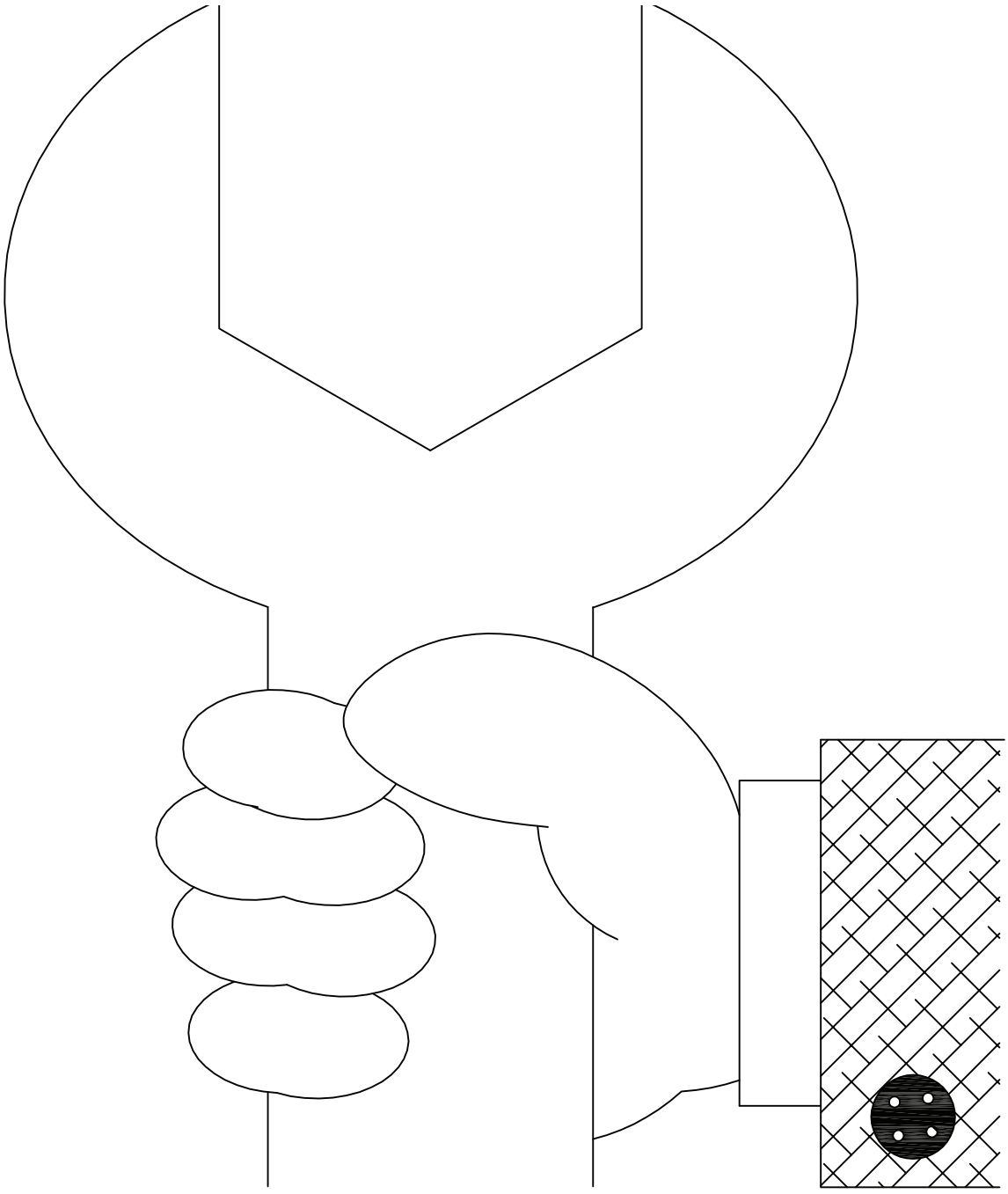
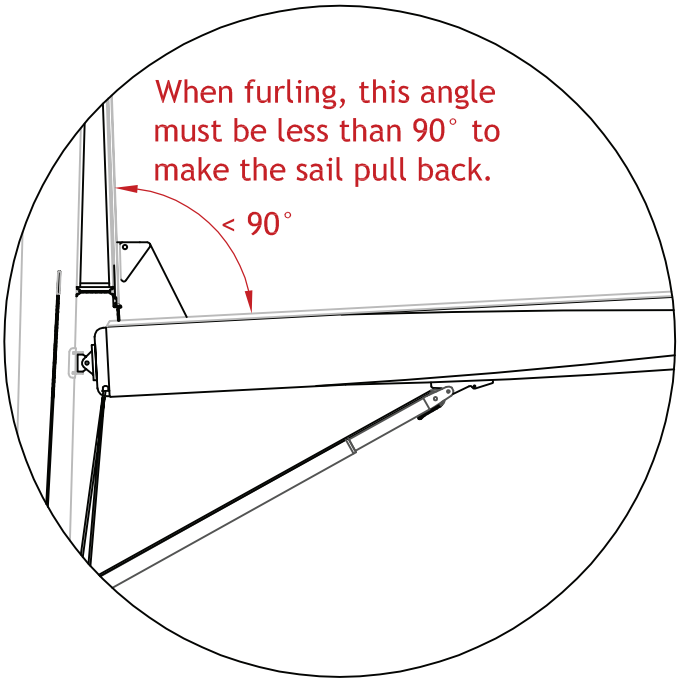
FURLERBOOM



Owner's manual

Pre check prior to reefing or furling the main.

1. The boom angle must be right.



Kickers operated by a purchase and an internal spring, can be released to a mark on the line, with the boom in correct position for furling.

On hydraulic kickers a piece of a sail batten can be cut to length of the exposed ram and be used as an easy reference for future height estimates.
Or a Dyneema strap with a lashing can limit the length of the hydraulic kicker when released.

On yachts without a kicker, the boom topping lift can be made in a thin Dyneema with a thicker tail, marked with the boom in correct position for furling.

2. The main sheet must be released so the sail is completely unloaded. (Free the main sheet from the winch)

To unload the sail you do not need to position the yacht head to wind.
The lower part of the mast track will follow the boom in any position when the main sheet is released making reefing and furling possible in up to 80° app. wind angle.
The yacht can continue under headsail with the main being reefed or furled as desired.

With the starboard reefing line on the winch, you are now ready to reef and furl.

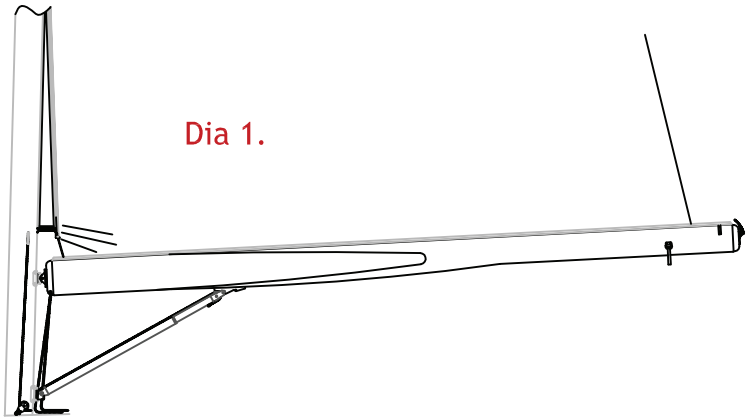
Some hint when furling.

With the starboard reefing line on the electric winch, release the load of the main halyard until wrinkles just appear at the luff.

The starboard reefing line will rotate the mandrel clockwise while the halyard is eased with resistance enough to ensure the luff being taut at all times when furling.

Sail must gradually work back along the mandrel as it is furled.

To check efficient furling prior to using the system it is adviced to check the sail is pulling back:
Stop furling when the mandrel have rotated 5-6 laps and make sure the sail is gradually working back along the mandrel as it is furled.
A system that is set up and operated correctly will control the amount of pull back and sail shape.
Indication that the sail is pulling back excessively will be stretching lines through the sail from the feeder. See Dia 1.
If the sail shows these signs, reduce the resistance on the main halyard. You will notice that the lines of pull back gradually disappear as you continue.
The balance of resistence on the halyard is essential for efficient furling.



Dia 1.

Sail works forward:

If the "sail work back" does not appear as explained, consider the following:
Was the outboard end of the boom high enough.
Was the main sheet fully unloaded. (Free from the winch)
Was the resistance on the main halyard sufficient.

Reefing the main:

It is a good practice to reef with a batten positioned under the mandrel as this will assist holding the foot flat.
It is adviced to make a mark at the halyard as an easy reference for future reef point estimation.

The track fitted on a ramp at the lower part of the mast, flattens and correctly depower the mainsail when sailing reefed.
The more you reef the flatter it gets.

FAQ

Trouble shooting.

The main pushes forward when furling	ABC
The main is furling nicely on flat water, not in swell	D
The main has suddenly difficulties to get hoisted	E
Main must come down now and we are not able to furl	F
Sail pulls back excessively when furling	G

A: The main has not been unloaded completely: ease the main sheet (free et from the winch).

B: Boom height is set too low. See page 2 and 3.

C: Insufficient halyard resistance. See page 7.

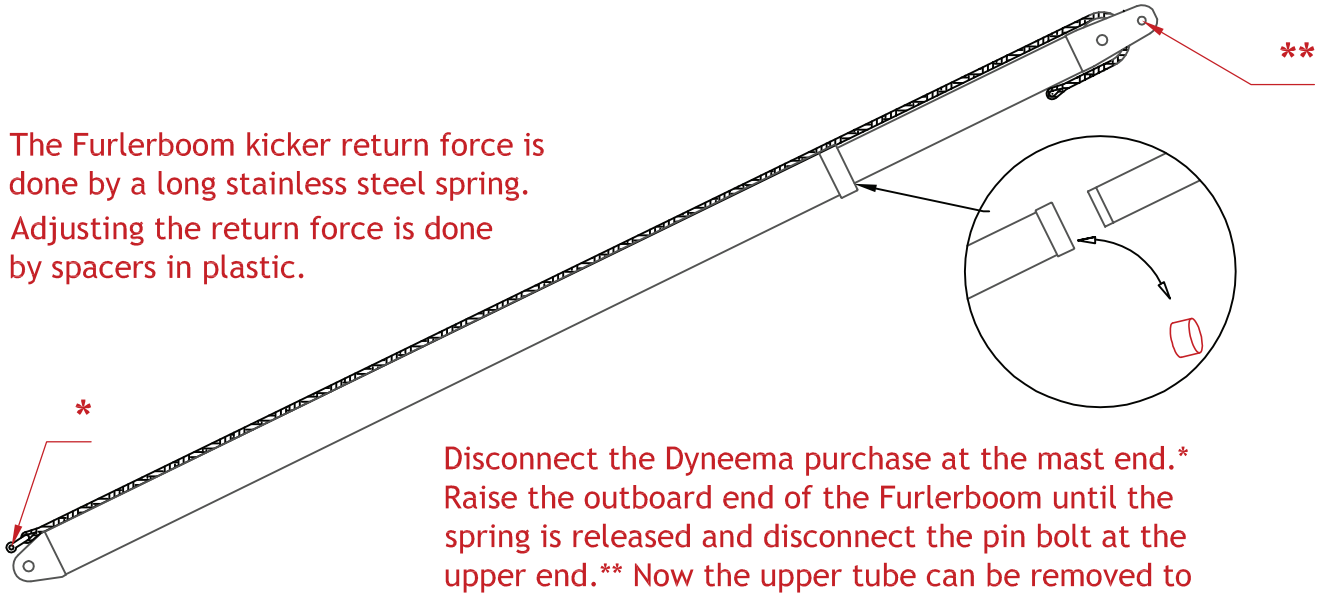
D: The outboard end of the boom moves up and down in swell. Increase the return force on the kicker, or use the boom topping lift while furling. See page 5.

E: The endless reefing line must run freely backwards when hoisting the main.
Check if the splice is correctly made or damaged. A slim and strong splice is essential for the function of the FurlerBoom.
Check if the line is jammed at the port side exit.
Check for jamming at the starboard line anywhere from the cockpit to the boom.
Check the halyard control block is not tur ned so resistance to the halyard is when hoisting instead of when furling.

F: Quite simply , do as with a normal boom : lower the sail.
If the main halyard control block is fitted, it is a good idea , to pull the halyard backwards at the mast at the same ti me.

G: Boom height is set too high.
There is too much halyard resistance.

Furlerboom kicker.



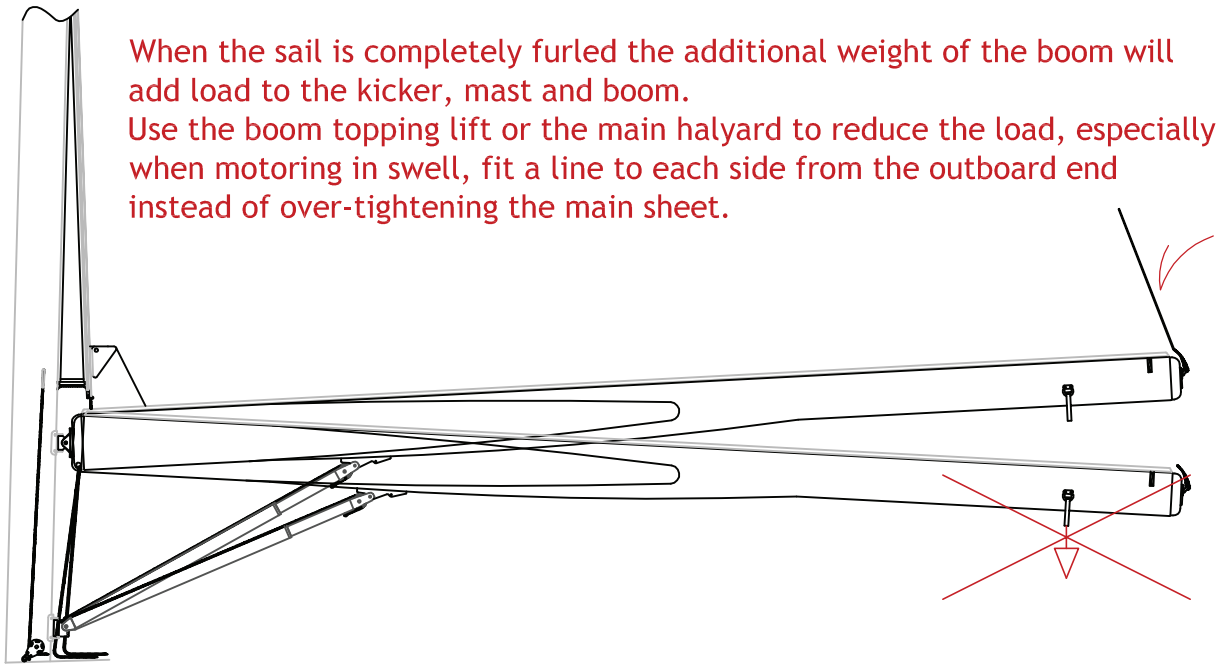
The Furlerboom kicker return force is done by a long stainless steel spring.
Adjusting the return force is done by spacers in plastic.

Disconnect the Dyneema purchase at the mast end.*
Raise the outboard end of the Furlerboom until the spring is released and disconnect the pin bolt at the upper end.** Now the upper tube can be removed to access removing or adding spacers.

We recommend the return force being able to carry the boom with the furled sail + approximately 50 Kg. at the outboard end.
Furling in swells and high waves the kicker may need the assistance of a boom topping lift.
A boom topping lift made of thin Dyneema is recommended as it will hardly disturb the sail.

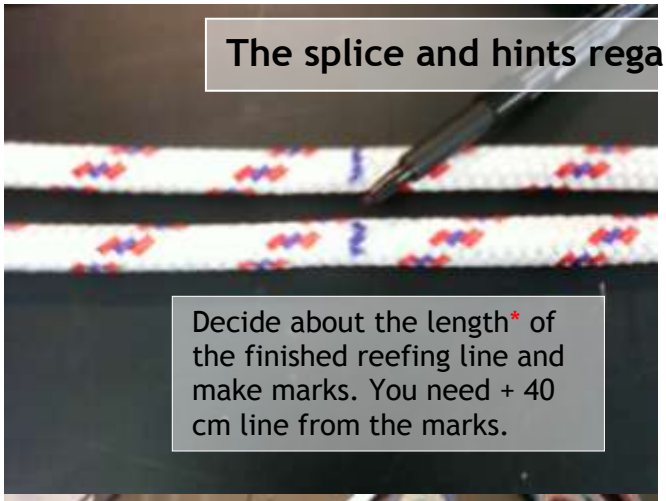
Good practice when motoring.

When the sail is completely furled the additional weight of the boom will add load to the kicker, mast and boom.
Use the boom topping lift or the main halyard to reduce the load, especially when motoring in swell, fit a line to each side from the outboard end instead of over-tightening the main sheet.

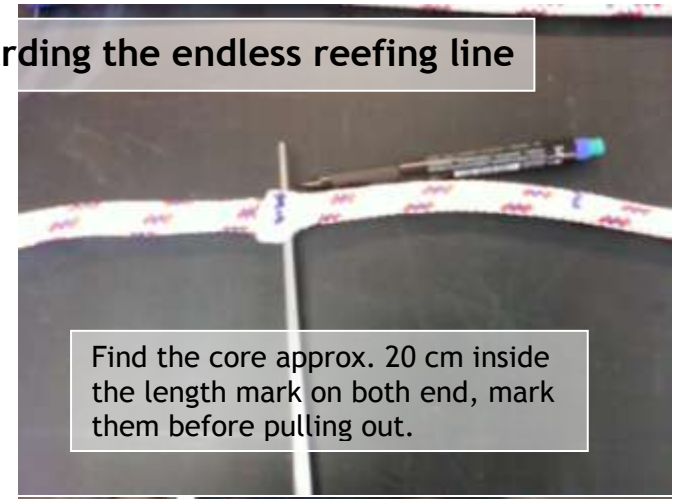


If the boom with the main sheet is forced extensively under horizontal position, the load added to boom, mast and kicker can cause damage.

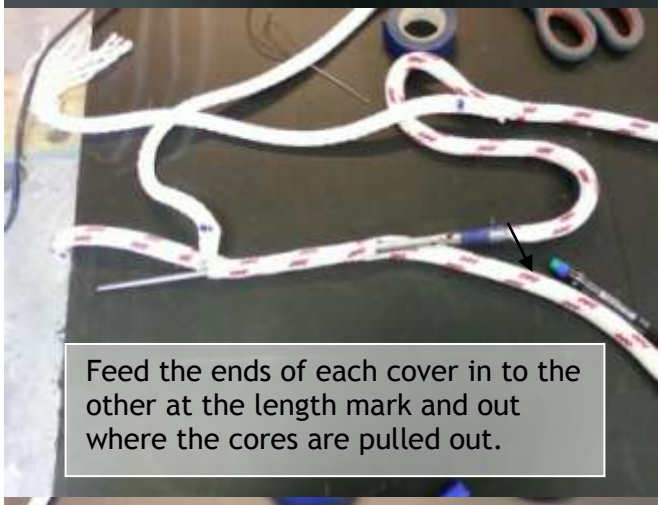
The splice and hints regarding the endless reefing line



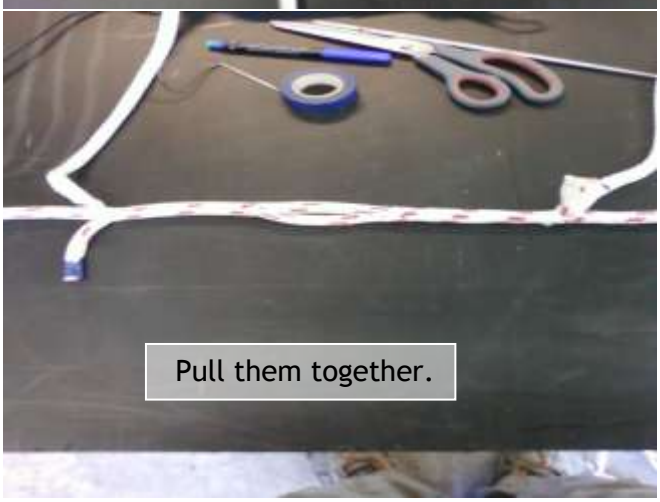
Decide about the length* of the finished reefing line and make marks. You need + 40 cm line from the marks.



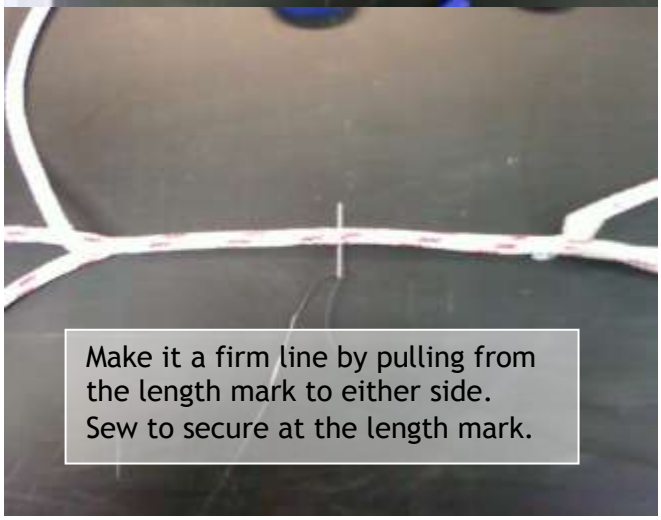
Find the core approx. 20 cm inside the length mark on both end, mark them before pulling out.



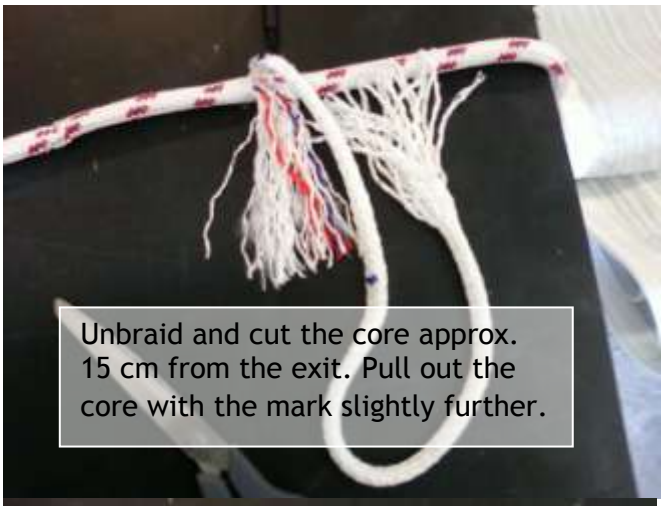
Feed the ends of each cover in to the other at the length mark and out where the cores are pulled out.



Pull them together.

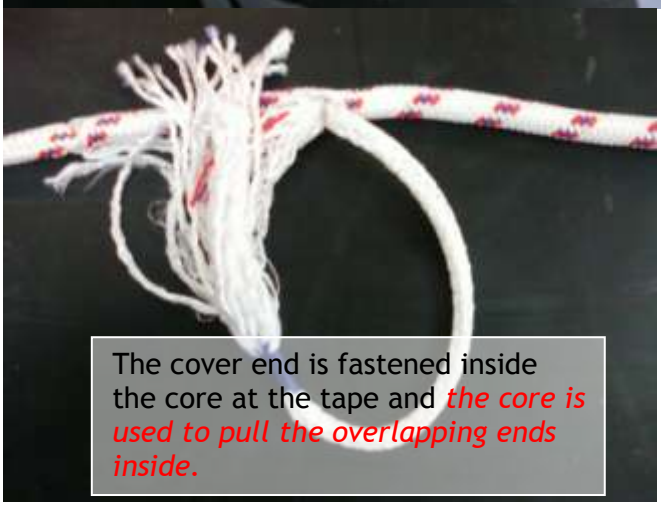


Make it a firm line by pulling from the length mark to either side. Sew to secure at the length mark.

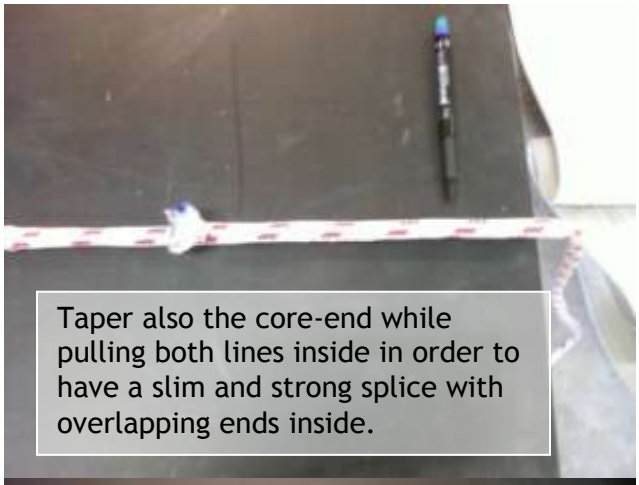


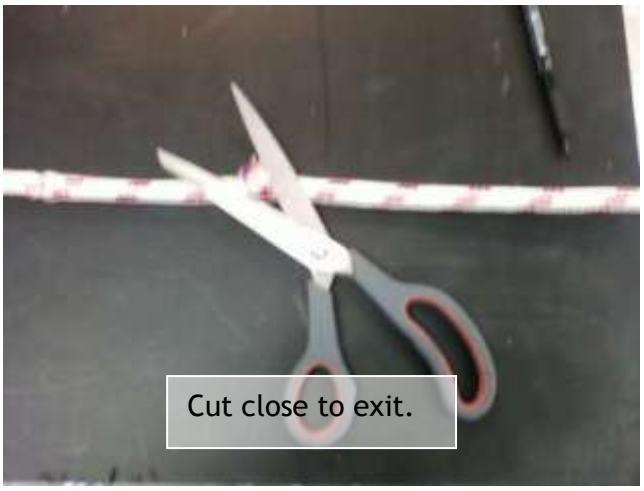
Unbraid and cut the core approx. 15 cm from the exit. Pull out the core with the mark slightly further.

Wrap tape around the core at the exit, unbraid it and cut it at the mark. Wrap tape around half the cover end and taper the rest.



The cover end is fastened inside the core at the tape and *the core is used to pull the overlapping ends inside.*





The finished splice is now close to the original breaking load of the line** and by far able to take load where it is highest: Going upwind with a reefed main.

A slim and strong splice is essential for the function of the FurlerBoom.
*When hoisting the main, the reefing line runs unloaded backwards. So, make the reefing line as short as possible, but long enough to pass around another winch or a cleat to prevent jamming. We recommend 1 powered winch and 2 jammers for the system: 1 jammer for the main halyard and one for the starboard reefing line.
The port reefing line is never loaded.

The endless reefing line for Furlerboom size T10-T25 *must* be a **12 mm "balanced" polyester line. For type T35-T45, the reefing line *must* be **16 mm.**

Furlerboom halyard control block.

The Furlerboom main halyard control block is not a must but a help to keep the luff tight when furling.

It is normally installed at the deck collar. In some cases by 1:2 halyards it can be fitted at the headboard.

When hoisting the main, the sheave runs free. When furling, the adjustable brake takes a part of the main sail weight which should else be achieved by “hand brake” only.

Handle with care. We recommend the brake force to be able to carry the main without help from hands at approximately ½ furled main.