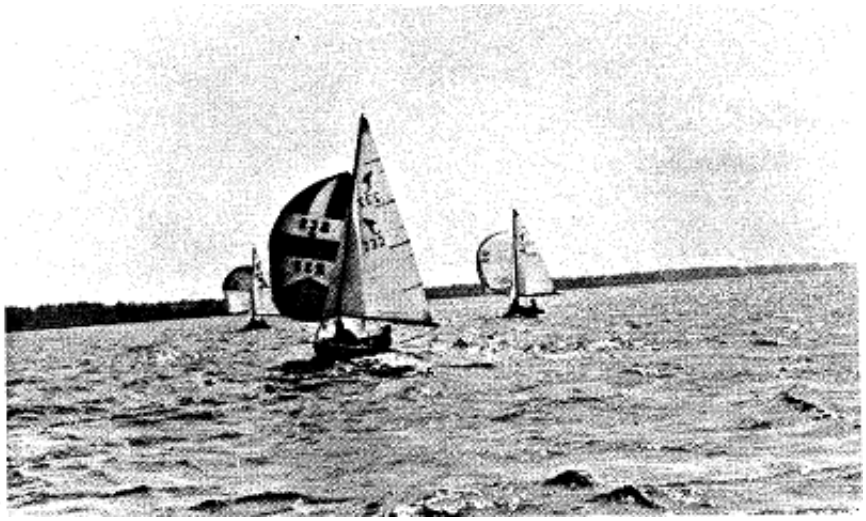
FLYING THE CHUTE: Getting the Most From Your Spinnaker

By Jim Chastain (T-420)

In addition to being the most colorful sail in your bag, and pretty to look at from the shore, the spinnaker, if properly utilized, can provide the most exciting, thrilling, and satisfying experiences you will ever know in your Tanzer 16. There's nothing quite like popping the chute up after rounding the windward mark in a fresh breeze and exploding away from your competitors on a wild plane across the waves. On the other hand, if not properly used it can become the source of ill-timed capsizes and frustrating moments when you go roaring beyond the leeward mark unable to get the thing down while your competitors round the mark for the finish line. One fact is clear: although not needed on a Tanzer 16 to compete, in certain wind conditions it can become an awesome tactical weapon that separates the men from the boys, and the winners from the also-rans.



The spinnaker is your most versatile sail. It develops aerodynamic forces in varying degrees in all situations. The angle of attack at the luff is vitally important to ensure forces are generated in the optimum direction. The shape of the sail is also critical depending on your course off the wind. Ideally, the spinnaker should be full for dead downwind work and relatively flat for a close reach. This poses a problem because for this reason you would ideally want two spinnakers. To prevent the need for purchase of extra sails, and in the spirit of one-design racing, the Tanzer 16 Class Rules allow only one spinnaker on the boat while racing, and there arc precise measurement limitations that provide for maximum overall size and maximum girth dimensions. Consequently, the spinnaker that you own will not be of ideal size or shape for either extreme point of sailing, and techniques for handling and trimming the sail and the strategy of how to properly use it become more important.

Successful use of the spinnaker depends on many different considerations, the first being how it is rigged. The rig needs to be is simple as possible to avoid confusion. Two recommended variations of the rigging plan are:

1. Using through-deck dinghy blocks and under-deck check blocks and cleats for less deck clutter and better crew access.

2. Using a spinnaker launching chute and bag mounted at the port bow which makes setting and retrieving the sail much easier. To plan your spinnaker rig observe the many variations found on other boats at the next regatta and discuss the pros and cons with the owners.

The second consideration that is vital is spinnaker sets and takedowns. A step-by-step procedure must be developed for your rig on what the skipper must do and what the crew must do in precise order, and it must be practiced endlessly to ensure fast, trouble-free sets and takedowns. The crew must be totally knowledgeable with the location and function of the guy, sheet, topping lift, and downhaul. Normally a spinnaker set will occur like this:

> When approaching the windward mark the crew will set the pole in a horizontal position full forward on the forestay oil the side on which the chute will be carried. Upon rounding the mark, the skipper settles oil his intended course, and while steering from a crouched position with his knees pulls in tile spinnaker halyard raising the sail. The crew, after releasing the sheet from the guy book on the leeward side, pulls in on the guy and sheet as the sail goes up. If there's any wind at all, its advisable for both the crew and skipper to position their weight on windward side for balance. The guy should be pulled in and cleated with the pole in a position perpendicular to the wind, and then the sheet pulled in to the proper point of trim on the sail. Once set and under control, the jib should be lowered by the crew and stowed under bungee cords, and final adjustments to sail trim made. The crew should <u>never</u> cleat the sheet of the sail, but should continually seek to maintain perfect trim. The sheet should be let out until the luff curls ever so slightly and then quickly trimmed in to take out the curl. As the boat accelerates, the apparent wind angle to the luff will change and the pole will need to be eased forward, and the trim adjusted.

Depending on the circumstances and wind velocity, it may not be advisable to lower the jib. Usually, lowering the jib will minimize disturbance to the airflow around the spinnaker, however, in strong winds it may be difficult to get the jib back up with the same tension on the forestay, which is vitally important to upwind performance, so the jib may be luffed with adverse affect on the spinnaker. Sometimes, the jib can provide additional lift on the proper point of sailing and can be trimmed in, but, be careful about creating the jibsheets while the spinnaker is up - one good gust and you may be over.

Normally, a spinnaker takedown will occur like this: When approaching the leeward mark bear away slightly and pull the pole back to square up the spinnaker- this makes takedown a lot easier. Timing between the skipper and crew is vital. As the skipper cases the halyard down he must also pull in on the retrieval line and maintain some tension through the sail. The crew must case the sheet and guy out as the sail is pulled into the launching chute; not too slow to impede the effort, but not to fast to drop the sail in the water. If the launcher is not used, the crew simply takes the clew in hand and pulls the corner of the sail in, letting the sheet fly loose, and rapidly bundles the sail up taking it in completely outside the windward sidestay. Practice makes perfect, and time is of the essence here to prepare for a smart mark rounding and trim-in for the windward leg.

Another consideration important to the successful use of the spinnaker is how to use it once it is up, how to best negotiate the offwind legs of the course and how to jibe to your advantage. A lot depends upon the wind conditions and predicted variations but the following pointers should help:

1. Getting the chute up quickly is important, but don't put it up until you are certain of the wind direction on the reach. It may be too close a reach for the spinnaker, and having it up before

you find out could be disastrous. Look at what you competitors are doing before you commit, unless you're in the lead, and then preparation is the key.

2. If the wind is building, sail above the rhumb line initially on a close reach and save the most wind for slowest point of sailing as you approach the jibing mark on a broad reach or run. If the wind is dying take your slowest point of sailing initially by going low with the strongest wind, and save a faster close reach approaching the mark for later. Always keep in mind that the rhumb line and clear air is the fastest course.

3. On a downwind leg (of Olympic courses) it is usually faster to tack downwind on reaches than to run straight for the mark.

4. Allow ample room at the jibing mark to bear away, square up the chute, and jibe before trimming in for the reach. Avoid jibing from close reach to close reach.

5. Establish a set procedure for jibing the spinnaker. Usually, a jibe will occur like this: When approaching the jibing mark bear away and square up the spinnaker to the wind. The crew puts the sheet under the guy hook to stabilize the sail, and at the signal pulls the boom over to jibe the main. While still before the wind, the crew disconnects the pole from the mast, secures the new guy (old sheet) to the end of the pole, drops the old guy (new sheet) from the pole and connects the pole to the mast. As the crew takes the new sheet out of the guy hook, the skipper cases the guy and pole forward and brings the boat up on the proper reaching course, trimming in the main as appropriate. The crew trims the spinnaker sheet in accordingly as the boat begins to reach. Practice makes perfect!

6. When approaching the jibing mark to windward and outside of a pack of boats, bear away and jibe early, and come in on a reach on the opposite tack aiming for the hole between the mark and the pack as they jibe. You can pick up more places using this kind of mark rounding tactic than any method of trying to outsail the other guy.

7. In fresh winds flying the chute takes a lot of determination, guts, and skill. On the close reach you and your crew should both be hiked out to balance the boat, positioned aft in the cockpit; the harder the wind blows the further aft you need to be for balance and to promote planing. With the pole forward and sheet trimmed you must depend more on your main to provide anti-gust control. As usual bear away in the puffs and conic up in the lulls. When a gust hits it will tend to cause the boat to turn up into the wind and broach or capsize. To control this, be sure to keep your main trimmed in so that you can stall it by over-trimming when the gust hits. Put some muscle in your tiller pulling it toward you and bear away.