

# In Mast Furling – Customer Experience

**Below is an experience of one of our customers with their In-Mast Furling system. They wanted to share their experience in the hopes that it will help others.**

“I have had one of your self-furling mainsail systems fitted to my yacht since 1995 and have experienced two forms of difficulties. Since then, I have managed to solve my problems and thought I would pass on my experience as it may help others.

The important thing to remember is that problems are actually created during furling but only manifest themselves during unfurling. I have never had any difficulty putting the sail away, only in getting it out.

The first problem appears to be relatively common. This is when the sail unfurls normally then sticks fast at about the half way point. It is possible to furl the sail away again, but not to make it unfurl any further. This turned out to be the leech folded back over itself creating a thickness of cloth sufficient to stick in the slot or to catch behind the slot reinforcing bend. To free this condition usually takes someone up the mast to the first spreader and a lot of pulling and tugging. My wife and I now avoid this problem by one of us watching the leech carefully when furling so as to spot the condition as soon as it begins to occur. We rectify the problem immediately by unfurling a little and starting again.

The second problem is when the sail starts to unfurl easily until the loop in the outhaul between the boom car and the sail clew is taken up. The sail is a little unfurled and the sail clew is close to the boom car. Sometimes, further unfurling from the cockpit becomes impossible as the outhaul only lifts the boom and the entire mechanism seizes solid. The sail can be easily unfurled by hand, however, if someone goes to the mast and pulls the sail from the foot.

This again is a problem created during the previous furl. The sail was furled with the boom too high or, put another way, with the topping lift too tight. A clue is given by the height of the sail clew above the boom when fully furled. If it is higher than normal you have this condition and can expect the problem to occur.

For my mainsail, the following procedure is pretty well fool proof and the entire process can be accomplished from the cockpit. First, while moored against a pontoon, establish when the boom is at 90 degrees to the mast by viewing the yacht from the side while someone operates the topping lift. Don't trust to eye from within the cockpit. Now stand by the companionway and establish the boom's height in relation to your head. This will give you a quick and reliable method to set your boom at 90 degrees forever after.

The start position is with the clew of the sail is just a few inches above the boom and the foot of the sail, when viewed through the furling slot, is wound neatly over itself and not with an upward or downward helix. Returning the sail to this position after use will be discussed below.

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## From this start configuration, unfurl the sail by:

Positioning the boom at 90 degrees to the mast with the topping lift using your previously established 'head guide'.

Ensure that the various sheets and ropes attached to the boom (mainsheet, kicker) are all loose and un-jam the inhaul.

Winch out the sail with the outhaul keeping a small amount of back tension on the sail inhaul line. The loop in the clew attachment should shorten as the sail unfurls and the car then start to slide smoothly back down the boom.

Proceed until the required amount is out, jam off the in-haul and set the sail with the outhaul.

If difficulty is experienced during unfurling, make sure the point 2 above is being followed.

When the sail is set, the topping lift will slacken as the sail takes the boom's weight.

**Do not tighten the topping lift.**

## To furl the sail:

Un-jam the outhaul and maintain a small amount of back tension on this rope as the sail is furled.

Do not tighten the topping lift. It will gradually tighten itself as the sail is furled and, by following this procedure, you will have left it in the correct place to conclude with the 90 degree angle between mast and boom.

Furl the sail by winching in the inhaul, maintaining a close watch on the leech to spot and correct any folding over of this edge. If the leech folds back on itself, the sail will furl away but jam when you next try to pull it out.

Continue until the sail is furled. This should return you to the start position as defined above.

Find the correct settings for your sail and sticking to what you know works.

If you find the method that works, avoid being influenced by others to change technique. I read an article in a sailing magazine which suggested tightening the topping lift before furling away. This led to my sail furling away with the clew higher above the boom than normal and problem two (above) occurring when the sail was next unfurled.

## Summary:

The secret of success lies in how the sail is furled. If you have it right for your sail, the unfurling will be easy.

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In our case, tightening the topping lift before furling (as suggested by the magazine) was the wrong thing to do. This is due to the cut of our sail. It made the furling easier but the next unfurling almost impossible.

Watch the leech while furling to spot, and immediately correct, leech fold over. If it starts to occur, pull out the sail to release the fold before continuing with the furl. Once the fold is through the slot, you will need a man up the mast to unjam it. This problem has occurred on several Z Spars equipped boats in our marina and is a regular occurrence in the local charter fleet.”