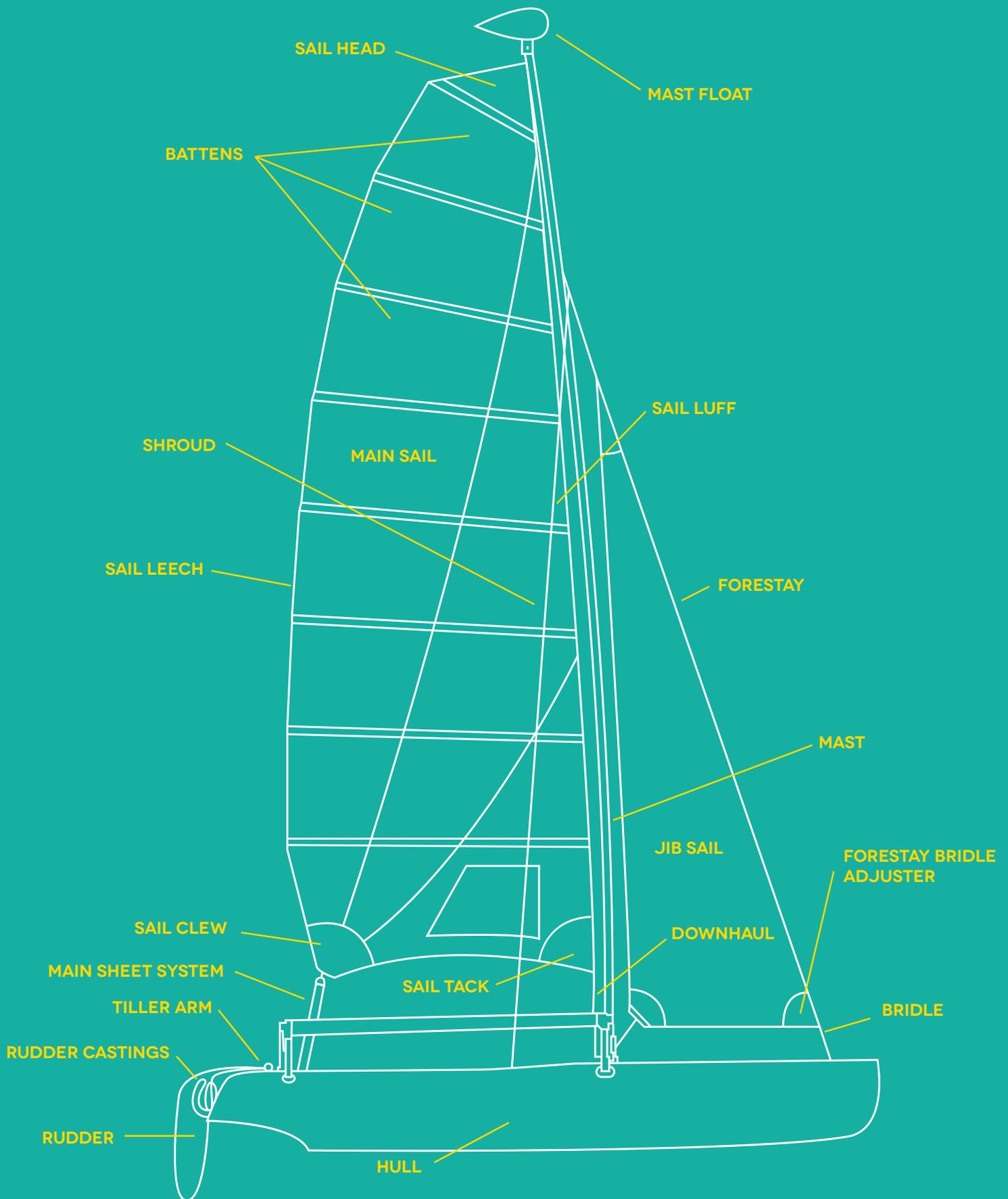


LAKE WAUBURG
SAILING
STUDY GUIDE

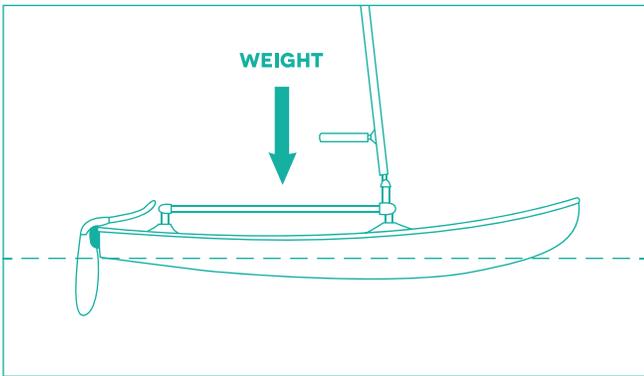
PARTS TERMINOLOGY



LEARNING THE BASICS

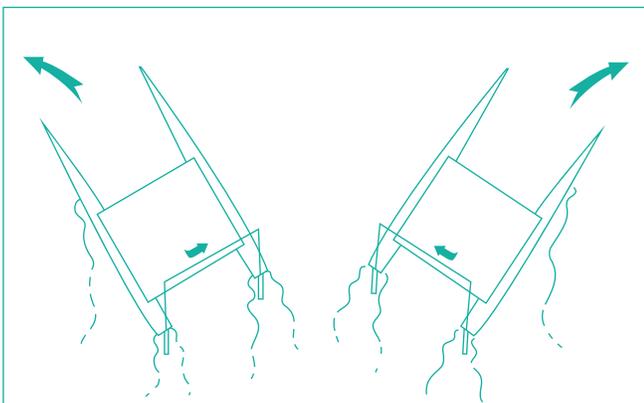
BALANCE

When getting in and out of a small boat, always do so from the center. Once aboard, position yourself on the windward side (the side the wind hits first) where you can easily reach the tiller or tiller extension and the mainsheet. This position works as a counterbalance against the effort of the wind hitting the sail and keeps the boat balanced properly as it moves through the water.



THE TILLER

Using the tiller is really quite easy. Just move the tiller in the opposite direction you wish to turn. Push right to go left and vice-versa. Remember, the boat must be moving before the tiller can affect the direction of the boat since it works by providing resistance against forward motion. Try the tiller a few times just to get the feel of how it works.



SHEETS

Sheets are the lines of rope which control the sail. To pull the sails in for certain tacks such as close hauled just pull the sheet in toward your body. On a broad reach, just let the sheet out away from your body. It's easy to think of the sheets as your throttle and your brakes. Letting them out until the sail starts to flap (luff) will put on the brakes and slow you down. Pulling them in until they just stop flapping will put on the gas and speed you up.

Keep the sheet in your hand. If you need to use both hands for something else, lay the sheet across your knee so that if a gust should come up, you will be able to release the sheet and avoid a capsize.

HIKING AND HIKING STRAPS

When the wind increases in strength, it becomes necessary to "hike out" to maintain proper balance and keep both hulls on the water. This is one of the most exciting parts of sailing catamarans. In all but the lightest of breezes, you should sit with your feet tucked under the hiking strap to prevent any chance of falling off of the boat.

CAUTION/ SAFETY TIPS

Watch for overhead power lines. Never rig, trailer or sail the boat near overhead power lines. Contact with a power line could be fatal.

Sail to your experience. Do not try to do more than you can. Do not take the boat out in the surf and do not head out for the ocean unless you are a real professional.

Wear a life jacket. Wearing life vests while sailing is important for everyone. Due to the large number of novice sailors that have purchased the boat, it is even more important to review this safety issue. Wearing a life vest is a smart thing to do. Also, a sailboat could sail away by itself if a person were to fall overboard. The best advice to a sailor is to stay with the boat. If they happen to fall overboard, or when righting the boat, they should hold onto the boat and not let it get away.

Learn the right-of-way rules and when in doubt, give way to others.

Adhere to car roof rack manufacturer's weight limitations and tie down suggestions when car-topping the boat. (The combined weight of the boat hulls and mast is approx. 150 lbs.)

When trailering the boat be sure to tie the boat and all the loose parts to the trailer in a secure manner. Stop and check the tie downs often.

Hobie Cat does not recommend leaving the boat in the water on a mooring. Accelerated wear to the boat and rigging will be experienced. Damage to the hull material is possible. Limitation of the mast rotation and tensioning of the rigging are required to lessen this wear. Inspect rigging often and tape rigging rings and shackles to prevent loosening.

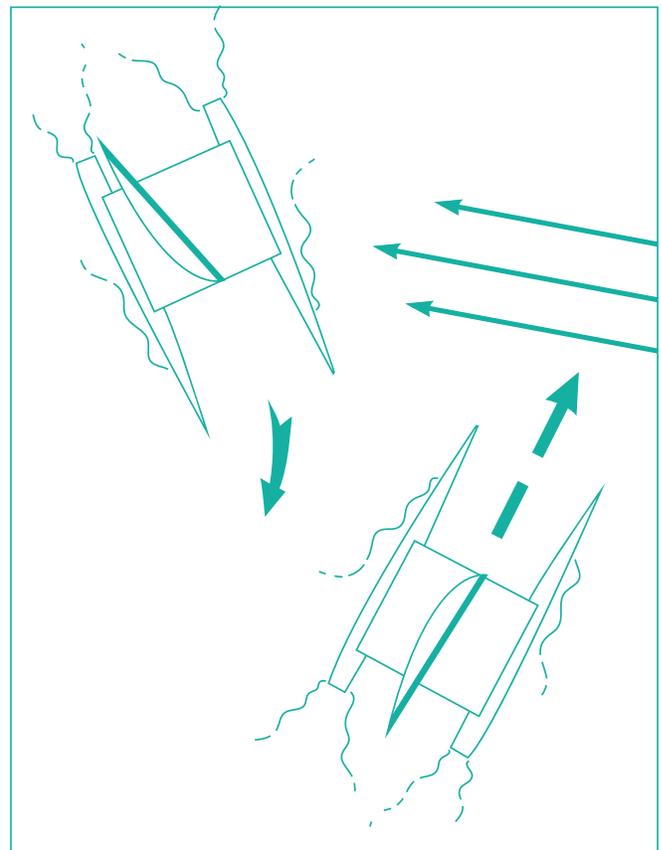
THE FOUR CARDINAL RULES

Yachting, like any other sport has rules which all participants must heed.

The four most common rules are diagrammed below and should be learned before you take your first sail. Just think of them as traffic regulations to prevent accidents. Remember, whenever you are in doubt of which rule applies, simply give way to the other boat. There are more rules than the four below, but these are the most common ones and should suffice for any experiences you are likely to have while learning.

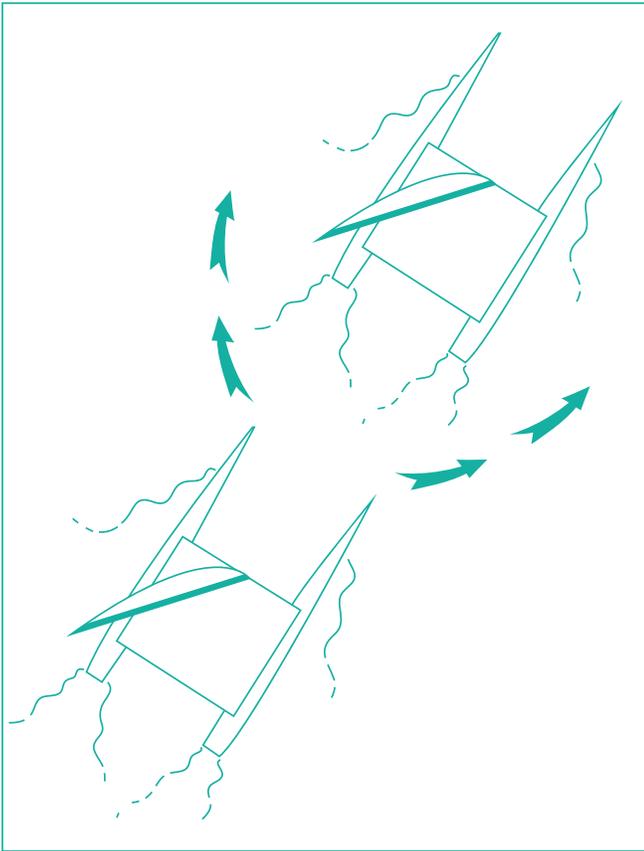
STARBOARD TACK

Starboard tack (wind hitting the right side of the boat) has right of way over a boat on port tack (wind hitting the left side of the boat). In other words, when the wind is hitting the starboard side of your boat, the boat on port tack must stay clear of you.



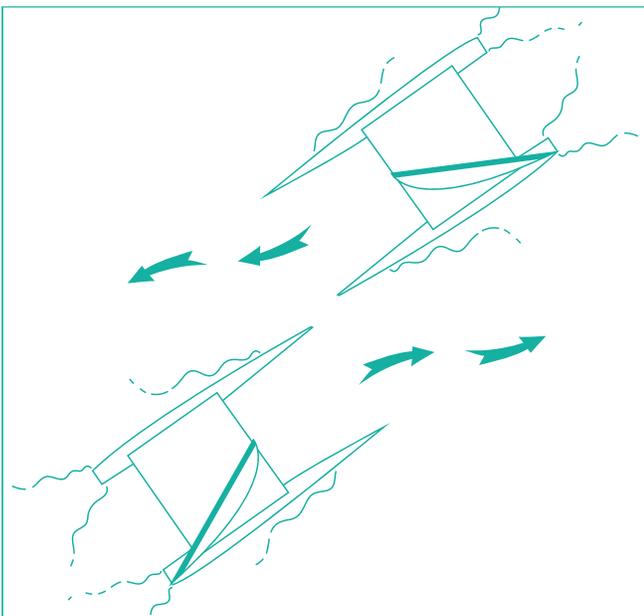
OVERTAKING

A boat coming up from the rear must stay clear of the boat ahead. You may pass on either side, but be sure to keep plenty of room between the boats.



HEAD TO HEAD

When two boats are approaching head on, each boat should stay to the right of the other. It's just like driving a car.

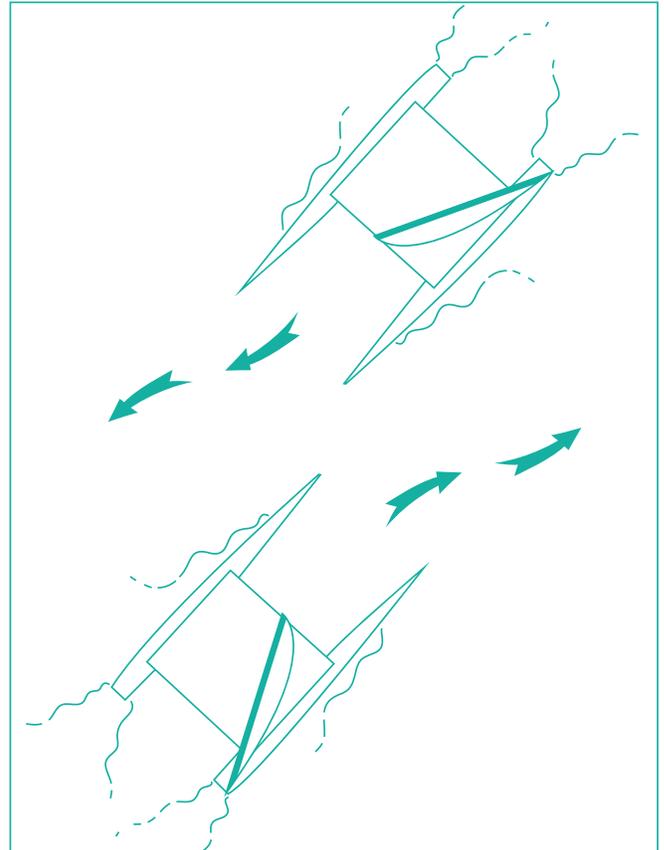


TACKING AND GYBING (JIBING)

A tacking or gybing boat shall keep clear of boats which are not tacking or gybing.

These rules are very easy. Just remember:

- 1** Starboard over port.
- 2** Overtaking boats stay clear.
- 3** Stay to the right of approaching boats.
- 4** Keep clear of other boats when turning.



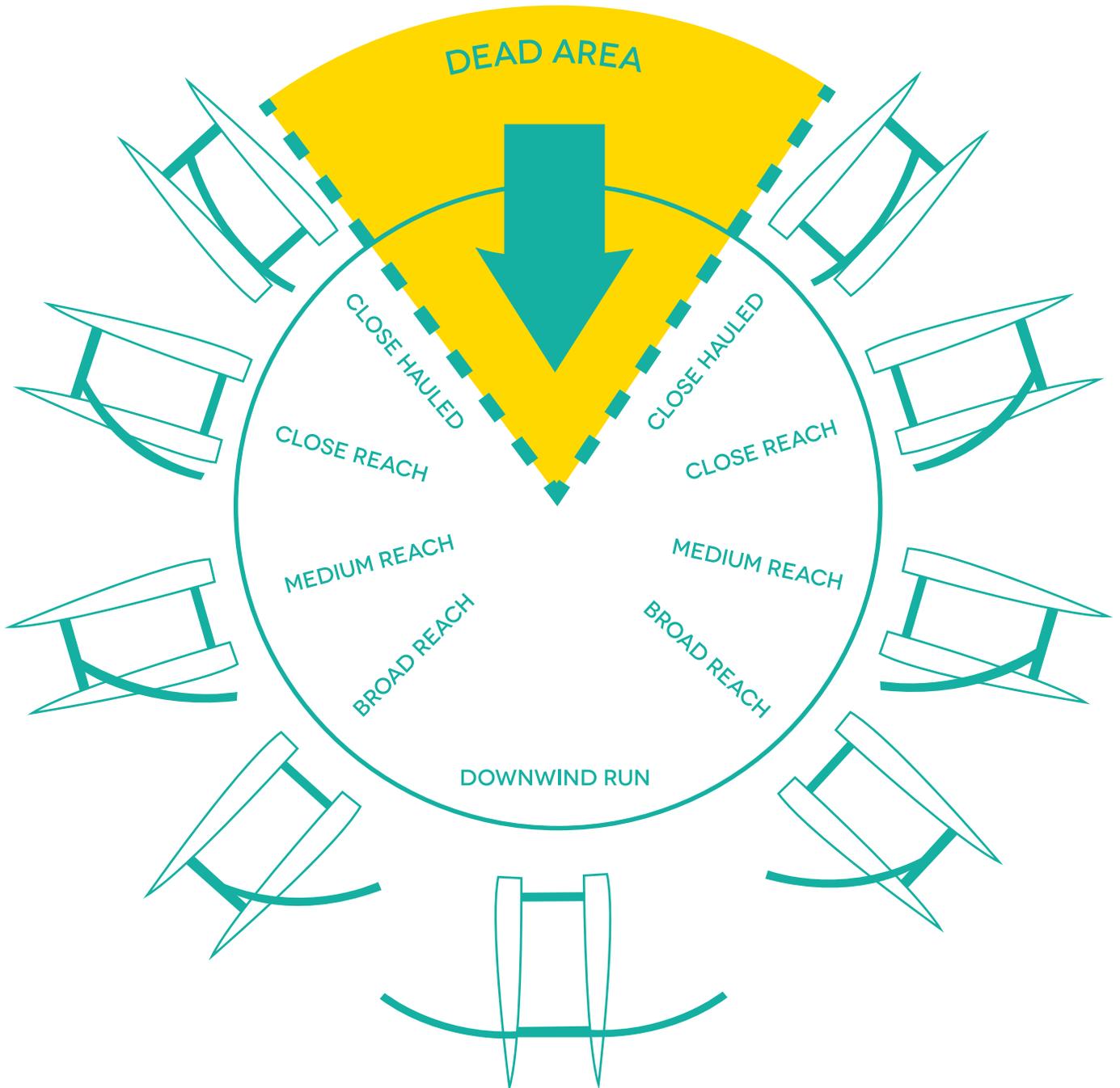
WIND

WIND IS THE KEY

The boats with the wind hitting their starboard (right) side are on starboard tack. The boats with the wind hitting their port (left) side are on port tack.

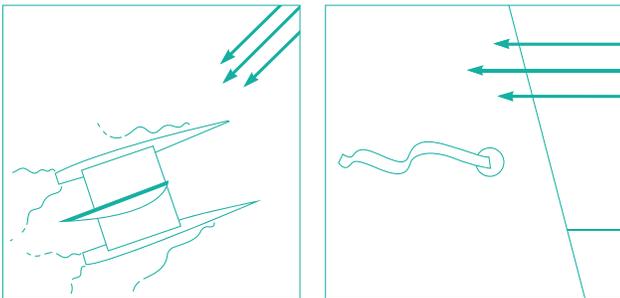
POINTS OF SAIL

Note: All angles given exclude the effects of apparent wind. The angles in the next section are valid only in light wind conditions. (See Apparent Wind section.)



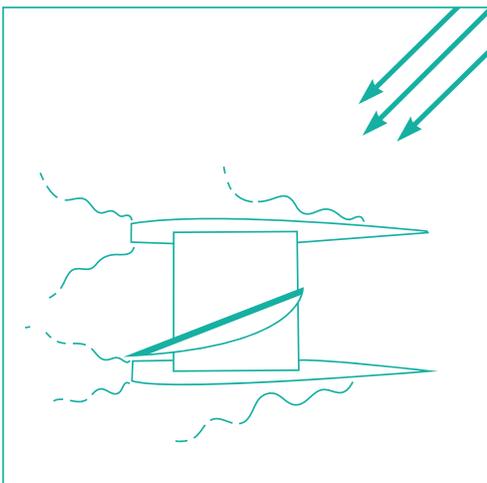
POINTING (SAILING TOWARD THE WIND)

Although it is impossible to sail directly into the wind, it is important to know how to sail as “close” to the wind as possible. The highest most catamarans can point into the wind and sail efficiently, is an angle between 35 and 50 degrees off the wind. When sailing on this point of sail, the wind will be coming across the bows of the boat and the telltales should be pointing straight back parallel with the water. To set your sail for best effectiveness, let it out until the inside (weather) telltale just begins to luff, then pull it back in just to the point when the telltale stops luffing. Look at the telltales to be sure that those on either side are aligned with each other. This tells you that air is flowing smoothly and uniformly over the sail. If the outside telltale begins to luff, just let the sail out a little. Keep both telltales streaming together.



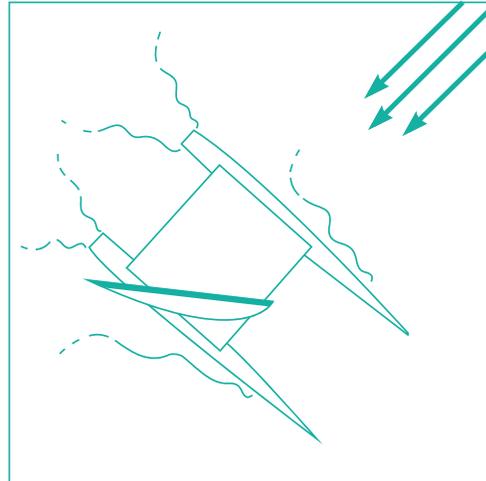
CLOSE REACH

The next point of sail is called the close reach and is one of three types of reaches. In this case, the wind is hitting the boat between the bows and the beam or middle, of the boat. In other words, a 45 degree angle. This is one of the most exciting points of sail. To get the most out of it, just follow the directions above for aligning telltales and adjusting the sail.



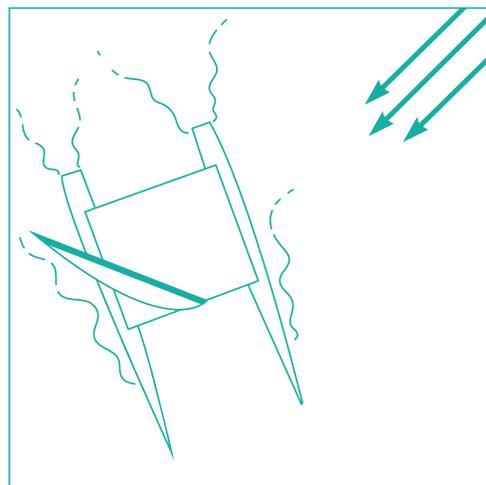
BEAM REACH

A beam reach is when the wind is coming directly across the side of the boat at a 90 degree angle. Once again, align the telltales and adjust the sail by bringing it in until it just stops luffing. A beam reach is also known as a medium reach.



BROAD REACH

A broad reach is when the wind is coming between the stern and the side of the boat at approximately a 45 degree angle. Remember to adjust and align. This is the easiest point of sail. The boat will feel very stable and will move through the water quickly and easily. It is important to keep the boat properly balanced on this point of sail for the boat to move to the best of its ability. For example, when heavy winds are present, weight should be kept toward the back of the boat.

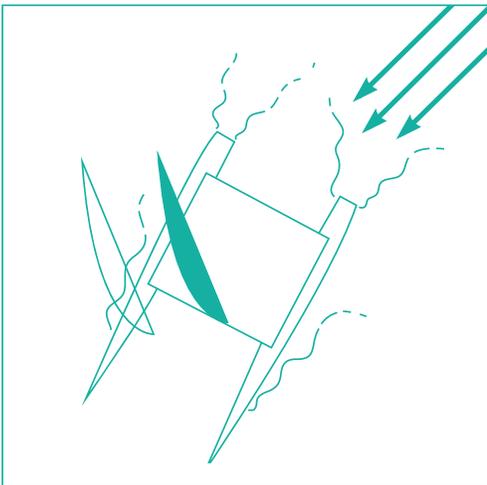


RUN

A run takes place when the boat is directly downwind and the breeze is pushing the boat from behind. In this Case, you will feel very little breeze since the wind is coming from behind the boat. The sail telltales will not be used on a run since alignment is not possible. On a run, the wind is not flowing over the sails but rather pushing the sails.

The Hobie 14 sails well on a run, but because the Hobie 16 and 18 carry jib sails, most skippers prefer to generate more speed by reaching and thus making use of apparent wind. (See Apparent Wind section for an explanation of this phenomenon.)

There is a danger of gybing, that is turning away from the direction of the wind, when running downwind. If the boat hits a wave, the course may be altered enough so that the wind will be able to sneak around the side of the sail and force it to the other side, causing the boom to snap across. There are symptoms of an upcoming gybe. The boom will begin to waver and slowly rise. Be prepared for a gybe. If one should take place, make the necessary adjustments such as switching positions.



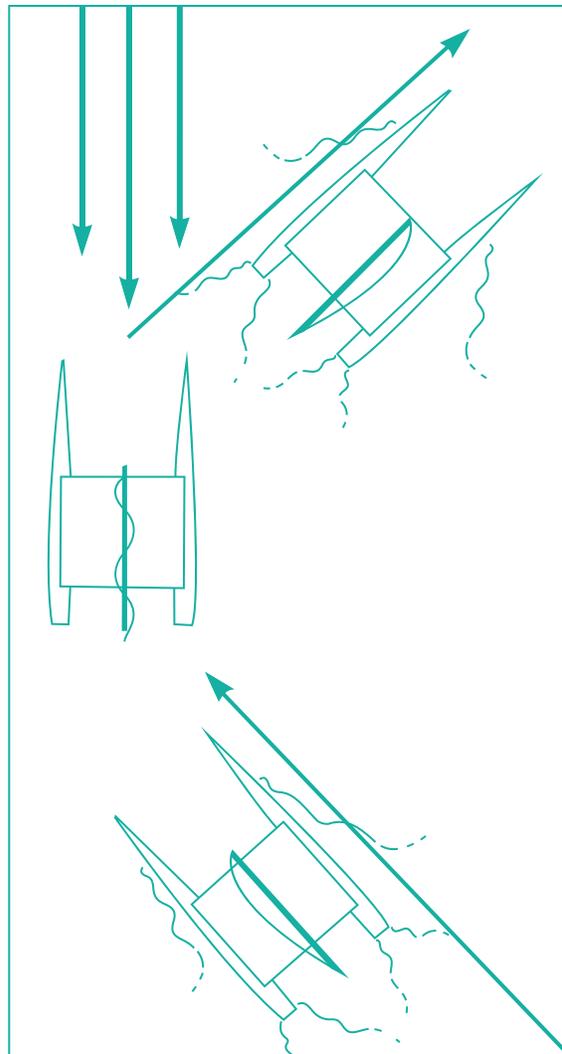
THE EFFECTS OF WIND DIRECTION

The direction from which the wind is coming will dictate your course. Imagine that you are sailing on the face of a giant clock. The wind is coming from noon on the clock and you wish to sail to the area between 10 on one side and two on the other side. Unfortunately, this area is normally "dead area," meaning that it is impossible to sail directly into it. Instead, you will have to zigzag across the face of the wind to arrive at your destination. This is known as "tacking". Any other course

on the clock face can be reached simply by sailing toward it. For example, if you wished to sail to "three" on the clock face, you would be sailing a beam reach directly for the goal. The same would be true if you were sailing to nine on the clock. Sailing to three would put you on a port tack. Sailing to nine would call for a starboard tack.

Whenever you change your course, remember to align and adjust the sail. If you forget, you will not be getting the best performance out of your cat. Watch those telltales and the sails. Align and adjust.

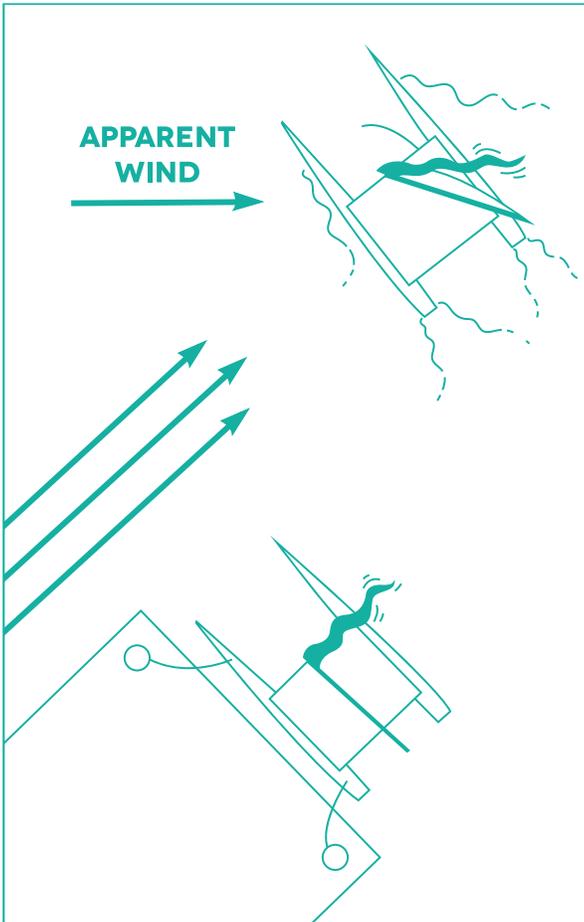
To determine which direction the wind is coming from, watch flags or trees around the body of water on which you plan to sail. It's also a good idea to ask fellow sailors about the "wind reputation" of a given area and to watch the weather report the night before. While you are still learning, it is a good idea not to venture out when strong winds are blowing. They may be a bit more than you are prepared to handle.



APPARENT WIND

Apparent wind is the term sailors use when talking about where the wind appears to be coming from. Because of the speed catamarans are capable of generating, the true wind (which can be determined by looking at a stationary object), is affected by the forward motion of the boat. Therefore, a pennant or telltale attached to the bridle fly or mast will show the wind coming from a different direction from the true wind. As a general rule, the faster the boat is going, the more forward the wind appears to be originating.

When sailing, the sails should always be adjusted to the apparent wind rather than the true wind. This is so an airfoil can be maintained and the boat can generate lift.



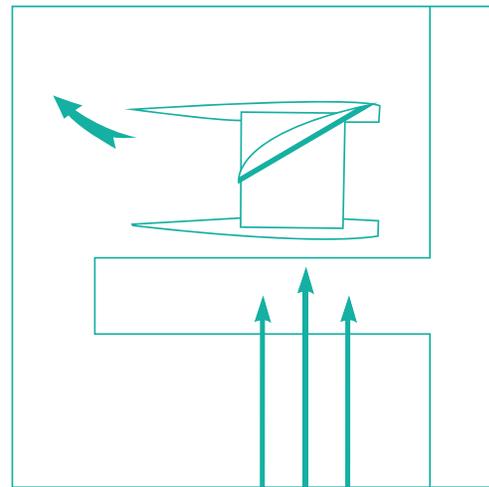
LAUNCHING

Now that we've gone over all the points of sail, parts of the boat and some basic rules, let's describe how to get started from a beach or dock. Remember, though, that it is necessary to read and understand all of the instructions in this manual before you attempt the maneuvers described.

LAUNCHING FROM THE DOCK

If your boat is resting at a dock, the problem will be how to move the boat from a standstill at the dock and turn it away from its mooring. First, step aboard, keeping your weight on the trampoline. Be sure all sails are loose and unsheeted. Have someone untie the line connecting the boat with the dock, or, if nobody is present, untie the line before getting into the boat. Sit facing the sail and check to make sure that no other boats or obstacles are too close for you to be able to negotiate the boat away from the dock. Remember cardinal rule number four?

When the wind is blowing away from the dock, launching is very easy. Just let the wind fill the sails and move you downwind using the tiller to navigate your way out.



If you are on the windward side of the dock, however, you face a problem. In this case, the wind will tend to hold you fixed against the dock. An easy way out is to walk the boat to the end of the dock, let the wind fill the sails and out you go. But, if this is impossible, trim your sails just the way you would if you were sailing under the same wind conditions out on the water. Then, shove off with one hand on the tiller to begin

steering immediately. This is the joy of sailing small boats. They can gather enough speed to get away from docks and the like in just seconds.

LAUNCHING FROM THE BEACH

One of the great joys of Hobie Cat sailing is the ability to land and launch the boats directly from the beach. In fact, that was the inspiration behind their invention.

When launching from the beach, be certain that the sheets are out so the wind won't catch the boat, push the boat out into the water until you are standing about knee deep. Take note of the wind direction. It will tell you what your first move should be when you jump aboard. If the Wind is blowing toward the beach, decide ahead of time what tack you have to take to sail toward your target. Then, just slip aboard the boat, sheet in, and have fun.

Although launching through the surf can be intimidating, it is not terribly difficult if the proper steps are taken. Launching through the surf should only be done by experienced skippers, it requires some fast movements and beginning skippers may not be able to anticipate fast enough.

- 1** Check the wind. If the surf is of any size at all, be sure that the wind is blowing parallel to the beach, in other words, a 90 degree angle to your boat. It's possible to launch through the surf if the wind is blowing from offshore, but it must be blowing fairly hard as enough boat speed to get you through the waves will be of prime importance.
- 2** Place your mainsheet and the tiller extension on the correct side of the boat for sailing. Just act as if the boat is really in the water. Everything should be where it would be if you were sailing.
- 3** Watch the surf. You'll note that it comes in sets of waves and that there is a space of time between the sets.
- 4** As soon as you see a lull, start pushing the boat from the back crossbar out into the water. Be careful to keep the bows pointing directly into the surf. If they should turn sideways, the boat could flip over. If you see them starting to turn, run to the front of the boat and set them straight again.

- 5** As the water deepens, jump onto the boat and immediately lower the rudder closest to you and pull in the sail. Never let go of the tiller as the boat could head directly into the wind and stop. Pull in the sail enough to get some good speed going but not all the way.
- 6** Once the boat is moving, it is acceptable to head the boat on a slight angle to the waves if this will yield more speed. As you move over a wave, keep your weight forward and then bear off slightly as the boat comes down the back of the Wave.
- 7** If it appears that a wave is going to break right in front of you, get as much speed as possible, then, at the last moment, point the boat directly into the wave. Once the wave passes, bear of a little to get your speed built up again.

STEERING

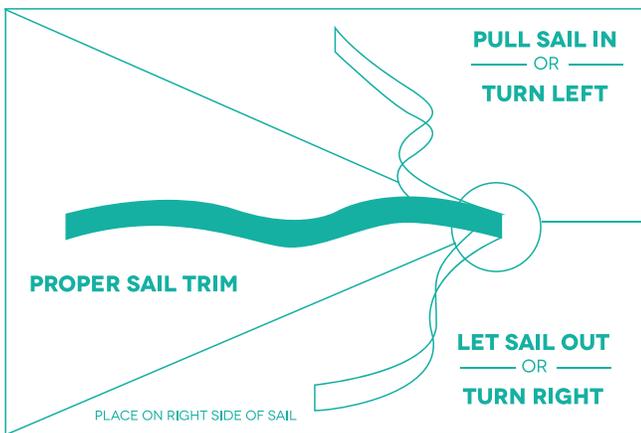
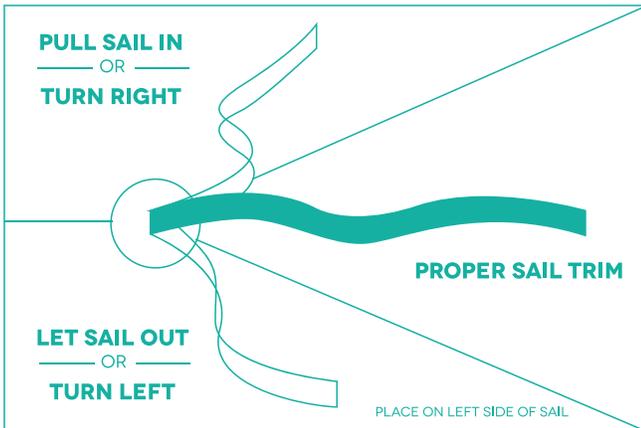
Steer the boat by pushing the tiller away from you to turn towards the wind. Pull the tiller towards you to turn away from the wind. Keep the movement of the tiller to a minimum to prevent over-steering. This will help you keep the boat moving in a straight line as you pay attention to other watercraft and sail adjustments.

SAIL POWER

Face the sail in order to pay close attention to the trim or adjustment of the sail. When the front of the sail, just behind the mast, luffs or flutters in the breeze, you lose power. To start moving, pull the sail in just enough to stop the sail from luffing. There are also short ribbons hanging on either side of the sail. Follow the diagram of sail and course adjustments above using the "tell tails" to get the most performance out of the sail for all angles of sailing. The tell tails react to air flowing over the sail and will help you see that the sail is pulled in too tight or too loosely. If you pull the sail too tight you will stall the sail power. Ease the sail out until it luffs, then pull it in just a little until it stops luffing. You will adjust the trim whenever the wind changes direction or you change course.

Refer to the sail trim diagram below for approximate sail settings for the different points of sail or directions you will be sailing. Note the "can't sail zone". You cannot sail in this direction due to the fact that the sail will luff constantly when pointed into the wind.

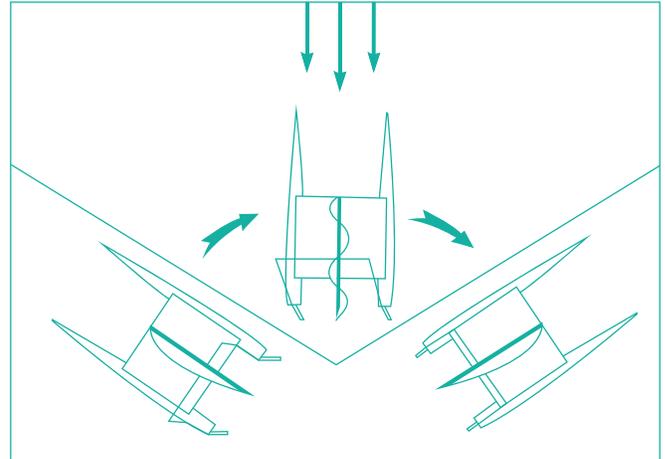
If you get stuck in irons (or stop pointed into the wind) you will need to reverse the rudder and push the sail forward to back-wind it. The jib should be back-winded by the crew to assist. This will back the boat up. Reverse the rudders and let the sail out until the boat is positioned more across the wind (close reach). Then you can correctly trim the sail and start moving forward.



TURNING

TURNING INTO THE WIND

Turning into the wind, or coming about, is the most common sailing maneuver. When coming about, the object is to pass the bows of the boat through the eye of wind and over to the other side. Let's refer to the clock example. Suppose you are sailing to the ten o'clock position, but Wish to Change Course and sail to the two o'clock spot. You would first move the tiller toward the sail to move the bows through the wind coming from noon. Then you would straighten the tiller once the boat is heading on the desired course.



Here's the procedure step by step.

- 1** Before coming about, ask yourself what you are trying to achieve by doing so. Where do you want the boat to be when you have completed your turn? It's a good idea to pick a spot on land and aim the boat toward that spot for reference. Remember, you must turn the boat at least 90 degrees or you may stall in the wind (put yourself in irons).
- 2** Push the tiller smoothly but firmly about half the distance toward the sail while letting the mainsheet out about one foot.
- 3** As the boom swings over, duck and move to the other side, opposite the new sail position.
- 4** Exchange the mainsheet and tiller extension in your hands. The mainsheet should always be in your forward hand, the tiller extension should always be in your aft hand.
- 5** Straighten the tiller after you have completed your turn and the boat is moving toward your reference point.

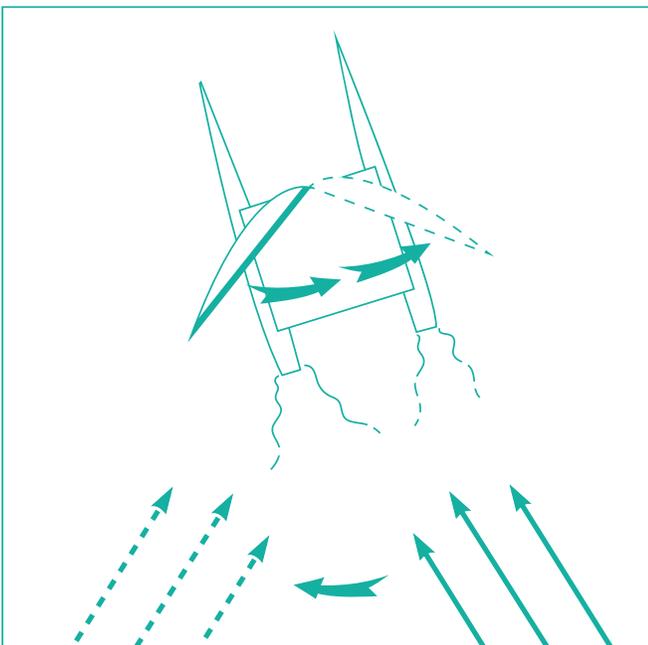
Notes: Move the tiller firmly, but avoid sudden, jerky moves. Try to carve a smooth arc in the water. Forcing the tiller all the way over will put on the brakes and put the boat in irons (or stall it). Let go of the tiller, or the boat will straighten out before you want it to. When tacking a catamaran with a jib sail, keep the jib sheet cleated until the bows are fully through the eye of the wind. Then release the jib sheet and pull it in on the other side. This is called "backwinding."

TURNING AWAY FROM THE WIND

Turning away from the wind, or gybing (sometimes spelled jibing), is changing course while sailing downwind. Just think of gybing as the opposite of coming about. When coming about bows cross the wind. The sterns cross the wind when gybing. When gybing in light air, you will probably have to give the boom some help in swinging across to the other side of the boat.

To gybe, just pull the tilter extension toward your body with the same smooth motion as when coming about, grab the mainsheet just below the boom, and, when the sterns cross the wind, warn the crew and swing the boom across. As soon as the sail begins to fill with wind, move to the other side of the boat and off you go.

Gybing in heavy air can be more difficult since everything will have to be speeded up correspondingly. In heavy air, the boom can snap across with a lot of force. For this reason, it's best to come about in lighter winds until you have had a chance to practice gybing to the point where you feel confident that you can handle heavy air with dexterity. You should be especially aware of wind shifts in heavy air. If the wind should suddenly change direction as it blows across the stern of the boat, it could grab the sail and swing it far out to the other side very quickly. This is an unplanned gybe and could damage the boat if the wind is strong enough, or it could cause injury to unaware crew members.



RIGHTING

It's a fact of life that catamarans flip over. That's why sailors should be prepared to get a little wet if they are going to sail at challenging points of sail or in heavier winds. Righting the boat is easy and, once you have mastered the art of it (a half hour of practice should do it), you will not be afraid to take your boat and yourself to the limit. That's yet another joy of sailing small cats. The only penalty for going past the limit is getting wet. Here's how to right your boat once it has turned over:

- 1** Be sure that the sheets are not cleated. If they are, uncleat them. Cleated sheets will cause the sails to hold water and make righting nearly impossible. If the top side of the boat is not facing the wind, shift the boat around so that the top side of the trampoline is into the wind.
- 2** Untie the knot in the righting line and tie one end to the shroud of the hull that's out of the water, then toss the other end over that same hull.
- 3** Swim around to the bottom side of the boat.
- 4** Stand on the hull that is not out of the water, being sure to position yourself in the center. Grab the righting line you strung over the other hull, and lean back.
- 5** The boat should begin to slowly come up. The wind hitting the trampoline will help push the boat and your weight will make use of gravity to help the hull down.

Notes: When the boat begins to come back over, be sure it doesn't land on you. Just position yourself between the hulls and when the boat is stable, climb aboard from the aft portion of the trampoline. If the boat has "turtled," that is, completely flipped so that the mast is pointing directly down to the bottom of the water, the first step is to maneuver the boat onto its side. This is accomplished by placing all available weight on the stern of the hull you want to remain in the water when the boat is on its side. This will take awhile, so be patient. Once the boat is on its side, just follow the procedures above. If you chose to make use of powerboat assistance, be sure the powerboat moves slowly and carefully so as not to damage the catamaran. It is rare that such assistance is needed. Never strike out for shore on your own if you should fail to right the boat unless you can wade in safely.

SAIL HOISTING

Raising the mainsail of a Hobie can be more difficult than need be.

Several factors can cause the mainsail to be difficult to hoist. Dirty luff ropes and luff tracks. These can be cleaned with soapy water and a scrub brush. If you want to use a lubricant, keep away from oils and waxes that can attract dirt. Use a dry silicone spray. Most all Hobie sails now have a Teflon threaded bolt (luff) rope to ease the hoisting effort.

Battens and sail shape. The battens stiffen the airfoil shape of your sail. Over tensioning of the battens can cause a couple of problems. Luff protector caps can be forced against the mast and cause drag when hoisting. The battens also force the sail shape into a curve. The luff curve (seen when laying the sail out on the ground, as a large arch) is typical to Hobie Cat main sails. The sails "airfoil" shape is mostly created by the miss-matched mast bend and luff curve of the sail. The luff curve is more than the likely mast bend and when the mast is straight (while hoisting) the difference is dramatic. This luff curve going up the straight mast can cause significant drag and hoisting problems when done incorrectly.

HOIST TECHNIQUE

Keep the batten tension to a minimum. Hoist the sail slowly, while feeding into the mast opening. When the sail gets about 3/4's of the way up, begin aggressively feeding at the bottom opening and reduce the amount of halyard effort. If the halyard is pulled tight when the sail is not being fed into and up the track, you will have problems. The sail luff will pull taut and the curve shape will bind in the (straight) mast track. Lower the sail slightly and begin feeding again.

The best way to feed the sail is to stand in front of the mast and reach around either side to "sandwich" the sail between two hands (above the feeder opening) and push the sail up the track. Pull with the halyard, only the slack created, then feed again. If the sail binds, lower slightly and begin feeding again. This technique can be done by one person, but is certainly easier with two working together. It is VERY important that the person on the halyard only pulls the slack up the mast and does not get ahead of the feeder.

LOCKING

LOCKING THE 14/16 HALYARD

Once the sail is fully hoisted (be sure that the sail is fully inserted into the feeder). Pull the halyard forward of the mast by 3-4 feet. Hold the halyard on the centerline of the mast. Pull hard and hold the tension while bringing the halyard into the mast. Release the halyard tension and see that the sail remains fully hoisted. This seats a small bead, in the halyard, under a two finger prong "hook" and the top of the mast. If the sail slips down when downhaul tension is added, repeat the final hoist technique again. Be sure the bead is clear to pass the hook before pulling tension on the halyard.

LOCKING THE 17/18/20/21 HALYARD

It is best to simulate the halyard locking with the mast down so you clearly understand the system. Then, depending on how old the boat is, be sure the hook does not have the old "flopper" stainless piece hanging on the hook. This old device caused difficulty in raising and hooking but would make it easier to release and lower. Also, be sure that the knot tied to the ring is very low profile. A long bowline knot will hit the mast head before the ring gets to the hook. If the ring has a small loop at the top the line should be passed through the loop and a small knot tied. The knot (when ring and shackle are affixed to the sail) should be facing the mast. This tilts the ring closer to the mast. Then (before attaching halyard shackle to the sail) spin the halyard 3 or 4 times clockwise (looking down on the shackle). This "pre-loads" the halyard line and causes the ring to swing back towards the hook. Keep the boat into the wind and hoist. Should lock easily. To release fully release the downhaul and outhaul. Partially feed the sail up the luff track. Hoist with the halyard to the top till it stops, hold rotate the aft of the mast base to starboard, hold the mast rotated, ease the halyard a few feet before releasing the mast. Lower the sail.

DOCKING

Docking the boat properly will prevent damage. Always dock and rig on the leeward side of a dock (the side the wind reaches last). Come in slowly and always be aware of the wind direction so you can properly de-power the boat when needed. The stronger the wind the more difficult the docking will be. Until you feel confident, you may want to practice with a friend who will remain on the dock and help slow you down if necessary.

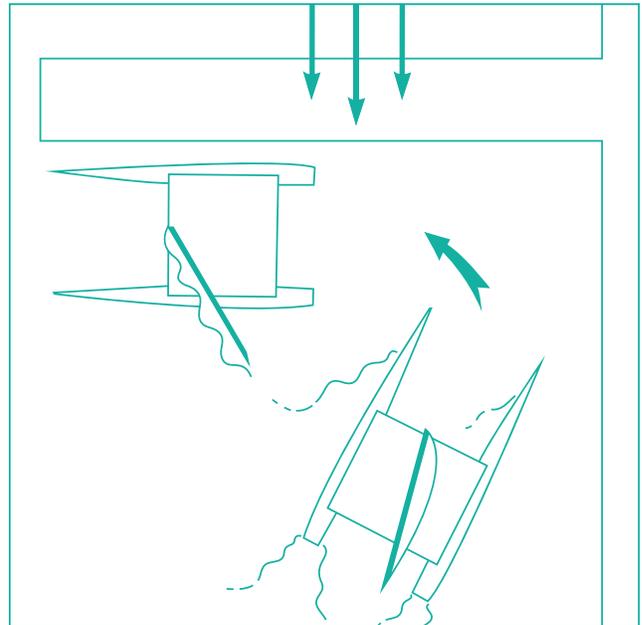
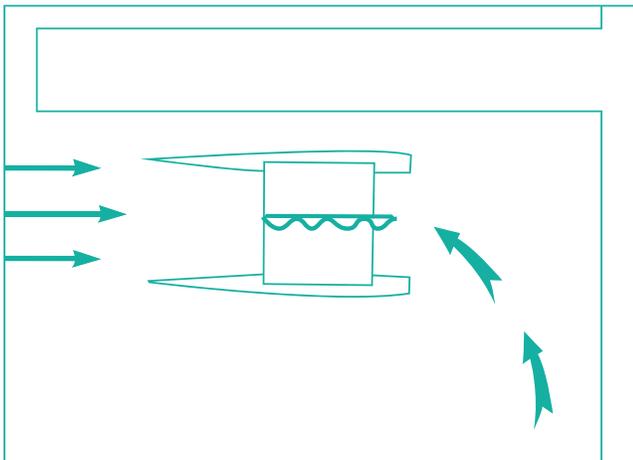
LANDING

Now that you've practiced sailing, what do you do when you are ready to come in? Landing your boat, whether at a dock or on a beach is not difficult if the proper procedures are followed for the various wind conditions you are likely to encounter.

LEEWARD LANDING

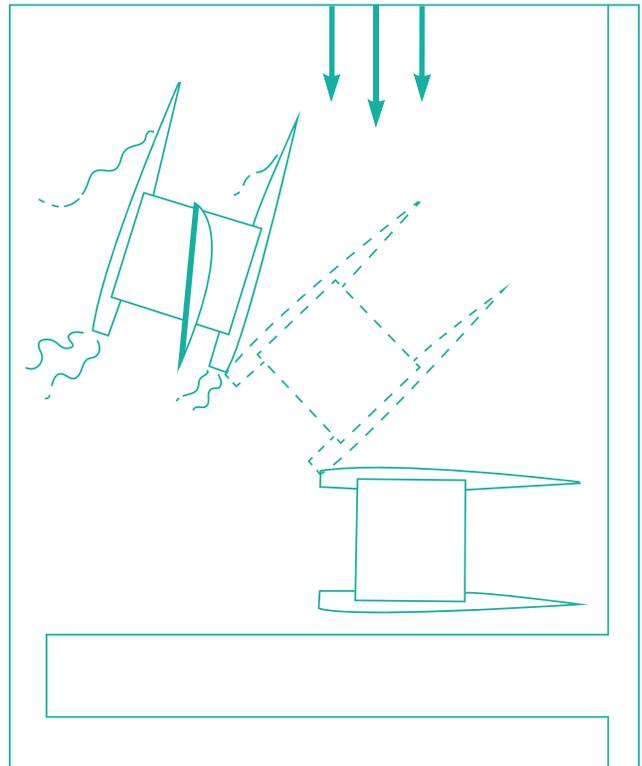
If a choice is available to you, it is always best to land at the dock from the leeward or downwind side with your bows heading into the wind or pointing. The trick is to be able to head into the dock with just enough speed to be able to turn at the proper moment without stalling yourself before you get there. To land, let the sail out slightly to reduce your speed; come about just before the bows hit the dock; let the sails out and grab on to the dock.

If you are approaching the dock on a reach, follow the same basic procedure being sure to point the boat into the wind slightly before you reach your destination and let your sails luff so that you can simply glide into the position you want.



WINDWARD LANDING

When landing on the windward side of the dock, approach at an angle at a reduced rate of speed. Then head up to point your bows into the wind and allow the sails to luff. The wind will then blow you back into the dock. Although this is the least desirable way to land a boat, it is certainly nothing to be afraid of and practice will cure any problems you may encounter during your first few tries.



BEACH LANDING

Two of the greatest joys of owning a Hobie Cat are the ability to land at your favorite beach without having to dock the boat and being able to take off again without any trouble. That's why many people like to take their Hobies on picnics and camping trips. There is just no need for a dock so availability is never a problem.

Beware of sailing into isolated coves, bays and beaches, however. Power companies often string powerlines over these areas, so ask other sailors if they know of any powerlines and keep a sharp eye out for them yourself. If there is any doubt about the presence of powerlines, do not sail into the area. Also, be sure not to sail onto unknown beaches since hidden rocks and stones can damage the hulls.

RUDDER TUNING

You may adjust the rake of your rudder blades on your Hobie boat. The amount of rake in a rudder blade affects the "feel" at the tiller. Basically, more forward blade rake neutralizes the pull on the tiller and less forward rake increases the pull on the tiller. Tuning blades for a comfortable feel is a matter of individual preference but a close to neutral "feel" generally provides the best steering.

The following sketches are of a Hobie 16 rudder assembly but the adjustments are the same.

- 1) The first step in making any rudder rake adjustment is to determine the existing rake. This is done with the rudder assembly hanging on the boat's transom, blade down and locked. Using a straight edge or snap line, extend the centerline of the rudder pivot pins down, across the leading edge of the blade and draw a pencil line along that length. Measure the distance from the pencil line to the most forward spot 12" down the blade from the bottom of the casting. Rudder blade rake is pre-set at the factory to 1-1/8". This amount will be best for the average sailor and is a good starting point from which to begin any adjustments.
- 2 To make any adjustment to the rake, unlock the tiller arm from the rudder housing and leave it unlocked.

- 3 If you wish to increase the amount of forward rake in the rudder blade, turn the rake adjusting screw counterclockwise using a 3/16" Allen wrench. Determine the increase in the rake by extending a new line from the centerline of the pivot pins. Re-measure the distance from the pencil line to the leading edge. Continue to adjust and measure until you have the desired amount of forward rake.
- 4 If you wish to decrease the amount of forward rake turn the adjusting screw clockwise using a 3/16" Allen wrench. Check the decrease in the rake by the procedure in step 3 above .
- 5 Next, while holding the rudder forward against the lower casting, carefully latch the tiller arm down onto rudder housing. Loosen the adjusting screw on top of the tiller arm about 3/4 turn. Slide the adjusting screw forward (toward bow of boat) until it stops, then retighten. See sketch C.
- 6 Hobie Cat rudder blades are preset to break away from the locked down position at 17-26 pounds by testing with a line around the rudder blade seven inches above the lowest tip of the blade. Once the rake is changed, the breakaway tension should be rechecked. The tension may be adjusted by turning the 3/4" internal screw in the housing. The screw tensions an internal spring. Turn it clockwise to increase and counter clockwise to decrease the tension.

GLOSSARY

AFT: toward the stern

BACK: to push sails out so wind pushes boat backward

BACKWIND: to push sails out so wind pushes boat backwards

BATTEN: a thin wooden or fiberglass strip placed in pockets of a sail to help hold its form

BEAR: to move in a certain direction—to “bear up” is to turn windward; to “bear off” is to turn to leeward; to “bear down on” is to approach another boat from windward

BEAT: to sail windward

BOOM: spar at the foot of the mainsail

BOOMVANG: a line used to hold boom steady for offwind sailing

BOW: the forward part of the boat

BROACH: to swing broadside to a following sea or surf—a dangerous maneuver

CAPSIZE: to turn over

CLEAT: a fitting to which ropes are tied

CLEW: the lower back corner of a sail

CLOSE HAULED: sailing as close to the wind as possible

COME ABOUT: to tack (See “Tack”)

DOWNHAUL: a line for hauling down a sail to give it more effective shape while hoisted

DOWNWIND: sailing with the wind aft

FOOT: the bottom edge of a sail

FORE: the forward part of a boat

FORE-AND-AFT: lengthways of a boat

FURL: to roll and tie a sail on a boom

GOOSENECK: fitting connecting the boom to the mast

GROMMET: a metal ring set into material for a line to attach to or through

GYBE: to cause sails to swing over to opposite side when wind is aft (also spelled jibe)

HALYARD: a line used to hoist a sail

HEAD: the top corner of a sail

HEADING: the direction of boat’s travel

HEAD OFF: to turn boat away from the wind

HEADSTAY: the forward wire supporting the mast

HEAD-TO-WIND: bow headed into the wind, sails luffing

HEAD UP: to turn boat toward the wind

HELM: the rudder or tiller steering the boat

HIKE: to climb or lean out to keep the boat flat

HIKING STRAPS: straps under which the sailor tucks his feet to facilitate his leaning backwards out over the rail for better balance and safer sailing

IN IRONS: when tacking, a boat that will not come about but lies head-to-wind is said to be “in irons”

LEACH: the after edge of a sail

LEE: the side of the boat away from the wind; opposite of weather

LEEWARD: direction away from the wind; opposite of windward

LEEWAY: drift sideways due to wind pressure

LUFF: to head a boat into the wind; the forward edge of a sail



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