

Weta Twin Tiller Kit Installation Instructions

The Twin Tiller Extension kit is a great improvement for boat handling since you can just drop the active tiller and with one hand holding the mainsheet you have the other to assist in crossing the boat where you can pick up the new tiller.

The twin tiller extension kit includes:

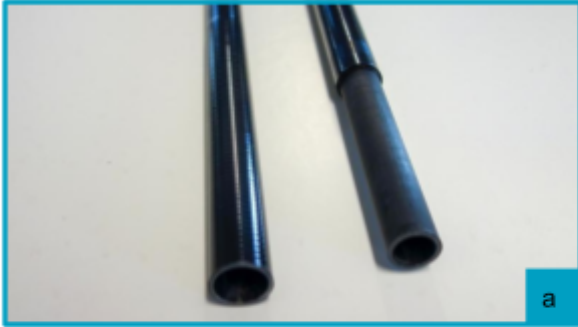
- 1 x Two-piece tiller extension with universal joint
- 2 x Stainless steel rings
- 2m 3mm bungee
- 1 x Round tiller adapter
- 2 x 50mmx4mm bolts and nuts
- 4 x Round stoppers
- New tiller end plug
- 2 x pvc elbows

Tools required

- 4mm spanner
- Mole grips or plumbers wrench
- Long nosed pliers
- Phillips screwdriver
- Corrosion inhibitor gel (Optional)
- Water resistant adhesive/sealant
- Cloth-backed tape
- 400 grit wet and dry paper

1. Remove the tiller end plug by gently turning it with a set of Mole Grips or a Plumbers Wrench - avoid damaging the carbon tube of the tiller.
2. Remove the existing tiller extension fitting. Use a pair of long-nosed pliers or a 6mm spanner to hold the nut of the bolt that holds the existing tiller in place and unscrew both bolts.
3. Line up the curved saddle of the tiller extension on the side of the tiller where you want the tiller extension to attach (so it doesn't hit the cockpit sides during tacking). Mark the position of the holes in the saddle on the tiller. Use a sharp drill bit to drill a hole in the carbon tiller right through both sides (take care to ensure that the holes are lined up horizontally and vertically)
NOTE Wear a mask when drilling carbon
4. Insert the bolts through the universal joint base and the saddle on both sides. Tighten the bolts. TIP: To avoid galvanic corrosion, apply some Tefgel (or similar corrosion inhibitor) to the bolt where it touches the tiller.
5. Assemble the new tiller extension by joining the two segments together and applying adhesive to the joint after roughening the insert with 400 grit wet & dry paper. Tape over the top while curing.(a)
6. When cured, clip the tiller extensions to the tiller by inserting the square rubber end in the base and clipping the cover into place. (b)
7. Thread a stainless steel ring down each tiller extension.
8. Thread the bungee through the grommet used by the gennaker ratchet (a) so the ball is on the outside and then under the tramp to exit through the grommet of the tramp tie.
9. Tie the end of the bungee to the stainless steel ring on the tiller extension using a bowline.(d)

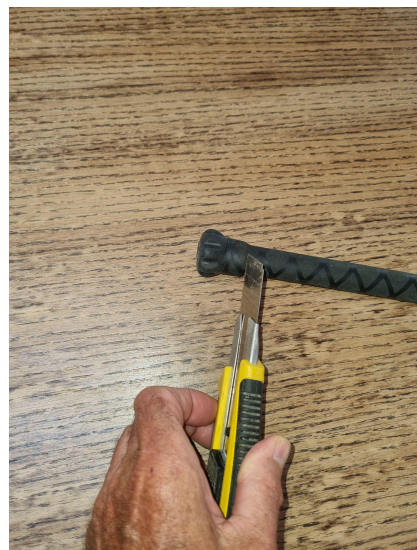
10. Use some rope or shock cord to tie the rear grab handle on the edge of each tramp down so the tiller extension doesn't catch in it.



Attaching PVC elbows for tiller extensions

Cut off the rubber grip end where the knife is placed in the photo. It is where the grip just starts to get fatter. The rubber is very thin so it just needs to be sliced down to the carbon tube.

- Remove the rubber and test the PVC for a good fit so it just overlaps the rudder by about 2mm. I usually have to cut the tube back by about 5mm with a hack saw.
- Sand back the exposed carbon tube and the inside of the PVC elbow.
- Use a flexible adhesive (Bostik Simson or similar) to attach the PVC fitting to the tiller extension making sure that elbow is pointing up in line with the square universal fitting at the other end. This is so when the tiller extension is fitted onto the tiller it is angled up so it will travel easily over the trampoline. If it catches on the trampoline grab handles tie them down underneath the tramp.





Modifications

This installation may work for most users, however, there are a few issues which you may come across:

1. The inactive tiller can catch on the straps on the tramp edge, padding or frame at the edge of the tramp preventing you from bearing away

Solution:

- Use bungee or a line to tie the rear strap handles on the tramp edge to the rear upright arm so that it is below the surface of the tramp.
- Make sure the tramp lashing underneath is really taught also ensure the tramp ties to the hull are taught
- Use thicker padding under the tramps (25mm thick EVA closed cell foam) to take up the slack in the tramp and make it a smoother surface
- Extend the tiller extensions to 2 metres so they extend beyond the tramp edge. The inner diameter of the tiller extension tube is 17mm so you will need 2x 16mm tube segments 45cm long (allowing 5cm for overlap). (e)

Obtain 16mm tube – you can buy carbon tube online (2mm wall thickness recommended) or use a straight length of 16mm plastic plumbing tube from a hardware store (e.g. PEX pipe).

TIP The benefit of using plastic pipe is it's flexible and won't get damaged if you sit on it or need to tuck it in a strap handle.

1. Remove the plug from the end of the tiller extension.

2. Wrap some tape around it around your new extension segment to provide a tight fit in the tiller extension
3. Wrap tape over the join (you can glue it after rubbing down both surfaces once you are happy with the length) and roll the rubber grip back over the join.
4. Apply cloth backed external tape (eg Duct tape) lengthwise down the new segment to provide some grip but also allow it to slide over the tramp edge. A tennis racket type overlapping wrapping is likely to cause it to catch.

2. The bungee is too loose/tight for the wind strength.

Solution: You can make the bungee length adjustable on the water by replacing the ball on the gennaker block grommet end with a plastic "olive" cleat and buy some longer bungee cord to give you an adjustable length.(g, h)

3. You need to remove the bungee from the ring especially for light wind sailing

Solution: Replace the plastic ball supplied to attach the tiller extension ring with a plastic bungee clip so it can be released and reattached to the ring as required. (f)

3. The extensions keep getting swept off the tramp edge

You may find that a wave will sweep the inactive tiller off the opposite tramp and the extension ends up dragging behind the boat with the bungee ring trapped in the universal joint. It won't slow you down much (some classes always have the inactive tiller dragging) but it can affect your steering.

Solution: You can prevent the ring from sliding all the way down the line by taping a segment of pool noodle towards the tiller end of the extension to prevent the ring from sliding all the way down or tighten the bungee using the olive described above.

