



THE MAINSAIL TRIMMER AND THE TRAVELER **with Quantum's David Flynn**

The next best thing to driving a boat upwind is trimming the mainsail. In fact, to a large degree, the mainsail trimmer is driving; hunched over in the same pose, eyes glued to the water ahead, angle of heel, telltales, and speed. Constantly at hand are the primary tools of the trade, the mainsheet and traveler.

The traveler has two functions. It controls the boom's angle to the wind, and it steers the boat, controlling helm and heeling in puffs and lulls. The basics are easy. Set the twist with the mainsheet, and then use the traveler to position the boom on the centerline for maximum power and pointing, as long as helm and heeling are under control. When helm and heeling become too great, drop the traveler to maintain balance.

Where the traveler car ends up is a function of mainsheet tension, though in fact, it is only the position of the boom relative to the centerline that counts. The traveler car can be anywhere. In light air when the mainsheet is well eased to promote acceleration, the traveler car will need to be up to weather to put the boom on the centerline. As the breeze builds and mainsheet tension increases, the traveler will gradually be dropped to keep the boom on the centerline, and eventually below centerline to de-power the boat.

Boats are a little different. (This is what makes it such a fun game). Some like more sheet and the traveler down. Some like plenty of twist and leave the traveler up. However, regardless of design characteristics, the mainsail trimmer operates in three basic modes: Light, (under 10 knots), Medium (10-16 knots), and Heavy (16+).

LIGHT AIR

Mainsail setup is characterized by plenty of twist (mainsheet eased), with the traveler up. The goal is promote helm and feel for the struggling driver without having to over sheet and stall the mainsail. In light air add helm by pulling the traveler well up to weather. The boom can even be slightly above centerline as long as the mainsheet is eased so there is plenty of twist. In light conditions let the helm load up some before dropping the traveler to build speed. Point with the traveler not additional sheet.

MEDIUM AIR

In medium air, (as the boat becomes powered and the full crew begins to hike), the main will be sheeted harder and the traveler will be dropped. The mainsail can be sheeted quite hard, and the traveler played aggressively to maintain the correct amount

of helm. Slick mainsail trimmers master the art of sheeting harder while lowering the traveler simultaneously. In this range the traveler is the primary helm balance control. As soon as there is too much heel and helm, drop the traveler. Having the boom on centerline is suddenly irrelevant. As long as the puffs aren't too big and sudden, (in which case it will be necessary to de-power with by easing the mainsheet) fine-tune balance with the traveler. There is technique involved. Dump the traveler down quickly at the onset of a puff, but then be ready to pull it right back up as the initial power of the puff is dissipated and turned into forward speed instead of heel. If you leave it down too long you will miss the opportunity to point once accelerated. In medium air the range will be wide, from the boom on centerline to all the way down.

HEAVY AIR

In heavy air the traveler will be well down. All boats reach a point where simply lowering the traveler is not enough to maintain balance. At this point, a modal shift is required. It is time to go from using the traveler extensively to fine-tune helm, to using the mainsheet to keep the boat on its feet. Often the best trim solution is to fix the traveler six inches to a foot above the leeward coaming and play the sheet aggressively to control heel. Keeping the traveler up a little keeps the bottom mainsail batten working, which keeps the boat on the wind at the same time that power is being dumped from the top.

SHEET VS. TRAVELER

The eternal mainsail-trimming question must of course finally be asked, with which do I depower, the traveler or the mainsheet? The answer of course: both.

As in all things, to borrow from an ancient Zen saying, “the correct answer certainly lies in the middle way.” It is okay to use the big twist high traveler position in the light stuff, but be ready to quickly change modes in the puffs, at the transition between light and medium. It is vital that the mainsail trimmer recognizes the boat's sensitivity to this transition. Likewise a second modal shift occurs when it becomes too windy for the traveler alone to maintain balance, and the mainsheet must be brought back into the equation.

Through it all, always remember who is really driving the bus.