

Alchemy: mainsail reefing/dousing downwind (without having to round up)

Dick Stevenson, May, 2015

Below, in outline form, is how we reef and douse our mainsail downwind (DW) without having to round up. We consider the ability to accomplish this a major safety advantage as we no longer need to turn upwind to stream the sail to reef and douse. The equipment improvement that allows this is slippery mainsail track.

As an aside, in practice, it is my take that most of us are over-canvased going DW. It takes surprisingly little wind to get close to hull speed, so if you reef the main earlier, you will have a much easier time of it and it will be easier on the sails and on the boat and auto-pilot.

1. Advantages to this system
 - a. Continuing DW gives you a relatively stable & predictable platform, so:
 - i. You can do your work slowly and safely with things under control at all times
 - ii. It is much easier on the sail and boat and much less prone to damage in general
 1. Jib just stays in place, no need to have it flailing about or need to furl it and deal with a pole, both necessary if rounding up
 - iii. It feels far safer, therefore reducing sail does not get postponed
 1. Also, the boom is locked into position and not swinging free as it needs to do if rounding up, improving safety.
 - iv. If you are doing this in 25 knot true, the AW is likely to be 18-19 kn rather than the 30+kn or so if you round up.
 - v. Crew are freed up as you continue to use the autopilot without course adjustment and there is no danger of steering errors
 - b. You do not have to round up into the wind:
 - i. This maneuver always scares me in higher winds/seas
 - ii. Huge apparent wind increase is always unsettling at best
 - iii. The boat gets thrown about and heels dramatically in unpredictable ways, and you have not had time to get in sync with this new motion.
 - iv. Likely wet and slippery as much more likely to have waves/spray be part of what you have to deal with
 - v. Lots of room for error/damage as the sail and lines are flailing about in initial chaos and with great energy.
 - vi. Because of above, you are always attempting to move fast and get it over with. Damage to person or boat seems more likely.
2. Requirement: my experience is that reefing/dousing of the mainsail DW requires slippery track/cars.
 - a. We have Antal track/cars. They are 15+ yo and seem as good as when 1st put on. I also know Harken works. I have heard second hand reports that the much less

expensive and easier to install Tides Strong Track allows reefing/dousing DW also. There may be other systems that work.

3. To start: center the boom (in higher winds this may be a challenge, but get as close as possible and definitely prevent the boom from jumping around: ie more than a tight sheet)
 - a. We use lines from the boom to side decks as preventer/boom vang lines to lock the boom in place. Really pull hard on the control lines as you will be working near the boom end and this is essential for safety.
4. When there is crew, one person eases the halyard till the sail hangs up while the other is pumping (shaking it back and forth) on the leach of the sail or working the reef outhaul lines. This pumping unloads the sail and the tugs gain you a few feet at a time as you pull the sail away from the mast and spreaders where the sail gets hung up. Incrementally this adds up to a reef or dousing slowly and safely
 - a. Single handed one just goes back and forth from halyard to boom end.
 - b. If you want more control, use the reef outhauls.
 - i. While loosening the halyard, give the reef outhaul lines a tug by hand (or pull in on the reef outhauls with their winch). This frees the sail to bounce/slip down (on Alchemy outhaul reef lines are led to the cockpit). In very high winds it helps to pull (put sustained tension) on all reef outhauls as this pulls the sail away from the mast/spreaders, straightens out the battens and decreases the friction that keeps the sail in place.
 - ii. The above (dousing the whole sail from full hoist) is usually not necessary as the reefs will have been gradually put in over the time the wind has increased, so in the higher winds, you are likely not looking at a full main to be doused.
 - iii. For us, taking in reefs as the wind increases, has allowed us to do everything largely by hand, not using outhauls to pull the sail aft. Every boat is different so take your time and play with different ways of releasing the sail to come down and figure what works best for your boat and crew.