Rigging Tips

By Pete Thorn (T-1427)

One day while crewing for ace Lightning skipper Tom Hudgns, I saw on his boat a safety device that really seemed to make a lot of sense: a down and dirty centerboard preventer. This device could probably be used on many small centerboard sailboats, but most especially the Tanzer 16!

Sailors who have never fully capsized (otherwise known as "turning turtle") probably won't have much appreciation for centerboard preventers. (For a more complete description of capsizes, refer to Dave Permar's article in this manual.) The elegant simplicity and incomparable value of this inexpensive bit of rigging is best appreciated by the "fully capsized" sailor sitting on the bottom of his turtled boat, contemplating the thin flat plate centerboard held securely by gravity beyond the sailor's grasp.

A centerboard preventer will "prevent" the board from sliding all the way back into the slot so you can grab it, pull it out to climb on and right the boat. Sailors of the most humble mechanical ability can easily install in this elegant device. The Lightning style preventer (found on Tom Hudgens Lightning and brilliantly copied by the author) costs less than $5 and takes less than 5 minutes to install.

Just get a piece of 1/4" line about two feet long and a drill to drill two holes through the centerboard trunk cap suitable to pass the line through. The holes should be drilled between the 1st and 2nd forward screw pairs holding the teak wood cap on the trunk. Tie a knot in one end and reeve the line up through the bottom of one hole, around the forward end of the centerboard and down in the other hole. When you are underway, snug the line and tie a slip knot in the loose end. Now the board can't go all the way back in the trunk and will be there sticking out at least a little when you need to grab it. (Just remember when beaching the boat to pull the slipknot and loosen the preventer).

I can't agree with Dave Permar more, "Safe sailing is good sailing!"

Rigging Tips: The Howe Traveler

An emergence among Fleet I sailors is a simplified adjustable traveler that replaces the non-adjustable traveler supplied with the standard Tanzer 16 by the factory. It has the advantages of being self-tacking, reasonably inexpensive, relatively easy to install and easy to use. Weldon Howe, formerly a Y-Flyer skipper from the midwest, skipper of T-901, Fleet 1 member and a Carolina Sailing Club Commodore, and currently a resident of Oriental, North Carolina (often the location of many district and national events), deserves full credit for the development of this type traveler for use on the Tanzer 16. Now that you know about the namesake of the "Howe Traveler", here's how it works:

The very simple concept of the Howe Traveler (or any traveler, for that matter) is that it allows the mainsheet to tighten the leech of the main with the boom positioned off-center of the boat varying amounts for varying wind conditions. This is very advantageous in dealing with heavy air, and permits adjustment of the angle of attack of the sail without allowing the main to become full and overpowered. In heavy air the main should be flattened to take out the draft reducing the overturning moment, with the boom positioned to leeward. This is easy for the skipper to accomplish while at the helm in heavy air with the one-line, in/out control of the Howe Traveler. Loosening the setting allows for a wide sheeting angle (heavy air) and tightening the setting allows for a closer sheeting angle (moderate to lighter air). Tacking is no problem. Once the desired boom position is set, the traveler will automatically come to that same position on the other tack with no further adjustment required after a tack.

Installation is easy with only minimum modifications required to the boat. Recommended materials for the job, are:

2	Harken through-deck blocks
1	deck-mounted fairlead eye
1	cam cleat
12	feet 3/8" low-stretch line

As shown in the diagrams, the through-deck blocks should be located on the deck at the transom in line with the traveler bar, and 4"-6" away from the rails. If you do not have through-deck spinnaker sheet blocks, be sure to leave enough room for their future addition. Drill a 1/2" pilot hole after the blocks are laid out on the deck and cut the rectangular opening with a saber saw. The edges may need to be smoothed with a wood rasp to ensure a snug fit of the block in the hole. The blocks should be secured with wood screws or through-bolted. To install the fairlead eye and earn cleat it is necessary to glue and/or screw 5/8" plywood mounting blocks about 3" x 3" to the underside of the rear deck with epoxy and wood screws. These mounting blocks are needed to establish proper clearance beneath the deck and provide proper alignment for the traveler sheet to pass through the hole in the bulkhead into the cockpit. Position the mounting blocks as shown, and install the fairlead eye and cam cleat with wood screws. The hole in the bulkhead should be cut the same way as in the deck. Before installation, be sure to fit up all the pieces in a dry run to ensure proper clearances and alignment. Getting into the lazarette compartment is a trick, but using boat cushions over the opening helps case the uncomfortable aspects of the job.

More Rigging Tips

Whether you race or simply want top cruising performance from your Tanzer 16, there are several pieces of equipment which will improve your boat's performance.

The headsail of the Tanzer 16 can greatly determine windward performance. Therefore, a genoa can make a very significant improvement in the boat's handling characteristics and acceleration.

When sailing the Tanzer 16 in heavy air, the jib or genoa can be difficult to trim. The job of trimming the jib can be greatly eased with hexarachet assists on the jib sheets. These can be mounted behind the splashrail on each side of the mast or just behind the jib track as shown in the drawing.

Also, in heavy air you will need to hike out .is much as possible. This can be enhanced by adding hiking straps for both the skipper and crew. Hiking straps can free up hands for trimming and steering and also help you use your weight more efficiently.

Mainsail shape can be controlled with a downhaul and an outhaul. This allows you to adjust for optimum mainsail trim on all points of sail. They can be invaluable for depowering the sail quickly in heavy air.

For the utmost in downwind performance, we strongly recommend a spinnaker. One method of rigging is described in the drawing. The topping lift for the pole is actually often rope, rather than shockchord, and a downhaul is only needed in heavy air. The halyard and topping lift can be cleated under the thwart so the skipper can handle the lines while the crew sets the sail. The sheets may be run above, is shown, or below deck (which decreases the gear the crew sits on). A launcher can also speed up, and simplify, spinnaker sets and take-downs.

Suggested Running Rigging Line

Mainsheet	7/16" dacron	40'
Jibsheets	3/8" dacron	40'
Spinnaker halyard (continuous)	3/16" dacron	70'
Spinnaker guy/sheet (each)	3/16" dacron	40'
Spinnaker topping lift	3/16" dacron	25'

Spinnaker Launcher

Spinnaker launchers have been installed in a number of Tanzer 16s. A spinnaker launcher consists of a molded fiberglass chute and a cloth tube. The increased case to set and douse the relatively large Tanzer 16 spinnaker makes a spinnaker launcher a very desirable feature for racing skippers. The following description is intended for class members who may not have the opportunity to observe installed spinnaker launchers in boats and who may want to attempt their own installation.

It is advisable to obtain a launching chute from the manufacturer. Until the new builder is in production of boat parts, the best source for Tanzer 16 parts of all types (including launching chutes) is: Eric Spenser, Canadian Yachting Services, Box 1045, Pt. Claire, Que. - H9S 4H9 (514-697-6952).

To install the chute, position it on the port side of the deck as far forward as the top side and center support below deck will allow. We suggest you make a cardboard template from the chute. Position the template on the deck and use a light from below to verify its location.

Remember-- measure twice, cut once! After the hole is cut, sand down the deck surface at the lip around the hole and wipe with acetone to assure good adhesion. Mask the surrounding area before sanding to prevent damage to the rest of the deck. If you are attempting this installation as a winter project, take heed that adequate temperature is required for the epoxy resin to set up, so you should consider having heat lamps ready if maintaining temperature is a problem.

The state-of-the-art material currently used to glue the chute to the deck is PC-7 brand epoxy resin. It mixes to a heavy paste that has tremendous holding power. It is wise to drill a few small holes in the lip of the deck to let the epoxy resin squeeze through for extra holding power.

Since the lip may not lie flat all the way around, be ready to apply weight via 2x4's weighed down with bricks or concrete blocks. After the resin is completely set, scrape off excess resin and fair the edges to the deck.

The cloth tube is tricky to make and is described in the diagram. Attach it to the chute with three stainless steel strap/screw pipe clamps joined together.

The spinnaker should have a retrieval patch mounted on its downwind side.

The most common Tanzer rig uses a continuous halyard and retrieval line. When you pull the sail up, the retrieval line automatically pays out, and when dousing the halyard is automatically pulled in. There are many options for creating arrangements. In fact, no two Tanzers are rigged exactly alike. Generally, the retrieval line runs aft of the centerboard trunk from the cloth tube on the port side, turns forward to the starboard side, and is cleated either on the centerboard trunk or under the thwart before turning up a block at the base of the mast as it becomes the spinnaker halyard. Decisions pertaining to the exact layout of the spinnaker rigging are subject to the specific inclinations for handling, comfort and convenience of each individual skipper and crew. Good luck!

SPINNAKER RIGGING

SPINNAKER HALYARD AND TOPPING LIFT

Punky's Launcher Bag Formula

SPINNAKERS: Flying The Chute (Another View of Spinnakers)

By Dave Permar (T-165)

I think some Tanzer skippers go a little too far in touting the virtues of the spinnaker. This talk can be misleading to inexperienced sailors. Some points which I think should be made arc as follows:

1. Most sailboat races are won beating to windward. Despite the best efforts of such renowned spinnaker users as Dave Gilbert, Jim Strickland, and Jess Coburn, I have never seen a Tanzer beat to windward with a spinnaker up.

2. Spinnakers can only improve performance when the wind is between five and fifteen knots. If the wind is less than that, you are better off concentrating on weight distribution and sitting still in the boat. If the wind is more than that, the boat is overpowered with the spinnaker up.

3. Most of the spinnaker work is done by the crew and in order to fly the spinnaker in a race, the crew must be at least as skilled, and "gung-ho" as the skipper.

4. The spinnaker makes only a marginal difference unless the use of the spinnaker makes planing possible when planing could not be accomplished without the spinnaker.

5. The marginal improvement that a spinnaker allows over a non-spinnaker boat frequently is lost during setup and take down, especially if the setup or take down is less than perfect.

I am not particularly enamored with the spinnaker, especially for racing. I consider it to be more suitable for leisurely cruising. Moreover, I think it is important for beginning Tanzer 16 racers to know that a spinnaker is not necessary to win. Curt Elmer, one of the founders of the Class Association, never owned a spinnaker and yet he was Tanzer 16 Fleet Champion with the Carolina Sailing Club on more than one occasion. I believe a new sailor should concentrate on windward performance and not start thinking about using a spinnaker until he can consistently round the windward mark with the top third of the fleet.

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