, so that you are sure the leech is not too closed or tight. The basic rule is always have the sail fly smooth or with a slight wrinkle coming off the throat.

Sprit: Heavy Air

Heavy Air

Only if it is windy (more than 13-14 knots), do not ease the sprit at all for the run. In heavy air you want to keep your weight back in the boat and moving forward to ease the sprit will make the boat unstable and hard to control.

Vang and Preventer

The vang has a similar set up for upwind or downwind sailing. You want to have the vang tight so that the leech doesn't

Outhaul

Setting the outhaul

The outhaul also modifies the shape of leech. The tighter the outhaul the straighter the lower back end of the sail will be. The looser the outhaul the rounder the lower leech of the sail will be.

In light air, you will want to see wrinkles perpendicular to the boom, if you see the wrinkles and the foot of the sail is too bumpy then the outhaul too loose. Make sure the wrinkles don't go higher into the sail then the first seam (see picture).

In heavy air, where you are overpowered and cannot control the boat and you have a lot of helm, tighten the outhaul hard, and put a big wrinkle parallel to the boom. The angle of the lower batten is a big influence for the helm, so the rounder it is the more helm you get because the angle of the lower leech is pointing to weather.

The outhaul is another power source for the boat, the looser and rounder the foot, the more power you have to go through waves and accelerate fast. But also, the looser and rounder the less you can point, so find your balance by speed testing.

Section 2: The Luff

Preventer

The preventer

In light air you want the preventer tight (with two twists), so that the luff is loose. You do not want the luff so loose that there are wrinkles parallel to the boom coming from the grommets along the luff, but loose enough to allow the sail to switch easily from one side to the other without any trouble when you tack.

Tightening the preventer for light air - two twists

In general, you never want any wrinkles at all along the luff. Wrinkles caused by the preventer being too tight would be parallel to the boom and the too loose (or untwisted) wrinkles would be parallel to the mast. Have your preventer set up so that you never twist the line more than twice in light air. Do not twist the lines at all in heavy air. When you do not have any twists in the line, make sure you do not have a big wrinkle parallel to the mast indicating that the luff of the sail is too tight. We suggest using a square knot on the low side of the boom, having the two ends of the line tied together, instead of two stop knots next to the holes. You need to

play with it, twisting and regulating its length by the square knot (See picture 1493). The line should be 3 or 4 mm thick and be very low stretch.

Sail ties

Note that the rules allow you to have the edge of the luff or foot of the sail no further than 1 cm from the mast or boom.

On the boom, you want to have the sail ties as long as you can within the rules so that when you tack the sail switches sides easily. The sail ties should all be as loose as you can, no matter what the

Mast Rake

Mast rake should be set according to your weight. It is measured from the top-aft of the mast to the edge of the deck, coaming, in the transom. ( ). Adjust the mast step in the bottom of the boat to get to one of these settings.

Here is the range for each weight..The length range for the different weights is between 2.78 - 2.86 meters.

- The sail should be all the way out when sailing downwind.

- The center board should be all the way up when sailing downwind. Since the sail is not pushing you sideways there's no reason to have the board down, it will only slow you down (see picture).

- When you hike, make sure you are flat and all the way out.

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