



**weta**  
trimarans

# WETA SAILING MANUAL

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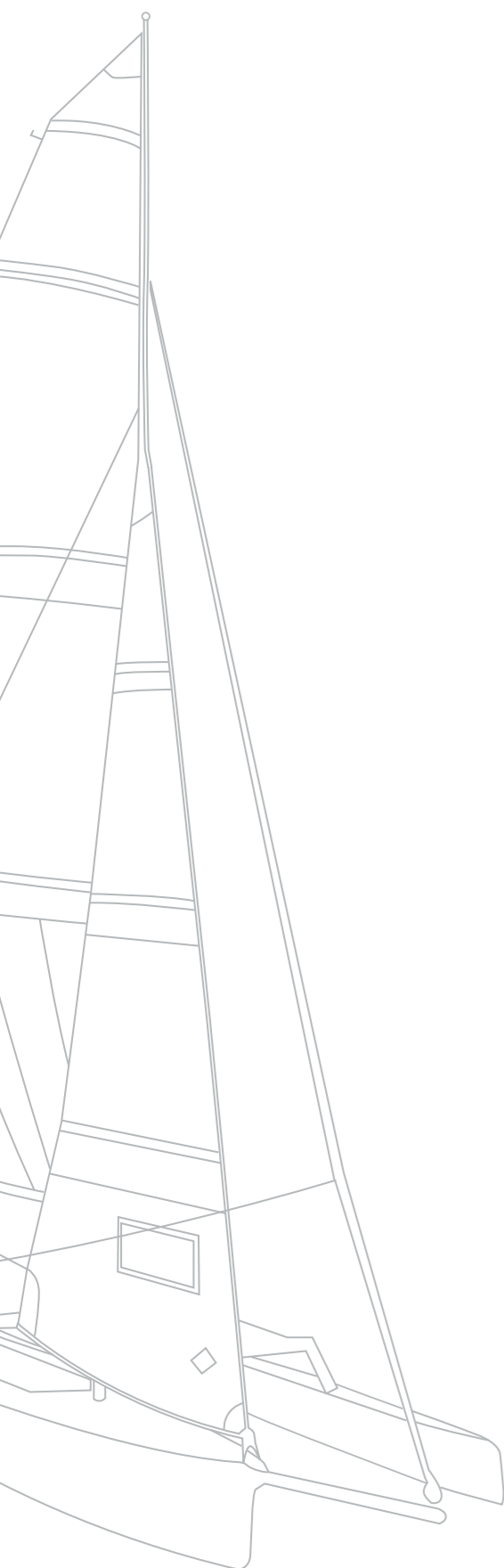


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The Weta is designed as an easy and enjoyable sailboat to make high performance sailing available to everyone. It is very versatile with a number of sail options which allow you to sail the Weta to its potential under almost all conditions.

This manual has been written primarily to ensure safe Weta sailing. It teaches techniques that make managing the boat easier to enhance your enjoyment of sailing the Weta. We advise you read this before sailing and pay attention to the highlighted points.

The Weta is a simple boat but there are a lot of easy “tricks” in rigging and sailing that can to be employed to ensure a hassle-free sailing experience. Personal preferences may vary but this manual sets out to provide instructions of how the Weta is intended to be used for ease, performance and enjoyment.

If you have any feedback on this manual or require further information please email [info@wetamarine.com](mailto:info@wetamarine.com).

We hope you enjoy the Weta experience!





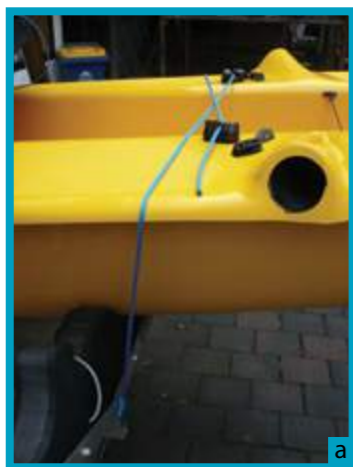
### 1.1 UNPACKING YOUR NEW WETA

When you first get your new Weta kit it should include:

- Weta with mainsheet block assembly, Cunningham with double block and stainless steel ring on bow
- Beach trolley
- Mast bottom section
- Trampolines x 2 (port and starboard)
- Centreboard
- Prod
- Roller furler drum with line
- Double block for mainsheet
- 2 Gennaker blocks
- 2 side stays
- 2 shackles (one for jib tack, one for halyard strop)
- 6mm Jib sheet – red
- 4mm Gennaker halyard – green
- 4mm Main halyard with halyard strop - blue
- 6mm trolley ties x 2 - black
- 3mm line – 4 x 1m lengths (2 gennaker block ties, front trolley tie, forestay tie)
- Mast top section
- Safety harness
- Foil cover
- Rudder assembly
- Tiller extension (found with the prod or the main sail)
- Roller furler top swivel
- Stainless steel S-hook for mainsail clew
- 2 stay adjusters
- 1 forestay
- 8mm Gennaker sheet – green
- 6mm Main sheet – blue
- 4mm Jib halyard – red
- 6mm Centreboard handle - 600mm length
- Boat cover (if ordered)

If the initial assembly of your Weta has not already been done, follow these steps:

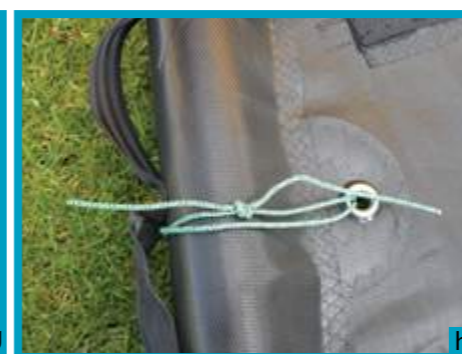
1. Attach the trolley support ties to the back end of the trolley with a bowline. They then cross over the main hull and are held in the cam cleats. The boat is now secure on the trolley for rigging. (a)
2. Thread the trampolines on the beams and use a ladder stitch to tie off the webbing loops under the tramps. Slide these on equally or they will jam (b). Line up the tabs (c)



3. Use a 4m line for each float. Start by tying one end around the beam with a bowline. (d)
4. Loop the line around each pair of tabs tightening as you go (ladder stitch). (e)
5. Tie off the line on the other beam with some half hitches. **Note:** you can adjust the length/tension of the lacing to achieve the correct alignment of the trampoline lines to the cheek blocks and cleats on the deck. (see section 2.9-6) (f)



6. Attach the gennaker blocks on the trampolines. Lace the line through twice and make sure they both pass through the block, Tie off the line with a reef knot underneath (g, h)



7. Attach the centerboard handle. Secure with figure of eight stopper knots on opposite sides of the board. (i)



8. Attach one shackle on the tack of the jib and the other on the thimble end of the halyard strop. (j, k)





9. Attach the stay adjusters and side stays onto the float hulls (set at the 3rd hole from the bottom as a starter) and store on the tramp. (l)

Tie the side stay to the hiking strap using the front end of the trampoline line for storage/traveling.

**Note:** when coiling the sides stay it is easiest to start from the fixed end so all the twists come out at the free end.

**Note:** Take care not to damage the stay/swage join by making the coil too tight. (m)

Thread the mainsheet system and tie the block end off with a bowline and a figure of eight stopper knot at the loose end. Note: See section 2.9-1 for adjustment of this. (n)



8. Attach S hook to mainsheet double block. (o)
9. Put the remaining sheets (jib and gennaker), halyards (main, jib and gennaker), safety harness, tiller extension, forestay (with tie attached with a bowline knot), centerboard and rudder assembly in the foil bag so it is together ready for when you go sailing. (p, q)



10. Rigging the Gennaker. If your gennaker has not already been furled up when you first receive your boat you will have to do this yourself. This can be done the first time you rig the Weta, as long as it is not too windy, as it requires hoisting the sail unfurled. To furl the gennaker without hoisting it get a friend to hold the top furler and stretch the leech tight, while you hold the bottom furler and furl it up. Keep tension on the clew for a tight furl.
- You may have to attach the furling drum to the prod. Tension so that the unit has a snug fit. (t)
  - Attach the tack of the gennaker to the furling drum. (u)
  - Attach the upper furling unit to the head of the gennaker. (p)
  - Hoist the sail up. (this should be done the first time you completely rig the Weta). (w)
  - Pull the furling line so the sail rolls up. Keep pulling it with a little tension on the clew of the sail until the sail is completely wound up. (x)
  - Now the sail is ready to rig as per the rigging guide. It can be put in it's bag as show (y).





### 1.2 WETA RIGGING GUIDE

The Weta has been designed to be simple and quick to rig. The lines and sail bags for each sail have been colour coordinated to make it easy to match lines and sails. It is recommended you read this guide before rigging the boat and again after you have done it a few times so you do not miss any details that can be very helpful and make your experience more enjoyable.



#### 1 EXPANDING THE BOAT

Before expanding the boat make sure the two ties on the back of the trolley are firmly fixed into the cam cleats on the deck (on the opposite side). This will stop the boat from rolling on to one side when the floats are connected. Hold the float with the front hand on the front knuckle and the back hand half way down the beam rail (b) to keep it balanced.

When inserting the beams into the sockets make sure the alignment is correct and they should slide in easily. This becomes easier over time. (a)



#### 2 TENSIONING THE TRAMPOLINES

Tie the front end of the trampoline line using a bowline. (c,d)

Loop the rear end of the line over the cheek block and tension the line firmly making sure the loops do not come off (e).

**It is important to tension the tramps tightly, otherwise you could risk the floats coming out in a capsize.**



#### 3 RIGGING THE MAST

When putting together the top and bottom sections make sure the track is aligned and there is no gap. Place it on the boat with the tip at the stern.



First run the jib halyard (red) through the lower turning block on the mast and thread it through the clam cleat with the roller at the bottom of the mast and tie it off. Make sure it's tight to minimize the chance of tangles. (f,g)



Run the gennaker halyard (green) through the upper block on the mast and thread it through the cam cleat at the bottom and tie it off (j,i)

Run the main halyard. It is important to make sure you thread this the correct way otherwise you will not be able to hoist the mainsail. The free end should be passed through the sheave from the aft side of the mast. (h) Tie the halyard off on the horn cleat. (k)

Next attach the side stays to the mast. Check the halyards are in the positions shown when doing this to avoid tangles. (l)

Lastly before raising the mast attach the forestay. It should be inserted in this position relative to the halyards. (m)





### 4 STEPPING THE MAST

Before stepping the mast check for any overhead power lines that you could potentially hit when raising the mast or pulling the boat to the water. This is a major safety consideration as the carbon fiber mast is a well known conductor of electricity.



Check that the mast step is clear. Hold the mast as shown and have the forestay in the hand that holds the base of the mast. (m) Stand the mast upright and place the base on the ground next to the boat. (n)

Step the mast onto the trolley support(o), re-grip it and then step it onto the mast step. (p) This can all be done in one motion, but by breaking it into these small steps it is easier to manage.

Once the mast is in the step take the forestay to the bow fitting and thread it up. (p,q) The forestay should be tied with plenty of tension. A rough guide for how much tension to use is to tighten it until the floats no longer rise up and then tie it off with a few half hitches. (r, s). Note: Make sure to tie a few half hitches and leave about 30mm tail on the forestay tie to ensure it doesn't slip.

If you are having trouble stepping the mast, you could try facing the boat downwind and using the wind to your advantage.



### 5 RIGGING THE GENNAKER

The gennaker sail bag, halyard, furling line and sheet have been colour coordinated green. The gennaker should be pre rigged after initial set up of your Weta (see section 1.2-10). Insert the prod into the bow socket and make sure it is completely in.



Unravel the furling line and thread it **under the bow stop, under the cunningham line** and through the cam cleat. (b,c)

Clip the turning block onto the pad eye in the cockpit. (d)

Next tie the halyard to the top swivel drum on the gennaker head with a tight bowline. If this bowline is too loose it will restrict the amount of halyard tension that needs to be pulled on later. (e)

Hoist the gennaker and apply a reasonable amount of halyard tension. This should be enough so that there is a slight inverting bend in the tip of the mast.

Tie off the gennaker halyard using the following steps:

- Run the halyard through the clam cleat *without* the roller and cleat off.
- Gather up the excess rope and tie off ready to be secured by the Velcro strap after all 3 sails are hoisted.





Run the gennaker sheets through the blocks and inside the side stays. Make sure the sheet goes through the gennaker blocks the correct way. The test is to pull the sheet through the block in a direction towards the centre of the boat with the other end coming from the bow. If the sheet is run correctly the ratchet will make a clicking noise. (l, m)

Tie the two ends of the gennaker sheet to the eyelet of the sail. (n,o,p). You could use a figure of eight knot or a bowline.



### 6 RIGGING THE STANDARD JIB

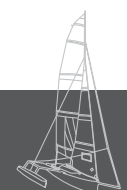
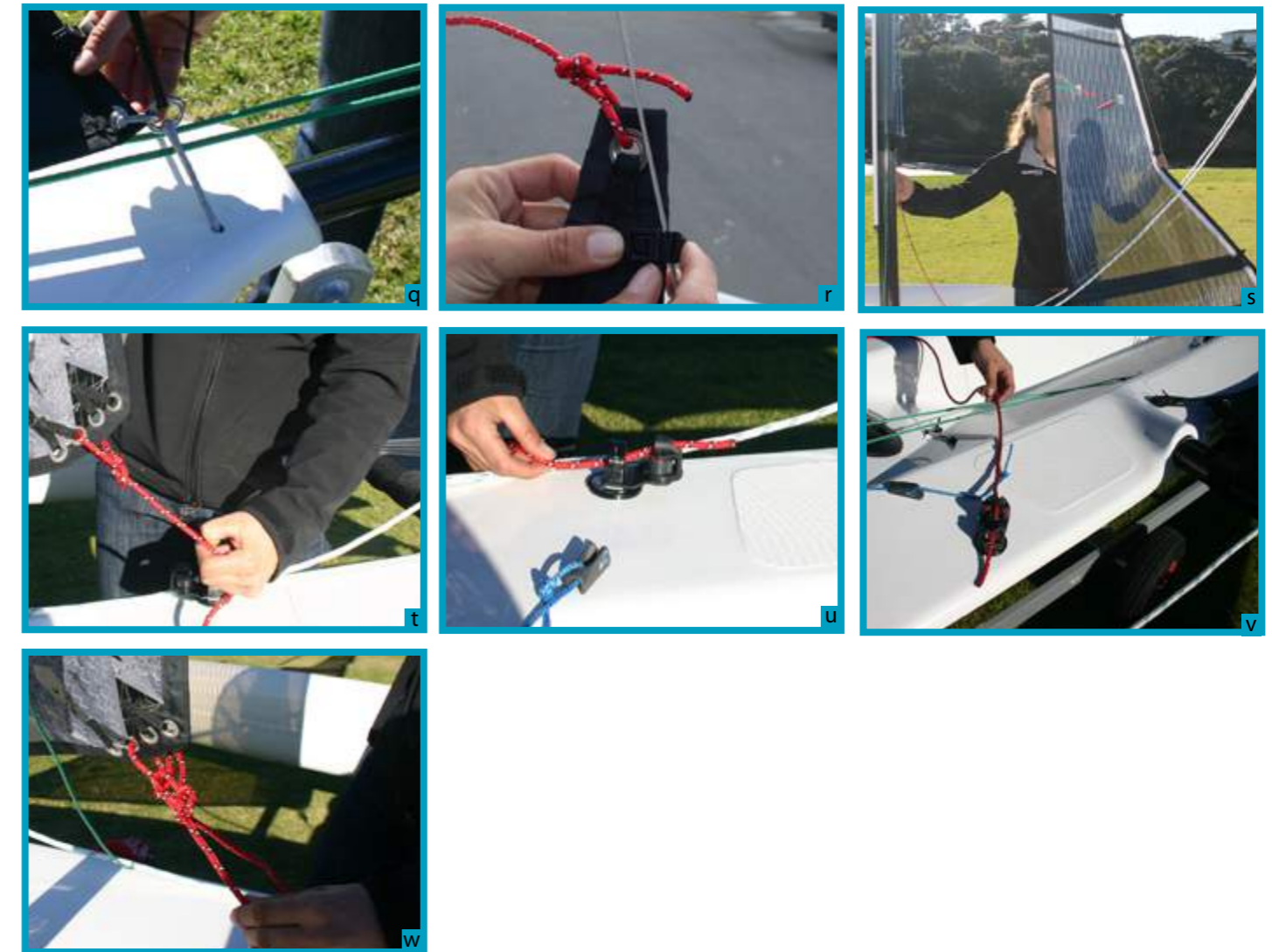
The jib sail bag, halyard and sheet have been colour coordinated red.

Shackle the tack of the jib onto the bow ring. (q)

Tie the halyard on to the head of the jib with a tight bowline and then hoist the sail. Clip the jib hanks on as you go. (r,s) Use the clam cleat with the roller to cleat the jib halyard. Add a purchase if you would like more jib tension (see the sailing guide for when to add more jib halyard tension).

Use a bowline to tie the red sheet to the jib (t), run the jib sheet through the two bulls eye swivel cleats (u,v). The sheet should run clear over top of everything in the cockpit and have the ends come either side of the mast. Make sure the sheet is threaded the correct way through the cleats. Again use a bowline to tie the end of the sheet to your first bowline, this way if you want to change holes you only need to retie one knot. (w)

For instructions on how to rig the furling jib see section 1.3.11





### 7 RIGGING THE MAIN

The main sail bag, halyard, cunningham and mainsheet have been colour coordinated blue.

Unroll the mainsail and insert the top 30cm of the sail up the mast track. Check that the main halyard is free to run and not tangled in the stays then shackle the halyard to the head of the main. (a)

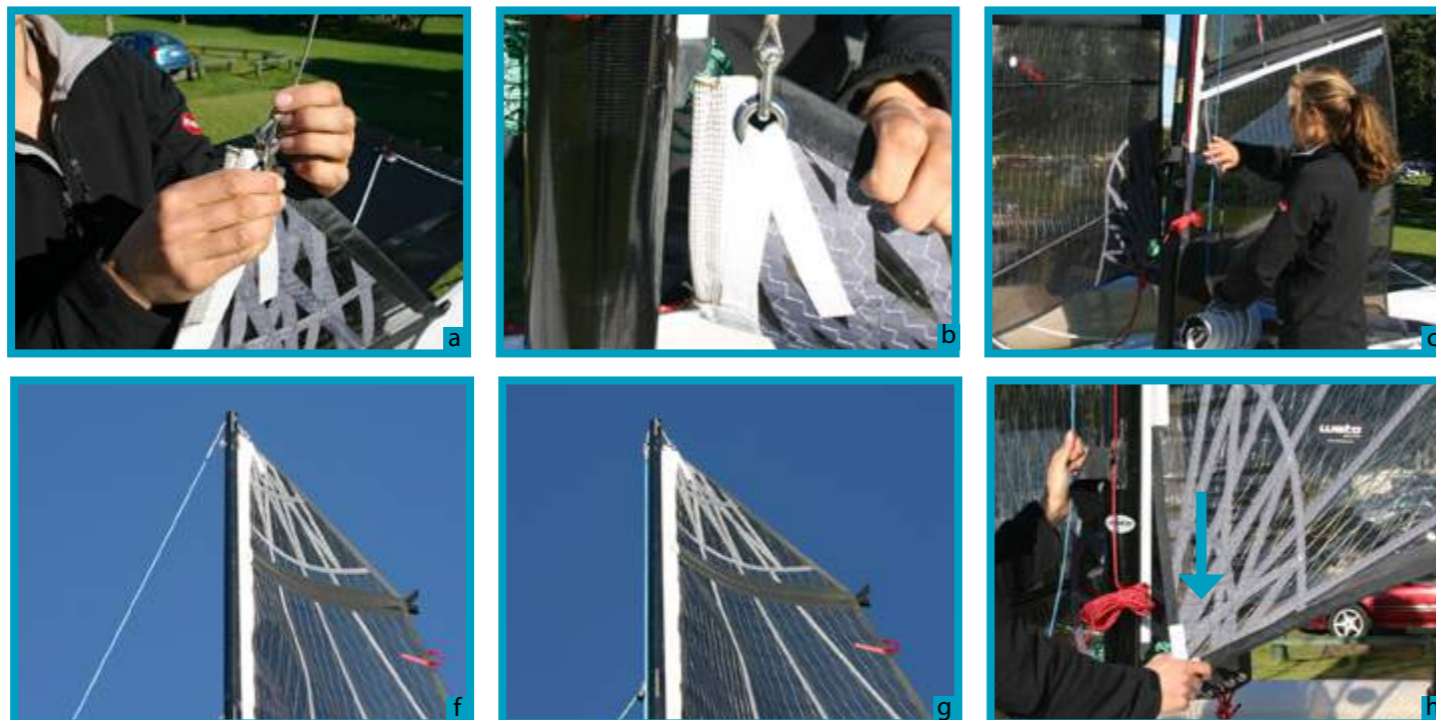
Hoist the sail being careful to feed the bolt rope up the track. This is not a self feeding system! The boat must be pointing directly into the wind when hoisting the sail otherwise it will jam. If it is still stiff to pull up there are a few things you can do to improve this. Firstly wash the track and the bolt rope of the main sail after each outing to get rid of any salt/grit that causes friction. If necessary spray some silicone spray on both the track and the bolt rope. (b,c)

Once the sail is at the top of the mast lock the halyard off. This is done using the following technique: Pull the halyard down at an angle to the mast so it is free from the lock. The sail should be at maximum hoist at this point. Please note there is an extra image shown here to show the system more clearly. (d, e) Swing the halyard towards the mast so the stop wire sits in the lock and next to the mast. Hold the halyard in this position and slide the sail down the mast until the stop locks in the halyard lock. The sail should be securely fastened. (f,g,h)

The main halyard should now be tied off at the horn cleat as per the gennaker and jib halyards. Note that there should be little or no tension on this halyard as all the load is taken by the halyard lock at the top of the mast.

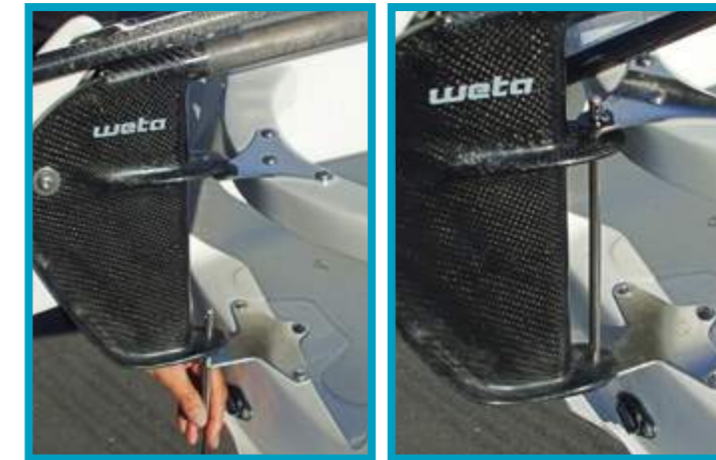
Fasten the tack strap, which takes the strain off the track and attach the Cunningham hook.

Clip in the mainsheet. The main sheet system must be attached behind the gennaker sheets.



### 8 CONNECTING THE RUDDER & PUTTING IT DOWN

Connect the rudder assembly to the boat. The easiest way to do this is:



1. Take one R-clips off the pin and remove from gudgeons
2. Align the rudder stock with the gudgeons
3. Push the rudder pin up from the bottom so it goes through the top Gudgeon.
4. Replace the top R-clip

#### Putting the Rudder Down

The rudder system is designed to pop up if you hit something at speed, thereby minimising damage to the rudder and to the transom of the boat. It works on a spring system, the spring can be adjusted by adjusting the length of the rudder arm. Loosen the nut at the joining of the rudder arm to the rudder blade and then turn the rudder arm to shorten or lengthen the arm. The longer the rudder arm the more quickly it will pop up if you hit something, but it will make it harder to get the pin on the rudder arm into the hole when you put the rudder down.

When you want to put the rudder down you pull the pin on the rudder arm out of the forward hole on the tiller and push backwards to the hole further aft and push it in. To help the pin reach the hole you can lift the rudder arm in the middle to bend it and help it to reach.

Do not sail around with the rudder half up as you could damage it. It is ok when launching or returning, when the boat is not loaded up, but make sure you put it down properly at the earliest opportunity.





### 9 SAFETY HARNESS

If you fall off the Weta it will not capsize and the boat will drift faster than you can swim. To overcome this problem a safety harness system has been provided, **please read, understand and practise these instructions before sailing the Weta**. If you capsize with the harness on, you want to be used to releasing it. We recommend that you practise releasing the harness and wear it in all conditions so that you get used to the safety release clip. If you do capsize then you should release the clip immediately. The safety harness should be worn on top of all clothing. The lifejacket can be worn over the top of the harness provided it does not obstruct the quick release safety mechanism.

#### Rigging the Safety Harness

Attach the tether to the pad eye in the cockpit floor by looping the end back through itself.



The safety harness is worn by putting your arms through the loops with the adjustable strap at the bottom and the rings meeting at your chest. Thread the small strap around the rings then back through itself.



You are now able to attach yourself to the tether on the boat.



#### Releasing the Safety Harness

You must practise releasing the harness before you go sailing and know where the release line is on your body when you are sailing. Extra lengths may be added to this if you think you will not be able to reach the supplied line

To release the harness simply pull on the release line. A strong definite pull across the body should be enough to release the hook even when the tether is under load. In the event of a capsize there is usually some warning and you should be able to release the harness before the boat is completely over. If you do not manage to do so, remain calm, feel for the release line and take your time to release it.

**You must practise releasing the safety harness before sailing**





### 10 DE-RIGGING AND STORAGE

There are a number of tricks that can be used when de-rigging your Weta to reduce the rigging time the next time the boat is rigged. These are based on leaving as much of the boat together while not leaving the boat susceptible to deterioration or damage.

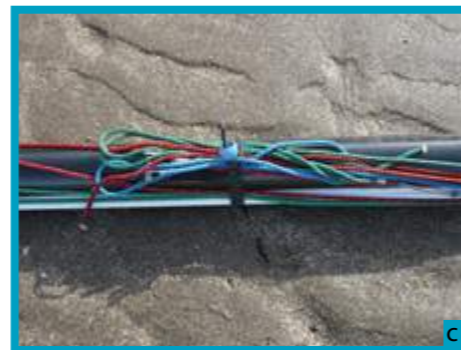
#### Main sheet system

This can be left on the boat and used to tie the rear beam trampolines together for transport (see 3.1-4).

#### Halyards on the mast

One of the most time consuming parts of rigging the Weta is running the halyards. Ideally the mast would be left complete with the halyards tied off at the base for storage but this is not always possible for transportation. There are two other options.

- 1 All halyards are taken out and stored in the foil bag. Make sure they are coiled up neatly so next time they are less likely to tangle.
- 2 Leave the halyards on the mast but use two bungee straps to hold them on the top section. Firstly put a tight bungee at the base of the top section while the mast is fully rigged. (a)
- 3 Fold the halyards up the mast, attach the second bungee then take the bottom section off. The two mast sections can now be secured on the trolley. (b, c)



#### Side stays and Trampoline lines

The side stays remain on the boat and are secured by the front trampoline lines. Use a reef knot to tie the coiled stay to the hiking strap. When coiling up the stay start at the fixed end so that any twists can come out the free end. (g)

The back end of the trampoline line should be left like this so it does not get pulled through the sleeve. (h)



#### Foil Bag

For ease of use we have provided a foil bag with pockets so that you can keep all your gear together. The foil bag should contain the following:

- Centreboard
- Rudder / rudder stock
- Tiller extension
- The 3 halyards (if not left on the mast)
- Jib sheet and Gennaker sheet
- Forestay
- Safety harness



#### Gennaker

The gennaker can be left like this with no harm to the sail. (j)

The gennaker should be left attached to the prod. Keep the furling drum clean and free of sand and grit for long life and efficient operation





### 11. FURLING JIB

The furling jib substitutes the forestay. The extra parts that come with the furling jib are.

- Furling Drum and line
- Top furler
- Lashing x2 one for the top strop and one to tie down and tension the boat.
- T-ball swage
- Cam cleat and fairlead



You will need to fine tune the length of the top strop the first couple of times when rigging the boat as the strop will stretch after the first use. This requires raising and lowering the mast a couple of times. Once it has been adjusted correctly you will not need to do it again.

Because you will be raising the mast with the Dacron jib attached in its furling position it will be slightly heavier and have more windage than with the standard rig. If this is too difficult there is the folding mast base option available (ask your local Weta distributor). If you are having trouble raising the mast (sometimes in heavy winds) try turning the boat so the stern is facing the wind. This will make it easier to raise. The same effect can also be achieved by rigging the boat on a slight downhill slope (nose pointing downhill).

1. Rig the Dacron furling jib as shown in the picture to the right

- Shackle the top furling swivel to the eye at the head of the jib then lash the T-ball swage fitting to the swivel. Note this length will need to be adjusted during initial setup to achieve the correct rig tension. (a)
- Attach the tack of the jib to the bottom furling drum. Make sure the D-shackle is on the other end of the drum. If the D-shackle is a tight fit squeeze the 'fork' part of the drum in a vice to ensure a loose fit shackle. This will help when rigging. (b)
- Furl the sail, this can be done with two people by holding one end each rolling it up around the luff. After you have done this put a velcro strap or a tie on the clew to stop the sail unrolling before you are ready for it. If the sail unrolls while you are trying to step the mast it will make it more difficult due to the extra windage from the sail. (c)



2. Hook the T-ball into the mast as if it were the forestay. Do not rig the jib halyard. Rig all other halyards as per normal. (d)

3. Raise the mast as normal and use the furling jib as the forestay. Lash the line onto the bow strop (lowest point possible) and pull on desired rig tension. Tie this off ready to take a measurement and adjust the top lashing. (e)

4. Note the height of the furling drum above the deck. The top swivel lashing will need to be adjusted so the drum is as close to the deck as possible while still maintaining good rig tension. If the strop is too long you will not be able to achieve enough rig tension, even if you tie the lashing from the furler to the bow as tight as possible. If the strop is too short then the furling drum will be too far away from the deck. To get the right strop length measure the length of the bottom lashing and note it down. Drop the mast and then extend the top lashing by the measured length. Once the adjustment has been made raise the mast again, tension the rig and check the new length. If you need more or less length you will need to repeat step 4.

5. Run the line from the furling drum through the cleat on the right hand side of the mast. If the cam cleat is not already installed then find the locating marks on the hull and use a drill to make a hole for the bolts and bolt on the cam cleat. Then tie the jib sheets onto the clew of the jib using a bowline and untie the velcro strip that is holding the sail together.



### EXTRA NOTES ON THE FURLING JIB

- If rigging for the first time you will need to furl the sail up. This is not absolutely necessary as the mast can be raised with the jib unfurled – but if there is any wind it is recommended. Furling the jib can be done by tying off the head on an anchor point. then tensioning the luff by tying off the tack. Options may be between two people; rigging the sail as if it were a normal jib; between two posts etc You then just wrap the clew around the jib tightly until it is furled away and tie it off.
- Over time there will be a little stretch in components causing loss of rig tension. This will require tightening up of the lashing between the top furling swivel and the T-ball swage fitting.
- Mast rake adjustments will affect the rig tension.
- If you having trouble raising the mast (sometimes in heavy winds) try turning the boat so the stern is facing the wind. This will make it easier to raise. The same effect can also be achieved by rigging the boat on a slight downhill slope (with the bow pointing downhill).



#### 12. 6.5m Main Sail

The 6.5 main is a great option for de-powering the Weta. Whether it be for use in heavy winds or letting your kids out on the Weta alone for their first few sails it provides a safe option.

We have had some great and fast sailing in 30+ knots with the small main as it is more manageable and has less drag!

The only difference when rigging the 6.5 main is a strop that is added at the head of the sail. This strop should be 1050mm long, 4mm spectra. Thread the rope through the head of the sail and attached it the shackle on the wire strop on the end of the main halyard. Apart from that the sail is rigged as per the standard main. You will need to use the halyard lock at the top of the mast (hence the extended strop) so the compression load is not taken on the mast.

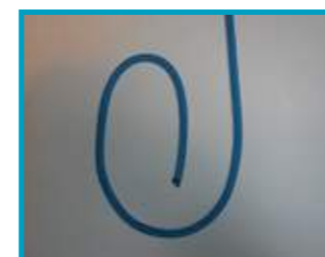


#### 1.3 BASIC KNOTS

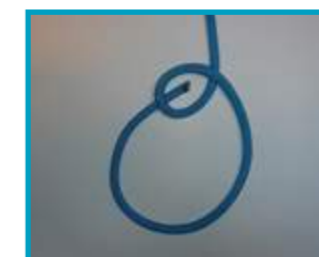
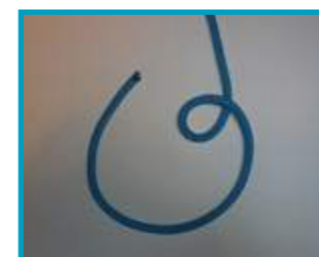
Before starting to unpack your Weta you should invest time to learn and perfect some basic sailing knots. This will greatly reduce your rigging and de-rigging time and make the sailing experience safer and much more pleasant. There are many knots you can use, but with these four you can usually get most jobs done. These knots are both easy to tie and untie even after being used under high loads.

##### 1 BOWLINE

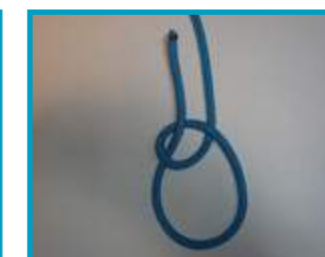
This knot is used to secure the end of a line to an attachment point. Some of the uses on the Weta include the Mainsheet, Gennaker furling line, Gennaker and Jib halyards and trampoline ties.



Form a loop in the line with the tail length defining how big the loop will be,



Pass the free end through the loop,



Then around the standing end,



Then back through the loop to complete the knot.



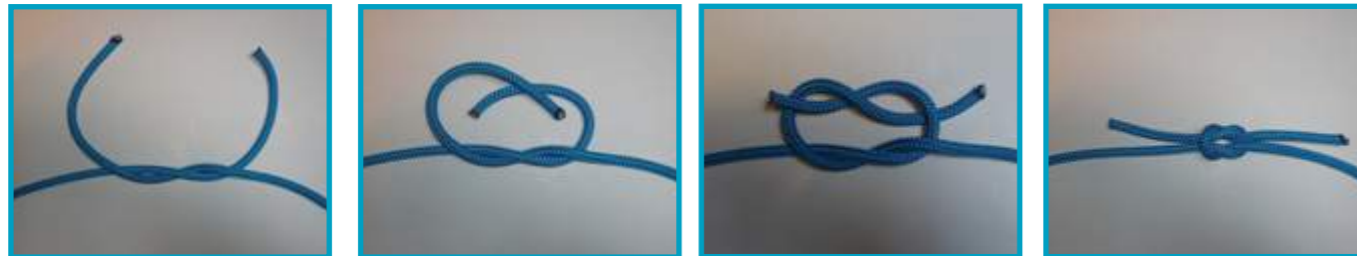


## 2 REEF KNOT

The reef knot is used to tie two loose ends of rope the same size together. Some of the uses on the Weta include tying side stays to trampoline and fastening the battens.



Cross the two line ends over each other (right over left), Wrap the right line once around the left line,



Cross the two line ends over each other (left over right),

Wrap the left line once around the right line and pull tight to complete the knot.

## 3 FIGURE OF EIGHT

The figure of eight is used as a stopper knot at the end of a line. Some of the uses on the Weta include the Gennaker, Jib and Main sheets.



Form a loop at the end of the line,

Loop the loose end around the standing end,

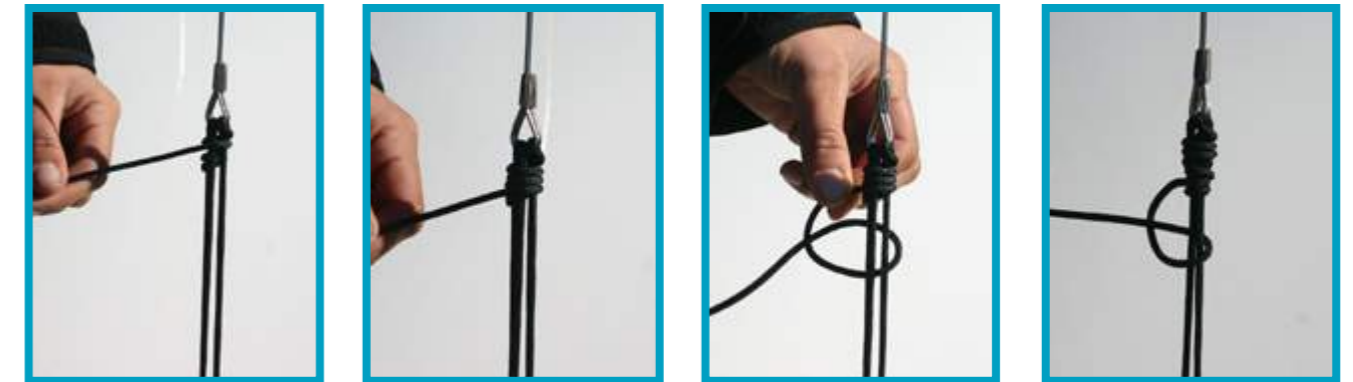


Pass the end through the loop to complete the knot.

The Rigging guide is in three sections. The first section outlines a few knots that are useful to know and will help make your Weta sailing experience more enjoyable. The second section is on how to put the boat together after taking delivery of it. The last section is a rigging guide for each time you go sailing.

## 4 HALF HITCHES

Half hitches are used to secure the end of a line when it is under load. Usually the line is looped around the fastening points a few times before tying the knot to reduce the load on it. If there are not enough loops and the load is not reduced enough this knot can be difficult to untie. It is a handy knot to get rid of excess line. Some of the uses on the Weta include the forestay line and trailer ties.



1. Loop the free end around the standing end several times to ensure the knot is easy to undo
2. Make a loop and pass the free end through the loop you have made, inbetween the standing end and the loop.
3. Repeat the process a number of times to use up the rest of the line and complete the knot.
4. There should be at least three loops to ensure a secure knot.





### 2.1 GENERAL SAFETY

You should be aware of these key points before sailing the Weta.

- Always wear a life jacket
- Always check the weather forecast.
- Never rig a boat near power lines – a carbon mast will conduct electricity
- Have a safety plan
- Have a safety kit for longer voyages
- Select the right sail plan for the conditions.
- Wear warm clothing when required and plenty of sunscreen
- Know your limits
- Check all knots, strop, stays, fittings and lines for wear.
- Know how to use the Safety Harness correctly

Remember: Recognize dangerous situations and know your own capabilities. The correct preparation greatly reduces the chances of finding yourself in trouble. It is always better to be on the conservative side as you can always go further, hoist more sail, and take more people out etc if you are in control. As you build confidence and experience you will be able to enjoy sailing safely in most conditions.

#### Have a safety plan for every outing

It is a good idea to always have a “worst case scenario” safety plan before going out sailing.

Ask yourself the following questions:

- What is the worst thing that could happen weather wise today? (wind, waves, temperature, light, visibility, sun, tide)
- What is the worst thing that could break on the boat?
- If either of these things happened what would I do to be safe?
- How many boats are around to help if I get in trouble?
- How would I communicate if I were in trouble?

For example: If you lost steerage / sail power where would you drift to? – offshore into the ocean, towards rocks with breaking waves, or a sandy beach?

It is always a good idea to let someone know where you are planning on sailing and roughly what time you plan to return.

Sometimes getting into trouble can be as easy as being becalmed in a strong outgoing tide. The solution can be just as easy by having a phone/ VHF radio and a paddle out with you.

By having this safety plan you reduce the risk of getting into trouble, and if you do find yourself in trouble you can act quickly. This does not need to be a written plan, but should be clear in your head.



#### Have a safety kit for longer voyages

When you do longer destination or offshore voyages we recommend you have a basic safety kit. Think about including the following in your kit: Flares, cell phone or VHF radio, compass, thermal blanket, basic first aid, water, food, extra clothing. Depending on the conditions and location you may be other additions to this kit.

#### Rigging with power lines

See the warning in rigging guide and tips, but be sure to check for overhead power lines whenever you rig the Weta.

#### Deciding when and where to sail and in what conditions

This is probably the most important safety decision you will make. It is best to build up your competence and confidence before sailing in more challenging conditions. Start in sheltered waters before testing more open seas. Talk to locals to gather knowledge of any potential hazards and recommendations and study the relevant charts. It is essential that you are familiar with your sailing area and are aware of any hazards.

#### Clothing selection

Sailing is much more enjoyable when you are warm, so make sure you have plenty of clothing and are prepared to get wet when sailing. If you are going on a long sail or plan to be out all day, consider how the conditions might change or how cold you will get being wet all day. See section 2.7 for an overview on options available.

#### Life Jacket

Always wear a life jacket. Never take anyone for a sail without a life jacket under any conditions. Choose a life jacket that is legal and rated for your body weight. It should be a snug fit with all the straps done up. Do not put an adult's life jacket on a child.

#### Knowing your limits

The best safety advice is to know your limits and sail within them.

#### Safety Harness

If you fall off the Weta it will not capsize and the boat will drift faster than you can swim. This is a problem if you are sailing alone or with an incompetent crew. To overcome this problem a safety harness system has been provided. This is fantastic if used correctly, however you must read, understand and practise these instructions before sailing the Weta. The worst possible event would be to capsize with the harness on, not be able to release the clip and get tangled under the water.



You should practise wearing the harness in ideal conditions so you get used to the safety release clip. If you do capsize then you should release the clip immediately as the boat is unlikely to drift away. This is an unlikely scenario, but has happened in various other classes. Again it is about preparation, practice and sailing within your limits. See section 1.3-9 for detailed use of the safety harness.

### Sail selection

With the versatility of the Weta you are able to sail in many conditions not possible in other similar boats. By sailing just under mainsail, a relatively inexperienced sailor can manage the boat in 20+ knots with ease. It is always best to go out under-canvassed than over-canvassed as it's easier to come in and hoist more sail than reduce sail while under pressure on the water.

On a windy day sail selection is the next most important decision if you decide to go out. When starting out it is always best to be on the conservative side when choosing your sails and if need be, come in and put more sail on. If you are unsure about the conditions you could still rig all 3 halyards. This gives you the option of coming in and hoisting another sail without having to drop the mast and run the halyard.

Use the gennaker in lighter conditions until you gain confidence to sail in stronger winds. Once you are experienced enough you will always be able to use the gennaker no matter how much wind there is. (This is because the gennaker lifts the bow so in gale force winds it is advantageous to use it).

The sail selections ranked most difficult to easiest to manage are as follows.

1. Main + Jib + Gennaker
2. Main + Gennaker
3. Main + Jib (However this is more difficult upwind in a breeze than Main + Gennaker)
4. Main Only (The main sail alone has a surprising amount of power for its size – so it is recommended for single handed sailing in 15+ knots.)

## 2.2 LAUNCHING /RETRIEVING

By following the tips in this section you should be able to launch and retrieve your Weta easily in all conditions without damage. Once the boat gets away on you it can easily cause damage and be difficult to gain control of again.

### General Tips for Launching/Retrieving

- Always keep the trolley support ropes cleated until the boat is in the water. This is so the boat does not get blown off the trailer.
- When pulling the boat on or off the beach trolley, it is best to do it in a depth of water where the boat floats off (approx knee deep). This makes it much easier.
- Always pull the boat on/off the trolley with its bow pointing into the wind. This may mean you need to go out a little deeper with the trailer in some conditions.
- Avoid hoisting the sails until you are close to the water.
- When pulling the boat along the beach with the sails up, try to keep the boat pointed into the wind as much as possible. Sometimes in a cross-shore wind you will need to zigzag down to the water. This can be avoided by hoisting the main and jib as close to the water as possible as described above.
- Always hold the boat by the bow when it is in the water. This is because if you try to hold the boat anywhere else the sails can power up and the boat will sail away. By holding the boat by the bow it naturally sits in to the wind with no effort and is easy to manage. There have been some instances when sailors have tried to hold the Weta on the side and managed to lose it for an unmanned sail! This happens because the boat is well balanced and will not capsize so it powers up very easily.

### Getting the boat on and off the Beach Trolley

The easiest way to get the boat on and off the beach trolley is to use the water to float the boat into position. This has to be done in deeper water (knee – thigh deep water). If you try to pull the boat on in very shallow water there is a lot of friction between the hull and trolley making it difficult. The only disadvantages of floating the boat on and off are the need for deeper water, you get a little wetter and if your trolley is not set up correctly it will float a little, making it difficult to pull the boat on and off.

In some cases it is not possible to get the trolley into deeper water. In this shallow water situation the following tips are recommended:

- Make sure the foam cradles are wet and sand/mud free so the boat will slide on and off easily.





- The trolley ties should only be untied once the boat is in the water when launching. They should also be the first thing you tie on before pulling the boat out of the water when retrieving the boat.
- You can drill extra holes in the trolley supports to allow them to fill up with water and sink more easily if you are launching in surf.
- You can add extra padding to the beach trolley if you think the hulls will hit bare aluminum sections during launching/retrieving and cause damage. This can be done using appropriate foams/plastics and some contact glue.

#### **Setting off in an onshore wind**

This can be difficult because you need to be able to sail upwind straight away to get into deeper water. You may also need to be able to manoeuvre (tack) to avoid obstacles. The Weta needs a reasonable amount of centreboard for it to make progress upwind. The best technique to launch is to take the boat (by the bow) into water that is deep enough to get the centreboard and rudder nearly all the way down. For most adults this is usually just over waist height.

You should make sure there are no sandbars or rocks out past where you board the boat.

The technique to get sailing once at this depth is as follows:

1. Put the centreboard in when standing in front of the trampolines. (From the front of the boat so you have control if the wind shifts/a wave hits etc). This is difficult in waves/high winds and takes practice to perfect alone.
2. Point the boat close to the wind on the tack you will leave the beach on. (Decide which tack while on the beach prior to launching).
3. Make sure the sheets are eased.
4. Jump into the boat over the front beam and pull a little jib sheet on (if it is up). This helps get the bow down when you start sailing.
5. Move to the back of the boat and put the rudder down. (Be careful not to hit the bottom). This step can be done during step 1 if you have another person to help launch.
6. Take the tiller and mainsheet and sail keeping as close to the wind as possible. You will have to get some speed on for the foils to work so you do not just drift sideways.
7. Look out for swimmers!

With more practice you can launch from shallower water, but it is worth getting a little wet to make a safe, accident free launch.

With 2 people it is much easier. The crew holds the boat by the bow while the skipper gets the foils down and the sail controls ready. The skipper then takes the helm, the crew jumps in and you are sailing!

It is not recommended to launch the Weta in surf. This is however sometimes unavoidable. Note the Warranty on hulls is not covered for launching in surf. If you do, however, we provide three very important tips:

1. Always point the bow into the waves. This is achieved by having a person holding the bow into the waves. If the boat gets side-on to the waves it will be very hard to hold onto and may get swept up the beach, capsize and break.
2. Have a person hold the bow while you get into the boat. Then watch the waves and take your time to plan your take off, go in between sets of waves
3. Get the boat into as deep water as possible to get both foils fully down and locked before boarding and sailing. It is very difficult to try locking a rudder down while trying to sail out through surf.

#### **Coming in with an onshore wind**

This is relatively easy. Just make sure that the gennaker is furled away in plenty of time, all sheets are eased and the centreboard and rudder are up before it is too shallow. It is usually a good idea to have the rudder half way up when you are very near shallow water. You must however remember to keep rudder loads at a minimum when it is not fully down as the strains are significantly increased. See section 2.6 for more detail.

If there is a lot of wind and waves you can drop the main while out on the water and sail in under jib only (or bare poles if you have no jib up). Just make sure you allow plenty of time to get the sail down and secured and position yourself directly upwind of your destination landing spot. When you are in waist deep water, round the boat up into the wind, jump out over the front beam and hold the bow.

You use a similar technique in high surf conditions however you sail the boat right up into knee deep water, as the waves have usually broken and are just white wash which is easier to manage. You pick a lull in the waves when you surf in. The centreboard can be up and the rudder is down. You usually let it hit the bottom and kick up if it is a sandy surface.

#### **Setting off in an offshore wind**

This is the easiest condition for launching a Weta. Any hazards that are directly off shore need to be identified and you must give yourself enough time so you are sailing and under control when you reach them. You can launch just as you do in an onshore breeze described above (however you have the bow pointing towards the shore into the wind). Alternatively when you are more experienced you can just push off and jump into the





boat, then put the foils down and sheet in as the boat drifts away from the shore.

### Coming in with an offshore wind

The trick to this is to keep the foils down as deep as possible without hitting the bottom. Usually in an offshore wind you sail into the lee of the shore meaning there is less wind and things happen more slowly giving you more time to react. If it is possible you should overlay your destination spot on the most suitable tack and then slowly lift foils as you get shallower. When you are in waist-knee deep water lift both foils up completely and jump out over the front beam then hold the bow.

## 2.3 UPWIND SAILING

The boat is very sensitive to mainsheet tension when sailing upwind. The boat can sail reasonable tacking angles when tuned correctly. Play around with the tension in the sheet in different conditions and see how the boat feels. Too much tension and the boat will stall out – Too little tension and you will be reaching on each tack making little progress to windward. The basics of tuning the sails are outlined below. These are the practical points you will feel and see while sailing the Weta. To get a deeper understanding into the aero and hydrodynamics of sailing we suggest reading other literature that is well published.

### Sail adjustments

The Weta is a very simple set up and almost any novice sailor can sail the boat around a race course easily. Although simple, there are however fine tune adjustments and combinations of controls that can make vast speed differences. The following adjustments can be made to the sails while sailing upwind.

**Main Sheet** – This is the “accelerator” of the mainsail. This trims the largest and most powerful sail on the boat. Effectively on the Weta this defines the foot and leech tension - thus defining the overall sail shape. Too much and you will “choke” the boat and it will stall. Too little and you will be underpowered with an inefficient sail shape

**Jib Sheet** – This is the “accelerator” for the jib sail. It has the same characteristics as the main sheet, but for the smaller forward sail.

**Downhaul (Cunningham)** – This controls the shape in the mainsail. By pulling this on it de-powers the main sail. General rule is the more wind – the more cunningham you pull on. What is actually going on is the ‘draft’ of the sail is being brought forward, reducing the depth of the sail. You will also see the top of the sail flatten out as this is pulled on and the mast will have a slight bend in it at the top. This is a very effective control for de-powering the sail. The downhaul should be loosened when sailing downwind.

**Jib Halyard** – Effectively this is the downhaul for the jib sail. It has exactly the same function. The higher the wind strength, the more halyard tension you should have and the reverse applies. Fine tuning is explained more in section 4.4.

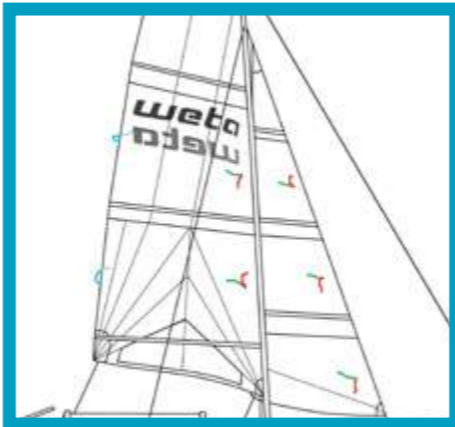
### Telltails

These are the ‘speedometers’ on sailing boats. If these are flowing and acting as they should be you know your sails are working efficiently. They are a simple concept that give you direct feedback on the airflow over the sails. Without going into too much theory, the following diagrams illustrate what you are looking for when sailing upwind.

First of all you must recognize the difference between the windward and leeward telltales. The windward telltale is on the windward side of the sail. This is on the side of the sail closest to you that is seen directly. The leeward telltale is on the leeward side of the sail and is seen through the sail. There are also leech tell tales, but these are for more advanced sailors and do not give as important information as luff telltales.

The following diagrams illustrate three situations that you can find yourself in. Please note that the size of the telltales is exaggerated, the green telltales are on the windward side of the sail, the red telltales are on the leeward side of the sail, the leech telltales are blue and both sails are assumed to be trimmed evenly.





### Ideal situation

- The windward telltales (green) are flying (usually slightly higher than horizontal)
- The leeward telltales (red) are flying (usually slightly lower than horizontal)
- The leech telltales (blue) are flying

### Pointing too high/ Under-trimmed

- The windward telltales (green) are stalled
- The leeward telltales (red) are flying
- The leech telltales (blue) are flying

### Pointing too low/ Over-trimmed

- The windward telltales (green) are flying
- The leeward telltales (red) are stalled
- The leech telltales (blue) are stalled

### Tuning your sail

The art to tuning the sails upwind is described in this section. Please note that this technique is based on a set heading. You should play around this heading to find the optimal VMG (velocity made good) for the boat.

1. Point the boat in the direction to wish to head. This may actually vary with the adjustment of the Jib sheet. Once you are experienced (and have the goal of best VMG) you will know roughly what jib tension to use, set this, then sail according to the tell tales.
2. Trim the jib so that the tell tales are flying. If you see any creases or sagging in the sail, you may need to adjust your halyard tension.
3. Once the jib and heading are set, trim the main sail so the telltales are flying.

When conditions change you will go back to step 2 and re-tune the boat. Once the boat is trimmed you sail by steering according to the telltales on the luff of the jib. When sailing under main only you will ignore step 2 and just sail off the telltales on the luff of the main.

This table below is a rough guide on what sort of adjustments you should be sailing with in a range of conditions. This is based on the goal to have your sails working efficiently with maximum allowable power. This guide is simplified and should be used as a basic starting position for novice sailors. To improve your sailing skills and increase your knowledge we recommend you read the tuning guide and other literature as well as talking to other Weta sailors. There are also internet forums you can join to communicate knowledge. The real learning begins when you start racing and you can then observe other sailors and their rig settings. Then of course tactics is another massive learning curve!

	0-5 knots	5-15 knots	15-25 knots	25+ knots
<b>Main Sheet</b>	Sheet loosely careful not to 'choke' the sail and stall out.	Increase the tension as the wind increases but still be careful not to 'choke' the sail.	Sheet in tight so the head of the sail is powered up.	Begin to loosen the sheet in gusts as the boat gets overpowered.
<b>Jib Sheet</b>	Sheet loosely careful not to 'choke' the sail and stall out.	Increase the tension as the wind increases but still be careful not to 'choke' the sail.	Begin to loosen the sheet as the boat gets overpowered.	No jib used in these conditions.
<b>Downhaul</b>	None.	None, unless the boat is overpowered then pull on a little until the boat is manageable.	Keep pulling more on so the boat is manageable.	Maximum.
<b>Jib Halyard</b>	Very little. Enough so there is either no or a slight sag in the luff of the jib between the hanks.	Just enough so there is no sagging in the jib luff.	Just enough so there is no sagging in the jib luff.	Maximum. (make sure you do not damage the sail by pulling too much on!)



#### 2.4 DOWNWIND SAILING

Sailing a Weta downwind is completely different to sailing a Weta upwind. There are different 'rules' of what and what not to do. The tuning of the boat and the aspects you focus on are both different. The Weta is especially unique to sail downwind being a trimaran with its unique rig plan. You get a combination of characteristics from dinghies, skiffs and multihulls – all adding up for an exciting ride!

Sailing downwind without the gennaker is similar when compared with most other boats – just ease sheets and point the boat where you want to go. You should release the downhaul to relieve the load on the sail and increase its power.

Sailing with the gennaker is simple – but there are a few important "tricks" that need to be employed to avoid getting into trouble.

A good place to start is to have the gennaker rigged correctly before sailing:

**Make sure there is plenty of halyard tension.** This should be the last halyard tensioned as sometimes the jib halyard affects the luff tension in the gennaker. The reason for this is if the luff is slack, the sail will not furl away nicely and you will be left with unwanted, incorrectly furled sail flogging upwind.

The gennaker should only be used downwind or tight reaching in the light. It should only be unfurled while sailing on a reach or downwind.

Most sailors are used to de-powering their boat by luffing while sailing upwind. This is not the case with asymmetrical sails downwind. When sailing with a gennaker downwind the opposite applies and you should bear away to de-power.

**To get more power - Sail higher** (closer to the wind – push the tiller away from you) this increases your apparent wind and your projected sail area to the wind. This significantly increases your power and the boat loads up and takes off!

**To reduce power – Sail lower** (away from the wind – pull the tiller towards you). This has the counter effect of the above. This is an extremely effective way of easing the load on the boat. You can actually sail the boat in 25 knots quite calmly with all sails up by sailing directly downwind.



The golden rule to remember when sailing in a breeze with the gennaker is **to head down if you feel like you are losing control**. Just hold on as there are a few G-forces involved that want to throw you off the boat! This should also be combined with easing the gennaker sheet. Be sure to have your safety harness on!

You can sail downwind in 20 knots with the gennaker up and have a nice easy sail eating a picnic lunch if you are heading directly downwind. Head up 30° and you will be having a fantastic ride with lots of speed and spray! With a little experience you will gain confidence and have control. You should practise loading and unloading the boat in lighter winds to get a feel for how the boat reacts to heading before using the sail in stronger winds. A great tip is to make very small adjustments to the helm. This is because the Weta is well balanced and requires minimal helm, making the boat very sensitive to this.

Another important trick when sailing with the gennaker is to **make sure you sail directly downwind when furling the gennaker away**. If this is not done you will get a 'bag' at the head of the sail where the gennaker does not furl properly and it will begin to unfurl itself while sailing upwind. If this happens just release it again – sail directly downwind and try again. It is always a good idea to give yourself plenty of room when approaching a reef, beach or bottom mark to get the sail furled away. You will learn about this very quickly when sailing the boat! This is a standard technique for any boat with a downwind sail.

The reasoning for this is that when you head directly downwind the gennaker is sheltered in the lee of the main sail reducing the loading on it. This allows it to roll up with no creases and be securely furled so the wind cannot get inside and blow 'bags' in the sail. It is one of the small trade offs for having a sail that is so easy to use!



**Gennaker Trouble Shooting**

Problem	Cause	Solution
When I furl up the sail I get a 'bag' at the top and it flogs in the wind	The gennaker is not being furled away while sailing directly downwind and/or there is not enough halyard tension in the gennaker.	Sail directly downwind when furling way and pull on more halyard tension if needed.

**Trimming the Gennaker**

Trimming the Weta gennaker is the same as trimming any other dinghy gennaker. The only difference is that the Weta gennaker is cut quite flat (so it can furl away nicely) the trade off of this is it collapses more easily. The ideal trim is when the luff (front) of the gennaker is just beginning to curl around. If it curls around too much – sheet in. If it is not curling around at all - the sheets need to be eased. This is possible in lighter airs with the Weta but in stronger winds as soon as the luff curls the gennaker collapses, so you should to slightly over sheet the gennaker and sail more by feel.

**2.5 CAPSIZE RECOVERY**

The Weta is very easy to right and the process is simple, but you still need to know the correct technique and steps to take to ensure a quick, safe and efficient recovery. Make sure you have read the instructions and can correctly use the safety harness. The procedure to right the boat is as follows:

**1. Safety Harness Use**

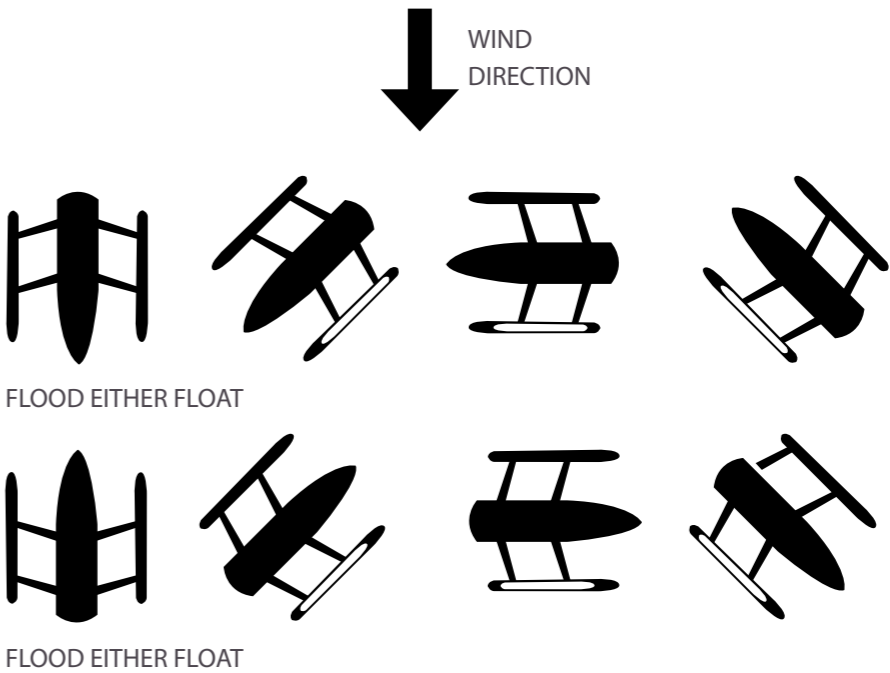
You must know how to use the safety harness correctly. Read section 1.3-9. If you capsize the first thing you should do is release the safety harness at the earliest possible opportunity. This is usually as the boat is going over. This is most important so you do not get stuck under the boat with the harness on. If you do get stuck under water with the harness on, remain calm, locate the quick release line and free yourself.

**2. Furl away the gennaker**

If you have capsized with the gennaker up it should be furled away before righting the boat. It is possible to right the boat with the gennaker up, but this makes things more difficult. This is done by swimming to the main hull where the furling line is located and pulling it in. Sometimes it will get caught up (sheets) so you will only be able to get it in half way. This is better than nothing.

**3. Choose which float to flood**

**This decision determines how easy the rest of the righting procedure will be.** You should choose the hull that is on the lee side of the oncoming wind. The following diagrams show the best hull to flood in different orientations to the wind. This is important because your selection can mean the wind and waves are working with you or against you. If you make the wrong decision – it is no problem, you will just have to swim the bow of the boat around through the wind before righting the boat.





### 4. Remove the hatch cover

Undo the hatch at the back of your selected float. Newer Weta come with a hatch retaining line, if your Weta does not have one, consider fitting them or be careful not to lose the hatch!

### 5. Flooding the hull

Sit on the bow of the float you are trying to flood. This helps the air escape and water enter. Get all the air out before you try to right the boat.



### 6. Righting the boat

Once the hull is flooded stand on the underside of the beam and wait for the boat to start righting itself. If the boat comes up to 45° and no further it is likely the boat is in the wrong orientation to the wind (described in step 3). You will need to swim the bow around through the wind so the oncoming wind is on the other side of the boat.

### 7. Move over the boat onto the centerboard.

As the boat comes up climb from the underside of the beam onto the centreboard.



### 8. Climb over the centerboard onto the main hull

As the boat rights fully climb from the centreboard over the front beam into the cockpit. If you can't get into the cockpit in one smooth move, make sure that you hold onto the boat. If you get separated from the boat at this point it will be hard to get back to it.

### 9. Take the helm and release the sheets

Now the boat is upright you should move towards the back of the boat, take the helm and release the sheets. If you did not manage to completely furl away the gennaker as described in step 2 you can do this now.



### 10. Sail on a heading so the water drains out

The best heading to take is to sail half way between a reach and upwind (approx 60° to the wind). On this heading your sheets are loosely in (not maximum power) and the flooded hull is on the windward side. Position your weight so that you are at the back of the boat helping the water drain out. You should be able to get all but 1-2 litres of water out.

### 11. Replacing the hatch

This needs to be done carefully. Sail on the same heading as in 10, but slow right down by easing sheets. Move to the back of the boat on the side where you can approach the hatch, reach over and screw the cover back in. You can completely stop the boat to do this with less risk of losing the cover, but you will get a little water in the hull. Once you have secured the hatch back in you are ready to sail again!



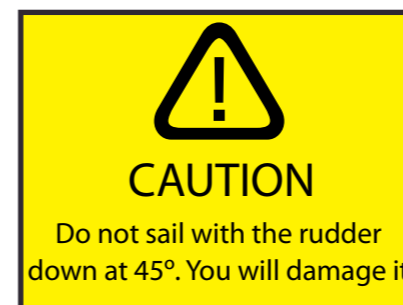
### 12. Positioning / technique if you have a crew

If you have a crew on board it is usually an easier exercise to perform. They have 2 options for positioning during righting.

- i) They follow the skipper during the process – sitting on the flooding hull, walking on the underside of the beam, onto the centreboard and climbing over the hull into the cockpit.
- ii) When the boat is on its side (step 7) the crew swims around the boat and sits in the water next to the centreboard in the cockpit. When the boat is righted the crew is scooped up by the hull and in the boat ready to help.

Either option works well. (ii) is best suited for an experienced skipper and relatively inexperienced crew in warmer climates.

Once the boat is upright the crew can ease sheets, furl the gennaker and replace the hatch cover while the skipper focuses on helming the boat in the correct heading.



## 2.6 RUDDER USE

Like all small sailing dinghies the rudder is a sensitive component and needs to be looked after and maintained in order for it to function correctly.

Weta Marine provide the following advice:

- Never lift a boat by holding onto the rudder (or any part of it) as this will result in damage to the rudder system.
- Avoid sailing with the rudder blade when it is not completely down. If you have to (launching in shallow water) use very little helm, do not load up the boat by sheeting in the sails and do not scull. Put the rudder completely down at the first possible opportunity.
- Make sure the rudder is set up correctly before first use. If something on your rudder feels loose it is likely there is a problem. Check over the bolts and the fit of the blade in the stock. If in doubt you can contact your dealer for help.



## 2.7 CLOTHING

To maximise enjoyment of your Weta sailing it is good to have warm and comfortable sailing gear. There is a great selection of equipment that is reasonably priced. You have purchased your Weta, so why not spend a little more and be comfortable while you are sailing.

If you are introduction someone to sailing, such as your wife or children it is much more likely they will enjoy the experience if they are warm.

When selecting a jacket it is important to get one that is suited to Weta use. A waterproof and wind blocking 'shell' type jacket is the best type to get. You need to be prepared to get wet and a bulky jacket with a warm lining will get wet and heavy. You also want resonable freedom of movement which a bulky jacket may not give you.

You can achieve an effective lining by layering up underneath with quick drying, warm thermals or a wetsuit. A lightweight jacket that keeps the wind and water out is a good option. This means you can use it in warm and cold conditions depending on what you layer up underneath.

Drysuit selection: A couple of points to take note of when selecting.

1. Get a suit with the zip on the front if you plan on sailing yourself as you cannot zip up a back entry suit alone. Also a top to bottom front zip is useful for guys when nature calls.
2. Neck seal. There are two options. It is recommended to go for a neoprene seal over a latex seal as the load is distributed evenly over the neck increasing comfort. These seals are also more easily replaced.

It is recommended you consider this advice then head to local marine clothing store and seek their advice as to the best clothing as all locations have different sailing conditions.

The table on the following page lists a few options with advantages, disadvantages and suited uses.

Item	Usage / options	Advantages	Disadvantages
Wetsuit	All conditions	Warm and plenty of options in length / thickness / style	Can easily get too hot. Cheaper wetsuits can be restrictive in movements.
Drysuit	All conditions best in colder	You keep dry, can layer clothing underneath to suit conditions, easy to use	Can be restricting if you have a poor fitting suit, can be bulky, can get too hot in light air
Jacket Top	All conditions	Can store easily in boat, can layer with other clothing	
Thermal Underwear	All conditions	Lightweight, warm, layerable, dry quickly	
Wetsuit Top	All conditions	Warm, layerable	
Rash top	All conditions best in light sunny conditions	Protect skin form rashes and sun, lightweight and cool, fast drying	
Boots	All conditions	Protect feet, keep feet warm, options – rubber, wetsuit, deck shoes	Loss of feel in the boat for racers
Gloves	All conditions	Protect hands, keep hands warm, plenty of options	





### 2.8 GEAR STORAGE IN THE BOATS

There are a number of options for storing gear on your Weta whether it is for an afternoon sail or a 5 day voyage.

- Hatch fitted in the hull
- Removable storage bag in the cockpit
- Inside the floats through the inspection ports
- Dry bags
- Lifejacket / Jacket storage

#### Hatch fitted in the hull

This is the best option for mass storage on the boats. The major and only disadvantage of this is the potential for leaking. Any boat this size with a hatch opening will leak some water – it is just a matter of how much. A big advantage for a hatch is that you can let the boat air and dry out – although this is not as important on the Weta because the construction is vacuum bagged, so there are no air pockets for water to seep into. You can also repair / add fittings with access to the underside of the deck. Note: Given that the construction of the boat is FPR we recommend storing clothes and food in a sealed bag inside the hull as there will be some residual fibreglass dust inside the boat.



There are 2 possible places for a hatch:

1. In front of the centrecase. This is the best position as it is a compartment contained between the mast and front beam bulkheads. It is also an ideal position to add any extra weight. (a, b)
2. In the cockpit sides. This is usually only used if you are repairing/ replacing deck hardware and need access to the deck underside. Storage here is usually done with a hatch bag of some sort so you do not lose your gear under the cockpit.

Important points to remember when installing: **As soon as the hatch is distorted in shape it will leak!**

1. When cutting the opening for the hatch make sure it is a loose fit. If it is tight the hatch will be distorted when fitted and will cause leakage when the hatch is in.
2. Use plenty of silicone to seal the sides of the hatch. Usually it is not necessary to use screws when fitting a hatch as the silicone does the job. Avoiding screws also reduces the likelihood of distorting the hatch.
3. Select a quality hatch that is likely to leak the least. There will not be a hatch that is 100% watertight. This is because as the boat rides over waves the hull expands and compresses effectively making the boat suck and blow air/water through any opening. The breather hole does most of this, but there is always a little that comes in from somewhere else.



removable storage system. (c)

#### Lifejacket / Jacket Storage

The best storage for small items is on you! Most lifejackets and jackets have a number of pockets on them which are great for things like drinks, tape, sun block, rope, snacks, keys etc.

#### Removable storage bags

There are a number of options within this category. These are a great quick solutions that are effective without much investment and do not require any modifications to the hull. Dry bags are cheap and easy to use. They come in all shapes and sizes and can be attached to the trampolines or main hull. Attachment points that have been used are the hiking straps, grab handles, safety harness padeye, centerboard handle, mast step and trampoline eyes. All of these have their benefits depending on the bag type. Some owners have glued a plastic track to the cockpit side and have a bag with a boltrope that slides onto the track so they have a simple



### 1 Mainsheet System

The mainsheet that is supplied with the boat is 5:1. There are multiple ways to increase this purchase and create a 6:1. You could also substitute blocks to suit your personal preference. The supplied mainsheet system has two adjustments to achieve your personal preference. These are the height of the block and the angle of the cleat.

### 2 Main and Jib Sheet Configuration

A tip for single handed racers is to tie the tail of the mainsheet to the jib sheets. This means that you can be hiking out on the trampoline and have access to both the main and jib if you have one in your hand as they are attached to each other.

### 3 Sheet Lengths

The length of the sheets has been optimized for efficiency without cluttering up the boat, especially the gennaker. It is personal preference if owners wish to shorten or lengthen them. The diameter chosen for the sheets is also personal choice.

### 4 Trampoline Lacing Adjustment

You can adjust the spacing of the lacing as instructed in section 1.2 so the trampolines slide in and line up perfectly with the blocks/cleats.

The best way to do this is to put the beams in the sockets and set up the trampoline fastening lines (cheek blocks and cleats) to the correct alignment you want and then tightly lace up the underside of the trampoline. You will be left with a perfectly aligned trampoline.

### 4 Foam Pads on beam rails

Some owners cut down yoga mats and put them in between the tramp and the rail to ease the ride when sitting out on the float.

### 5 Wind Indicators

There are four options outlined here on how to attach wind indicating devices on the Weta. It will come down to personal preference and how you use your Weta as to what option works best for you.

- 1 Windex or similar attached to the top of the mast. This option is simple to install (either small rivets or tape) and gives very accurate readings. The only downside is you have to look at the top of the mast to see it and remember to attach it before raising the mast!
- 2 Windex or similar attached to the end of the prod. This option is installed similar to the mast top, but needs to be clear of the furlingdrum and stick out far enough so the gennaker will not get

caught. You will also need to bend the shaft so the head is orientated correctly. It is a place where you have great visibility and a reasonable wind reading.

- 3 Pieces of wool/audio tape tied to the side stays. This is a quick cheap and simple way to get a rough reading however these are not so durable and are not in the best position to take readings from.



## 3.1 TRANSPORTING YOUR WETA

### Tie Down Points

There are a few main points you need to know that are effective to safely tie down a Weta for road trailing. These are described below. Each point is backed up with a photo example. Every one of these is important and has a purpose which is described. These points are the bare minimum for a short trip. We strongly recommend more secure attachment for longer journeys.

### **Securing the Weta to the beach Trolley**

#### **1. Weta bow to beach trolley (a)**

This tie prevents the Weta main hull from sliding back or forward on the beach trolley. There are a number of ways to tie it, but it is recommended to tie directly onto the bow eye fittings for a secure fastening.

#### **2. Weta main hull to beach trolley (b)**

These ties hold the Weta main hull to the beach trolley and prevent it from bouncing up and down. Usually the weight of the Weta does this, but over bumps the Weta can jump. For long voyages an extra tie is recommended. These ties are also essential to keep the Weta stable when assembling the beams to the main hull.

#### **3. Cunningham to front trampoline grab handles (c)**

By securing the trampolines like this you hold the float/beam structures down and prevent them from sliding back on the trailer.

#### **4. Mainsheet to back trampoline grab handles (d)**

By securing the mainsheet here you do the same as the Cunningham line,





but prevent the float/beam structures from sliding forward.

### 5. Tie beam up to trampoline (e)

This tie is not necessary from a safety point, but does a great job protecting your Weta from rubbing/chafing. It just holds the beam off the main hull and protects the gel coat.



### 6. Check mast ties are on (f)

It is always a good idea to check the mast ties are secure before traveling. On longer trips it is recommended to use more ties than shown as the shock cord is intended for short trips

### Securing the Weta/beach trolley to the road trailer

#### 1. Fastening trolley front to the trailer (h, i, j)

This is one of the most important ties when securing a Weta to a trailer (or any transportation platform). It anchors the bow to a point so it cannot move forward, back, side to side or up and down. It is possible to use a pin

here for a quick release system, but be aware of metal on metal wear. This is not recommended as it wears down both trailers and creates significant road noise. It is best used with a lubricated surface of some sort (acetyl) and a fool proof locking pin.



### 2. Picking the point where to sit the Weta trolley on the trailer

It is important to get this point right. This balance can determine how likely you are to damage your Weta. In some cases this will be pre-determined as the Weta trolley will sit on the wheels, therefore effectively on the axle which is the ideal position. With a combi trailer it is desirable to have the Weta load taken as close to the axle as possible. Here are some examples of sitting points that work well.

The trolley sits on its wheels (axle) and the front. (k)

The trolley sits on the frame just in front of the axles right up to the front end. (l)

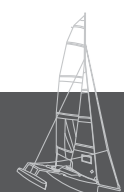
The trolley sits on the frame behind the wheels and near the front support. (m)



### 3. Picking the point where to strap the boat

Again it is important to get this point right as you can severely damage your boat if you get this wrong. One strap in the right position is fine for shorter trips. If you cannot get one strap in the correct position we recommend two straps as shown in the photos. These two straps should be used for longer trips. Be careful not to overtighten the straps as it is possible to break the beach trolley this way.

- A single tie down in the best suited position (n)
- A single tie down in the best suited position (o)
- Two tie downs in ideal positions (p)
- Two tie downs in ideal positions (q)





### 4. How to strap the boat

Webbing straps are best as they are gentle on the exterior gel coat of the Weta. You can use plastic clips or ratchet tensioners but be very careful when using a ratchet to tension the straps. **Do not over tighten the straps as you will damage the beach trolley.** It is best to just nip them tight. The best position to tie the boat is over the floats behind the front beam uprights and across the main deck behind the jib swivel blocks. (r)



### 5. Extra ties

Extra ties are recommended for longer trips. Some of these are shown here with a description of their function.

Ties on the back of the trailer (when trailing on wheels). These help to keep the boat central on the trailer and stop it bouncing. (s)

Tie on floats to the beach trailer. Just extra security to stop them from jumping off the trailer frame. (t)

### 6. Balance and tongue weight

To have a smooth trailing ride it is important to get the balance and tongue weight of the boat correct. The trailer should



be balanced symmetrically side to side. For/aft generally speaking it should have a tongue weigh of approximately 15-30kg (10% of gross trailer weight). If there is a negative tongue weight you are likely to experience sway in the trailer. Usually a good rule to use when minimising the load on the trailer is to position the Weta trolley near, or over, the trailer axle.



### Trailing Options

There are number of ways to get your Weta from "A" to "B". The most common and recommended way is to use a trailer. There are a few different transport options outlined below, but it is best to contact your Weta distributor for the best suited and most readily available system in your country. Usually it is possible to tie a Weta down to any utility/ garden trailer providing it is long enough.

#### Combi Trailer (a, b, c, d)

**Advantages:** Easy to load on and off with the low centre of gravity, lightweight, compact to store, takes minimal space, relatively cheap.

**Disadvantages:** Low to road and susceptible to stone chips, usually a slightly "rougher" ride as it is lightweight, can be expensive to make a one off if not a Weta specific production model.

#### Flat Deck/Utility Trailer (e, f, g, h, i)



**Advantages:** Can be a multi use trailer, usually a good ride, ability to have two Weta on top of each other with framework, boat is more protected from stones.

**Disadvantages:** High centre of gravity, can be more effort pulling boat up ramps (ramps are an extra part), usually larger than combi equivalent.





Ramps can be used to get the boat onto a utility trailer (j)



**Car Top / Ute Tray** (k, l)

**Advantages:** No need for a trailer, lower ferry charges etc

**Disadvantages:** Difficult to load on roof alone, need roof racks with a high load rating, generally takes longer to load up.



#### Other Considerations when Trailing your Weta

##### **Stowing gear in the boat when trailing**

The amount of gear stowed in the boat when trailing must be minimised. It is possible to load the sails and foils in the cockpit (must be secured) but this does increase the **stresses** on the beach **trolley** and is not recommended. This dynamic loading is significant when the Weta travels over the road and can cause damage to the trolley or boat.

##### **Lighting Board**

There are various options for lighting boards on road trailers. Most utility trailers have the lights built into them and this is usually sufficient. Combi trailers require a lighting board on the transom of the boat. An example of a system is shown adjacent. When you have a lighting board you need a long length of cable to connect it to the car. A good trick is to twist the cable to take the slack out of it to prevent it dragging on road. The trampoline cheek block and clam cleat can be used for securing the lighting board. (m, n, o, p)

### 3.2 WASHING YOUR WETA

The Weta design has taken into consideration use in salt water and the impact this has with corrosion. Each component has been carefully selected to minimize the effects of this. Where possible, metallic components have been replaced with high quality composites or plastics and if unavoidable stainless steel 316 marine grade has been used.

It is possible not to wash a Weta for an extended period of time and experience minimal corrosion – but it is recommended that the boat is washed after every outing to keep the boat in top condition. When doing this you should focus on any metal parts or areas that are likely to clog up with salt.

Make sure you wash the mainsail bolt rope and the mast sail track after each outing so the sail slides up easily. If the sail is hard to pull up, bring it back down and investigate, do not force it. It is a good idea to use some silicon spray so the sail slides smoothly up and down the track.

Always wash the sheets and halyards otherwise they will become stiff.

Wash both the upper and lower roller furler units after each outing to maintain smooth running.

### 3.3 LEAKS IN YOUR WETA

Water is an amazing compound and will find its way into any dry place it can. All Weta leave the factory after a pressure test but they cannot be guaranteed to be 100% watertight in their life. If you are getting significant amounts of water in the hulls you can perform the following tests and fix the problem. Short term water in the hulls is not a problem and the boat will not deteriorate. This is because they are manufactured using vacuum bag technology so the laminates are 100% resin soaked and water cannot penetrate into it. However like any laminate, water combined with heat causes osmosis and will deteriorate the laminates over time so it is recommended the boats are aired out and kept dry to prolong their lifetime.

##### **Float Hulls**

The floats are not designed to be 100% watertight. In heavy winds you should expect to get a few cups of water in each float. This is because we are yet to find a lightweight hatch that guarantees a complete watertight



seal when used in an underwater application. This is also not helped when the floats move through the water and go under compression and expansion blowing air out and sucking water in through microscopic gaps in the seal of the hatch. Some hatches work well and will not leak any water, but this is rare and you should consider yourself lucky if you get one of these! You can improve the seal by using Vaseline or similar, but this is normally a temporary fix as over time it picks up sand and dirt and becomes very difficult to work with. If there is a major leak in the float you should reseal the hatch as this is the only likely place water will enter the hull unless there has been some significant damage.

You will also get water inside the beams when sailing in heavy winds or have capsized (usually only a cup or two). To get this out simply rotate the float on the trolley so the beam ends point to the ground. Be careful the hull does not slip off the trolley.

#### **Main Hull**

Your main hull should be dry. The only occasion you will get water in the hull is through the breather hole if it has been windy with a lot of water splashing through the cockpit or you have capsized. To test if there is water leaking in the hull simply remove the bung and tilt the boat with the bow up so any water in the hull drains to the back.

If you are getting any significant amounts of water in the main hull you will have to find the leaks using the following test. This test requires 2 people to carry out.

1. Have a bucket of warm soapy water ready.
2. Block the breather hole under the rudder bar at the back of the boat with a piece of tape or similar. Do not permanently block this hole as this could result in major damage!
3. Remove the bung and blow 3-5 breaths into the boat. Keep the pressure in the hull by either blocking the hole with your thumb or keeping your mouth over the hole. If you have the right fitting on your bike pump you can put it in the breather hole. Alternatively you can use a vacuum on reverse but be careful not to put too much pressure in the hull as you can blow the deck off easily! You only require a small pressure differential to find leaks.
4. The second person rubs the soapy water solution over areas on the hull that could be potential sources of the leak. If bubbles appear then you have found your leak. You can make a 'film bubble' seal over the sockets and centre case to check they are not leaking. When you test the centre case seal the bottom of it (underneath the hull) with some thick tape and make a film bubble over the top. If this bubble bursts you can then put soapy water in the case and find the localized leak.

The places to look for leaks are: deck fittings, sockets, centre case and the hull/deck join. If you cannot find any leaks in these areas you should re-seal the bung fitting as this is the most likely cause.

It should be noted that any hatches that are fitted to the main hull are very likely to leak at least a little bit, so this is a good place to start looking for a leak. For correct installation see section 2.8

Any fittings on the hull can be fixed by removing the component and re-sealing it with silicone. Make sure to get silicone on the screw/bolt and around the base of the fitting. If there is a leak elsewhere on the boat consult your Weta distributor on how to go about fixing it.

#### **3.4 STORAGE AND SECURITY**

The best place to store a Weta is in a cool dry place out of the weather. This will prolong the life of your boat and will keep it in excellent condition. If you do store the Weta outside please be aware that the covers available for purchase are not designed to be used for permanent storage. Just like all other dinghy covers these are for occasional use. The reasons for this are that the heat and moisture can be a catalyst to osmosis in both the Weta gelcoat and the covers fabric. Recognizing that it is likely owners will store boats outside all year round a thick durable fabric has been selected that is most suited for this use.

It is a good idea not to leave the mast up. It takes 5 minutes to fold the boat up and put on the boat cover. You then protect the gelcoat, fittings, trampolines, mast, mast track and trailer wheels. This is a small investment of time that greatly reduces the effects of UV and dirt. By collapsing the Weta down for overnight storage it also reduces the windage of the boat. The Weta is a lightweight boat and it does not take much wind to blow it over/around. It is strongly recommended to secure the boat to the ground when it is being left for long periods of time and could be subjected to high winds. Two of the easiest and effective ways of doing this are to use stakes in the ground or concrete weights.

When storing your Weta outside – whether it be overnight, long term or leaving your trailer at a beach for the day there are a few options to keep your Weta secure. Although all of these can be overcome by a determined thief, a combination of devices acts as a great deterrent.

#### **Coupling Locks**

There are a range of these available. They effectively block the trailer coupling so it cannot be attached to a tow bar. These are as effective depending on how easy they are to break off. Good when used with a wheel clamp.





#### Wheel Clamp

This is one of the best deterrents if you can find a suitable one that also prevents the thief from removing the wheel nuts.

#### Pad Locks

A padlock and chain is really quite ineffective as a set of bolt cutters will usually slice through chain easily, but does act as an extra deterrent.

### 3.5 CARE AND MAINTENANCE

Constant maintenance of your Weta will prevent damage and prolong the life of your boat. The Weta is one of the most “maintenance free” sailing dinghies about, but a little maintenance will make a big difference to your enjoyment. Like any fiberglass boat, if the gel coat is not well looked after it will deteriorate cosmetically over time. In saying that a well looked after boat can look brand new after 5 years and there are some fantastic examples of this already.

Some basic tips for care of your gel coat are given here.

Gelcoats provide the exterior surface layer of most fibreglass surfaces. They are specialist resins, which not only give the surface its aesthetic appearance, but also provide critical performance factors. These factors include water resistance; chemical resistance; gloss retention and weathering properties.

Exposure to sunlight, water, dust and chemicals can be detrimental to the gelcoat surface, causing chalking, discolouration, yellowing or loss of gloss. Simple periodic maintenance procedures will minimize these changes.

#### Basic Maintenance

When not in use, keep the gelcoat surface out of the sun or covered with a Weta boat cover. Do not use sheet plastic or other non-porous materials, which can trap moisture between the cover and the surface.

Wash the surface with a mild detergent. For best results, use cleaner recommended for fibreglass and follow label directions.

**Do not** use automatic dishwasher detergent, abrasives, bleaches, or strong chemicals with acids/bases or ammonia.

Wax twice yearly to restore gloss and protect the finish. Use only wax recommended for fibreglass and follow instructions carefully.

**Never** wax a gelcoat surface in direct sunlight.

#### Corrective Procedures

1. **Chalking** – A fine rubbing compound as well as a mild detergent will reduce the weathering and chalking accumulated on the surface. Use only a fine grit compound and follow label directions carefully. For best results wax after compounding.  
**Do not** apply rubbing compound in direct sunlight.
2. **Scratches and Nicks** – Most will be removed by using a rubbing compound followed by waxing as described above.
3. **Stains** – Most will be removed by washing with a mild detergent. For stubborn stains, use a fine abrasive household cleanser followed by waxing to restore original luster.

Non water-soluble stains such as grease and oil, rubber heel marks, etc. can often be removed by using a solvent such as acetone, rubbing alcohol, toluene or xylene, followed by a mild detergent. If these solvents are not effective, try a rubbing compound or fine sanding followed by waxing.

4. **Deep Marks, Gouges or Holes** – These should be repaired professionally.  
Gelcoats can be well repaired by professionals, and in most cases the repair will be undetectable. In cases where the damage has pierced the gelcoat layer, further exposure to water or chemicals should be avoided. Failure to observe this precaution may result in extensive and potentially costly damage to the underlying laminate structure.

### 3.6 REPLACING PARTS

The Weta has been designed so there is minimal wear/deterioration on parts. However there is always the occasion where kit needs replacement and damage is unavoidable. Most of the hardware and ropes on the Weta are available from any marine chandlery. The parts that are specific to the Weta can be ordered from your local Weta distributor.



**Spare parts that can be ordered from your local Weta distributor:**

• Mast top section (with all fittings)	• Carbon Tiller Extension	• Shackle
• Mast bottom section (with all fittings)	• Trampolines (pair with ropes)	• Stay Adjuster
• Prod (bare section)	• Set of Stays (no adjusters)	• Rudder Pin
• Mainsail (with battens)	• Halyard Strop	• Rudder Gudgeon Set
• Jib (with battens)	• Main Hull (only internally bolted hardware included)	• Mast Step
• Gennaker	• Single float/beam assembly (1 side, no trampolines)	• R-Clip
• Centreboard	• Beach Trolley Complete	• Circlip
• Rudder blade	• Inspection port 4" black	• Prod End Cap
• Rudder stock (with tiller)	• Mast Sheave	• Jib Batten set
• Rudder lock down rod	• Mast Sheave Pin	• Main Batten set
• Boat Cover	• Mast Sheave Guide	• Batten Pocket Protector
• Foil Cover	• Stainless Furler Clamp	• Carbon Float Bow Cap
• Safety Harness + Tether		• Carbon Main Hull Bow Cap

Before replacing any hardware on the deck please seek advice from your Weta dealer as to how to go about doing it without compromising the strength of the boat.

As the Weta racing fleets are only just getting up to speed these comments are based on observations at the developmental stage. There has been limited testing done on the Weta in terms of fine tuning so more technical information and calibrations will be given in a second improved tuning guide.

<b>Aft</b>	the rear area of the boat
<b>Apparent Wind</b>	while moving forward the air you are moving past acts upon the sail and the wind appears to shift. Apparent wind differs from prevailing or true wind
<b>Backwind</b>	when the wind approaches a sail from the leeward side and disrupts the flow causing the sail to flap
<b>Beating</b>	moving upwind, in a zigzag of tacks
<b>Boat Tuning</b>	setting up a boat aiming to achieve maximum performance
<b>Bow</b>	front of the boat
<b>Choke</b>	1. pointing too high into the wind causing the sail to backwind slightly 2. when a sail is over-sheeted closing the leech and causing the airflow over the sail to stall
<b>Cleat</b>	a "v" or cam shaped fitting that grips ropes and prevents them from sliding out of place
<b>Clew</b>	the back bottom corner of the sail
<b>Close Haul</b>	sailing upwind with the sail pulled right in to achieve maximum efficiency
<b>Cockpit</b>	floor in the middle of the main hull
<b>Come About</b>	tacking, moving the bow of the boat through the direction the wind
<b>Crew</b>	generally trims the jib, second person on boat
<b>Down (low)</b>	sailing a boat at a wider angle to the direction of the wind
<b>Downwind</b>	sailing the boat in the same direction the wind is coming from
<b>Foil</b>	centerboard or rudder
<b>Gybe</b>	steer away from the wind causing the sail to change sides and the boat to change direction
<b>Head (of sail)</b>	the upper most triangle of the sail
<b>Head to wind</b>	bow of boat heading directly into the wind
<b>Healing Angle</b>	the angle the mast makes with the vertical when sailing
<b>Helm</b>	the tiller to steer the boat
<b>High (up)</b>	sailing the boat closer to the angle the wind is coming from
<b>Hike</b>	moving your weight out over the edge of the hull or sitting on the edge to balance the force of the sail
<b>Hull</b>	the main body of a vessel that touches the water
<b>Irons</b>	when a boat is caught with the bow pointed directly into the wind and it cannot move as wind is not filling the sails
<b>Leech</b>	trailing (rear) edge of the sail
<b>Leeward</b>	the side of the boat sheltered from the wind
<b>Leeway</b>	movement in the direction the wind is coming from



<b>Low (down)</b>	sailing the boat away from the angle the wind is coming from
<b>Luff</b>	leading (front) edge of the sail
<b>Luffing</b>	refers to a slight back winding of the sail at the luff
<b>Mast Rake</b>	the angle at which the mast sits relative to a perpendicular on the deck
<b>Over-canvassed</b>	too much sail area for the conditions
<b>Overlay</b>	sailing further than you need to on a tack when rounding a mark
<b>Pinching</b>	when you are sailing very high and suffering from a lack of speed
<b>Port</b>	the left side of the boat as you look towards the bow
<b>Port Tack</b>	sailing with the wind on your port side
<b>Reaching</b>	sailing with the sheets eased
<b>Rigging</b>	the term for all equipment above the deck; mast, sails, stays etc
<b>Run</b>	downwind, sailing with the wind coming from directly behind you
<b>Sculling</b>	moving the boat forward by moving the tiller back and forth
<b>Shackle</b>	a connector in the shape of a "u" that has a removable pin
<b>Sheets</b>	sail control lines; main, jib, gennaker
<b>Sheeting</b>	the act of adjusting the sheet
<b>Skipper</b>	the captain of the boat who takes the responsibility
<b>Stall out</b>	pointing too high into the wind causing boat to backwind slightly and loose speed
<b>Starboard</b>	the right side of the boat as you look towards the bow
<b>Starboard Tack</b>	sailing with the wind on your starboard side
<b>Stern</b>	back of the boat
<b>Tack</b>	changing direction by moving the bow through head to wind and continuing sailing with the wind on the opposite side of the sail
<b>Tell tales</b>	small pieces of wool attached to a sail showing the direction of the wind flow over the surface of the sail
<b>Trim</b>	orientation of the boat relative to the water
<b>Under-canvassed</b>	sailing the boat at a closer angle to the direction of the wind
Up (high)	to little sail area for the conditions
Upwind (windward)	sailing the boat towards the direction the wind is coming from
VMG	velocity made good, the upwind vector of a boat's speed
Whitecaps	strong winds blow the tops off waves creating white patches on the water
Wind Shifts	changes in wind direction
Windward (upwind)	the boat is moving toward the direction the wind is coming from
Windward	the side of the boat that the wind is hitting

1. Main Hull
2. Float Hull
3. Beam (rear, port)
4. Trampoline (port)
5. Main
6. Jib
7. Gennaker
8. Mast
9. Prod
10. Hiking Strap (port)
11. Rudder Assembly
12. Head (main sail)
13. Clew (main sail)
14. Tack (main sail)
15. Luff (main sail)
16. Leech (main sail)
17. Foot (main sail)
18. Telltale
19. Furling Drum (gennaker)
20. Side Stay Adjuster
21. Float Hatch
22. Main Sheet
23. Jib Sheet
24. Gennaker Sheet
25. Cunningham
26. Tiller Extension





**weta**  
trimarans

