

Guidelines to help you Optimize your boat for the trip to Hawaii

This article is intended to help you get the best performance out of your boat during the race to Hawaii. It is not an article on how to game the ratings system. The recommendations contained in this article are based on the experience and judgment of the author. Every skipper should make the final determination of what works for their boat.

Lighten the boat for the Race: Be sure to read the PHRF/Pacific Cup Handicap configuration guidelines, which state the minimum configuration and gear required for your particular boat to be legal in the race. Then put your boat on a strict diet. Going to Hawaii, one of the best things you can do to increase speed is to lighten the boat as much as you possibly can within the rating rules. Take EVERYTHING off the boat, then carefully inspect each piece that goes back on board and decide if it is necessary. The lighter the boat is, the faster the boat will go and the easier it will be to sail. Lighter is faster even when sailing short-handed or sailing depowered wing and wing.

Keep the weight out of the bow: Move everything as far aft as you can; it will be dryer and faster. Anything forward of the mast is slow.

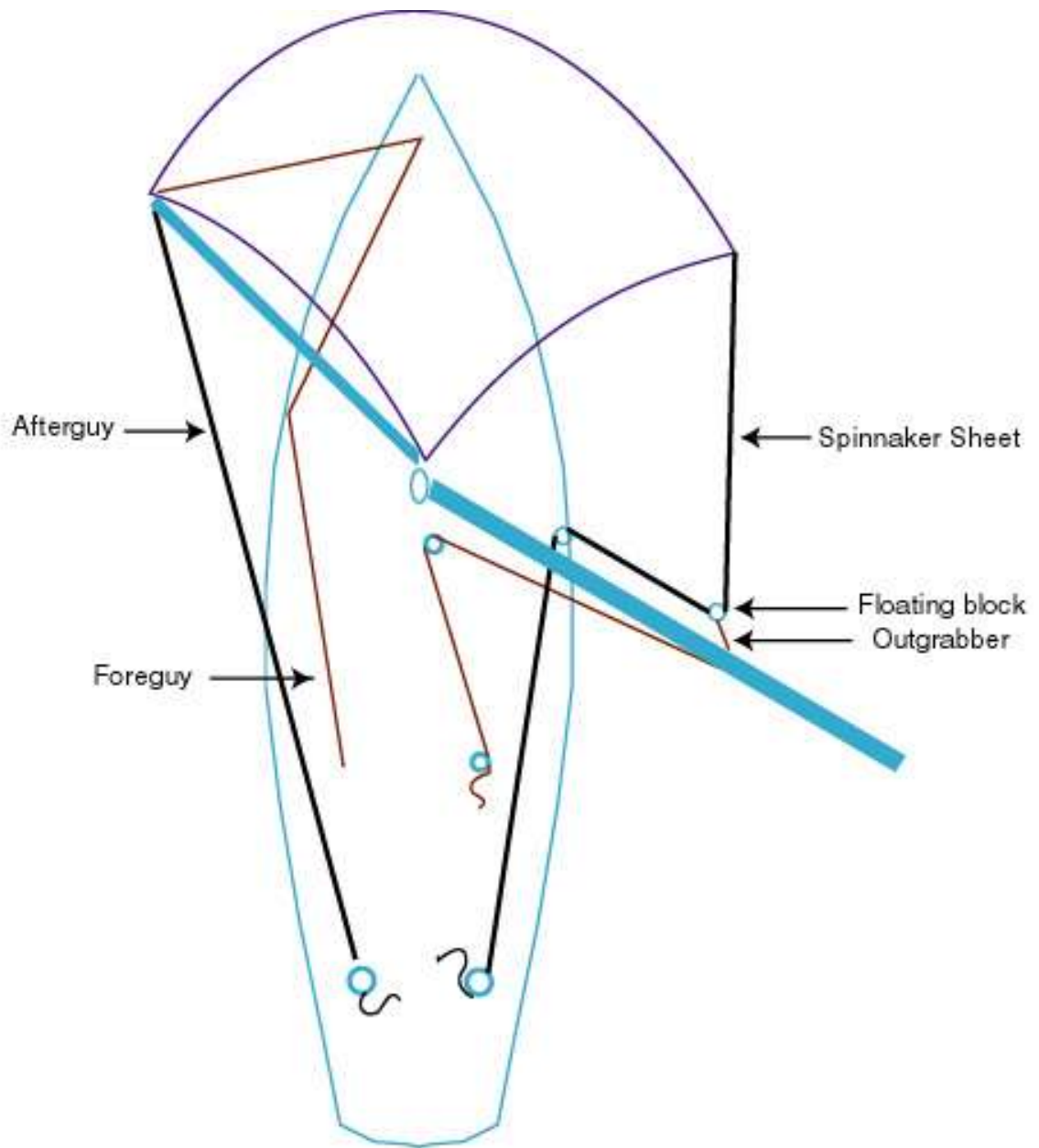
Drag: A boat with a folding two-blade prop will take a rating penalty compared to a fixed three-blade, but the decreased drag in a downwind race will more than compensate for the rating hit. A roll-on bottom job is slow, either get it sprayed or sanded with long boards. Drag is a drag.

Know you boat's characteristics: Learn polars, vmg, and wind angle targets and share them with the entire crew. Know when to shift gears; when is it time to go to the light spinnaker? When do you shift to the shy kite? When you sail to Hawaii chances are you will never even see another boat during the trip much less be able to line up to judge your relative speed. The only way to make sure you are sailing your boat to its maximum potential is to learn the best angles to sail and to work hard to sail to those numbers. Post them on deck where they are easy to see. Smart is fast.

Optimize your rig: Moving the mast tip forward if possible is fast downwind. When you walk down the dock before a Pacific Cup you will notice many boats have their rigs extremely far forward. This is all about balance; it is a lot easier on the boat and crew to have a sail pull you down wind versus having it pull the boat from side to side. Things to consider when moving the rig forward: can you loosen up the backstay turnbuckle and tighten up the headstay turnbuckle or do you need to start cutting the stays? One of the easy things to do is to install a toggle in the backstay so you can remove it once you get to Hawaii and need to sail back home. Don't forget to move the butt of the mast aft if necessary so you don't have reverse bend in the rig. The last thing is to remember the luff length of your headsails; there will be less available space once the headstay gets shorter. The easy solution for jibs is to have an external Cunningham installed so you can lower the tack down. This also lowers the clew, which helps to ensure the sails still fit the boat properly. Forward is faster as long as the rig stays up.

Deck hardware: Is it strong enough? Does it run free? Before you do anything with the deck hardware make sure you go sailing in the ocean on some shake down sails. Remember the hardware is going to see much more use in the time going to Hawaii than you will ever see sailing around the bay. If the gear shows any weakness, it will fail for sure on the race. Busted gear is slow.

Out-grabber: This tackle allows you to move the sheeting angle of the spinnaker outboard, which has two advantages: 1) it stabilizes the sail, minimizing oscillations, for heavy-air downwind sailing; 2) it opens the leech to decrease heeling moment on a reach. Fat is fast. Here is a sample of one set-up:



Outgrabber line leads from cabintop winch, forward to turning block at vang, aft along underside of boom, through turning block at mainsheet bails and dead ends at floating block. Floating snatch block pulls spinnaker sheet outboard to increase sheeting angle.

Rudder: Is the movement really smooth? Check the bearings! When you haul the boat out to get the bottom done before the race make sure you physically pull the rudder out of the boat, check the post and blade for integrity and carefully examine the bearings. If it binds or gets hard to steer under load it will be a big problem. Smooth is very fast.

Spares: Take what you need, but only what you need. Take all the spares and lay them out along with your tools and go through them. Spares are heavy but necessary. Make sure you take what you need but only what you need. Broken is slow.

Chafe: On the race, chafe is a huge issue and you need to be prepared for it. The first place that chafe shows up is on the spinnaker halyards. If your boat has a crane for external halyards, use it. If it is possible to install a block at the top of the mast for an external halyard, do so. If your boat has the standard internal spinnaker halyard set up, make sure you have the halyards wrapped heavily with anti-chafe protection and also make sure the top of the mast is smooth. You might spend a summer sailing around the bay with a spinnaker with no issues, but sailing to Hawaii the issue will come up and the only solution entails a lot of time up the mast. The next problem is the sheet rubbing on the boom. Make sure you have ample blocks to be able to run the spin sheet forward as well as places to mount them so nothing chafes on anything. Things chafe through at night.

Double pole: The question always comes up: should I be set up with two poles? If you are set up to use spinnakers on a pole, it is very prudent to take a second pole as a backup. Once you have a backup pole, the only thing that you need to add to the boat for two-pole jibes is another car on the mast. This is a good thing to have anyway. Install another foreguy, use the spare jib halyard as a topping lift and you are good to go. The advantage of this double pole arrangement is in jibing the spinnaker: no need to send someone to the bow, simply pull the leeward pole up and out to the clew of the sail with the new after guy, jibe the main and lower the old pole. No one gets out of the cockpit and it's a totally safe jibe. A well rested off-watch is fast.

Sail stacking: The rules for this edition of the race expressly permit "sail stacking". Sail stacking is taking all the sails not in use and putting those sails in the most desirable place on deck to achieve optimum boat speed. Once you leave the bay and get onto the long starboard tack take all the sails you have that are heavy and stack those sails up on the rail aft to get all the weight out there you can. This also helps to free up the interior. Once you are running, you can decide the best location for the sails. Think of them as moveable ballast. Put them where they will help you go faster.

Spinnaker nets: Are they worth having? If I were sailing to Hawaii on a boat with a pole to square back while going downwind and I did not have at least five expert drivers, I would put this on the top of my list. They are inexpensive to make and they will save you a ton of time and provide some serious peace of mind. Spinnaker wraps are very slow.