

# TECH SPEC SERIES

## Part 4: Boom Height



**Setting our kit up properly before going out on the water is one of those** areas of windsurfing full of urban myths, mumbled truths and general chaos as we rush frantically to get everything done so we can get out there before the wind dies! Along with the fact that there are so many bits of advice on how to set kit up (much of which contradict themselves) and the fact that no-one wants to spend hours on the shore tweaking and tuning, all of our good intentions go out the window as we bundle everything together and hope for the best. However, as I'm sure we have all discovered at some point, setting everything up right can make the difference between having a fantastic session on the water and having a really bad one! Jim Collis, in his 'Tech Spec' series, is going to navigate us through this quagmire of myth, legend and general confusion, and give us some simple advice on setting up our kit quickly, easily and efficiently. This month Jim is going to move onto boom height, once again aiming to simplify an otherwise unnecessarily over-complicated area, so that we get out on the water without delay and have that great session!

This series is NOT going to be a massively detailed guide covering all specifics, but rather a simple guide to help answer questions and make our lives easier regards some of those misunderstood and confused issues surrounding kit set up. For more detail or specifics please feel free to contact Jim on [jimcollis@windsurfevolution.co.uk](mailto:jimcollis@windsurfevolution.co.uk) and he will be more than happy to spend more time going through things.

### BOOM HEIGHT

#### What are we looking for regards boom height?

To keep it as simple as possible, we are ultimately looking for 2 things with our boom height:

- Comfort when we are sailing, whether planing or not.
- Control and performance from our rig in a variety of conditions.

#### Comfort -

When we are sailing (whether planing in the harness and footstraps, or just cruising along off the plane) the most comfortable position for our boom is shoulder-high so that we end up in that nice relaxed sailing position with our arms in a natural position directly in front of us enabling us to directly oppose the forces in the rig and effortlessly fine-tune our sail's position.

Have way too high a boom and we feel like we are constantly being pulled onto our toes, irrespective of the length of our arms or harness lines, and we struggle to keep the sail 'sheeted-in' and us feeling good about our session.

Have the boom way too low down and we feel very ineffective in our ability to commit to the pull coming from the rig, resulting in us wrestling the rig for control and thereby getting tired very quickly.



#### Control and Performance -

Through the slight raising and lowering of a boom from our benchmark 'Comfortable' shoulder-high boom height, we can gain a large amount of added control and performance from our rig in a variety of conditions.

Raise the boom a little higher than normal (literally 2 finger-widths on your mast) and you will be able to 'hang-off' your boom for better early planing performance in more marginal winds.

Lower the boom a fraction (again, literally 2 finger-widths from your benchmark starting point) and you will be able to drop even lower in those big, un-nerving gusts on that slightly overpowered day.



#### What is the best way of setting boom height?

As we have seen from above, we are looking to have comfort through a shoulder-high boom height and then perhaps tweak from there for added performance and/or control. Obviously, we are all individuals with different shoulder heights and so boom height is a very personal thing and must be adjusted to suit you and your needs when you go out on the water rather than us just lumping for what somebody else gives us to use.



There are a wide variety of methods currently used for setting boom height, some good and some not so good! I intend to run through the more common ones in this article, hopefully drawing us towards a method that I consider effective and safe. However, it is important to state at this point that ultimately, if you have a method that is tried and tested and works for you giving you what you want out of your rig, then stick with it! (But maybe read on anyway as you might find a short cut or two!)



### 1. THE “LEAVE IT ‘TIL LAST” METHOD

**Verdict:**

This one is without doubt the one to avoid!

**Technique:**

This involves rigging up without any attention to the boom height, getting on the water and then, having got on the board and realised, getting off again and re-adjusting the boom height in the shallows or in deep water.

**Problems:**

Other than the obvious problems with this method, such as the difficulty of adjusting the boom when you are out of your depth, there is also another not so obvious issue with this method...When we make big adjustments to our boom height it changes the tension in our outhaul; Move the boom right up and the tension is lost in the outhaul and the sail will be flapping around at the clew. Move the boom right down and the tension is increased making the sail as tight as a drum, which has the twofold effect of making the sail horrible and twitchy to sail with, and also making it very hard to do the boom-clamp up again around the mast once the adjustment has been made! Having perhaps spent a while rigging your sail carefully on land for a great session, adjusting your boom like this can put all that effort to waste!



### 2. THE “DO IT ACCORDING TO THE LUFF TUBE” METHOD

**Verdict:**

This method can be good and can be not so good!

**Technique:**

The method entails remembering, or even marking, where your boom height is relative to your luff cut out (middle, 1/3 of way from bottom, opposite stitching on luff etc.) once you have been for a sail on it. From then, every day when you rig up you just whack your boom in the same place and hey presto!

**Comments:**

If you know your sails, have sailed on them a long time and have no intention of changing sails let alone brand, then this method can work. If, however, you are changing kit regularly, maybe because you are using hire kit or borrowing a friend's kit or just like experimenting with different brands, this method will not work.

The slight issue here is that when you change sail brand, or even sometimes just the next year's model of the same brand, the luff cut out is often in a slightly different position to the one you had before.

The result is you head out on the water and your boom height is way off!

To add to this, this method offers very little 'tweaking' for performance or control... it's just set & go...Ok for some, but maybe lacking for others!

### 3. THE “STANDING THE RIG UP ON LAND” METHOD (!)



**Verdict:**

Although this method seems like a good option it is actually fairly inaccurate as well as being hazardous to your health in windy conditions! It can work OK for going out to cruise around in light winds but for planing purposes this is not an ideal way!

**Technique:**

This method involves standing the rig up on dry land once rigged and measuring yourself against the boom so as to position the boom height at shoulder-high.

**Comments:**

The problems with this method are twofold:

Firstly, although this method gives us a very accurate representation of a shoulder-high boom height on land, it is forgetting to take into account the height of the UJ and deck-plate on a board, and also, if we are planning on blasting around in the harness and straps, it is also forgetting to take into consideration the fact that our boom height will relatively drop as we move back down our board away from our deck-plate and into our foot straps. Secondly, and probably more importantly, standing a rig up on land is dangerous to you and those around you. One gust of wind and you could well catapult and hurt yourself and/or someone else.

It frightens me every time I see this on a beach especially when I see people even hooking in to the rig they have just stood up!

On a slightly more positive note, if the wind is light so we aren't flailing a powered-up rig around on the land, and we take into consideration the height of our UJ, this can work as a method for going out in light winds to cruise around.

*N.B. Some people are more safety conscious and lie down next to the rig to measure themselves against their rig, but remember, it still doesn't take into consideration the height of the UJ or the fact of our boom height dropping relative to us as we move back down the board into the straps.*

### 4. THE “OFF THE TAIL OF THE BOARD” METHOD

**Verdict:**

This method combines a quick and easy method for setting your boom height safely and accurately on land and then allows for small tweaks and adjustments of 2 finger-widths up or down for performance and control adjustment.



**Technique:**

Having set our mast-foot position (see episode 3 of Tech Spec Series) we attach our rig to the board and drag the rig over the tail of the board.

The position of our boom relative to the tail is how we adjust our boom height. If we are a person of average height (5'8") then we want to position our boom so that it is just clipping the tail of our board (the bottom edge of the boom and just in between the harness lines).

Each finger-width further out from the tail that we position the boom represents the boom height for a person 2-3 inches taller than average (usually to a maximum of 5 finger-widths as that would be the tallest person you know!)

Each finger-width further in from the tail represents the boom height for a person 2-3 inches shorter than average (usually to a maximum of 5 finger-widths as this will probably be the shortest person you know!)

**For example –**

For someone who is 6'0" – their boom should be 2 finger-widths off the tail of the board.



For someone who is 5'2" – their boom would be 3 finger-widths in from the tail of their board.

**Comments:**

Although this method may seem a little inexact it is surprisingly accurate and it sets your boom height to a good comfortable ballpark starting point of shoulder high. You can then tweak or adjust but the adjustment will never need to be more than a finger's width up or down so the outhaul tension will not be affected (See 'Method 1'). It is best served for setting the boom height for someone going out to blast in the foot- straps and harness. If you are going for a cruise in light winds then this Method might make the boom seem a little high.

*N.B. As you will have noticed, mast-foot position and boom height are very much linked with this method. As such, if you adjust your mast-foot position during a session on the water you must remember to re-check and adjust your boom height, as it will have changed with the moving of the mast-foot. I.e. if you move your mast-foot back on your board your boom height will seem relatively higher than it was, and if you move it forwards then the boom will relatively drop!*

**Bringing it all together – Some Classic Examples of Setting Boom Height**

Having had a look at where and how we set our boom height, here are a few classic examples of how to do it, and perhaps how not to!

**Example 1:**

A 5'0" Lady is heading out on the water on her 4.7m sail on a 90 Litre freestyle wave board. It is force 4-5 and she is going out to have a good blast! She sets the boom height on land with her boom 4 finger-widths in from the tail of the board as a benchmark starting point. She heads out for a few runs and then tweaks the boom up by ½ finger-width so as to get maximum comfort for the rest of her session!

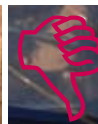


**Good one!**

In this example, the Lady adjusted her boom safely on land according to her height so that it was set at a good benchmark starting point. Then, after a few runs, she tweaked the boom height ever so slightly for her personal comfort. Because she only had to tweak the boom up by a finger-width (due to the benchmark starting point being so surprisingly accurate!) her outhaul would not have been affected and so she would have had a great session.

**Example 2:**

A 6'4" Man heads out for a blast on his new Free-ride kit (6.0m sail and 110L board). He's using a different brand of sail from normal, but because he's tall and because on his old brand of sails he always had his boom right at the top of the luff cut-out, he whacks his boom to the top of the cut-out and figures it'll be all right...



**Not so good!**

This bloke has fallen into the trap of assuming that his new sails will have their luff cut-outs in the same place as his old sails. He has also assumed that, because he's tall, all sails will require for him to have his boom at the top of their luff cut out.

Unsurprisingly, he gets out there and finds the boom level with his forehead and needs to come in to check his boom height setting properly.

**Example 3:**

A 5'9" bloke is heading out on the water in a Force 2 for a gentle cruise around the bay on his 5.8m sail and his Fanatic Viper 180L board. He sets his boom height to shoulder-high by standing his rig up (with mast-foot & UJ attached) on the land.



**Good one!**

This gentleman has set his boom height in a perfectly good and safe way considering the conditions and what he intends to do on the water, and he even remembered to take into account the mast-foot & UJ!

This brings us to the end of this episode on Boom Height. Hopefully there are some useful tips and nuggets for you to take away and try the next time you head out on the water.

Next issue will be the last instalment of the 'Tech Spec' Series, and will be looking at harness lines - positioning and length! In the meantime...enjoy!

The 'Tech Spec' Series is written by Jim Collis - Pro Coach, Instructor Trainer and Test Editor for Windsurf magazine. If you'd like any more information on coaching or training to be an instructor with Jim please contact him on [jimcollis@windsurfevolution.co.uk](mailto:jimcollis@windsurfevolution.co.uk) or visit [www.windsurfevolution.co.uk](http://www.windsurfevolution.co.uk)