

## X BOAT TUNING GUIDE

#### INTRODUCTION

Knowledge is Power

Knowledge is power. We see this in every sport throughout the world. Racing sailboats is much different from the other sporting events. Sailing requires tuning for different wind and water conditions. Many of these tuning adjustments are very small, yet critical.

We have outlined for your information tuning information for many different boats that we race on a regular basis. The measurements achieved have been tested through countless hours on the water in a variety of conditions. What is truly unique with this booklet is the fact that we have simplified the tuning process for all of these classes in order to make the process easy for our customers. You will be able to achieve newfound speed in your class. These measurements coupled with the fastest one-design sails in the world will give you the knowledge for speed. In sailboat racing this is a combination for power and speed!

North Sails will continue to bring you the very best in sailing service and technology. Additional knowledge can be learned from the North Smart Book. Our objective is to allow you to set the pace in your racing class.

#### **North Sails**

Fast Sails, Friendly Service and Cutting Edge Knowledge for your sailing program!

Listed Below are the best settings for the X Boat through a variety of conditions. While the sails, mast and boom have gone through some changes (1996) the boats sailing characteristics are still pretty much the same.

The most important thing you can do when sailing your X Boat is to sail the boat flat once the wind is above 5 m.p.h. We have seen many of our X Boat sailors sailing to flat in 0-5 m.p.h. and in some cases actually heeling to winward, please do not this as it is very slow. How do we sail the boat flat if we are a light or medium weight crew and it is very windy. Steering technique and mainsheet trim have the most effect on the boats ability to sail flat. Do not ease the jib except a click here, a click there for a better overall setting.

Also, there are a few other areas of importance when sailing the X Boat. The mast rake numbers we have listed below are very important. We have seen to many X Boat teams with their mast rake to far forward. Be very careful in this area. Don't forget when measuring mast rake this is done on the trailer, hopefully in light air with the jib up.

Boat Speed Tip - When sailing in the vicinity of a faster boat try matching or paralleling that boats course. Also, match your angle of heel. Then adjust sails slightly until speed starts to equalize with the faster boat. For tips like these and more please contact any of our team members here in Zenda.

#### 0 - 5 Knots

Mast Rake - 21' 0" with side stays snug.

**Downhaul** - Top of car should be above the black band on the mast. Wrinkles should appear. Cunningham off.

Vang - Loose.

**Centerboard** - All the way down. This is very important. Make sure your board can go deep as possible without hitting the leading edge of your board box underneath the boat.

Jib Luff - None, you should have noticeable wrinkles.

**Main Trim** - Ease main sheet so that the upper batten is parallel to the boom. In a drifter let the boom out to the corner of the transom.

Jib Trim - Loose trim so that the upper batten twists off. Jib lead should be set so that the sail luffs evenly up the luff when you slowly come into the wind with the jib trimmed. If the sail breaks up high first then your lead is to far aft, if it breaks low first then your lead is to far forward. You may move your jib lead forward one or two positions from your normal position in light air. If your tracks have been installed exactly as shown in our diagrams you will find the best position for the lead is all the way aft with two holes showing behind the car.

#### 5 - 15 Knots

Mast Rake - 21' 0" and 20' 11" in 10 to 15 Knots and side stays snug.

**Downhaul and Cunningham** - Bring downhaul car down to the top of the black band on mast. Wrinkles should now be partially gone. Cunningham can be applied to remove wrinkles and flatten luff of sail if you cannot hold boat down with hiking and mainsheet trim.

**Vang** - Fairly tight in 5-10 Knots, but a lot tighter in a breeze ranging from 12-15 Knots.

**Centerboard** - All the way down. When the wind reaches 15 Knots with big chop, bring board up 3-4 inches. This will enable the boat to drive through the chop and allow the skipper to steer much easier.

Jib Luff - All wrinkles along the luff of the jib should be gone.

Main Trim - Trim top batten parallel to boom.

**Jib Trim** - Generally harder with increased wind, keep top batten tell-tale flowing aft, if the tell-tale is stalled against the sail then try easing the sail out slowly until the tell-tale starts flowing. Jib lead normal position.

**Outhaul** - Remove wrinkles by tightening.

#### 15 - 30 Knots

Mast - 20' 10" with side stays snug.

**Downhaul and Cunningham** - Top of car should be at the bottom of black band on the mast. This will remove all wrinkles. Cunningham on hard upwind and off downwind.

**Vang** - Head the boat into the wind and trim the main sheet as tight as possible. Then tighten the boom vang.

**Centerboar** - Up 4 to 5 inches for easier steering.

Jib Luff - Tight, no wrinkles.

Outhaul - Very tight.

Main Trim - Trim in hard, but ease in the puffs so boat is always FLAT!!

**Jib Trim** - Tight all the time. Jib lead can be moved aft one or two positions to open up and twist off the top of the jib. Sail the boat off the jib. Ease the main when needed to keep the boat perfectly flat. Again keep the tell-tale flowing aft.

#### Keep the boat flat all of the time! FLAT IS FAST!!!!

**Special Note:** Always roll your new Mylar jib, do not fold windows. Always keep jib trimmed so that sail is not luffing hard ,this will help the sail age better. Obviously ,when leaving the dock and coming back to the dock you will have to luff your jib this is okay, we suggest that you do not allow your jib to luff for long

periods of time. The jib window material is as strong as the sail but if abused can tear so take care of this special and fast sail.

North Sails One Design is featuring on new mainsails a jib viewing window. This will enable both skipper and crew to view the telltale on the leech of the jib. This allows the youth sailor to find the perfect trim point. This is a big advantage and a must have option.

All these generalizations are norms and averages that have proven fast over many years. Some experimentation by your part may be necessary to fine tune your particular rig and sailing style. Good luck with your new sail and please feel free to call us with any questions you may have.

#### CONTACT NORTH SAILS

For tuning information and complete details on how to setup your X Boat sails contact the North X Boat experts at:

#### **ONE DESIGN - ZENDA**

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#### **ONE DESIGN - CENTRAL**

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**Good Sailing!!!** 

# NORTH SAILS ONE DESIGN QUALITY CONTROL CHECK

### X Boat

MAINSAIL	JIB
Corners	Corners
Cunningham	Battens
Leech Cord	Wire
Numbers	Harken Blocks on Clew
Lake Code	Telltales
Serial Number	Leech telltales
Battens	Wire Lash at head
Leech Telltales	North Logo
Insignia	Bag
North Logo	
Bag	

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