



*One Design*

For any question you may have on  
tuning your Finn for speed, contact  
one of our Finn experts listed below:

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## **FINN**

# **Tuning Guide**

There are two primary builders of Finns in the world, Larry Lemieux with Abbott Boats and Luca Devotti with Devotti Sailing Limited. Both are basically rigged the same with slightly different methods to move the deck ring and mast butt fore and aft. There are also quite a few mast manufactures with varying profiles, bend characteristics and stiffness. Each mast and boat will behave slightly differently and an individual tuning guide could be written for each. Set-up of the boat will also vary between sailors of differing weight and sailing styles. The following tuning guide is meant to be a good starting point to help you setup your Finn and new North sail but further customization may be required.

### Rig Set Up

Before stepping the mast we recommend a few basic changes be made to whatever boat you have. With the trend of racecourses to be shorter in length with more turning marks you will soon find that all your controls will be maxed out on one side of the boat. It is a good idea to make your four basic control lines (inhaul, outhaul, boom vang and cunningham) continuous. It is also a good idea to rig some shock chord after rounding the leeward mark and make your first tack a safe one.

We also recommend cutting the back corner off your boom to stop it from catching water in heavy air gybes. Be careful to not trim past the vertical black band at the end of the boom.

The final area to address before stepping the mast is where to position the mast at the deck. The obvious starting point is in the middle. Placing the mast further forward in the boat will neutralize the

helm and moving it back will increase weather helm. If you are beginning to sail the Finn we recommend sailing with a little weather helm until you develop a feel for the boat and then try sliding the mast forward at the deck.

After stepping the mast make sure the mast collar has no more than 5 mm of play in any direction. If there is build up the inside of the deck ring with Teflon tape. It is also a good idea to tighten the goose-neck bolt with two wrenches to eliminate any possible play between the boom and the mast.

Attach a 50' tape measure to the halyard and hoist the shackle to the black band. Measure the distance to the intersection of the transom and aft deck at the rudder cutout in the corner. It is important to do this measurement with the bow elevated above the stern and with out the JC strap attached to the boom. This measurement should be 22' 3" (with a centered deck ring position).

It is a good idea at this point to determine how many turns of the mast step turn-buckle are required to move the tip of the mast forward 1". Return the mast rake to 22' 3" and determine the effect of moving the mast forward one position at the deck. It is important to familiarize yourself with these adjustments, as you will have to adjust your rake on the water without the luxury of a tape measure.

### Sailing the Finn

#### UPWIND TRIM

When sailing upwind in the Finn it is important to remember that you are paid to hike. If your sails are trimmed perfectly

and you are just sitting on the side enjoying the scenery, you will be slow. The Finn is a big heavy boat with lots of sail area and you must use every ounce of your body weight to keep it moving fast through the water. Weather you droop-leg or straight-leg hike make sure that you are comfortable (if that is possible!) and strong and remember that you can always hike harder.

In less than 5 knots, when hiking is not required, concentration and setup are crucial. We find that raking back an inch or two gives the boat more feel and brings the boom closer to parallel. The best way to make these adjustments is to move the mast back one position at the deck and keep the mast step in the same place. In light air the outhaul should be 3" forward of the black band and the inhaul 3" back from the aft edge of the mast. The traveler should be adjusted so that the end of the boom is 6" inboard of the gunnel. Play the mainsheet so that the top telltale stalls 20% of the time.

In near drifter conditions, it is next to impossible to get the top telltales to fly and boomvang is required to flatten out the leech. When doing this pull the outhaul to the black band and bring the traveler near centerline. Put enough vang on so that the top of the sail is flat and the telltales start to fly. You may find that tacking with this much vang on is difficult so you may have to ease it when you tack. It is important to mention that these are only conditions where you will ever put on any boomvang upwind. Boom height and position is all controlled by mainsheet and traveler settings, putting boom vang on upwind in any thing except the lightest of conditions will endanger your life.

As wind velocity increases, your primary concern is leech tension and traveler position. As you slowly tighten your leech by

pulling the mainsheet the traveler should be let out until the boom hits the deck and the end of the boom is 2" in from the gunnel (12 knots). The inhaul is tightened before the outhaul and should max out at 12 knots.

In over 6 knots, move your rake back to the standard position of 22' 3" and 22' 4" over 12 knots. This will give you the proper leech tension when the boom is on the deck. If you are a lighter sailor err on the raked back side and if you want to foot more also err on the raked back side.

Please, refer to the chart for upwind setup in all conditions.

### DOWNWIND SAILING

Try to adjust all sail controls before you reach the weather mark so that you can concentrate on surfing that first wave instead of messing with your lines. Release the cunningham, let the inhaul of 6", ease the outhaul 2" and preset the vang. The vang should be set so that the to batten is 2-3° open relative to the boom. Pull the board up as high as you dare when going down wind until the board is flush with the bottom of the hull.

Play the mainsheet directly from the boom (1:1) until it feels like you are going to be pulled out the boat and are not longer effective. At this point switch to 2:1 (sheet deadened at the main ratchet block then through the boom and to your hand), as it more manageable and safer. The Finn likes to be sailed with a little weather heel and low angles, but not to the lee.

UPWIND TRIM					
Wind speed (knots)	0-5	5-10	10-15	15-20	20 +
<b>Sheet</b> (boom above deck)	18"-12" up	12"-3" up	2"-0"	On deck	1"-2" up
<b>Traveler</b> (end of boom to gunnel)	6" in	6" in	3" in to 0	3" outside	6" outside
<b>Inhaul</b> (tack to mast)	3"	2"	1"	0	0
<b>Outhaul</b> (clew to black board)	3"	3"	2"	1"	0
<b>Rake</b>	22'2"	22'3"	22'4"	22'4"	22'5"

### Contact North Sails

For tuning information and complete details on how to setup your Finn sails do not hesitate to contact the North Finn experts listed on the cover page of this guide.

### Good Sailing!

### NORTH SAILS ONE DESIGN QUALITY CONTROL CHECK

MAINSAIL	
Corners	
Cunningham	
Numbers	
Battens	
Telltale	
Leech Cord	
Leech Telltale	
Bumper at headboard	
Draft stripes (inked on)	
Insignia	
Country Code	
Royalty	
North Logo	
Bag	

Checked by: \_\_\_\_\_

Date: \_\_\_\_ / \_\_\_\_ / \_\_\_\_