SELF TACKING JIB INSTALLATION GUIDE 2022

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1 Introduction

The Wētā Self-Tacking Jib kit consists of a deck-mounted track and a new slightly smaller jib which enables you to tack and gybe with your hands free, especially when combined with the Wētā Twin Tiller kit, allowing faster, smoother turns. However the focus is not purely on racing. For the average sailor and those with reduced mobility, the ST will give you a lot more confidence when sailing in the fresher breezes when otherwise you may have struggled.

New boats now come with the supports for the Self Tacking Jib Track built into the deck mold (it can still be used with the standard jib). For older boats there is a kit with the track and supports that is glued to the deck, sail, blocks and lines. The good news is that all Wētās can be fitted with a ST and remain competitive.

1.1 Installation of the Track

For newer boats with the track built into the deck mold, all you will need is to install the rigging pack which comes with the kit. See section 1.2

Self Tacker Kit Contents	Installation Requirements
Track and Supports	HB Pencil
Track Car	Masking tape
1x Shackle	2 x Bar clamps
1x Saddle	Cleaning cloth
2 X Ronstan Series 20 Ball Bearing Block RF25109	Cleaning Fluid (Alcohol or Methylated Spirits)
3m x4mm Dyneema	MSR Structural Adhesive (See List below)
1m x3mm Dyneema	Hot glue gun
2m x 3mm Dyneema core (red)	P100 weta/dry paper
	4 x small plywood blocks
	Phillips head screwdriver
	Drill, drill bits
	Boxcutter, knife
	Silicon Spray

1.1.1 Recommended Adhesives

We recommend only using Structural Flexible Adhesives for Marine Applications from the list below which are available in most countries. If you have a product which is not on the list, compare the features of your product with these.

	Sikaflex 292i	Fixtech Fix 190	3M 5200	Bostick Simpson MSR
Tensile Strength MPa	3	3.6	4.4	3
Elongation At Break	400 %	230%	802%	225%
Shear Strength: MPa	2	1.8	2.5	2.5

1.1.2 For Weta #1000+

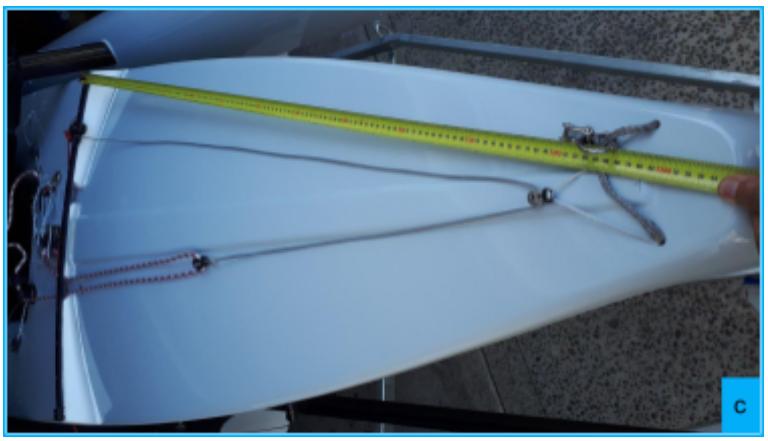
Place the straight edge self tacking moulding hard against the mast step (not overlapping). The curved moulding should be facing the bow.(a)

1.1.3 For Weta #1-999

1b Place the recessed moulding part up against the mast step, keeping the midpoint 25mm from the mast. The curved track should be facing the bow.(b)

1.1.4 All boats

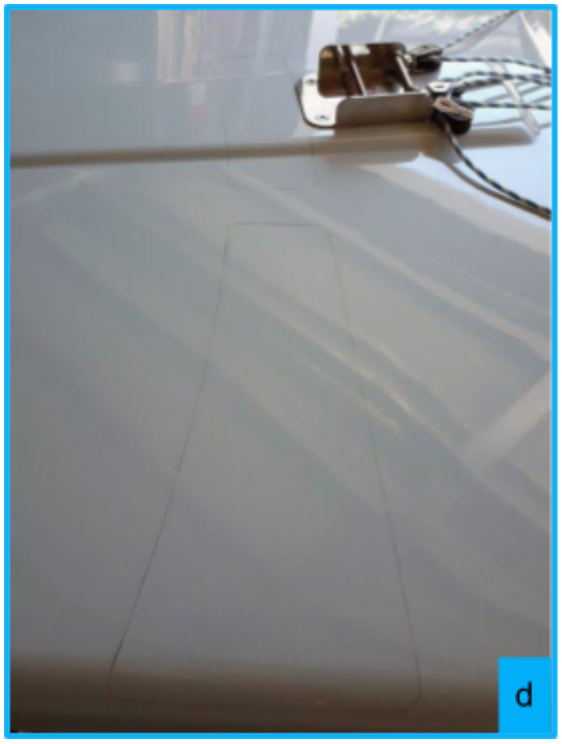
Mark a centre point on the bow of the boat. Measure from the centre point to the end cap of the track on each side to make sure they are equidistant.

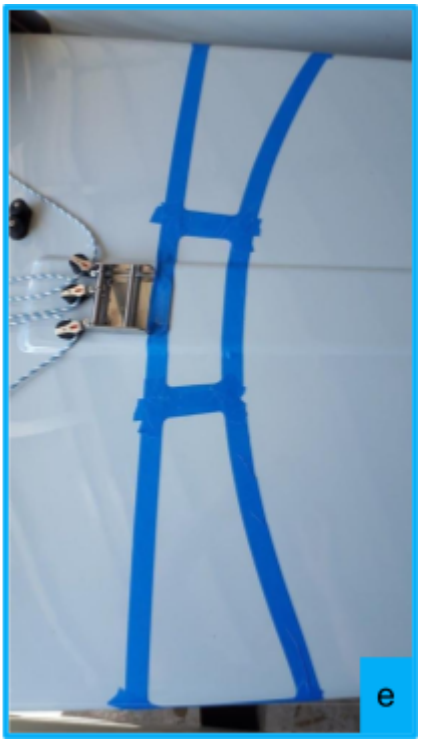


1.1.5 Positioning and glueing the track supports

Trace around the self tacking moulding with a pencil (d).

Mask around the pencil line edge with masking tape (e).





Lightly sand the deck area to be glued.(f) and base of the moulding to be glued to the deck(g) with minimum 100 grit paper.

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Wipe the sanded areas with 100% Denatured alcohol/Methylated Spirits spirits to clean off any dust and allow to dry.

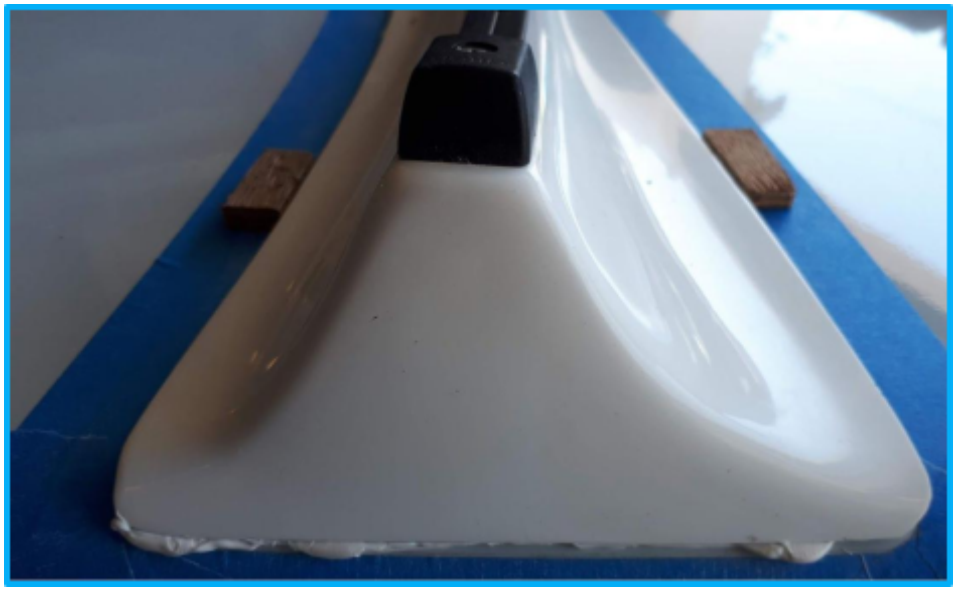
NOTE <u>Do not use Acetone</u> as the resin of the raw fibreglass under the track pads will become “green” if acetone is applied, reducing adhesion. Do not use paint cleaners as these often contain oil based additions which may affect bonding.

Use small plywood blocks glued onto the masking tape to keep the track moulding held in position otherwise it can move when curing.

Apply adhesive close to the edge of the moulding as seen below.
IMPORTANT Do not overlap the self tacker on the mast step

NOTE: Apply the adhesive using a notched adhesive spreader rather than dabbing it on - it will cure faster as the air can get to the adhesive to cure it properly as well as providing maximum adhesion (see technical bulletin here).

Press the track moulding down firmly but evenly so that all of the adhesive is in contact.



Put weights (e.g. 2 Litre water containers) on top of the track to ensure it is firmly but evenly holding the track down on the deck. If using clamps do not over-tighten them as it may squeeze out too much adhesive. Clean up any excess adhesive with 100% Denatured Alcohol/Methylated Spirits. **Do not use Acetone.**

1.1.6 Finishing Installation

After the adhesive has set you can pull off the duct tape (leave masking tape on).
Cut around the edge of the moulding with a sharp knife then pull off the masking tape.

To finish, cove the edges with the adhesive if necessary.

1.2 Rigging the Self Tacker

1.2.1 Install the turning block bridle

Thread the small turning block onto the 3mm Dyneema lashing lashing line, then use a piece of wire or thin screwdriver to poke the lashing alongside the 5mm forestay bridle in the hole in the bow and then pull the bridle through from underneath to help the lashing through. Repeat for the other side. Knot the lashing in front of the bow (or tie a figure 8 knot either side) to secure it. (a)

TIP: You may find it easier to install the lashing by undoing the forestay bridle completely and then tape the ends of both bridle and lashing together so they can thread through the bow hole.

IMPORTANT Ensure the lashing for the jib sheet turning block is lashed THROUGH THE MIDDLE of the block as shown below - otherwise it may pull apart under the strain.

Attach the jib tension line to the larger block and take it through the small turning block then through the sheave on the track slide and thread the longer shackle (supplied with the kit) to the loop on the end.

Now thread the jib sheets through the tension line block and mark the middle of the sheet with a marker pen to make it easy to even up the sheet on the water, especially when you ease the sheet. You may also want to mark the sheet tension line where it exits the block (for both upwind and downwind legs) so you have a reference point for jib tension.

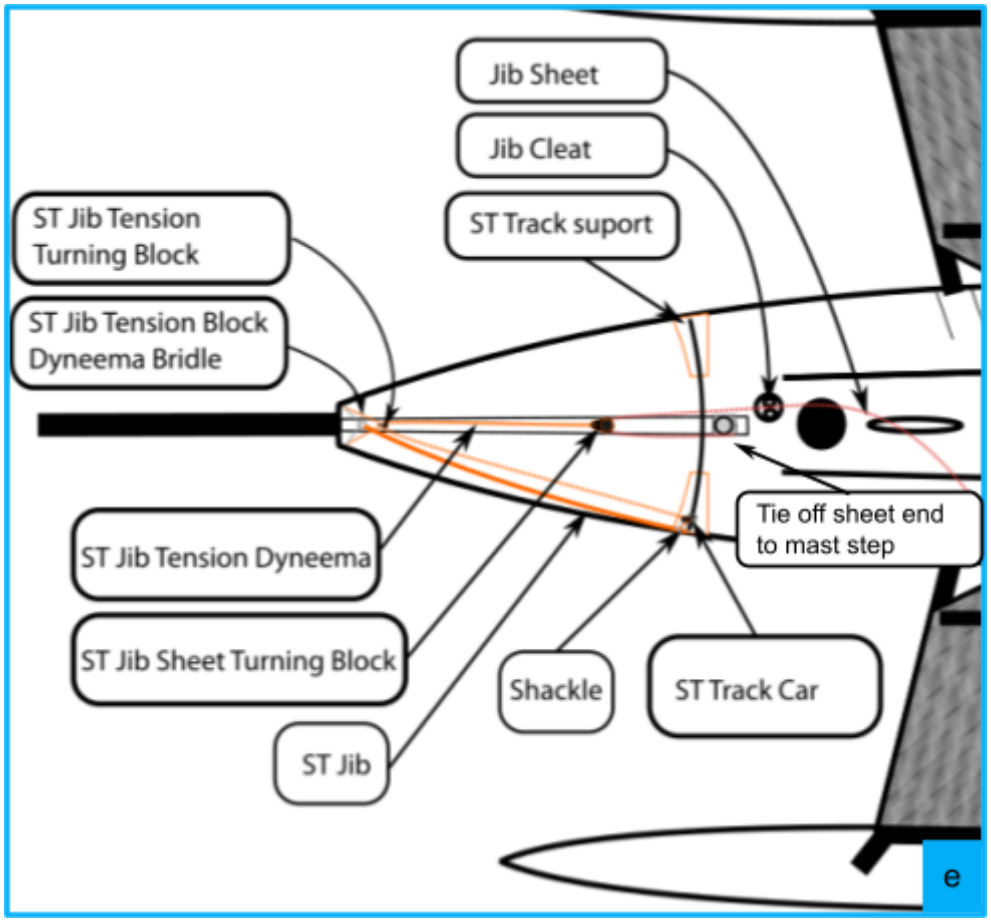
Follow the process for rigging and hoisting the standard jib until you need to attach the clew (See section 6 of the Weta manual). Because of the cut of the self-tacking jib you need to attach the shackle of the jib tension line to the second hole in the clew from the front (first hole in higher winds) (b).

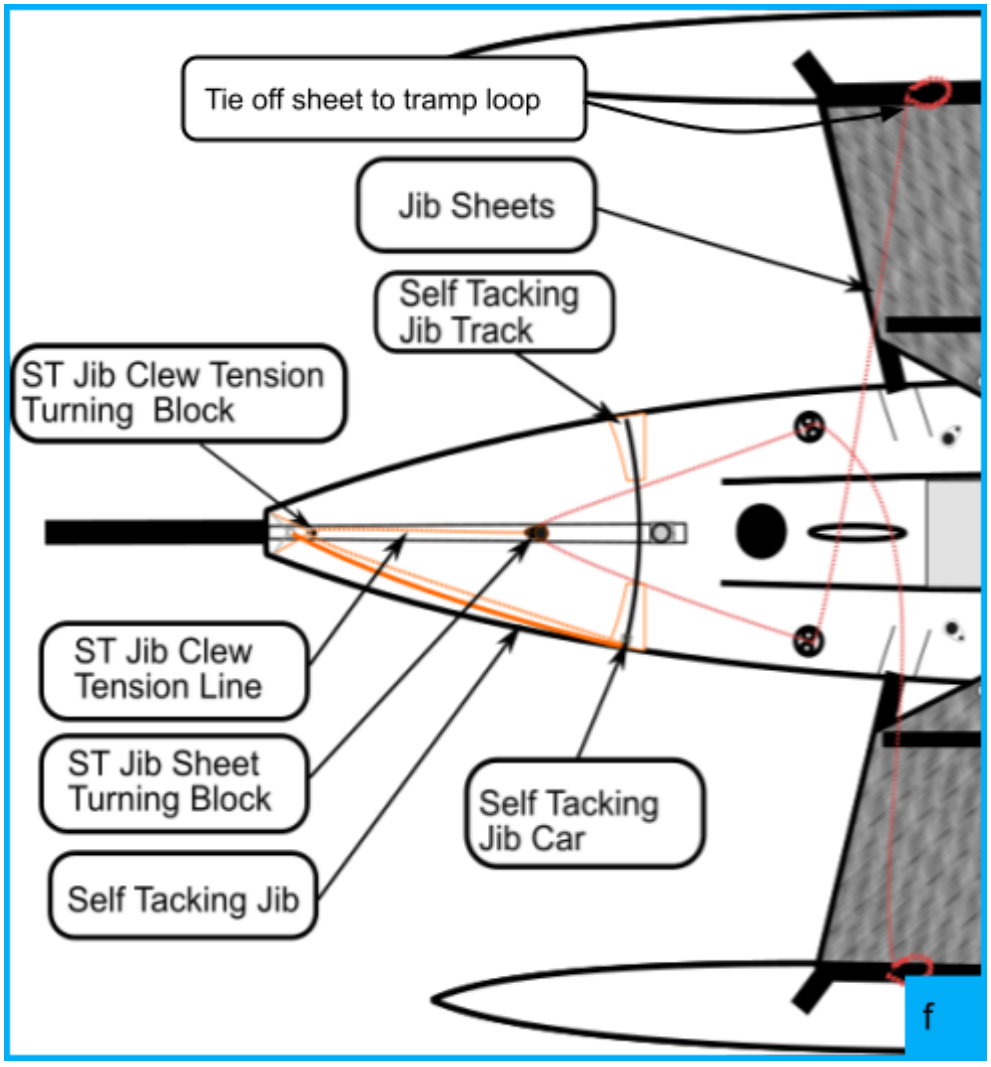
Pass the 3mm Dyneema lashing for the forward turning block through the same holes in the bow used for the jib bridle. Tie securely under the bow as stop knots may get drawn into the hole.

1.2.2 Attaching the Jib Sheets

There are two methods of threading the jib sheet - either by re-purposing one of the jib cleats and moving it to a central location on the front edge of the cockpit. Tie one end to the mast step bar and then through the turning block and return through the cleat (c & e) - you can then tie the end to the mainsheet so you can reach it easily.

Alternatively, you can take them through the gaps either side and then through the jib cleats and across the boat to tie off on the edge of the opposite trampoline (d & f). The benefit of this method is that you can easily reach the sheet when hiking from the edge of the tramp or sitting on the ama. It also means that the sheets are the same length on both tacks and there's less opportunity to tread on the sheet during a tack.


Jib Sheet
Jib Cleat
ST Track suport
ST Jib Tension Turning Block
ST Jib Tension Block Dyneema Bridle
Tie off sheet end to mast step
ST Jib Tension Dyneema
ST Jib Sheet Turning Block
Shackle
ST Track Car
ST Jib
e


Tie off sheet to tramp loop
Jib Sheets
Self Tacking Jib Track
ST Jib Clew Tension Turning Block
ST Jib Clew Tension Line
ST Jib Sheet Turning Block
Self Tacking Jib Car
Self Tacking Jib
f

1.2.3 Adjusting the jib

The central line from the mast to the track car is designed to allow you to adjust the clew angle on the water. However since you cannot adjust this angle on boats with the standard jib, the class rules in some regions may prevent you from adjusting this while racing.

It's better to have the sheets going over the ST adjustment lines so they run properly.

TIP #1: The metal parts of the turning blocks can scratch the gelcoat of the deck. To protect the deck, use anti-chafe patches or replace the block with a Ronstan Shock.

TIP #2: If using crossover sheets, mark the centre of the jib sheet with a marker pen so that you can even up the sheets easily. Mark the Dyneema line from the track car to the clew with your upwind and downwind adjustment locations where it exits the block on the car so you can easily see your jib clew position.

TIP #3: You can't put the boat Hove-To with the self tacking jib (unless you tie a spare line to the jib clew and hold it at the windward end of the track by tying it to the forward float upright) but if you tighten the jib sheet hard and let out the mainsail fully, then jam the tiller so the boat is turning to windward - it gives almost the same effect and the Wētā becomes a stable platform to rest or make adjustments.

1.2.4 Maintenance

Clean the track and the car balls with fresh water and regularly spray with dry silicone spray. Do not use silicone grease as this will trap sand in the ball race. Check for wear on the Dyneema and in the gelcoat where it exits the holes on the foredeck.