

TECH SPEC SERIES

Part 5: Harness Set Up

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; we tend to rush around frantically trying to get everything done, simply so we can get out there before the wind dies.

There are so many bits of advice on how to set kit up (much of which contradicts each other) and none of us want to spend hours on the shore tweaking and tuning: so all of our good intentions invariably fly out the window, and we end up bundling everything together willy nilly: just hoping for the best.

As I'm sure we've all discovered at some point, setting everything up correctly can make the

difference between having a fantastic session on the water and a terrible one.

Jim Collis, in his 'Tech Spec' series, is gradually navigating us through this quagmire of myth, legend and general confusion: providing us with some simple advice on setting up our kit quickly, easily and efficiently.

So far Jim has looked at fins: helping us to choose and use the right fin; footstraps: showing us how to set them up quickly and easily; mastfoot positioning: giving us the inside line on placing and adjusting our mastfoot correctly; and most recently, boom height: helping us to set our boom quickly and easily with comfort, control and performance in mind.

This month Jim moves on to the last section of his 'Tech Spec' series: harness set up. As always Jim's aim is 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 a massively detailed guide covering all specifics, but more a simple one to help answer questions and make our lives easier regarding some of those misunderstood and confused issues of kit set up. For more detail or specifics please feel free to contact Jim on jimcollis@windsurfevolution.co.uk and he will be more than happy to spend more time going through things.



HARNESS SET UP

Having looked at quick and easy tips for setting up our board and rig in subsequent issues, all that remains is to look at easily setting up our harness and harness lines.

Before we launch into the world of harness line types, lengths and positions it is important that we have a quick look at the types of harness and the ideal 'fit', so that when we do get out on the water we feel 'set up' and comfortable ourselves when 'hooked-in', rather than just our kit being so!

TYPE OF HARNESS & 'FIT'

This issue usually sparks some big debate over which harness is best – seat or waist. The only correct thing about this age-old argument is that it specifies that there are essentially 2 main types of harness available – a seat harness, and a waist harness. A few years ago now, there used to be a range of slightly more interesting harness designs, such as 'chest' harnesses, but nowadays, the industry has whittled it down to these two main types.



A typical seat & waist harness

To be perfectly clear from the start, both types of harness are as good as each other, it depends on the rider and their style of sailing as to which one they should opt for, as opposed to some fashion-driven decision. In a nutshell, if you are a sailor who likes 'sitting down' on a bit of power when sailing, then the seat harness will work well for you, and if you are a sailor who likes more manoeuvre-based sailing rather than having lots of power, then the waist harness is ideal



Waist harness for more upright manoeuvre-based sailing



Seat harness for sitting down on power and blasting

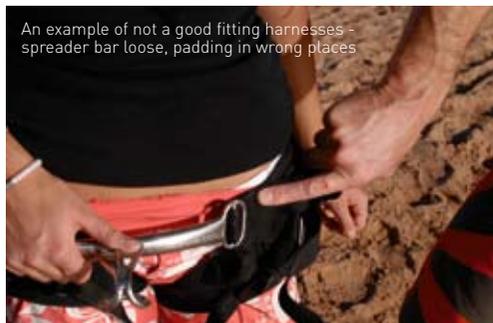
Obviously, there are plenty of people that fall between these two distinctions: perhaps someone who likes a bit of power and speed sometimes, and going out in waves for pure riding other times. Or someone who likes going fast in a straight line, but tends to like being more upright and using less powerful sails. In these and many other cases, it is down to individual preference – try both styles and see which feels better for your style of sailing; if you naturally ride around quite upright then you will feel more comfortable in a waist harness, whereas if you like sitting down more into the harness, then the seat harness will work better for you.

The important thing here is to not be swayed by popular opinion or peer pressure. Using the wrong style of harness can not only impair technique but can also cause quite a lot of discomfort. For example, someone using a waist harness when they 'sit down' in the harness can give themselves sore ribs as the spreader bar rides up and digs in, and someone who wears a seat harness but never actually uses the 'seat' part of the harness won't get the support in their lower back that they should.

Other than the type of harness, the 'fit' of the harness is crucial as well. A harness, whether seat or waist, should be a good comfortable fit, and when done up, there should be very little movement of the spreader bar. Remember, we are attaching ourselves directly to the rig via our harness, and if the harness is loose and the spreader bar is moving around, we are not going to be able to control our rig very effectively. On the other hand, if our harness is too small then it will either be impossible to do up (or we will do ourselves a mischief trying to squeeze into it!), or we might find that the padding and support provided by the harness isn't acting in the right places. If you are unsure about the 'fit' of your harness then it's always a good idea to check with your local windsurf shop or with a local instructor.



An example of good fitting harness - spreader bar tight, padding in right places



An example of not a good fitting harnesses - spreader bar loose, padding in wrong places

SETTING UP OUR HARNESS LINES

Now that we are sorted with the right harness for the job we can move on to setting up what we are

actually going to 'hook in' to: namely our harness lines. Setting up our 'lines' involves a couple of issues – type of line, line position on the boom, and line length. According to the type of harness we use, the set up of our lines will be slightly different (namely the line length) so as to take the fact that we are wearing a different design into consideration.

TYPE OF HARNESS LINE

There are two main things to consider with regard to harness line type.

Firstly, make sure you get lines that are 'stiff'. They should have a plastic coating around the line itself which serves several purposes – it gives the line a fixed loop shape making it easier for you to hook in and out of rather than it wrapping itself around your boom or even your harness hook, and it makes the line more durable and longer lasting. Making your own out of rope is frankly dangerous and they won't last long.



An example of good stiff line & floppy bad line

The second thing to consider is the actual type of harness line. There are essentially two types - 'adjustable' and 'fixed'.

In general terms, if you are still experimenting with what line length works for you, or you specifically want to have the option of shortening or lengthening your lines, then adjustable lines – 20"-28" being a usual range available – are a good option. If you are confident and happy with your line length then fixed lines are a good option. Either is as good as each other, it just depends on the individual.



Examples of adjustable & fixed lines

HARNESS LINE POSITION ON BOOM

Before hitting the water, it is important to position our harness lines on the boom so that when we hook in, we feel perfectly balanced against the pull or 'drive' of the sail. Unfortunately, this is an area of much contention and many different methods. The good news is that the majority of all methods used work! The not so good news is that whatever method used, you will never be able to set your lines 100 per cent accurately on land.

The aim with regards to positioning our harness lines on land should be purely to set them in a rough ballpark area on our boom. When we go for our first few warm up runs on the water we can then easily fine tune the lines' positions by small adjustments of maybe a finger's width, both forwards or backwards

on the boom. This will then find that perfect position for the lines so we feel balanced against the rig's pull and the rig feels weightless in our hands. The one thing we can set 100 percent accurately on land however, is the distance between the two line attachments on the boom – they should be one hand's width apart.



Harness line attachments one hand's width apart

As we mentioned above, we are aiming to attach ourselves through our harness directly in line with the drive of our sail. As a general rule, the pull or drive of a sail will come from around a 1/3 of the way in from the mast and around head to shoulder high.

Methods such as using a measuring line or bungee or even just 'guestimating' to a 1/3 in from the mast along the boom are very effective. This method shows us where to position the first attachment of the harness line and then the second attachment goes one hand's width further down the boom.



Guestimating a 1/3 in from mast

The method of counting hand widths in from the head of the boom along the arm of the boom according to the size of sail we are using (5 hands for a 5 m sail, 6.2 hands for a 6.2 m sail etc) tends to work within a sail range of about 4m to 6.5m. It does, however, start to go a little awry if sizes get too big or small. Once again, this method shows us where the first attachment for the line goes and then, as always, the second attachment goes one hand width further along the boom. 🍷



Counting hand's widths in from head of boom

Unfortunately, methods such as leaving the lines in the same place on the boom from when we last sailed will not generally work. Every time we rig our sail the shape will be slightly different due to a fraction more or less downhaul or outhaul compared to last time we rigged up, and as such the 'drive' or pull in the sail will be coming from a slightly different place. This means that our lines will need to be moved slightly to be in line with this changed position of drive.



The method of standing a rig up on land and hooking in, other than being dangerous to you and those around you, will not be accurate either as when we are moving quickly on the water, rather than standing still on the land, the draft in our sail will alter slightly (move slightly further back and up as a general rule) meaning we would have to adjust our lines again.



Top Tip – When setting the lines in the rough ballpark area on your boom on land, make sure the line attachments are relatively firmly done up but that you can still 'scooge' or move them by hand without having to undo them again for minute adjustment on the water.

Simple things to look for when fine-tuning our harness line positions out of the water:

If we feel more pull on our back arm when committed to the harness, then we need to move our lines fractionally back,

If we feel more pull on our front arm when sailing in the harness, then move the lines slightly forwards.

Basically, move the lines towards the 'indicator' arm (the one that feels pull).

You will not have to usually move the lines more than a finger width either forwards or backwards but you must make sure you move both attachments of the line on the boom: maintaining that hand width apart. Once you can commit to the harness and the rig feels light and balanced without excessive pull on either arm, then you're set up!

HARNES LINE LENGTH

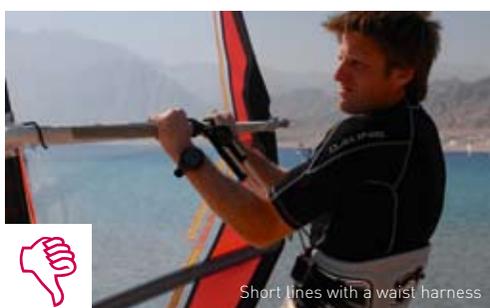
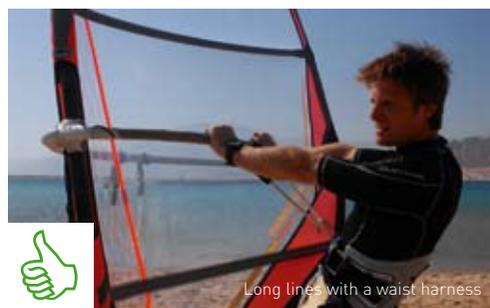
The final part of setting our harness up is making sure we have the right line length, this is important

regardless of whether the lines are fixed or adjustable. The determining factor for this is the type of harness that we use: in a nutshell – shorter lines for a seat harness, longer lines for a waist harness. Again, this is also a very contentious issue, because at first glance it would seem that the lengths should be the other way round (a lower hook for a seat harness surely implies a longer line and a higher hook for a waist harness a shorter one...but no!). In fact, it is not hook height that is the issue here, but HIP height. When you wear a seat harness, you sit down in the harness and your hips are naturally quite low. When you wear a waist harness you use your whole body to commit to the harness and so your hips are naturally quite high.

Have too long a line with a seat harness and you end up dragging your bum in the water, so you need a shorter line to bring your hips up.



Have too short a line when wearing a waist harness and you end up too close to the rig, making you prone to catapults (no distance between you and the rig for good counter-balance) and lacking any real 'range' of control over the rig in those gusts and lulls: you need a longer line to distance yourself from the rig.



As a general rule of thumb the total range for line length for the majority of people (whether wearing a seat or a waist harness) is 20"-28".

In easy terms, with the tip of your elbow in the bottom of the harness line loop, the range can be measured in terms of where your forearm or hand holds on to the boom. With your watchstrap level with the boom, this represents the shortest line length in the range (roughly a 20" line) and with the middle of your palm level with the boom, this represents the longest (roughly a 28" line).

So, with this in mind, the range of line lengths for different types of harness is –

For a seat harness – tip of elbow to watchstrap as the shortest line length (roughly 20") and tip of elbow to the start of your palm as the longest (roughly 24").



For a waist harness – tip of elbow to start of your palm as the shortest line length (roughly 24") and tip of elbow to middle of your palm as the longest (roughly 28").



Top Tip – When setting up your line length make sure you measure the length with your own arms rather than get someone else to do it for you – it's a very personal and individual thing!

N.B. There are exceptions to this general rule due to personal preference; for example, a lot of wave sailors and freestylers go for really long lines with their waist harnesses (34" – way beyond the middle of their palms!) for more distance between them and the rig.



BRINGING IT ALL TOGETHER

To bring all of what we have discussed so far in this article together, here are some examples of what should be done and perhaps what shouldn't...

Example 1:

A bloke sets himself up to go for a bit of a blast against his mates on his 7.5 and 110 freerace board.

He is wearing a seat harness, sets his line length to 22" (tip of elbow to watchstrap) and sets his line position roughly on land by guestimating 1/3 in from the head of the boom. He then places the attachments one hand width apart, and re-adjusts their position on his first few runs until his rig feels balanced and light in his hands.

Verdict – Good one!



Example 2 :

A young lad has just changed harness from a seat harness to a waist harness.

He feels a lot cooler now down at the beach and he heads out onto the water with his 20" lines as he got them free with the harness.

Verdict – Not so good!



Our poor young lad here has been the victim of peer pressure here as well as falling for the age-old trap of using shorter lines with a waist harness as it has a high hook! He's not only going to feel very close to the rig and uncomfortable when on the water, but he probably won't be feeling so cool when he ends up with the spreader bar around his nipples as he tries to sit down in the harness in the style he was used to when using his seat harness.



Example 3 :

A woman heads down to the water to go out on her 90 L freestyle wave with a 5 m sail to practice some gybes, tacks and general manoeuvring.

She has a waist harness and has recently bought some fixed lines of 26" (as they give her lots of room between her and the rig when sailing and measure tip of elbow to middle of palm). She sets her lines on the boom roughly by counting 5 hand's widths in from the head of the boom for the first line attachment and then one hand's width more for the other attachment, and then 'scooges' the lines back a fraction after her first run so that the rig feels light in her hands.

Verdict – Good One!



Example 4 :

A very keen bloke heads down to the beach for some blasting practice on his freeride kit (120 L board and 6 m sail).

He has his seat harness that fits brilliantly, but recently heard that long lines were all the rage and so changed his adjustable harness lines to be about 28" long (tip of elbow to middle of his palm).

Verdict – Not so good!



Although a great harness for what he wants to go out and do (and fit) the line length will mean that he is dragging his bum in the water every time he commits to the seat of his harness. Remember – short lines for seat, long lines for waist!

This brings us to the end of this episode on setting up our harness and also to the end of the Tech Spec Series. Hopefully there have been some useful tips and bits of info over the last few issues for us to bear in mind when we next go sailing, regarding setting ourselves up quickly and effectively in order to get a great session out on the water. Next issue Jim will be returning with some more technique related subjects to help us get the most out of our windsurfing. In the meantime, have a good one and get out there!

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 or visit www.windsurfevolution.co.uk

