



**J**  
**88**

# **TUNE YOUR RIG FOR OUTRIGHT SPEED**

European Version (Selden Rig)



Fig. 1



Fig. 2



Fig. 3

## The J/88

We are going to describe the steps to help you set up your new J/88 to the North Sails BASE settings. These settings will enable you to be competitive the first time you go sailing. Later we will offer additional suggestions to help you optimize your J/88 for specific sailing conditions. It's a good idea to keep an accurate, ongoing log of your boat's specific measurements (within tolerances allowed by the class) for reference to the North BASE settings. Ultimately you will develop your own settings that work with the way you drive and sail your boat in different wind and wave conditions. Don't be intimidated. The initial setup can be accomplished in as little as one hour's time. (Please note that this setup is for the Selden Rigs and the North 3Di products).

## Onboard Stay Adjustment

- When checking the Loos Gauge numbers make sure there is no backstay or halyard tension altering the load gauge number results.
- Have extra fast pins (pins with Velcro) on hand to cover for accidentally dropped ones when adjusting turnbuckles. Or have rope keepers on them....
- Instead of adjustable spanners, have pre-set ones that fit your rigging and turnbuckles.
- Take caliper/measurements of turnbuckles, so you can always get back to base setting

## Initial Headstay Set-up

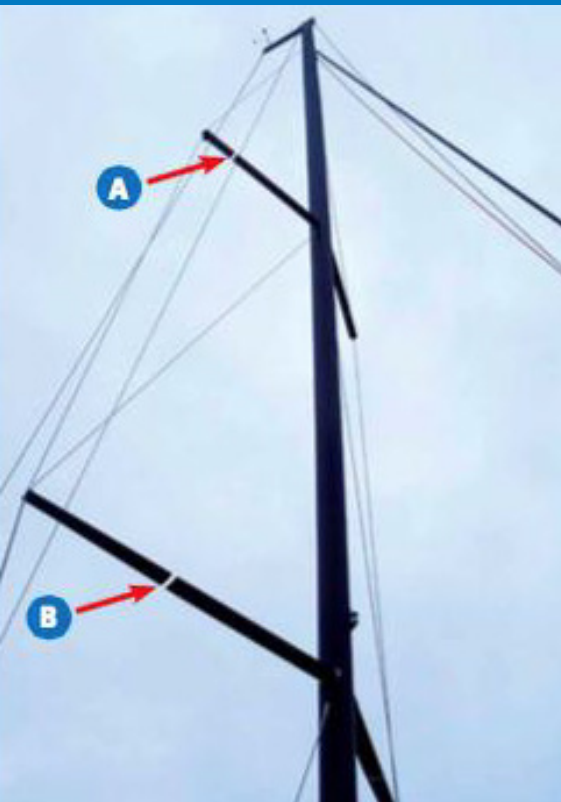
### ARC Measurement

Using the centerline headsail halyard pull it tight to the front of the mast plate (see pic below). Using the same pressure on the halyard swing it out to the headstay and make a mark on the headfoil the '**ARC Location**'. Measure from this headfoil mark down to the '**Forestay Intersection**' where the forestay intersects the deck. Adjust the headstay turnbuckle so that the distance from the headfoil mark down to the '**ARC Measurement**') is 83cm. This is our BASE headstay length. After adjusting the headstay, check and adjust the side shrouds to get the Loos Gauge numbers recommended in the Quick Tune Guide using a Loos PT-2 Gauge.

Fig. 1: Mast Plate

Fig. 2: Arc Location

Fig. 3: Forestay Intersection



Forestay Base Setting is 83cm from Forestay Arc mark (swung out from Base of mast to forestay), to forestay/deck Intersection.

D2's 24

V1's 35

D1's 28

### Centre the Rig

- Measure up from each cap shroud pin 1m (3.28') and make a mark on the shroud.
- Attach a full bucket of water to the centre line headsail halyard, cleat the halyard with the bucket over the side of the boat just above the water line.
- Mark the halyard where it intersects with the previous mark on the shroud.
- Leaving the halyard cleated, lift the bucket over to the other side of the boat and determine if the halyard mark intersects with that shroud mark.
- Moving the bucket side to side adjust the cap shrouds plus or minus until the halyard/shroud marks intersects on both port and starboard sides. This centres the hounds.

### Jib Leech Spreader Marks

Base Marks from Mast Track Centreline  
**A)** Top Spreader Jib Leech Mark 640mm  
**B)** Bottom Spreader Jib Leech Mark 750mm

### J/88 BASE SETTING AND QUICK TUNE GUIDE

North Sails BASE Loos PT-2 Readings for 10-12 knot

V1's	D1's	D2's
35	28	24

### Number of Full Turns from BSE

TWS	V1's	D1's	D1's	Forestay
0-8 kts	0	-2	-2	-7
7-11 kts	0	-2	-1	-3
<b>10-12 kts</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>0</b>
11-15 kts	0	+2	0	+4
14-19 kts	+1	+3	+2	+7
18+ kts	+2	+3	+2	+10

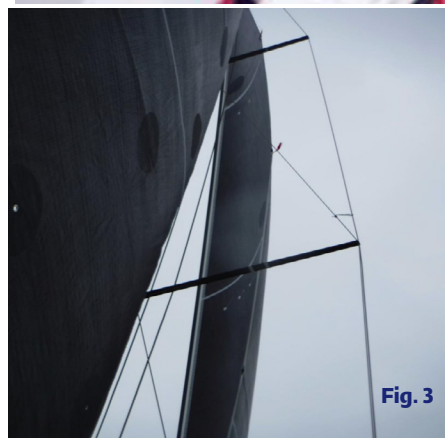
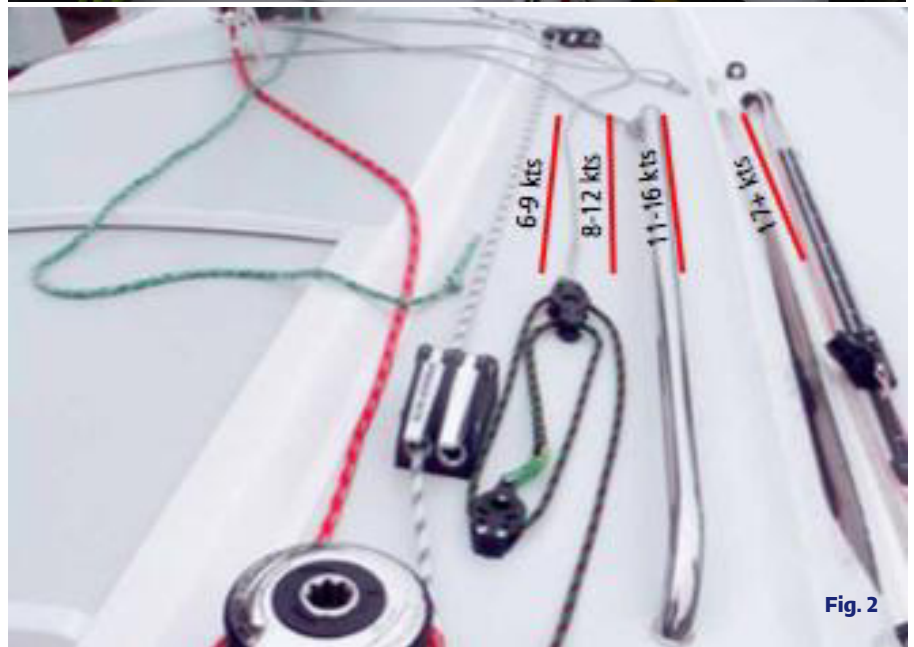
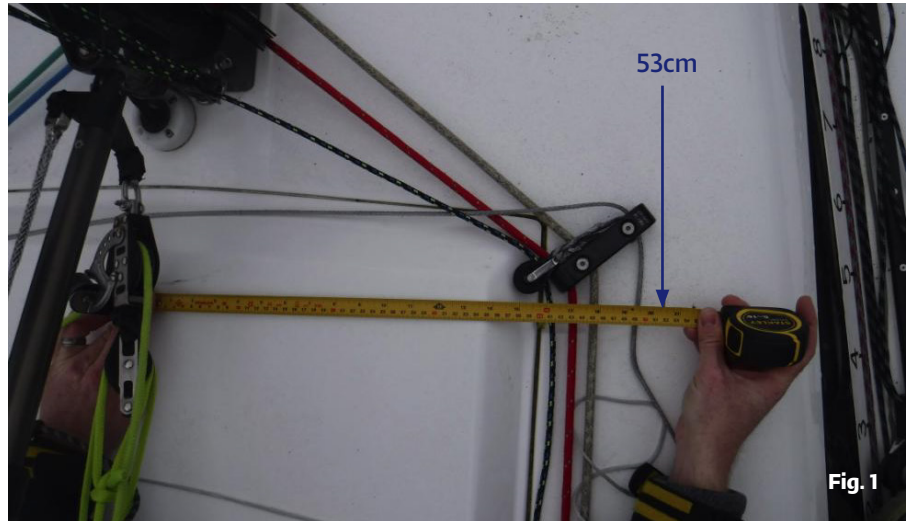
## Sailing Setup

### Headsail Inhaulers

**Fig. 1:** Base Inhaul Mark (8-12 knots) is 53cm from Centreline of boat.

**Fig. 2:** Location of the Headsail clew inboard in different wind speeds.

**Fig. 3,4:** Jib Inhauled to Base (8-12 knots) settings



## J/88 Polars

### J88 VPP UPWIND

TWS	TWA	Boat Speed	Heel
6 kts	43	4.69	4
8 kts	41	5.61	9
10 kts	39	6.19	21
12 kts	37	6.34	23.5
14 kts	35	6.42	24.5
16 kts	34	6.47	26

### J88 VPP DOWNWIND

TWS	TWA	Boat Speed	Heel
6 kts	143	4.74	12
8 kts	144	5.80	12
10 kts	149	6.38	12
12 kts	158	6.59	12
14 kts	165	6.78	12
16 kts	168	7.12	12

## Mainsail

**Mainsheet tension:** Like any sail, mainsheet tension is the place to start for proper trim. In most conditions, the J/88 mainsheet should be trimmed so that at max trim the leech telltales at the top of the main are stalling 25-30% of the time. In light wind or when building speed these leech telltales should be flowing 80- 100% of the time.

Boom height relative to the boat's centreline, is another important factor in mainsail trim and the mainsheet traveller is the way to set the boom height properly. Until the boat becomes overpowered, the traveller should be set so that the boom is near the centreline of the boat while sailing upwind. It can be set slightly above centre to help in pointing, but there is risk of stalling the sail.

**Boomvang:** When the wind gets stronger the boomvang is used to help depower the lower part of the mainsail. Adding tension to the boomvang flattens the lower main sail and allows the trimmer to ease the mainsheet in the puffs and still maintain some leech tension on the sail. It is important to remember to ease the boomvang when the wind speed drops to add shape and power back into the mainsail. Recommend 'Vang Sheeting' in over 15 knots breeze.

**Outhaul:** The shape of the foot, and lower section of the mainsail can also be changed using the outhaul. The outhaul should be set looser when the boat needs more power and tighter as the power increases. A good indicator of proper outhaul tension is the lowest batten. When the mainsheet is trimmed properly, the lowest batten will hook slightly to windward of the boom. If the lowest batten hooks too much, the outhaul might be too loose and if it is parallel with the boom, the outhaul could be too tight.

**Backstay:** Like the boomvang and outhaul, the backstay is used to change the power in the mainsail. When the wind gets stronger, more backstay tension will help depower the upper part of the mainsail and take sag out of the headstay. Increasing backstay tension bends the top of the mast and flattens the upper part of the main and tensions the headstay flattening the jib. Also, like the boom vang and outhaul, the backstay should be eased off if the wind drops so the mainsail and jib will gain depth and power.

## Jib

Trimming the jib on the J/88 involves both technique and accuracy. Proper jib trim will help balance the boat and help in boat speed and pointing ability. While achieving the proper trim is the goal, being able to repeat the trim consistently will also make a big impact on your boat's performance. The important factors in proper jib trim are the lead car position, jib sheet tension, in-hauler tension, jib halyard tension and reference marks to repeat all the settings. The final trim position for the J/88 jib is a balance between the sheet tension and in-hauler tension. When more in-hauler is used, less sheet tension is required and vice-versa. When the jib is trimmed in the leech of the jib should be lined up with the spreader stripes.

**Jib Car Position:** The first step is jib lead car position. Setting this position is important as it affects all of the other settings. Remember that the less inhaul is used, the farther forward the jib car needs to be.

**Jib Halyard:** In lighter winds, the jib halyard should be set so that there are slight wrinkles appearing in the luff. As the wind gets stronger, and the sails need to be depowered, the jib halyard should be tightened just to the point where the wrinkles along the luff disappear. As

the halyard is tightened and loosened, it is important to keep in mind that the halyard tension also affects the leech tension of the jib and the sheet and/ or in-hauler may need to be adjusted to compensate.

**Make Marks!!** Make reference marks on jib sheets for both the sheet tension and in-hauler tension. Having reference marks will make it much easier to duplicate your trim settings quickly.

## Jib

It is a good idea to experiment with different settings for each control to get used to how each control affects the sail and how they interact with each other. The basic effect of the three jib controls, lead car position, in-hauler and jib halyard is:

### Jib Lead Car Position

Forward = Tighter leech, round foot Aft = Open leech, flat foot

### In-hauler

More = Tighter leech, round foot Less = Open leech, flat foot

### Jib Halyard

More = Flatter sail Less = Deeper sail

After setting the sheeting position of the jib, the trimmer needs to constantly check to ensure the trim remains correct as the conditions change. Since the jib on the J/88 is high aspect (tall and thin) changes in the conditions have a significant impact on the trim of the sail. For this reason, there are telltales attached to the upper leech of the jib to help the trimmer know when the sail is going to stall. When the sail is trimmed properly for upwind, the leech telltales will be flowing and if the telltales begin to stall, the sail will need to be adjusted to regain the flow. Most often, only a small adjustment is needed to help return the proper trim and flow to the sail. The reference marks on your spreaders will also help with jib trim. You will find that in 10+knots in flat water you may be able to sheet so the jib leech is inside the spreader marks and the leech telltale is still flowing. When it is light and lumpy you will find that the leech will need to be further outside the spreader mark. Easing the jib sheet slightly is the first step in returning flow to the jib. Normally, this will only require an inch (or less) of sheet to be eased out. If the leech

telltales continue to stall when the leech is sheeted in to the spreader stripes, other adjustments need to be made to properly trim the sail. Since the telltales indicate the stalling of the upper leech of the sail, adding twist is likely the solution. The two ways to best achieve more twist in the jib, is to move the lead car aft and use less in-hauler tension. As described earlier, both adjustment will add twist to the sail and help regain the twist and flow at the top of the sail.

## J/88 downwind Sailing

With the J/88 it seems the biggest question is when to put you bow up and get boogying, or when to put your bow down and take the low road. There is a cross over here that is very hard to determine and this also involves an argument of when to leave or drop your jib downwind. Obviously wind and sea state determine when this cross-over is and the reality is you need to keep a lazy eye on the polars vs the feeling the helmsman has on the boat vs what you are doing relative to the fleet.

### Jib up Downwind

There is a cross over when you can sail with your jib up downwind, essentially when the boat is planing. The jib should be trimmed softly so it does not affect the Gennaker, however if trimmed correctly it will act as a staysail and make the boat faster. It also will help you recover from a wipeout ie. Will help get the bow down if you broach, while it also means you can do a 'power set' and have extra crew members hiking out of the top mark, instead of dropping the jib.

### Wing on Wing

Do not discard this as for sure it will be quicker in certain situations/conditions. Do not try this in under 10 knots or in over 18 knots. Potentially this is a nice little gain when approaching a mark and you want to avoid two gybes. This will

need practice!! Crew weight to the side of the Gennaker is key and then simply gybe your main. With the main out one side and the gennaker out the other, communication can be confusing here so consider the trimmer saying 'left and right' instead of 'up and down'. <https://www.youtube.com/watch?v=X5BlpAMA-ak>

### Tack Height

Most often the tack of the spinnaker should be pulled down tight to the end of the bowsprit. In conditions, before planning and when the breeze allows the boat to sail deeper downwind, easing the tack line 4-6" up can help the spinnaker rotate to windward. When the tack is eased up off of the bowsprit, the tack line should be aimed straight up or slightly to windward to help stabilize the sail. If the sail becomes unstable, the tack needs to be pulled down tight to help stabilize it. Increasing windward heel with the tack line eased can help to stabilize the sail and allow the boat to sail a lower course downwind.

## Sail Care

### While Sailing

If possible, hoist the Mainsail while going backwards as this will 'wipe' apparent wind off the boat and make for a much nicer/less flappy mainsail hoist. When dropping the mainsail it is not recommended to be going backward as by the time you have gotten the boat in a back down, the mainsail would already be on the deck. With the jib if possible hoist and drop the Jib while going downwind and when the day is finished drop the jib directly into its bag, ready for rolling when you get to the dock.

In between races, avoid flapping sails. If possible drop the jib into a bag and keep the main set (ie. Not flapping) by reaching around the start area with a 'soft trim'.

Remember that that when the Mast is bent upwind vs straighter downwind, essentially the luff length of the main is shorter. Therefore please remember to let your cunningham off downwind, to save the luff of the main being too tight!!!! If the Jib is left up downwind, the Jib halyard should soften on its own accord by virtue of the forestay being softer when downwind.

### After Sailing

Properly caring for your North Sails will prolong the life of the sails. When storing your sails, keep them clean, dry and out of direct sunlight. Rolling the mainsail and jib when they are not being used will help your sails remain wrinkle free and last much longer.

In addition, releasing the tension on the battens in the mainsail and jibs for storage, will increase the life of the sail.

We suggest you nominate a number of 'turns' you let off your Batten Rocket Tensioners or Luff Box tensioners ie. 5 turns off and then when you go sailing next time you know you just have to put 5 turns back on all of the battens.





### Worldwide Service

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North Sails is a network of more than 100 lofts in 34 countries around the world. Each offers knowledgeable, friendly, personal sales and service. Our size and worldwide reach also means North has the world's most expansive sailmaking database. It would be hard to find a sailboat for which we cannot make a fast, durable and long lasting sail.

### All North Lofts offer:

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- Winter storage
- Retrofitting
- Educational
- Sail washing
- Sail tune-up
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## The North Promise

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North Sails proudly stands by every product it makes. Our years of innovation, research and testing make us confident in the high quality of our products.

This is why with every Cruising, Racing or One Design sail we offer free sail care and repair, honoured anywhere in the world through our network of service locations.

Terms & conditions apply

For more information visit the North Sails Offshore One Design website at:

[Northsails.com](http://Northsails.com)

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For other useful information visit the J/88 class website

[www.j88class.org](http://www.j88class.org)

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For any question you may have on tuning your J/88 for speed, contact our experts:

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### Dave Swete

O:+44(0)2392 525 588

M:+44(0)7470686717

[david.swete@northsails.com](mailto:david.swete@northsails.com)

### Jeremy Smart

O:(+44) 02392 525588

M:(+44) 07867 805846

[jeremy.smart@northsails.com](mailto:jeremy.smart@northsails.com)

### Ruairidh Scott

O:01329 443430

M:07768 411625

[ruairidhscott@northsails.com](mailto:ruairidhscott@northsails.com)

### Charlie Cumbley

O: +44 1329 443 430

M: +44 7811 436 935

[charlie.cumbley@northsails.com](mailto:charlie.cumbley@northsails.com)

### Stefan Matschuck

O: +49 40 7457778

M: +49 172 45 09 886

[stefan.matschuck@northsails.com](mailto:stefan.matschuck@northsails.com)