

# Spinnaker Trim

By Greg and Patti Fisher

Good boat speed with a spinnaker comes from not only excellent spinnaker trim but also tip-top teamwork and communication between skipper and crew. As the spinnaker is adjusted for the changing conditions, the skipper should also adjust his steering style, and the crew should adjust the manner in which they fly the spinnaker. As in the total race, good speed downwind comes from the addition of all the variables that make up good speed.

GREG: It is important that when steering the boat with the spinnaker up that every move made up or down be made slowly and with good communication with the crew. If the skipper sees a puff coming and he wants to head up to get into it before his competitors, he should be sure to tell the crew that this is his plan. If he feels that the puff will be heavy enough that he will have to bear off to keep the boat up on a plane and under control, he should also communicate that with the crew.

PATTI: It's very important that every movement of the helm be made gently and with good communication with the crew. Not only does good balance of the boat demand slow, gentle steering, but the crew must have time to react with the trim of the guy and the sheet. Whenever the boat goes up, the guy should go forward and the sheet should be trimmed in slowly. Whenever the boat goes down, or a puff hits, the guy should come back and the sheet be eased. Notice we are talking about the guy and the sheet simultaneously. Once the spinnaker is up, I feel that it's a good idea that the crew move forward enough that they can have their hand on the guy and the sheet. A hook and a cleat for the guy just behind the shrouds is a good idea so that the crew doesn't have to hold the guy at all times, but has the ability to ease it in and out quickly with the puffs and shifts. If the boat gets hit with a rapid puff and the skipper jerks the boat down quickly, not only will he knock it off the plane, but also knock it farther off balance, as I won't have time to ease the spinnaker out to match his steering arch.

GREG: One exception to this is if there's a boat trying to ride over us to weather, coming up quickly on our stern, and we want to try to quickly "dissuade" this fellow from trying to roll us to windward. At this stage, we'll stick the boat up sharply to try to knock him off our transom. Of course,

again this should be pre-communicated with the crew so they are completely prepared and ready to trim the spinnaker in quickly. The skipper will give the command as to when to head up, and this command may be governed by the time they are in the trough of a wave, or when neither the crew nor the skipper are looking at them, or the skipper is reaching down in the boat, etc. This is the time to catch that boat off guard. We are not trying to luff the boat up and foul them out, but just trying to tactically "lose them." The skipper should lower the board at the precise moment.

PATTI: When the skipper does use this tactic, it's important that the crew pull the chute in quickly, but also be prepared to ease it out quickly. It would be much better to have the chute luff and collapse one time than to push the boat over on its ear and lose control. The skipper should keep his eye on the luff or the spinnaker, and I should always be telling him whether he can go higher or whether he's too high for the trim of the chute. Once he's up so high that the spinnaker cannot be trimmed in any tighter or sailed effectively, I'll say "That's it," and he'll steer the boat to the luff of the spinnaker just as he would a jib. The crew must not be afraid to tell the skipper to bear off if she needs a hand to keep the spinnaker full.

GREG: We mentioned a little bit the teamwork in handling a heavy air puff effectively, that will either put the boat up on a plane or make it plane even faster. It's a good idea for the skipper to anticipate this puff and actually "pre-bear" off to keep the boat underneath the spinnaker. It's a good idea to actually have the boat borne off a good two-three seconds before the puff hits. Of course, the crew will have to ease the spinnaker out at the same time the boat is bearing off, so communication is again very important.

PATTI: At this stage, I usually ease it out a foot at a time, and try to keep the curl in. That is, unless we get hit with a great big puff, at which time I know the skipper will continue to bear off, and I'll allow it to curl a good two-three feet. This way, I'm always ahead of the skipper, so if the puff were suddenly to get worse, it wouldn't require much time to completely dump the spinnaker.

GREG: In this situation, we're talking about pretty wild puffs that come through. The skipper would definitely have close at

hand the vang and centerboard, and be ready to pull the board up higher or dump the vang if we get hit with a wicked puff. With the vang eased out, the whole top of the main will begin to luff, and the boom will rise up much higher and farther away from the water. This anticipation of the puff is important, as if the puff hits and the skipper has to bear off quickly to keep the boat under control, he will use more rudder which creates more drag, and will slow the boat down.

PATTI: I think it's a good idea to mention that while we're talking about the crew easing the spinnaker out as a puff hits, the skipper should always have his hand on the main and be ready to ease that out. In fact, he should play the mainsheet regularly, just like the crew is on the spinnaker.

GREG: The guide we should use in trimming the main downwind is so we'll always have just a little bit of luff along the luff of the main. This will keep the angle of the leech correct and the sail less apt to stall. On our boats, we always have a good two-three inches of luff in the entry of the main at all times.

We should be sure that the cunningham and the outhaul are eased off to allow the draft of the sail to move back and up into the sail, to make the leech nice and round for the best power when sailing downwind. This is especially important in light air, when we're looking for as much "kick" from the leech and after part of the sail as possible. Light air definitely demands a different technique on the mainsheet. Instead of rapidly pulling it in and out, it should be a slow hand-over-hand trim and ease to keep that entry constant at all times. Steering the boat downwind demands a new technique. Whereas downwind when we were always making the boat steer up and down to keep the boat under the spinnaker, in light winds we're always steering the boat up and down, "hunting" for the fastest apparent windspeed. Basically, it is not much different than sailing an ice boat in light winds, where the skipper is going to steer the boat up until he feels it begin to develop more and more speed, and then he'll slowly bear it down again as far down as he can go until the speed starts to die. When it dies, he'll bring it back up until the speed builds, and then back down. It's almost a constant up and down, just like sailing upwind to keep the boat moving at top speed. You will be amazed at the difference in speed between the boat that is always "hunting" for the apparent wind and the boat that is just sailing along on a straight course. Good judgment is required here to keep the boat from sailing too high off the desired course hunting for this new wind. If you think there's a puff coming, or you've just lost so much apparent wind that you need to go high to get back up again, that's

one thing. But if you think it's a genuine lull, and you're going as fast as you can at the angle to the mark, then it's best to stick there until the next puff.

PATTI: Trimming a spinnaker in light air is definitely no easy task...especially when the skipper is sailing all over the course to keep the boat going at top speed. You must never cleat the guy in these conditions, and always keep the spinnaker at the correct angle to the wind and depth. If you ease the guy and the sheet out too much, the spinnaker will become too full and stall too easy. If the guy and the sheet are pulled back too far, the spinnaker will be too flat and too choked. A good starting guide rule of thumb for this trim is that the skirt of the spinnaker is never any closer than 12-18" off the forestay.

The pole height is also very important, and on most of the boats I sail on, the skippers have the topping lift placed at a position where the person flying the spinnaker can adjust it easily. On Greg's Thistle, he has the topping lift right beside the guy cleat. This is a perfect position, because when a puff comes, not only does the sheet have to be eased but the pole has to be raised to keep the two clews even. If the pole remains down too low when a puff hits, the draft will be pulled too far forward in the spinnaker, and the spinnaker will choke. By the same token, if the pole stays up too high when a lull comes or when the skipper has to keep his boat down on course and can't come up to grab a new apparent wind, the chute will simply sag into itself and collapse at the top and be very difficult to get flying again. When we do have to sail dead before the wind, a trick that I've learned to keep the spinnaker flying is to ease the sheet and the guy out about as far out as I can (two-three feet off the forestay) and then tease the guy back by pulling it back in slow but sharp six-eight inch bites at a time until I get the pole far enough aft that the skipper can sail dead before it. It may be necessary to quickly lower the pole to keep the upper leech from dumping off, but this teasing of the guy back helps to induce a little more breeze in the spinnaker and helps to open up the leeward leech. As soon as the leeward leech gets tight and closed, the spinnaker will surely stall.

GREG: A good guide for setting the height of the pole is so that the two clews are even with one another. When we get a puff, the leeward clew will suddenly raise up higher than the windward clew, so the topping lift will be raised to bring the two clews in alignment again. Of course, if we get a lull it will work just the opposite.

PATTI: Another good trick for adjusting the topping lift if you have a spinnaker that has a vertical center seam is that since it is sometimes difficult to see the leeward clew

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through the body of the main, you can set the center seam parallel with the mast. This is easy to sight from the crew's position flying the spinnaker, and if the center seam were suddenly to cock up on a positive angle away from the mast, then we need to lower the pole to bring it parallel again. If the center seam cocks upward on the leeward side, away from the mast, then we need to raise the pole to bring the center seam parallel to the mast. This works well since the person flying the spinnaker can see it all. Many times if you use the two-ends-even rule, only the skipper can see the leeward clew of the spinnaker through the main window.

Another good guide for adjusting the angle of the pole to the wind, or the trim of the guy, is to set the pole at just about perpendicular to the wind. Sometimes this is very difficult to eyeball, so I ask my skipper to place a tell-tale on the topping lift about six inches up from the pole.

This way, it's very easy to tell from my position whether I've got the guy too far back or too far forward.

GREG: We hope some of these ideas help you with your Day Sailer spinnaker trimming. If you have any questions, or if there's anything else we can do to help, please feel free to give us a call at the loft. Good luck sailing fast downwind this year!