

Getting the Most out of your Christmas Cove 21

By Linc Spaulding and Dal Dalgleish

Our CC 21's are a marvelous compromise of day sailor and racer. The faintest breeze will move them nicely, the slanted coamings make them perfect for relaxing when day sailing. When the breeze picks up we have a winner too, and things can get down right exhilarating when a strong Southwesterly is blowing against an ebbing Damariscotta River. Pick the breeze up a notch further, say to 20, head downwind and you quickly get to know what real excitement is. Getting the boat to perform consistently as a "racing machine" is something else again, as close attention to detail is required.

1. Hull and Rig

Although the boats are supposed to be identical, in reality below the water line there are substantial differences regardless of when your boat was built. To get speed out of any boat, the hull must be fair. With a little elbow grease and a gallon of filler (we recommend West System micro balloons), you can fair the keel and the hull in a relatively short period of time. You can do it all at once or you can peck away year after year, striving for perfection as we on Pied Piper are falsely accused of doing. (In reality we pick one day starting at 10 o'clock and work until it is time for a beer and then we quit until next year!) The designer intended that both sides of the hull be identical, keel included, and that the rudder should line up exactly in the center of the deadwood. Most of the boats fall far short of this ideal. To get close look with a critical eye.

Fairing the hull really is fun and is a good way to get to know your boat more intimately. For large voids, use a 6" wide straight edge or wider for spreading the filler. The West System micro balloons are easy to work, dry rapidly, providing that you use the correct hardener for the temperature, and sand easily. Sand between each application, and figure that up to five applications may be required to get the desired results. When you have had enough, attack the bottom with 600 grit wet or dry sandpaper. If the bottom is faired and sanded with 600 grit, it will be fast. After this we recommend using an ablative (the exterior area is constantly being eaten away) antifouling paint such as VC-17, and with this your heavy sanding days will be over. Each year simply sand the bottom with 120 or 150 wet or dry working your way up to 400 and then finish off with 600 grit and re-spray. You will be able to do the whole job in a half a day. Do not expect the yard to work to the standards you need unless you specifically ask for this treatment and even then you will have to show them how.

As far as the standing and running rigging is concerned, many modifications should be made to make the boat both faster and more importantly easier to sail. As they come from the factory, regardless of the year, the hardware available makes adjustments extremely difficult. Please refer to the enclosed drawing which illustrates a synthesis of modifications on Tiger, Pied Piper and Blue Skies. All of the modifications are important but we would like to emphasize a few key ones. The main sheet arrangement from the factory leads aft of the tiller and requires the helmsman to trim the sheet in an awkward crosshanded position. As frequent mainsheet adjustments are required to sail the boat fast, the arrangement illustrated is far superior. This places the mainsheet in a position that is easy for the helmsman to adjust and the hardware indicated provides adequate mechanical advantage. The hexaratchet and cam base is mounted on a 4" X 4" post bolted to the sister ribs in the bilge.

Another important modification is the use of large hexaratchet blocks on the genoa sheet. This allows for trimming using the blocks alone in all but the heaviest air. We usually "windward sheet", the genoa to the windward winch and a combination of the hexaratchet block plus windward sheeting allows for multiple fine adjustments of the genoa with relative ease.

We also draw your attention to the spinnaker sheet and twing arrangement. On Blue Skies we no longer use the foreguy, choosing only to use the adjustable twings. These are particularly useful in heavy air. Also the spinnaker halyard exiting and cleating high on the mast is far superior for rapid hoist and dowsing of the spinnaker. It eliminates many foul ups. At the beginning of the summer if anybody has any question on these arrangements, Linc or I would be happy to go over them with you.

Once you've got your bottom fared and standing and running rigging modified, you have the potential to have a very fast boat.

2. Mast and Standing Rigging Adjustment

The mast and the mainsail should be thought of as one unit. Make sure that your mast is in the middle of the boat when rigging by measuring back from the stem an equal distance on both sides of the rail. Then take the spinnaker halyard and measure on one side to the mark that you have made and then to the other side to make sure it touches equally. This ensures that the mast is in the middle of the boat. Our Shore mains require 1 to 2" of prebend in the mast. This means that after the mast is stepped you should adjust your upper and lower shrouds so that the middle of the mast is pushed forward two inches as measured by the main halyard being stretched tight from the trunk to the partners after the mast (where the mast goes through the deck). Be sure the mast is securely blocked at the partners. Without good blocking the mast will pump and this is definitely slow. Make sure that your headstay is at the maximum length allowed by the one design rules. This allows the mast to be raked aft which provides for adequate weather helm in light air.

Shroud tension should vary depending on the wind strength. In light air you should only have 250 to 300 lbs. of tension on the uppers and lowers. This can be measured by a Loos tension gauge. This loose setting in light air provides for a slack headstay which gives more power to the genoa. As the wind strength increases you should tension both the uppers and lowers to tension the headstay to reduce headstay sag. In heavy air you should have 750 to 1000 lbs. of pressure on both uppers and lowers to stiffen the mast and completely reduce headstay sag. This depowers the genoa making it a flatter sail. For more detail understanding of these principles please refer to standard articles on similar keel boats such as the Soling, Etchell's 22, or J-24.

3. The Traveler

Because the boom needs to be on center line while going upwind, it is imperative to have a fast efficient way to get the traveler car to windward. This means a windward sheeting traveler arrangement of some sort and ideally one which allows the car to be played from amidships. Several boats in our fleet now have the necessary hardware and we consider it to be one of the most important go-fasts on the entire boat. Plus, the playing of the traveler by the middle crew member on puffy days adds to the enjoyment and excitement by the entire crew as all members play an important role in keeping the boat moving and accelerating. For light and medium air conditions the traveler car should be approximately 6 inches to weather with the mainsheet eased to allow the upper leach to fall off (open up). When we talk about easing the sheet we are only talking about letting out an inch or so of mainsheet. The backstay tension is off on light air days and is added as windspeed builds.

4. Genoa Track

The track as it comes from the factory is far too long and should be cut to 18" in length. Drill additional holes at one-half inch intervals, also drill out the top of the screws that secure the rail to the deck. You are only going to use a few inches of it so why ruin your foul weather gear unnecessarily?

5. Upwind Sailing-Up to 5 Knots True

The main should have lots of wrinkles in the luff and obviously not much halyard tension, likewise with the jib. Contrary to what we are told by our parents ugly is fast. Make sure your jib leads are set so the upper and lower telltales break evenly. You'll want to have your jib trimmed so that it's just outboard of the spreader tip. Never cleat the jib. It should always be held by a crewmember and with the arrangement mentioned above, can be windward sheeted and held on the windward winch. When the boat slows down, ease out the jib an inch or two. As the speed picks up, take in a click or two and point a little higher. This process of pulling in and letting out, slowing down and speeding up is continual and unavoidable. It will make for much greater boat speed, however.

As the wind speed builds above 8 to 10 knots you'll want to add a little more halyard tension on both main and jib – enough to take the wrinkles out. At this point you will have nearly 15 knots of apparent wind, and the boat may become somewhat overpowered. Drop the traveler to get the boom off the center line, and move the genoa lead aft one hole. Add some main and jib cunningham instead of halyard tension if your boat is rigged with these features. Sail the boat flat and do not allow it to heel too much. With adequate depowering you should keep the boat at 10 to 15 degrees of heel. If the wind speed builds past 15 knots apparent you will want to be on with full backstay and full vang. At this point you are "vang sheeting" and the traveler becomes irrelevant.

6. Outhall Tension

Up to five knots the outhaul should be off so that the full shelf built into the main (5") is out. As the wind increases the shelf should be reduced to 3" and above 10 to 15 knots the outhaul should be on max.

7. Crew Weight

Going upwind we have the forward person sitting up as far forward in the cockpit as possible. The no. 2 man straddles the winch and the helmsman sits as close to the no 2. man as possible. Downwind everyone shifts aft two feet. All halyards and outhaul are eased. Rig the vang as a preventer if needed.

8. Tacking

These boats have plenty of momentum so there is no rush to come about quickly. Particularly in smooth water make a gentle turn through the wind and onto the next tack. As the wind increases, you will have to get the boat around more quickly. Remember that the rudder when it is deflected is a brake.

These are some of the basics that will get your Christmas Cove 21 up to speed. The way the summer shapes up now, it looks like for the first one or two weekends we will have instructional and practice

sessions at which time we can go over some of these modifications and techniques. Either a visiting professional will visit the cove or some of the more experienced skippers will actually sail with some of the people who want help. At this point, it looks like the weekend of July 4th and July 10th will be dedicated to these activities. Starting on July 17th the regular summer series will begin.

On July 17th we have scheduled an away regatta with Boothbay and we will in turn invite them to Christmas Cove on the 7th of August.

The pre-season fleet meeting will be held on Saturday, July 3rd.

We all look forward to a good summer of sailing.

Dal and Linc