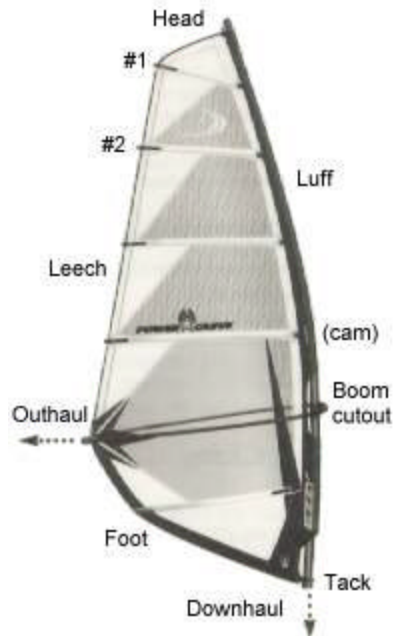


# 1999 Ezzy Power Carve

## Rigging & Fine Tuning Guide

These tuning tips will make your sail work the way I designed it to. Use them to find your own perfect settings. Be sure to rig and de-rig in the same order as outlined in this guide; you not only get on the water faster, but you will also extend the life of your sail.

See you on the water,  
David Ezzy



### Rigging:

1. **Slide the mast through the luff sleeve.** Note: do not slide the mast through the cam, it should go above the cam.



Slide the mast above the cam.

2. **Attach the mast extension and cleat off the downhaul without tensioning.**

*Quick Tip* - It is easier to attach your boom onto the mast with no downhaul tension.

3. **Attach the boom and outhaul the sail to the boom length** (printed on the sail). At this early stage of rigging, the sail should be outhauled flat in the boom area.

*Quick Tip* - The boom length is the distance from the clew to the front of the mast at the center of the boom cutout.

4. **Attach the cam to the mast** by pushing down on the batten with the palm of your hand, approximately 12" (30cm) from the luff sleeve, and snap the cam onto the mast with your other hand,



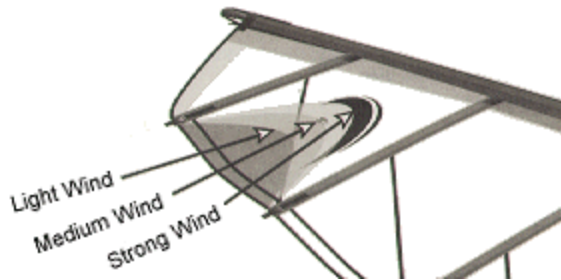
*Quick Tip* - If the cam is difficult to put on the mast, check that the batten tension webbing is loosened until the Velcro touches the buckle. This will allow the cam to slide further from

## Rigging and sail tuning for the 1999 Ezzy Power Carve

is loosened until the velcro reaches the backer. This will allow the cam to slide farther from the mast and will make it easier to get the cam onto the mast. Also, make sure the sail is outhauled flat before attempting to snap the cam onto the mast.



- 5. Downhaul the sail until the leech goes loose between battens #1 and #2.** Use the diagonal seam and the sail logo as a reference. For light wind, the looseness should extend to the diagonal seam. For strong wind, the looseness should extend to the back edge of the Carve logo.



*Quick Tip* - The amount of downhaul tension will vary for different wind conditions: A high-wind setting requires more downhaul tension to loosen the leech and give more twist. For lighter wind, the sail will perform better with less downhaul. This gives the sail a tighter leech and better low-end power.

*Quick Tip* - Normally, when changing the downhaul setting, the outhaul must also be adjusted. For example, in strong wind, you will add more downhaul and more outhaul and in light wind you will reduce the downhaul and outhaul.

*Quick Tip* - Always keep your base extension at its shortest possible setting. If there is not enough space for downhauling and you have mast extending from the top, use the adjustable top to raise the sail up on the mast rather than extend you base.

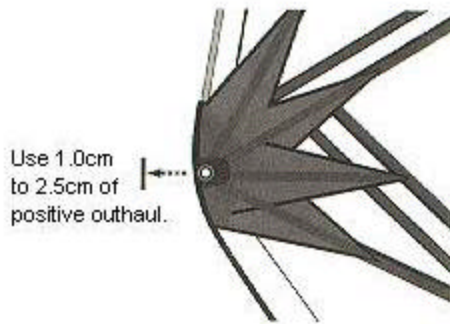
- 6. Now, tension all of the battens. Start at the batten above the boom, pull on the batten strap while pushing the palm of your other hand against the batten end-cap. Tension all battens until the vertical wrinkles running through the pockets disappear.**



*Quick Tip* - It is possible to over-tension the cam batten, which will cause the cam not to rotate. A quick check of this can be done by holding the sail up onland and rotating the cam by pumping the sail. The cam should rotate smoothly; if it doesn't, decrease the batten tension.

*Quick Tip* - The foot batten can be tensioned without opening the foot batten protector. To tension, place one hand on the mast while pulling the batten tensioner strap with your other hand.

7. **Release the outhaul totally and then re-tension it. For light wind, pull the clew out approximately 1.0cm (3/8"). For stronger wind pull the clew out approximately 2.5cm (1").**



*Quick Tip* - Before adjusting the outhaul, push the cam to make sure it is rotated to one side of the mast.

8. **Check that the camber is not over-rotated.** Over rotation can fatigue the cam and the batten and lead to possible breakage. If the cam is over-rotated, you need more downhaul.

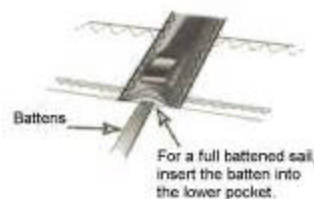


9. **Tension the tack-strap until the edge of the sail beside the tack grommet touches the side of the mast.**

*Quick Tip* - The correct shape in the lower part of the sail will be attained when the tack of the sail is pulled up against the mast.

### To Change from Cambered Sail to Full Battened Sail:

1. **Outhaul sail fully.**
2. **Release cam batten tension at leech end.**
3. **Release ALL downhaul tension.**
4. **From the opening in the luff sleeve, pull out the camber and batten**
5. **From the leech end, insert the tapered end of the batten into the lower of the two batten pocket openings.**



6. **Downhaul until the upper leech goes loose** (see again Rigging, step #5).
7. **Tension the batten.**
8. **Release the outhaul totally** (make sure all battens are rotated onto the same side of the mast) **and then re-tension it. For light wind, outhaul approximately 2.5cm (1"). For stronger wind, outhaul approximately 4.0cm (1 1/2").**

*Quick Tip* - With the correct downhaul tension, the luff end of the batten above the boom should rest approximately 2 cm to 4 cm behind the mast. If it is touching the mast, you need

more downhaul.

## De-Rigging:

*Quick Tip* - To increase the life of your sail, it is recommended that you de-rig in the following order:

1. **Release the cam batten tension (push the release lever located on the center of the buckle) and tack-strap.**
2. **Release downhaul.**
3. **Snap cam off of mast**
4. **Release outhaul and remove boom.**
5. **Slide mast out of luff sleeve without creasing sail.**
6. **Roll sail from the top and use the strap we've provided to tie the sail.**
7. **Insert the sail into the sail bag with the sleeve-end first.**

## Sail Care:

### Sunlight:

- Sunlight will break down all sailcloth in a relatively short time (300 hours of direct sunlight).
- Don't dry off your sails in the sun! It is better to dry them in the shade, or to roll up wet.

### Creasing:

- Creasing damages sail cloth. When rigging and de-rigging, try not to crease your sail or let it flap in the wind.

### Sand:

- Sand will scratch the sailcloth film and can clog the batten tensioners. Try to roll your sail sand-free.

### Cleaning:

- Use a mild soap and water with a rag to clean your sail. Harsh solvents may damage the sail cloth.
- Contrary to what most people think, you do not need to fresh-water rinse your sail.
- The vinyl window can be cleaned by washing with fresh-water and polishing with dry towel.

### Storage:

- It will not damage your sail to store it with the battens fully tensioned.
- If storing your rolled sail vertically, make sure the sleeve-end is supporting the weight. This prevents the clew from getting damaged.

## Trouble-Shooting:

## Rigging and sail tuning for the 1999 Ezzy Power Carve

<b>Problem:</b>	<b>Possible Solution:</b>
Foot batten does not flip:	<ol style="list-style-type: none"> <li>1. Foot batten has too much curve, give more downhaul and outhaul.</li> <li>2. Foot batten is over-tightened, release some batten tension.</li> </ol>
Camber is difficult to get on the mast:	<ol style="list-style-type: none"> <li>1. Make sure the batten tensioner is completely released while snapping cam on.</li> <li>2. Make sure the sail has NO downhaul tension and is outhauled fully before snapping cam on.</li> </ol>
Sail feels too powerful:	<ol style="list-style-type: none"> <li>1. Sail is too deep, try more outhaul and downhaul.</li> <li>2. Mast is too stiff, check that you are using the correct mast.</li> </ol>
Sail lacks power:	<ol style="list-style-type: none"> <li>1. Sail is too flat, try less outhaul and less downhaul.</li> <li>2. Mast is too soft, check that you are using the correct mast.</li> </ol>
Camber does not flip:	<ol style="list-style-type: none"> <li>1. Camber batten too tight, release a little batten tension.</li> <li>2. Cam is under-rotated, need less downhaul.</li> </ol>
Camber comes off of mast:	<ol style="list-style-type: none"> <li>1. Camber is over-bending, need more downhaul.</li> <li>2. Mast diameter is larger than normal, lengthen the webbing straps on the cam.</li> </ol>
Sail feels heavy:	<ol style="list-style-type: none"> <li>1. Leech is too tight, try more downhaul.</li> </ol>