



Sail Handling in Strong Winds

Fall is on its way and stronger winds are likely to come with it. So this month we will discuss sail handling in a blow, which I define as winds of greater than 20 knots but less than 40 knots (storm conditions require a different set of tactics). Some boats may be a bit more tender and require some of these techniques starting around 15 knots.

The tools we have to work with are basically the same ones we have used when adjusting the main and jib – sheets, traveler, cars, etc. We are going to be dealing with some of the same affects on the sails, like twist and draft, but we will be using them in different ways which will help the boat and crew deal with the stronger winds. In addition, we will look at some new techniques (i.e. reefing) to get new results (i.e. reduced sail area).

Here are the basic techniques, listed in order of easiest to setup to hardest:

Traveler Down – Easing the main traveler to leeward is an easy and quick way to “spill” some wind but it will only work when sailing to weather. Doing so will reduce heel and weather helm.

Twist Off – Twisting off can be done to both the main and jib and doing so will *depower* the top of the sails. Since the top of the sails have the largest leverage on the boat, twisting them off will reduce heel more than it will depower the boat, although both will happen. Again, this only works when sailing to weather.

To twist off the main, ease the sheet and pull traveler back up a bit if desired. To twist off the jib, move the cars back, usually all the way back, and tighten the sheet slightly.

Reduce Draft – Flattening the sails will reduce their power which can help reduce weather helm. On the mainsail, tighten the outhaul. On the jib, move

the cars back and tighten the sheet. Note, this is the same action used to twist off the jib, the effect is a flatter sail at the bottom and a twisted off top. The same can be true for the main, easing the sheet and tightening the outhaul will flatten the bottom and twist off the top.

Reduce Sail – Reducing sail area is probably the best method for handling heavy air but it usually requires more time and effort when compared to the previous techniques. It can come in several forms: reefing the main, furling some of the jib (or changing headsails), even to the point of completely dowsing (taking down) one of the sails.

If you have a jib larger than a 135, (refers to percent of area formed by the triangle of the mast, forestay and base of forestay to mast) start by reducing the jib. If your jib is smaller than a 135, reef the main first. With a 135, try both and see which one works better on your boat. When the winds get strong enough to warrant dowsing one of the sails, I would suggest dropping the main first. Most modern cruising boats sail well on jib alone, in addition you can point higher with the jib than you can with the main. However, some boats will handle better under mainsail only, so try both out in moderate conditions and see which one the boat likes best.

Additional Techniques:

Feathering – This is a technique of spilling some air by sailing the boat slightly to windward from normal; in essence, luffing a little. While effective, it takes an experienced hand on the wheel and a lot of concentration. Where this can be of the most help is in gusty winds – feather during the gusts to control weather helm and heel.

Motorsail – The idea here is to reduce sail area substantially, leaving up just enough sail to steady the boat

and add a little power, then motor. The advantage here is the ability to make good progress and do so with only one person handling the boat.

The first three techniques, traveler down, twisting off and reducing draft are useful when the boat is slightly over-powered. But they are not a substitute for reducing sail, which is the mainstay of handling heavy winds. Matching your sail area to the wind speed is critical. A properly set up boat should be no harder to sail in 30 knots of wind than it is in 15 knots of wind – however, there may be a tad more spray coming over the dodger so have your raingear on.

An important safety factor is having an idea of what winds to expect. Read “Watch your Weather: Getting Reports on Your VHF” which appeared in 48° North, July 2009, on our website at 48north.com

Channel WX1	Seattle Area or Vancouver, Canada
Channel WX2	The Gulf Islands
Channel WX3	South Sound and Olympia Area or Victoria
Channel WX4	San Juan Islands
Channel WX7	Port Townsend
Channel WX8	Vancouver Island

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