

Sobstad Sails Tuning Guide

Capri 14.2 Class

This tuning guide is intended to make sailing your Capri 14.2 as clear and straightforward as possible. Superior boat speed depends on constant and consistent adjustments to your rig and sails. The following measurements and sail trim tips are what I have found to be the fastest for setting up the Capri 14.2.

RIG TUNE FOR MAST RAKE & SHROUDS

Tuning the rig for the Capri is fairly simple and can be measured and adjusted quickly. The characteristics of the boat dictate how the mast rake and shrouds will be set. The measurements we have listed are what we have found to work best for the Capri.

After you raise the mast, your next step is to check to see if the mast rake and shrouds are set correctly. The manner in which you measure this is by taking the main halyard shackle and attaching it to the end of a tape measure (at least a 25 footer). Hoist the main halyard all the way up until the shackle is up against the sheave and then cleat it. You are now ready to measure your mast rake and shroud tension.

Mast Rake -

The Capri performs best when the mast is set with as much rake as is permitted. It is critical that the actual forestay wire length is as long as the class rules (15' 3 3/4" max.) permit. If your forestay is short, you should either replace it or increase its length by adding shackles. To achieve the maximum rake setting, place the end of the forestay at the very top of the bow adjuster plate.

Shroud Tension -

The Capri carries the shrouds very loose. We have found this to be an excellent compromise for the upwind and downwind needs. To measure this it is necessary to have someone at the bow pulling on the forestay so the mast is "resting forward" against the shrouds. With the mast pulled forward, take the tape measure to the middle of the stern and check the measurement at the very top edge. You want the measurement to be 21' 10 1/2" - 11". Since the widely spaced vertical holes in the shroud adjuster plates do not offer you the ability to fine tune the shroud length, you will want to place the shroud in the hole that gets you the closest to this measurement.

RULES FOR SAIL ADJUSTMENTS

The sail adjustments for the Capri 14 all have simple rules to set them correctly. By following these rules, you will be able to set your sails quickly and accurately for each wind condition. These rules will minimize the time spent on sail adjustment, allowing you to concentrate more on the race course and the competitors.

SAIL ADJUSTMENTS FOR THE JIB

Jib Halyard -

Since the rig relies on the forestay to support it, the jib halyard is used to properly maintain the position of the draft in the jib. The rule to follow is to tension the jib halyard enough so as to have very slight "crows feet" emitting from the bottom jib luff snaps (the snaps in the upper half will be almost smooth). As the wind builds it will become necessary to tighten the jib halyard to maintain this trim.

Jib Leads -

The sail is cut as large as is legal, and as a result of this your jib leads will be positioned all the way forward. This should not produce any problems as the sail is designed for this consideration.

JIB TRIM

Upwind -

The jib is designed to be sheeted quite tight. Since the leads are set very far outboard, it is necessary to trim tightly to achieve a decent angle to the wind while going to windward. The rule for jib trim depends on the amount of wind, with the jibsheet getting trimmed tighter as the wind increases. Our gauge here is the amount of foot curl the jib has. In very light winds, the jibsheet is eased to keep the foot full with no foot curl kicking up. In winds from five to seven knots the foot of the jib should be barely tight, causing the foot curl to just flip up. In medium wind the jibsheet is tight enough to get the foot curl flip up but without any crease from clew to tack. In strong wind the sail should be sheeted in tight enough to get a slight foot crease. Regardless of the wind strength, the jib should be constantly adjusted to keep pace with the changing wind conditions and boat needs.

*- interpret this
mean 15' 3 3/4"
vs the full length
the adjuster
plate.*

Reaching -

With the apparent wind to the beam of the boat, it is necessary to ease the jib out to correctly trim it to the new wind direction. If the wind is light enough to afford the crew's weight to the leeward side, they should be hand trimming the sail. With the apparent wind back, the lead needs to be both farther forward and outboard than the fixed lead allows. The crew should concentrate on keeping both the upper set and the lower set of telltales flowing. As for how far outboard the sail should be held, the rules are less clear. If it is held too far outboard the foot will get too flat, and when trimmed from the lead the foot is too full. Your goal is to find an area in between these two extremes which will give the sail moderate foot fullness.

Running -

As the apparent wind swings aft of the beam, the whisker pole must be used to better project the sail. If you are broad reaching, pull the pole back as far as you can without the leech (which now acts much like the luff) collapsing. If you are running, be aware that you can pull the pole back too far. The pole should be pulled back only so far as to place the clew of the jib just behind the bow of the boat. If you are sailing by the lee, you will want to pull the pole back a bit farther than this. The goal is to attain maximum projection of the sail.

SAIL ADJUSTMENTS FOR THE MAIN

Main Cunningham -

The main cunningham is adjusted much like the jib halyard, where its purpose is to maintain the shape of the sail throughout the wind range. The guide to follow is to tension it just enough so your main has "speed" wrinkles coming out from only the bottom half of the luff (the sail should be fairly smooth above this). The only exception is in winds under five knots, where these wrinkles should go all the way to the top of the sail. These wrinkles come out horizontally from the luff, and their size is controlled by either how windy it is or the amount of tension of the cunningham. The important point is to not have it set too tight, which is much worse than having it set too loose. As the wind increases, you will need to gradually tighten this adjustment. The cunningham should be completely eased when you are reaching or running.

Main Outhaul -

This adjustment offers you the ability to change the shape in the bottom third of the main. When the outhaul is eased the foot design increases the fullness in the sail. However, when the clew is pulled to the band this fullness is pulled out of the sail and becomes a fold which rests on top of the boom.

NOTE: Since this is not an easily changed adjustment, it is important to set it correctly at the beginning of the windward leg. The rule upwind is to keep the sail as full and powerful as long as you possibly can. To help depower as the wind builds the outhaul will need to be brought in (to flatten the sail). The basic guide is for in winds below 8 knots, the outhaul is eased so the foot wrinkle is just removed. From 8-12 knots there is a slight fold and above 12 knots there should be a definite fold sitting just above the boom.

For offwind sailing, the outhaul should be eased so any fold that you might have had is removed, with the sail curving off smoothly from the boom. You never should ease the outhaul so much as to have vertical wrinkles coming out of the boom.

Boomvang -

The boomvang is used both upwind and downwind. If you have to let the main out in the puffs upwind when overpowered, it is critical that you have some vang tension. Before the puff hits, sheet the main in correctly and then take all the slack out of the boomvang. This way when you dump the main the vang will keep the boom down and thus prevent the leech from spilling way off. In big breeze you will need to apply more tension.

When reaching, enough vang tension should be applied to keep the top batten parallel with the boom. For running, the top batten should be trimmed in the same manner or twisted off a touch. If you are sailing by the lee, the vang should definitely be set to allow the top batten to twist off a few degrees. The boomvang is an important adjustment which should be adjusted constantly, both upwind and downwind, as the wind fluctuates in velocity.

Mainsail Trim -

The mainsheet is the most important adjustment on the Capri and should be constantly adjusted on all points of sail to keep pace with the changing conditions. A general setting for upwind sailing is to maintain a top batten position that is either parallel or just hooking to weather of the boom. In light air or when you need to increase speed you should ease the sheet (twist off the batten) and in heavy air or when going fast you should tighten the sheet (hook the batten). Be aware that in light air the weight of the boom will prevent the top batten from opening. When this occurs you should ease the main out to get the top batten near the centerline of the boat. As the wind increases, the mainsheet will need to gradually be sheeted in. Many people find that a telltale placed on the top batten is helpful for trimming the main. The goal is to sheet the main in to cause this telltale to just barely stall.

For reaching, you will want to ease the main out as far as it can go without luffing. When sailing downwind, the main should go out until the boom just touches the leeward shroud. The vang should then be used to keep the top batten trimmed when reaching and running.

Traveller -

The goal with the traveller is to rig it so it enables the boom to be trimmed as close to centerline as is possible. First, you should restrict the traveller block's movement by tying it in the middle of the traveller. Next, you want to set the height of the traveller as high as possible. Ideally, when the mainsheet is trimmed in, the back boom block will be almost touching the traveller block. Since the mainsheet must be trimmed tighter as the wind increases, the traveller height must be reduced. An approximate light air traveller height is 28". This is measured from the top of the stern to the apex of the traveller bridle. You will need marks on the traveller tails so you can have consistent height settings for light, medium and heavy air.

GENERAL HINTS

This section is designed to offer some tips which should help improve your sailing. If you have any ideas to add to this section, please let us know.

- 1) **Raising the Centerboard** - Once on a tight reach, the centerboard is needed less as a preventative to slide-slipping and can be raised to eliminate drag. The farther the wind is behind the boat, the higher the board can go. Always try to get the board as high as possible while still having the boat track well. When sailing dead downwind, the board should be up all the way.
 - 2) **Reference Marks** - To support the guidelines for sail trim, all the adjustment lines should have reference marks and number scales to allow you to set the adjustments consistently. When you find that you are going fast with the outhaul of #3 in 8 knots of wind, you want to be sure to put it on #3 every time you have around 8 knots of wind. This system should be used for the halyard on the jib, the downhaul and the outhaul on the main, and the centerboard. Reference marks can also be used on the jibsheet and the mainsheet.
 - 3) **Compass** - A compass is a helpful aid in determining the favored end of the starting line or for tracking windshifts on the upwind or downwind legs.
 - 4) **Roll Tacking** - by roll tacking the Capri, you can greatly reduce the speed that is lost during the tacking maneuver. This should be done aggressively, with the crew rolling longer than the skipper to help kick the bow around to the new tack. The jib is backed just slightly, for if it is held too long the jib will cause the boat to overtack. The mainsheet is tightened three inches just before the tack to help the boat round up. During the tack the mainsheet is eased around six inches and then brought back in once up to speed on the new tack. To correctly steer through the tack, it is important that the tiller is held on to throughout the maneuver.
 - 5) **Crew Weight (Fore and Aft Placement)** The crew weight upwind changes slightly as the wind increases. In light air the skipper is sitting on the seat with the windward jib cleats directly behind him and the crew all the way forward on the leeward seat. Once on the rail, the skipper is sitting just behind the jib leads. As the crew moves to weather, they will eventually end up just in front of the skipper on the weather rail. Skipper and crew placement for light air reaching is the same as light air beating, but as the wind increases both will slide further back. Once the pole is up, the skipper sits just behind the jib cleat to make adjustments to the jibsheet with the crew forward on the leeward seat.
 - 6) **Crew Weight (Athwartship Placement)** Upwind the boat is almost always sailed with a slight heel. This makes the boat easier to steer and more forgiving in big shifts. Only when there is a very steady breeze would you sail the boat flat. You should sail with a slight heel for light air reaching, but the boat should be flattened quickly in the puffs and then sailed flat in all winds above seven knots. For downwind sailing in winds above six knots, the boat should be heeled to weather. This is done by the crew sitting toward the centerboard well.
 - 7) **Shroud Telltales** - The use of telltales on the shrouds will greatly aid your downwind sailing. When placed about five feet up from the deck, they are high enough to get the true breeze but not so high as to have to strain to look up to them.
 - 8) **Tiller Slop** - To eliminate the slop which occurs in the tiller/rudder head connection, you should insert shims so the tiller is snug within the rudder head. Though it is slightly inconvenient, it is wise to go so far as to actually screw through the rudder head into the tiller. When doing this you want to try to angle the tiller up. As it comes from the factory, the tiller points down too much for effective steering.
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- 9) **Smooth Teamwork** - A factor which contributes to good boat speed is smooth teamwork. Because there are many areas on the Capri which are sloppy (rig, centerboard, rudder, etc.), the less the team does to disturb them the less the boat will slow down. If both skipper and crew move smoothly in the boat, it will keep these areas working for you instead of letting them rob the boat of speed.

Good luck and good sailing!

Craig Leweck
