

HOBIE[®] *Wave*





WELCOME TO THE HOBIE WAY OF LIFE

Congratulations on the purchase of your new **Wave** and welcome to the HOBIE® sailing family. The HOBIE **Wave** cannot be outgrown. It can be sailed by children and senior citizens. A 90-pound youth can handle it easily, a single adult can sail it at top performance, and a crew of four can cruise in comfort.

We offer this manual as a guide to increased safety and enjoyment of your new boat. The purpose of this publication is to provide easy, simple and accurate instructions on how to get your **Wave** ready for the water. Please read them carefully and familiarize yourself with the boat and all of the parts.

Whether you are a new sailor or a veteran of many years, we recommend that you read this thoroughly before your first sail and TRY IT OUR WAY FIRST! If you are new to sailing, this manual alone is not intended to teach you how to sail. There are many excellent books, videos and courses on the safe handling of small sailboats. We suggest that you contact your local sailboat dealer, college or Coast Guard Auxiliary for recommendations.

Watch for overhead wires whenever you are rigging, launching, sailing or trailering with the mast up. **CONTACT OF THE MAST WITH POWER LINES COULD BE FATAL!** Be certain that the rigging area and the area that you will be sailing in are free of overhead power lines. Report any such power lines to your local power authority and SAIL ELSEWHERE.

We take pride in presenting the **Hobie Wave** to you and hope that you'll take as much pride in owning her.

Fair winds and good sailing!

Hobie Cat

Hobie Wave

Assembly Manual

This assembly manual takes you step-by-step through the set-up and sailing of your new Hobie Wave, and will help you understand each part in detail.

Setting up your *Hobie Wave* PAGE

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Please note that this manual covers two models of the Hobie Wave (Classic and Club).

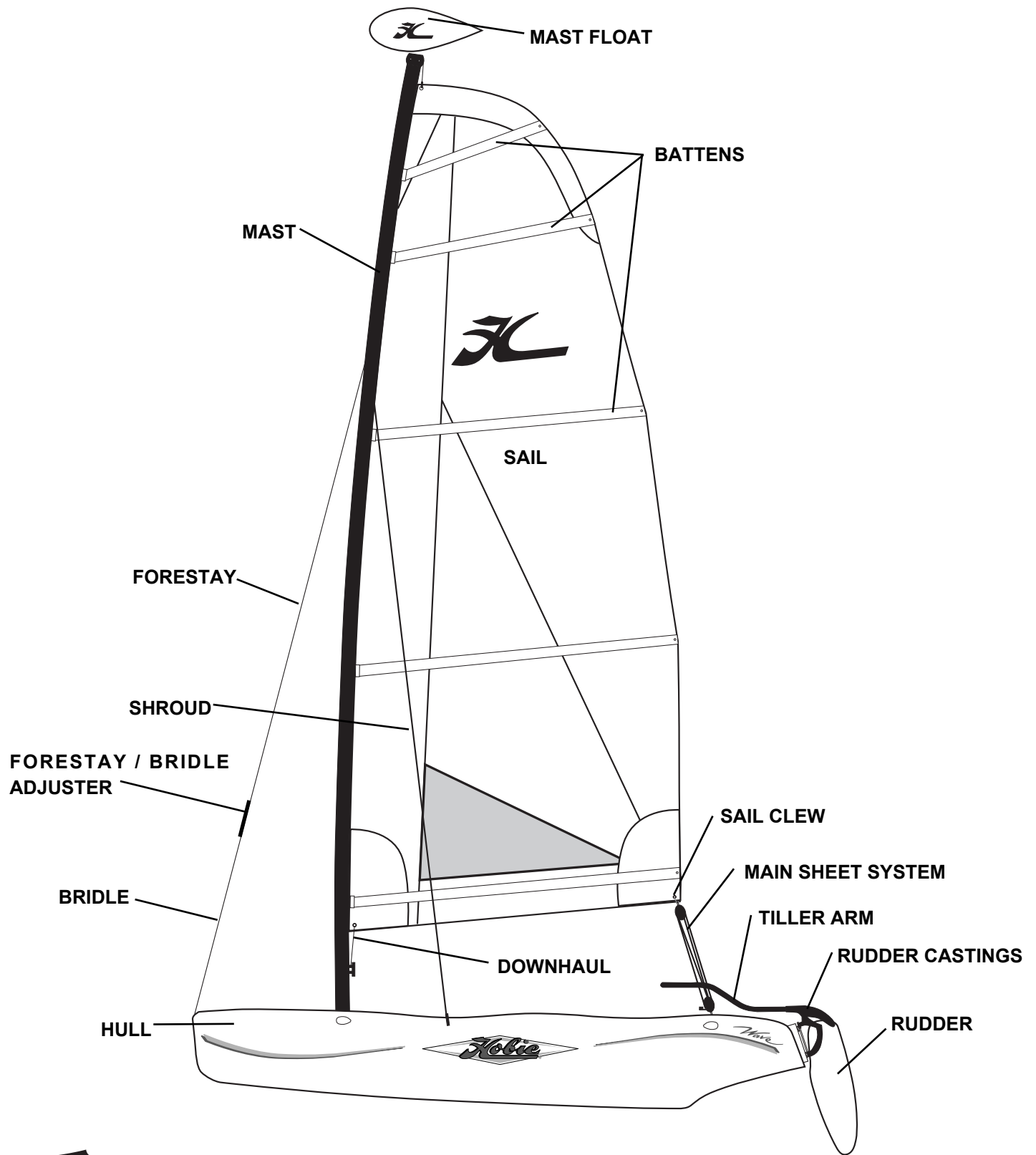


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Hobie Wave Terminology



PARTS

Check the boat and parts carefully to be sure that all parts are present and that the boat is in good order.



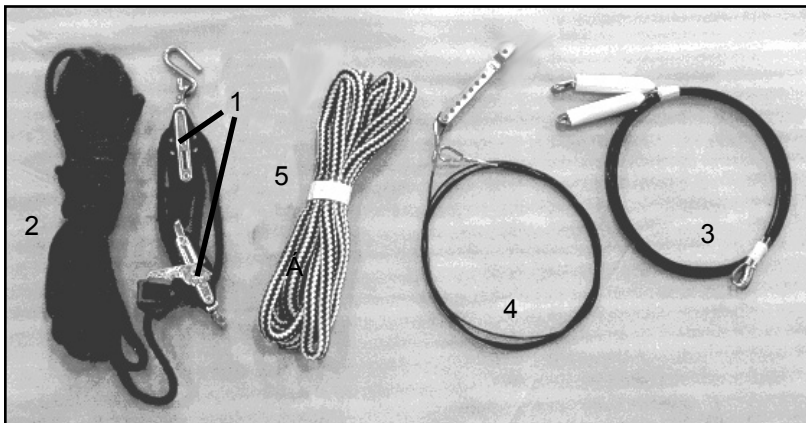
LIST OF PARTS

You should have:

1. (2) Hulls with Hardware
2. (1) Front Crossbar
3. (1) Rear Crossbar
4. (1) Trampoline
5. (1) Box of Small Parts
6. (1) Sail, Battens and Sail Bag
7. (2) Rudder Assemblies
8. (1) Tiller Crossbar

NOT SHOWN:

9. (1) Upper Mast Section
10. (1) Lower Mast Section
11. (1) Mast Float
12. (1) Trampoline Lace Rod
(taped to battens)



SMALL PARTS DETAIL

Classic Small Parts Detail

1. Mainsheet Blocks
2. Mainsheet Line
3. Shrouds
4. Forestay and Bridles
5. Righting Line
6. Classic Small Hardware
 - a. (2) Shackles
 - b. (1) Downhaul Line
 - c. (1) Mast Stepper Pin
 - d. (5) Clevis Pins
 - e. (2) Bow Tangs
 - f. (2) Drain Plugs
 - g. (3) Adjusters
 - h. (4) Crossbar Eyestraps

Club Small Parts Detail

1. Mainsheet Blocks
2. Mainsheet Line
3. Shrouds
4. Forestay and Bridles
5. Righting Line
6. Club Small Hardware
 - a. (2) Shackles
 - b. (1) Downhaul Line
 - c. (1) Mast Stepper Pin
 - d. (5) Clevis Pins
 - e. (2) Bow Tangs
 - f. (2) Drain Plugs
 - g. (3) Adjusters
- Not shown here*
7. Halyard

Classic Small Hardware



CLUB Small Hardware



Not shown here

7. (6) Tension Tramp Hooks
8. (4) Foam Tramp Plugs
9. Tramp Tensioning Wires
10. Halyard

ASSEMBLY INSTRUCTIONS

KNOTS TO USE

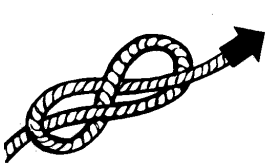
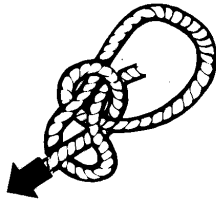


FIGURE 8 KNOT



BOWLINE KNOT

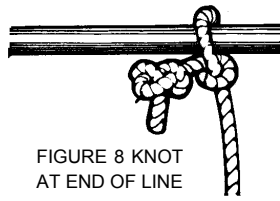
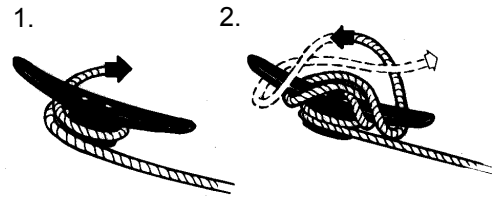


FIGURE 8 KNOT
AT END OF LINE

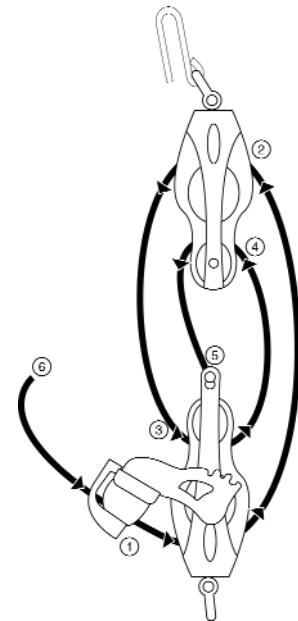
HALYARD KNOT



CLEATING OFF A LINE

REEVING YOUR MAINSHEET BLOCK

1. Run the line through the cleat and under the lower pulley.
2. Follow above the large pulley on the upper block.
3. Continue underneath the fiddle on the lower block.
4. Bring the line back up to the upper block and run over the lower pulley.
5. Tie the line off at the becket on the lower pulley with a bowline knot.
6. Place a figure eight knot at the end of the line to prevent the line from pulling out of the pulley.



1. THE HULLS



Lay the hulls on the ground on their sides with the bottoms to the center (graphics down) as shown here. A tarp or pads may be desirable under the hull if the ground surface is rough. Place the hulls about six feet apart.

There is one drain plug in the rear of each hull (shown inset). These plugs are used to drain the hulls. The plugs should be in place before sailing. Remove the drain plugs after sailing to empty any water that may have leaked into the hulls. It is best to travel with and store the boat with the drain plugs removed to allow for pressure changes due to heating, cooling and altitude changes. This will prevent warping of the hull surface.

Note: The assembly of the trampoline and crossbar is different if you own a Hobie Club Wave. Skip to 2b on page 7 for the Club Wave assembly instructions.

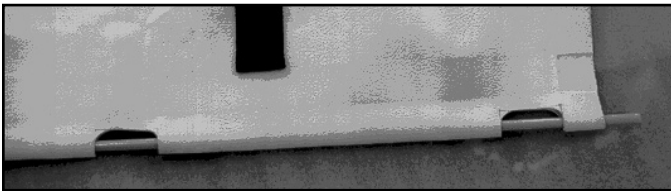
2a. CLASSIC CROSSBARS AND TRAMPOLINE ASSEMBLY

First locate the crossbars and trampoline. These parts are partially pre-assembled by the factory.

Unroll the trampoline assembly and position it between the hulls. The front of the trampoline has a rope molded into the edge seam and two "D" rings molded onto the top surface. The sides and rear of the trampoline have loops and cutouts along the edges. The front crossbar has a casting with a mast step ball located on the top center. The rear crossbar has a small stainless steel loop fitting on the top center.

For first time assembly, slide the trampoline into the front crossbar with the hiking straps up. Center the trampoline on the crossbar.

It will also be necessary to feed the trampoline lace rod into the pocket at the rear of the trampoline when assembling for the first time. Position it with equal amounts extending from each side of the trampoline. Position the rear crossbar along the rear of the trampoline. Place it with the open track towards the trampoline and the small stainless steel loop fitting at the center on top.



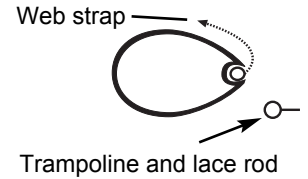
Slide the four webbing straps (with Velcro) from the small parts box inside of the track on the rear crossbar. Once all four straps are inserted, insert the eyelet straps in the track with the same positioning as in the front crossbar. Slide the Velcro straps so that they align with the lacing rod cutaways in the trampoline.

Follow the next few diagrams to lace the Velcro straps.

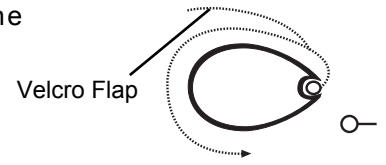
Pass the webbing forward then around the lace rod through the trampoline opening from top to bottom as shown in figure 2d(3).



Pass the Velcro straps over the top of the bar and away from the trampoline.



Continue around the rear bar.



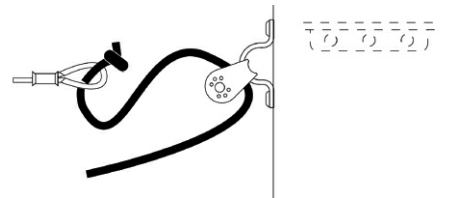
Bring the webbing back around the rear bar in the opposite direction.



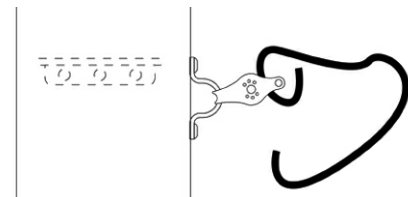
Repeat the previous steps for each strap. Then tuck each one under the Velcro flaps. Fasten the Velcro straps back to their anchors loosely.



Attached to the card of small parts are four eye straps with screws and square nuts. On the front crossbar, install the rope/block/wire assembly to an eye strap (picture below) on both sides of the crossbar. Be sure to note from the picture below the location of the eye strap in relation to the stopper on the bar.



You will want to fasten the remaining two eye straps to the rear crossbar with the rope/block assembly. See the picture below for reference.

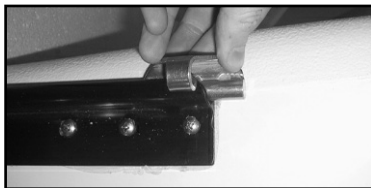


It will not be necessary to detach the crossbars from the trampoline during future disassembly and assembly.

Once the trampoline is assembled to the crossbars and they are in position, check to see that the Velcro straps at the rear are loosely fastened.



Remove the tramp tension hooks from the small parts box. Each side of the boat gets three hooks. Slide the hooks into the tramp track on each hull so that the hooks face down. Align each hook along the track to correspond with the notches on the side of the trampoline.

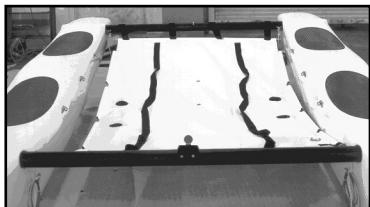


The foam plugs in the small parts box are intended to prevent the hooks from sliding out if the trampoline is removed during transportation. Squeeze each plug into the ends of the hook track to install. If the boat is to remain assembled there is no need to install the plugs.

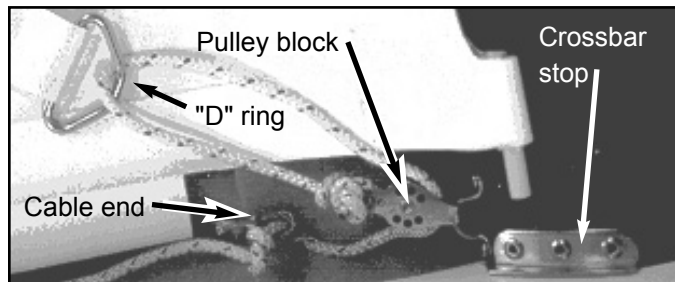


Lift the front crossbar and insert the left end into the left hull. Insert only partially. Lift the rear crossbar and insert the left end into the left hull. Keep the straps rolled around the rear crossbar. Insert front and rear completely (**see below**). The crossbars have stops built into the underside that will limit the depth the crossbar can be inserted.

Reach up and hold the right end of the front crossbar, and pull it down. This will rotate the left hull to the upright position. Straddle the right hull and rotate it to the upright position by grabbing the crossbar insert hole on the outboard side and pulling it horizontal to the ground. Insert the front crossbar partially. Align and insert the rear crossbar partially. Working front and rear, wiggle hull onto crossbars until fully inserted (below).

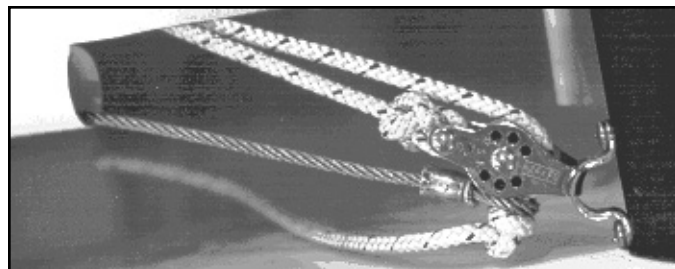


Pass the two trampoline cables from the front crossbar through the trampoline side loops to the rear crossbar. As shown (**from the underside of the trampoline**) in the figure below, on each side at the rear crossbar, locate the line that runs from the rear corner pulley block. Pass the line to the rear trampoline "D" ring and return through the small pulley block. Pass the end of the line through the trampoline cable end fitting and tie a "figure 8" knot.



(Rear Corner, **Underside**)

The figure below is the top view of the figure above. Making adjustments and retying the knot at the pulley block will loosen or tighten the side cables. The cables should be somewhat loose at this time. Be sure the "D" rings remain as pictured above and not pulled from one end when loaded, as damage may result.



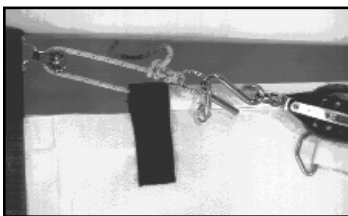
(Top View)

Tensioning The Trampoline

As shown here, hook the trampoline side cables onto the three hooks on each hull. (*If you are re-assembling, be sure that the mainsheet system is loose or disconnected from ring at front of trampoline to keep cables loose.*)



To tension the trampoline, you will use the mainsheet system (block and tackle). Find the mainsheet system located with the small parts and run the line through the blocks if you haven't already done it. Attach the shackle at the bottom of the blocks to the stainless steel loop fitting in the center of the rear crossbar. Pull the mainsheet hook at the top of the system, up to the front of the trampoline. Hook the mainsheet to the ring fastened to the trampoline cable system at front of trampoline as seen here. **(Do not fasten the mainsheet hook to the "D" ring that is attached to the trampoline.)** Start on either left or right side.



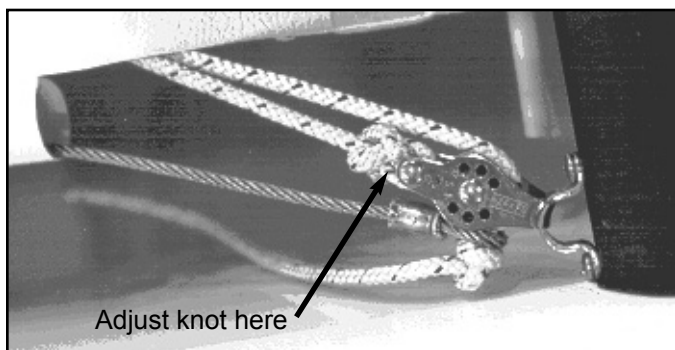
Pull tension on the mainsheet until the cable system ring and hook near the "D" ring attached to the position hook to engage ring, thereby connecting the two rings together as in the figure below.



Release the mainsheet tension and unhook from ring. Repeat the process on the opposite side. Be sure all "D" rings are positioned as shown and not turned or pulled from ends, as damage to the trampoline may result.



Additional tension or reduced tension can be achieved by repositioning the knot as shown in the image below at rear end of cable (after disengaging the forward rings). The cables should be tight to make the



trampoline area taut. Unhook rings at front, move knot and re-hook forward rings. Repeat until trampoline area is taut. In future assembly this adjustment will not be necessary unless trampoline becomes loose once again.

Tighten each Velcro strap (4) to support the trampoline at the rear crossbar.

The assembly instructions below are for the Hobie Club Wave crossbar and trampoline. Skip ahead to page 8, Mast Assembly, if you own a Classic Wave.

2b. Club Wave Crossbar and Trampoline Assembly

The CLUB WAVE incorporates a HOBIE standard three-piece trampoline assembly with lace lines in the center of the rear trampoline, as shown on the following page.

Insert the left and right main sections into the forward crossbar (grommets toward the center and rear of the boat) and the rear lacing strip into the rear crossbar.

Lift the front crossbar and insert the left end into the left hull. Pick up the rear crossbar and insert the left end into the left hull. The crossbars have stops built into the underside that will limit the depth that the crossbar can be inserted.

Reach up and hold the right end of the front crossbar, and pull it down. This will rotate the left hull to the upright position. Straddle the right hull and rotate it to the upright position by grabbing the crossbar insert hole on the outboard side and pulling it horizontal to the ground. Insert the front crossbar partially. Align and insert the rear crossbar partially. Working front and rear, wiggle hull onto crossbars until fully inserted.

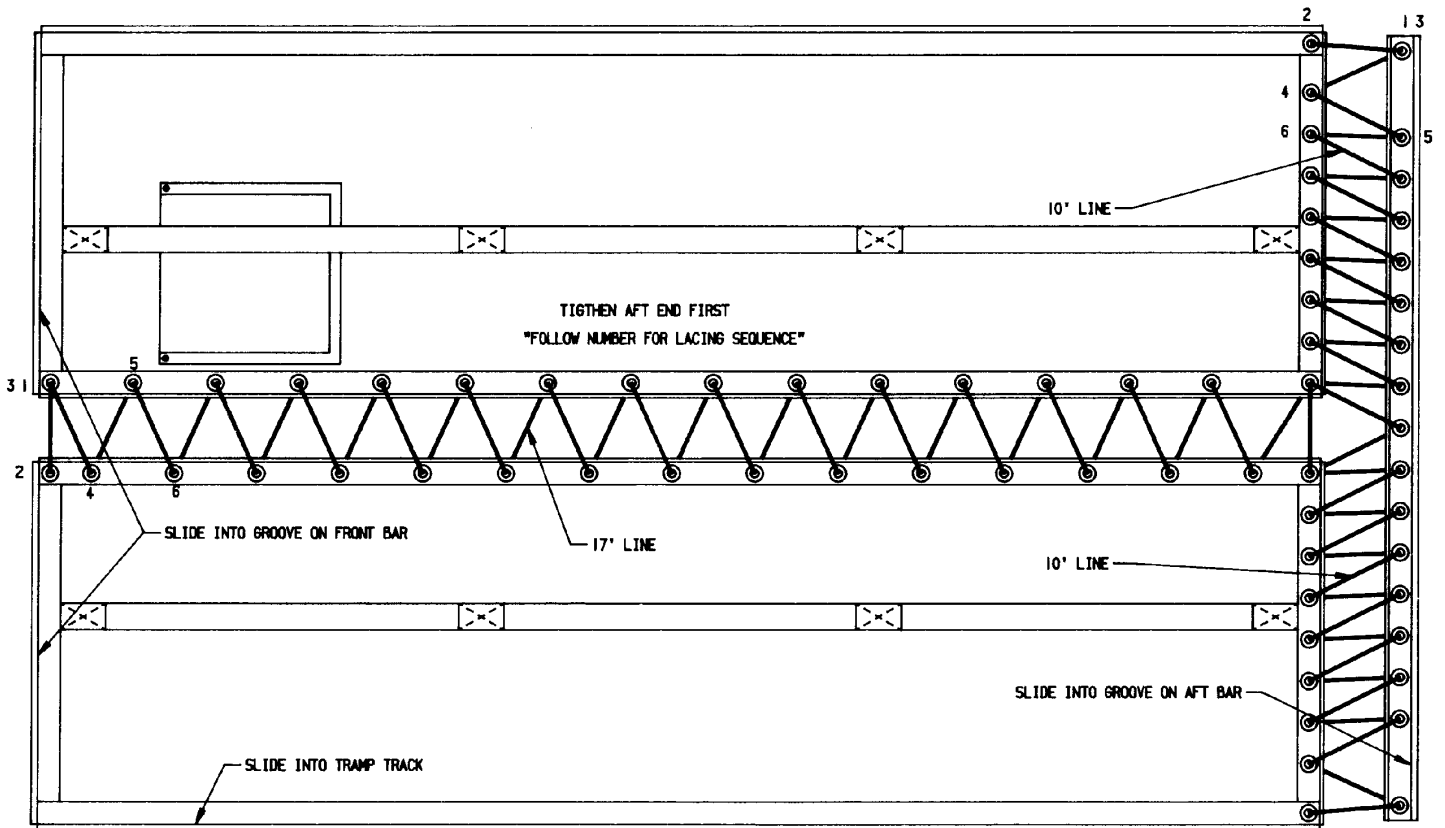
Once the crossbars are completely inserted, slide the tramp halves in the front crossbar into the hull/tramp tracks on each hull. Use of soap or spray silicone to lube the track can help if it is difficult to slide in.

Three lace lines are provided (see picture on the next page for the lacing diagram). The longer lace line (17') will be tied to the forward end of the center lace grommets with a bowline knot. Lace the line through all of the center grommets to the rear of the trampoline as shown (by number) in the illustration. Lace the rear of the tramp starting from the outboard ends toward the center. Tension all lace lines and tie off with half hitches at the rear/center of the trampoline.

Hobie Club Wave Tramp Lacing

Note: Using a spray silicone or soapy water in the tramp track and crossbar grooves prior to installing the tramp can greatly reduce friction and damage while sliding into position.

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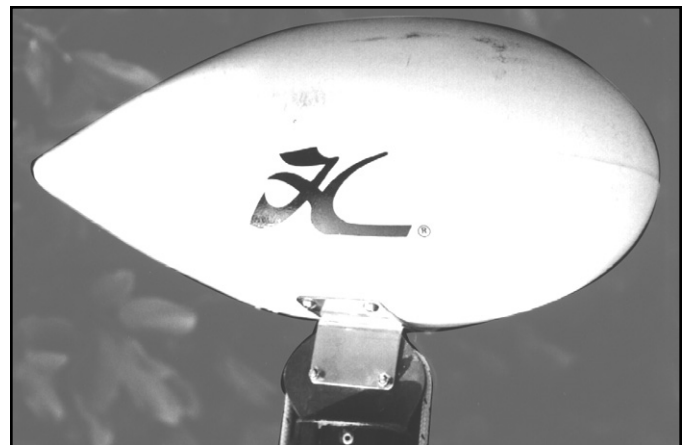


3. MAST ASSEMBLY

The mast is in two sections. The bottom section is aluminum and displays the warnings against sailing and assembling near overhead wires and power lines. **Before raising the mast check again that you are in a safe area and always remember this warning.** Insert the upper section into the lower section.

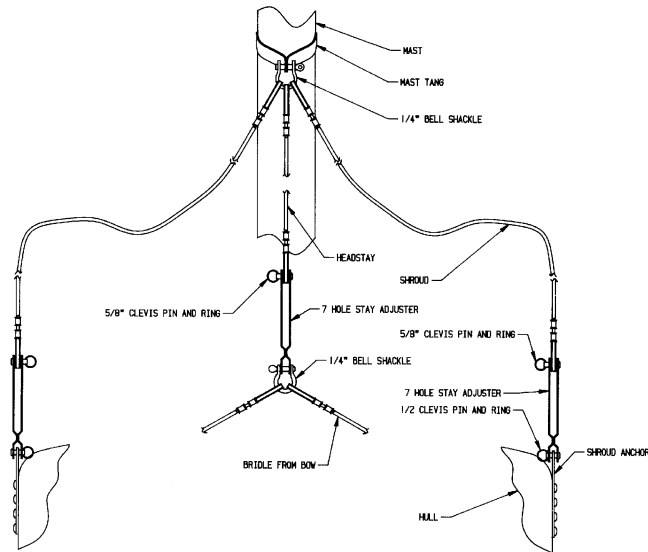
Install the mast float to the upper mast section as shown here. First time assembly will require the removal of the two halyard pulley screws and nuts, and placement of the float assembly over the mast top casting assembly. Be sure the blunt end of the float is facing forward towards blunt side of the mast.

With the mast float installed, make sure that the upper section fits completely into the lower section. Locate the main halyard line and place the hook through the cleat located at the base of the mast (see image to the right) in the luff track. Bring the line up to the top of the mast, through the halyard pulley, and back down to the bottom. Tie it off at the cleat on the side of the mast.

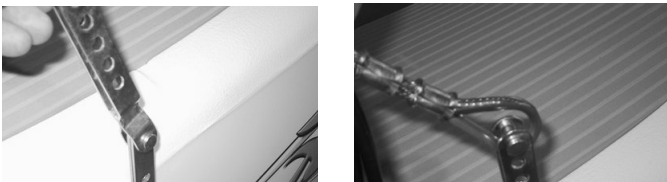


4. MAST WIRES

The mast will be held in the upright position by two side wires (shrouds) and one front wire (forestay). The forestay will attach to two shorter wires (bridles) with a "7 hole" adjuster. Locate the three main (longer) wires and install onto the mast tang as shown below using the 1/4" threaded shackle provided in the rig kit. The shorter forestay wire goes in the middle of the shackle with one shroud on either side.



Connect one adjuster plate to the anchor plate to each hull using the clevis pins. Once the adjuster plates are installed, place the shroud in the adjuster and run a clevis pin through to secure (see image below).



Slide the vinyl boot over the assembly to cover and prevent loss of the pins if a ring should fall out.

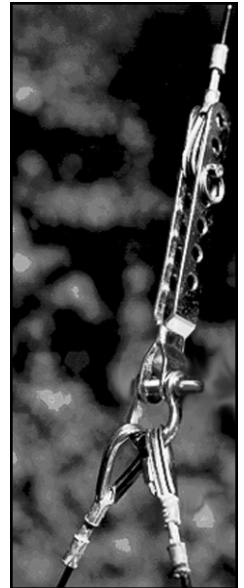
To attach the bridles, unscrew the two screws at the bows of each hull. Included in the small hardware package are two bow tangs. For the Club Wave, you'll want to place the bow tangs through the thimble on the bridle wires and screw the tangs to the hull. You'll notice that the tangs have a "slope" to them. You want the "slope" of the tang to point toward the middle of the boat. If you are assembling a **Wave Classic**, attach just the bow tangs to the hull.



Bow tang is leaning toward the center of the boat.

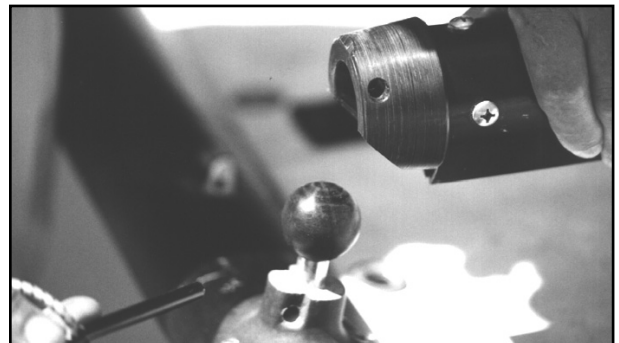
CLASSIC Wave:

Attach the multi hole adjuster to the forestay as shown in the image to the right with the clevis pin and ring at the end hole of the adjuster. This is the loose adjustment. Shackle the bridle wires (thimble loop end) to the bottom of the adjuster. This leaves the spring hook at the very end of the forestay/adjuster/bridle assembly.

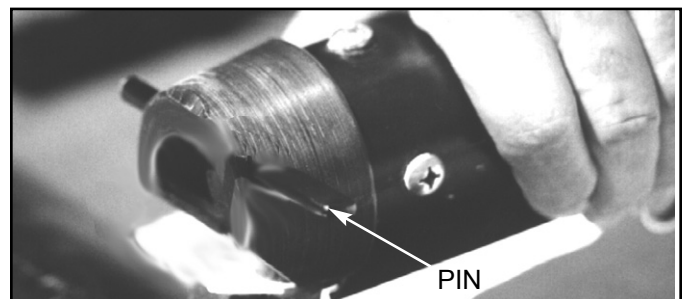


5. STEPPING THE MAST

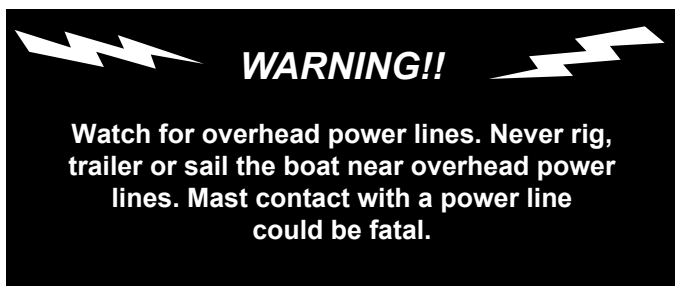
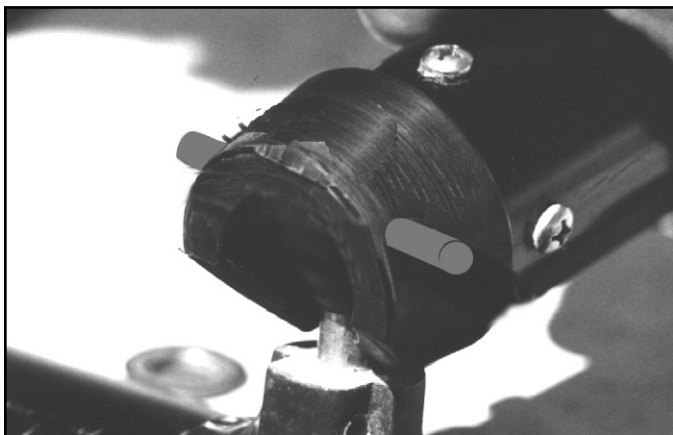
To set the mast into the upright position, position the mast base at the mast step ball located on the front crossbar as shown below. The mast top and float should be positioned to the rear of the boat in the center of the rear crossbar.



Connect the mast base to the step ball by positioning the step ball inside the mast base cup. Pass the pin through the mast base as shown below.



As shown below, pass the long pin through the mast base. There is a small spring-loaded ball lock that will keep the pin captive in the mast base. For safety, the pin should remain in the mast base while sailing.



Check wires to be sure they are not crossed and that they freely allow the mast to swing to the upright position.

If you are stepping the mast by yourself, or just to make things easier, pull the sail halyard hook forward, over the top of the shroud wires, to the bow. Hook into the bridle wire fitting. Loosely tie opposite end of halyard to the cleat at the bottom end of the mast. This line will be used to hold mast in the upright position before forestay and bridle wire assembly are attached to the bow fittings.

Before continuing, check once again for overhead power line wires that could contact the mast when raising.

Stand on the trampoline near the rear crossbar and lift the mast to your shoulder.

Face forward on the boat with a wide stance for stability. Walk forward while lifting the mast until the side shrouds become tight, preventing the mast from further forward movement. Lean your weight against the mast to hold it in this position.



Reach down to the halyard cleat and pull the halyard line tight. Fasten the line to the cleat in a secure manner as shown in "Knots" on page 4.



The halyard line should be running from the top of the mast directly to the bow fitting. Carefully let go of the mast to be sure that it will stay upright. If not, add tension to halyard line and re-cleat.

This will hold the mast in the upright position while you get off the trampoline to fasten the bridle wires to the bow fittings.



If you have someone helping you rig, you can hold the mast upright while they follow the next step. ***Club Wave instructions are on the following page.***

Classic Wave:

See that the forestay wire is not tangled and runs directly from mast tang fitting. Using the quick-snap hooks on the ends of the bridle wires, attach each to the bow tangs. Use the small plastic balls to grip and pull down on the bridle wires.

Length adjustment of the forestay is made to tension the mast wires. Tighten the forestay until all wires are somewhat rigid and without “slop”. Use the halyard line attached to the bow tang and cleated tightly to hold the mast well forward when making these adjustments. Release one bow bridle snap hook. Make adjustments to the clevis pin location in the adjuster and then reattach the bridle hook to the bow fitting. Release the halyard from the bow fitting and reposition it down the rear of the mast and secure to the cleat.



Once this adjustment is made you can assemble and disassemble using only the quick-snap hooks to the bow fittings unless the rig becomes loose after use. **NOTE: It is normal for the shroud on the downwind (leeward) side to be loose while sailing.**

Club Wave

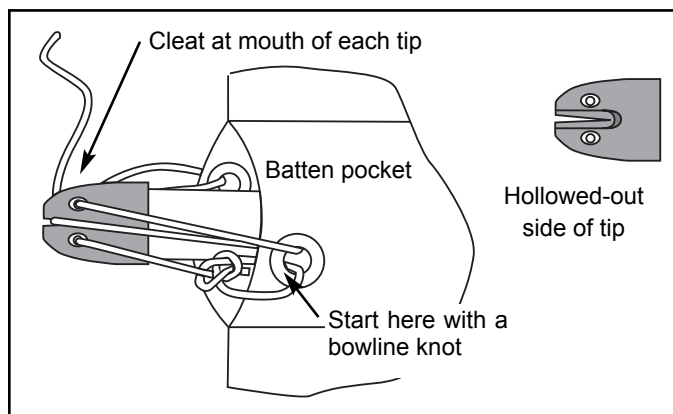
The bridles should already be attached to the hulls by this point (see page 9). Once the mast is stepped, grab the end of the forestay and slide it into the adjuster on the bridles and fasten with a clevis pin. Make sure that the forestay is not tangled around anything and that the bridles aren't twisted in the bow tangs.

There is a limit to the amount of aft mast rake. This will be seen when the main sail block on the sail clew nears or touches the block attached to the rear crossbar when fully sheeted while sailing. Too much mast rake will not allow you to sheet the sail properly. It may also be more difficult to tack the boat, as the “mast forward” design is intended to help bring the bows through the wind when tacking. Positioning the shrouds lower will rake (lean) the mast aft. This can help when sailing in higher winds.



6. INSTALLING THE SAIL BATTENS

Unfold the sail and lay it out on the trampoline. There will be a small bundle of thin lines tied to the top of the sail. These are the batten tension lines. Tie the batten tension lines to one of the small grommets at the end of each batten pocket as diagramed below (one to each batten pocket). Tie the lines using a bowline knot as found in the “knots” diagram on page 4. It is best to tie the lines all to one side of the sail. Insert each batten (shortest at the top to longest at the bottom of the sail).



Note: The batten ends have a “V” jam cleat molded into them. These “V” jam cleats will keep the tension line from slipping in only one direction. Note the hollowed-out side of the cleats. Pull the line from the flush side toward the hollowed side.

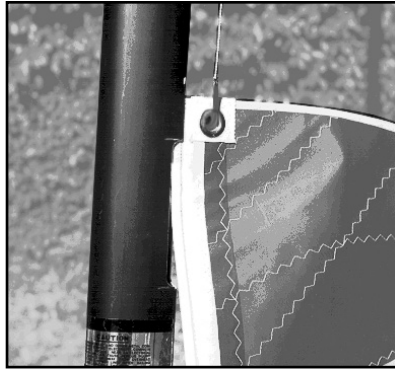
The upper two battens are narrower and have a different cleat shape. To be sure these cleats work correctly, position them so that the hollowed-out side of the cap faces the bowline that you have tied to the sail grommet. Position the larger caps so that the hollowed sides face away from each knot.

Following the diagram above, lace the tension lines through each batten end cap. Pass the line through the hole in the cap then through the grommet on the opposite side. For the smaller caps, pass the line over the “V” cleat, and pull tight to force the batten into the pocket, then pull the line into the cleat to hold it. For the larger caps, pass the line through the second hole in the cap, then pass the line through the first grommet and back to the “V” cleat. Pull tension on the line forcing the batten into the pocket and cleat it. Tie a small “figure 8” knot in the end of each line to prevent the battens from falling from the sail if the line releases from the cleat. Tension each batten so that the batten is well seated and the wrinkles in the batten pockets are removed. Excessive batten tension will cause the sail to be more difficult to handle.

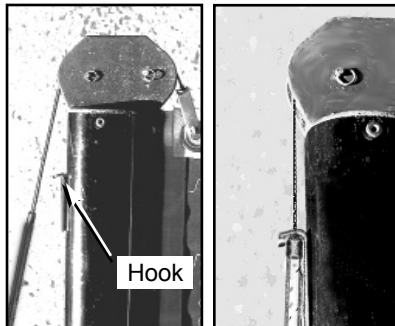
7. RAISING THE SAIL

Place the sail in the center of the trampoline with the exposed batten ends to the rear. The front of the sail has what is called a "luff rope" running the length of it. This rope is fed into the mast "luff" track when raising the sail.

As shown here, hook the halyard to the top of the sail. Pass the tail end of the halyard line through the thimble that holds the halyard hook and tie a knot. This will create a continuous loop with the halyard as with a flag halyard. This will allow you to pull the halyard hook back down the mast if the hook disengages from the sail while hoisting. Feed the top portion of sail into the mast track opening, then begin pulling on the halyard line. Use caution to be sure the sail feeds smoothly into the mast while raising. Hoist the sail all the way to the top of the mast. It will be necessary to help feed the sail into the track while hoisting.



As shown here, there is a two-fingered hook at the top of the mast. The halyard has a small bead of metal which is held by this hook when fully raised.



When fully raised, pull the halyard line (while still holding tension) forward and away from the mast. Keep the line centered with the mast. Then pull the line back against the mast. This will place the bead below the two fingered hook. Release the halyard to engage the hook. Repeat the process if the sail does not remain at the top of the mast. The line must be centered with the mast to engage the hook. Tie the halyard line to the mast cleat.

8. DOWNHAUL

Locate the downhaul line. Tie it to the sail "tack" grommet near the mast (when finished sailing, leave it tied here). Pass the line down and through the center of the

cleat mounted in the luff track of the mast. Run the line up to and through the "tack" grommet. Run the line back down to the cleat. Tension it and then tie to the cleat as shown in "knots" on page 4.

Downhaul Adjustment

The downhaul should be tensioned just enough to remove the horizontal wrinkles in the sail luff (forward area). The boat will perform best with light tension in light air and a bit more when the wind is stronger.

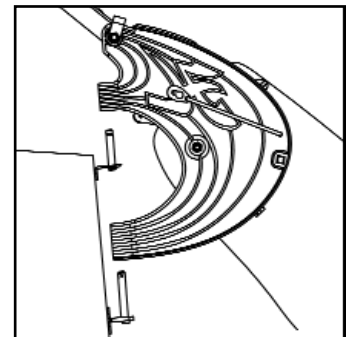
9. MAINSHEET

Hook the mainsheet to the "clew" grommet at the rear of the sail as shown here. Refer to page 4 to learn to reeve the mainsheet system if it isn't already done.

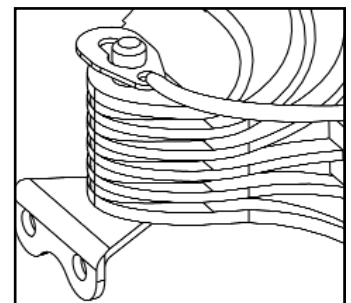


10. RUDDER ASSEMBLY

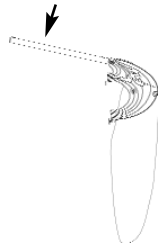
As shown in the figure to the right, line up the rudder pintles (metal pegs on the hulls) with the rudder housing. Push the rudder housing down onto the pintles. **NOTE: The rudder must be between the up and down position in order to install and remove the rudders from the pintles.**



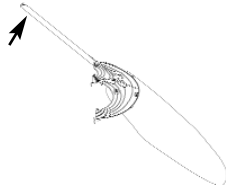
Place the locking key over the groove in the upper pintle. This key will prevent the rudders from falling off the boat in the event of a capsize.



The rudders are locked in the "down" position by pushing down on the tiller arm

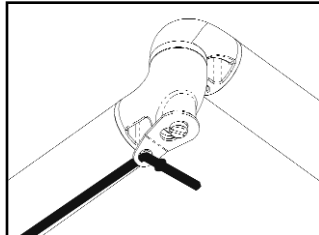
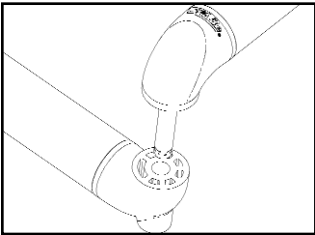


To raise the rudder, lift up on the tiller arm.



11. TILLER CROSSBAR

The rudder arms are connected by a bar called the tiller crossbar. Position the crossbar between the two rudders. Slide the pin on the tiller crossbar through the hole at the end of the rudder tiller arms. Lock the key on the bungee cord onto the groove that is on the stainless steel pin.



12. RIGHTING LINE

The righting line is the white and blue line in your box of small parts.

Club Wave Owners: Run each end of the line over the crossbar, through the eye strap on the bottom, and up through the hole in the tramp. Tie each end off with a bowline knot.

Classic Wave Owners: Run each end of the line over the crossbar and through the eye strap that tensions the trampoline. Tie the line off with a bowline knot.

Once the line is securely tied, you can tuck away the excess line in the pocket on the trampoline to help keep your lines organized.

***Your Hobie Wave is now ready to sail!
Please read the sections in the following pages regarding safety and sailing the Wave. This additional information will help you have more fun with your new boat!***

SAILING YOUR HOBIE WAVE

Safe and sane guideline for the beginner; an easy review for the experienced.

Always wear a life jacket when boating.

TRAILERING

CAUTION: Boat and mast should be securely attached to trailer with adequate tie-down straps. Failure to do so could cause extensive damage or serious injury!

LOADING YOUR TRAILER

The weight of the boat, equipment and additional gear should never exceed the manufacturer's rated weight capacity. Proper distribution of the load is of vital importance. Too much weight on the hitch will cause "tail dragging" of the towing vehicle, impairing steering and raising headlights into the eyes of oncoming traffic. Too little or negative weight on the hitch, and the trailer will sway or "fishtail". The solution to proper distribution is often adjusting movable gear.

TOWING

Extra caution is necessary when towing any trailer. The heavier the rig, the more time required to accelerate, pass, and stop. For this reason, in most states, the maximum speed for vehicles with trailers is less than without a trailer in most states. A long rig requires a larger turning radius. Curbs and obstructions should be given wide clearance. Most boats on trailers obstruct the rear view of the driver. When this happens, an additional rear view mirror on the right side of the towing vehicle is required by law.

The trailering sailor should be familiar with traffic and highway laws relating to the towing of trailers. Towing a Hobie presents particular hazards that should be mentioned. A Hobie is very wide. Obstacles should be given plenty of room when passing. Tie down straps or lashings should be of sufficient size and diameter and placed on all four corners.

The mast support on a trailer is subject to a lot of side-to-side motion and consequently may fatigue where it is welded to the trailer. All this can be reduced by tying a line from each bow to the mast support. This will stiffen the rig and prolong the life of the trailer.

LAUNCHING AND RETRIEVING

Prepare boat for launching at the top of the ramp or parking facility. Remove all tie-down straps, check boat plugs and fasten boat painter. Do not release winch line until boat is in the water. Back trailer to the left if possible; backing left gives better launching visibility. Avoid dunking wheel bearings when possible. Never leave the towing vehicle unattended on the ramp with only the parking brake set. If vehicle must be left while on the ramp, set transmission in "park" or first gear, in

addition to setting the parking brake. In retrieving your boat, make sure that the boat is properly placed on the trailer. Pull trailer up steadily to prevent spinning the wheels.

MAINTENANCE

Lights: Most state laws require two red taillights on the rear that may be combined with the stop and turn signals. Vehicles over 80 inches in width require clearance lights. If lights are dunked, waterproof light fixtures should be used. If water is allowed to enter, the lamp may crack and short out the entire system. Water also promotes contact corrosion. Always carry spare lamps. The wire coupling to the towing vehicle should be high enough to stay dry. Never rely on the trailer hitch for ground connection. Four-pole connectors should be used.

The mast should not extend over three feet behind the rear light assembly.

Wheels: Tires should ALWAYS be inflated to manufacturer's recommended pressure. Always carry a spare wheel and a jack that fit the boat trailer. If wheel bearings are always dunked, waterproof bearings and caps should be considered. If water is allowed into the hub, lubricating grease will float away and bearings will burn out or seize, causing damage and a safety hazard. Waterproofed bearings should be inspected prior to each boating season, others more often. Special care should be given when traveling on unimproved roadways with small diameter wheels.

If a spare wheel is not available, a spare wheel bearing set should be taken on long trips in case the grease seal has been broken.

FRAME AND ROLLERS

Rust should not be allowed to accumulate. Remove rust and repaint with anti-rust paint. Some trailers offer galvanized coating to prevent rust. Rollers should roll freely and should not have checks, breaks or flat spots.

TOWING VEHICLE

Most vehicles are limited in towing capacity. Towing heavy loads places extra demands on the engine, transmission, brakes and other systems vital to the vehicle. Towing "packages" are available through most auto dealers and should be considered for heavy boats.

IMPORTANT CAR-TOPPING CAUTIONS

Caution is required when car-topping the Wave or any object on top of a car. Common sense must be followed to ensure that the roof rack that is used will handle the weight of the boat. Roof rack manufacturer's weight limitations and tie-down guidelines must be strictly followed. If in doubt, the best course to follow is to trailer the boat.

The following are important rules to follow...

"Roof racks" that come as standard equipment on cars are not designed to handle heavy loads. Choose an accessory roof rack with weight ratings that will handle the Wave or parts. If in doubt, check with the manufacturer.



Always follow the roof rack manufacturer's weight limitations.

Carefully follow the roof rack manufacturer's directions for attaching the rack to your car.

Securely tie all parts carried on the rack to the roof rack.

Use a good quality line of at least 1/4" diameter for tie-downs. Avoid using polypropylene line as it does not hold knots well.

Tie the front and back of each hull to the front and back bumper of your car (see diagram below) in addition to other tie-downs.



Drivers should use extra caution due to the higher profile of the vehicle and additional windage, especially when related to side winds.

Always Stop to check the tie-downs shortly after beginning a trip, and check often on long trips. Check for lines that may become loose or worn.

Not all racks are designed to carry a load the size of the Wave. Some racks may accommodate carrying only a portion of the boat parts on the roof and the remaining parts in the trunk.

Weight -

Two Wave hulls	160 lbs.
Mast	30 lbs.
Tramp and Xbars	31 lbs.
Rudder assembly	29 lbs.
Sail with battens	12 lbs.

BALANCING THE BOAT

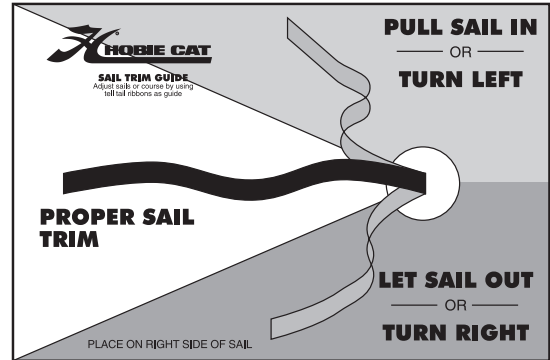
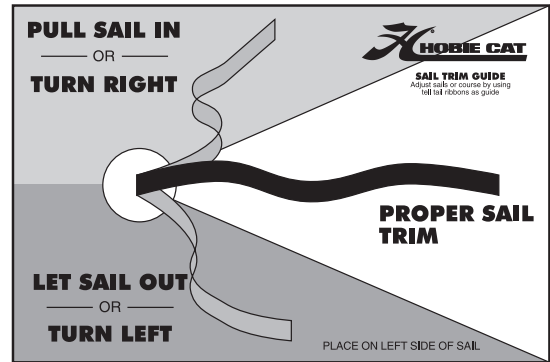
When sailing, sit on the upwind side of the boat (wind on your back) just in front of the tiller facing the sail. Balance your weight further outboard as the boat begins to tip or heel over with the wind in the sails. Tuck one foot under the hiking strap for balance. Use your forward hand to hold and control the mainsheet, and use your aft hand to steer.

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.

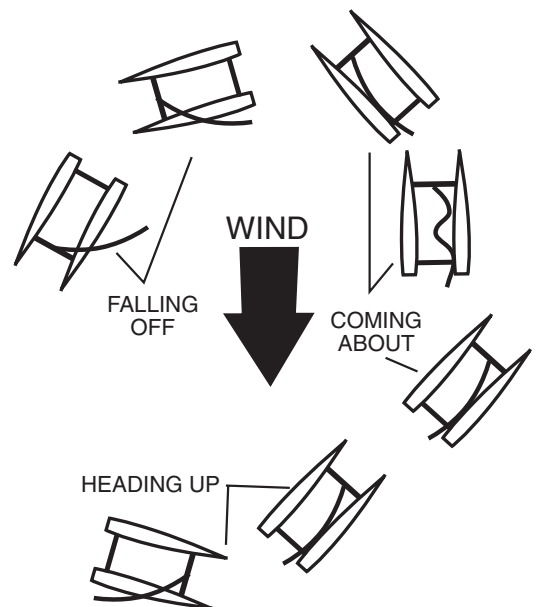
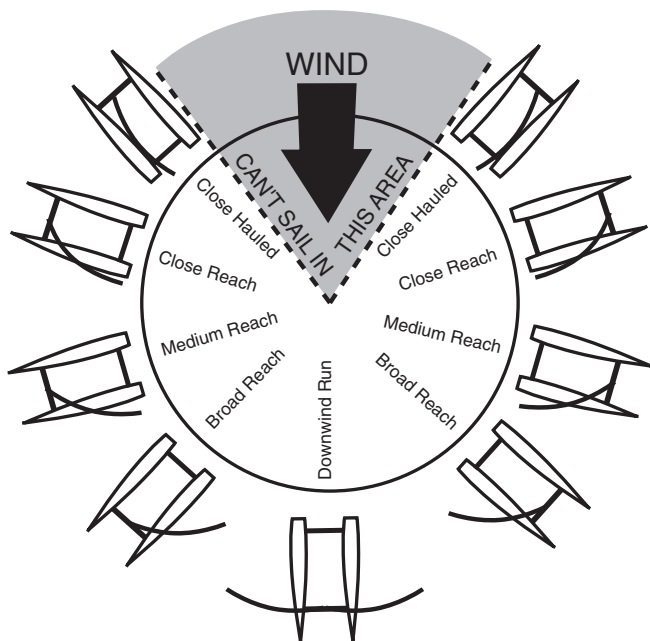
SAIL POWER

Face the sail to monitor 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 these "tell tails" to get optimum performance from the sail for all angles of sailing. The tell tails react to air flowing over the sail and will help you determine whether the sail is pulled in too tightly or too loosely. If you pull the sail in 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 shifts 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" (stopped pointed into the wind), you will need to reverse the rudder and push the sail forward to back-wind. 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 once again and start moving forward.

BASIC SAILING AND POINTS OF SAIL



LAUNCHING THE BOAT

Launching the boat is easiest when the boat can be pointed into the wind to keep it de-powered and floated into deep enough water to lower the rudders. It is possible to launch in shallow water with the rudders partly up. Try not to steer with too much force on the rudders until you lock them in the "down" position. Keep the sail loose and trimmed out completely. Turn the boat away from the wind, push off into deeper water, then hop on. Once aboard, trim the sail in quickly to get the boat moving forward and steer away from the wind slightly to prevent stalling into the wind.

When launching from a beach where the wind is blowing from the beach towards the water, simply keep the boat pointed into the wind. Drift backwards with the rudders in the "up" position. Drift the boat away from the beach backwards and hop on when floating completely. Stay forward as the boat drifts into deeper water. You can hold the sail out to catch wind backwards to increase reverse speed, then move to the rear and lower the rudders. It will be easiest to lower only one rudder while moving backwards; then lower the other when the boat begins to move forward again. Be aware of the intended direction you wish to sail when lowering the rudder and steer the boat as the rudder drops into the water. There will be a lot of force on the rudder to turn one way or the other when going backwards. Plan ahead and steer the rudders so that they will be pointing in that direction before dropping them into the water. Steer the boat while going backwards so the bow turns away from the wind and toward the direction you wish to sail. As the sail begins to fill with wind, the boat will slow, then begin to move forward. Trim in the sail and off you go!

TURNING

To tack or turn the boat into and across the wind to the opposite direction (also known as "coming about"), follow the Points of Sail guide illustration and take the boat to the close hauled point of sail. This is when you are nearly 35 degrees from sailing straight into the wind. With the boat moving forward and not stalling, slowly push the tiller away from you slowly. When the boat is pointing straight into the wind, the boat will become level. Ease the mainsheet trim out just a little. At this time move your body to the other side of the boat, switch hands with tiller and mainsheet and begin to bring the rudder back to straight. As the boat comes across the wind and falls off onto the opposite, close-hauled point of sail, bring the tiller all the way back to the straight position and pull the mainsail back in for proper sail trim. If you stall pointing into the wind and you cannot steer the boat, refer to the Sail Power description concerning getting stuck in irons.

When sailing downwind, the turn from one point of sail across to the other is called a jibe. The jibe is completed by turning away from the wind (falling off) to the opposite point of sail rather than into the wind as when tacking. Care must be taken when attempting a jibe, as the boat will be at full power and you cannot easily de-power it without turning back into the wind. Also, be aware that the boat will be less stable in this

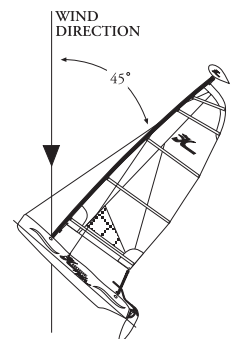
maneuver as the sail will now have to swing clear across from fully out one side of the boat to fully out the other.

To start a jibe, turn the boat away from the wind and let the sail out slowly. Keep the turn going at a steady rate and begin pulling the sail back in as the boat nears the straight downwind direction. This will help prevent the sail from slamming all the way across when the sail fills from the opposite side. Duck below the sail to avoid getting hit as the wind fills the sail from the opposite side and swings across the boat. Attempt to control the speed of the sail while it crosses the deck by maintaining some tension on the mainsheet. Then ease the mainsheet out quickly as the boat turns past the downwind direction onto the new point of sail. Trim the sail according to the desired point of sail.

RIGHTING THE BOAT

A 15 foot length of "righting line" is provided with the boat. Tie each end to the outboard ends of the forward crossbar passing through the eye straps. Tie off with bowline knots. Store the excess line in the trampoline pocket.

If you tip the boat over, stay with the boat. The boat will not sink and is easy to right. It is not necessary, but it is easier, to right the boat when the bow and the mast are pointed into the wind as in the following diagram. There will be less wind resistance and better control in this position. Be sure the mainsheet is released, then swim around to the bottom of the boat. Climb up on the hull and stand up. Using the righting line that is tied to the front crossbar at each end, hold the line while slowly leaning back away from the trampoline. Lean to approximately 45 degrees for best leverage. As the mast and sail lift out of the water and the upper hull begins to drop back into the water, drop down to your knees then into the water. Hold onto the righting line near the crossbar or the crossbar itself near the hull that you were standing on. This will prevent the hull from being lifted into the air by momentum which could cause the boat to capsize once again. Be aware of the hull and crossbar coming down over your head. Holding the crossbar or righting line will also insure that you remain with the boat when it is righted. Climb aboard and continue sailing.



DOCKING

Docking the Wave 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.

BEACH LANDINGS

Landing on a beach is simple. The idea is to reach the beach in the point of sail nearest straight into the wind as possible. This will assure that you can properly de-power the sail once beached.

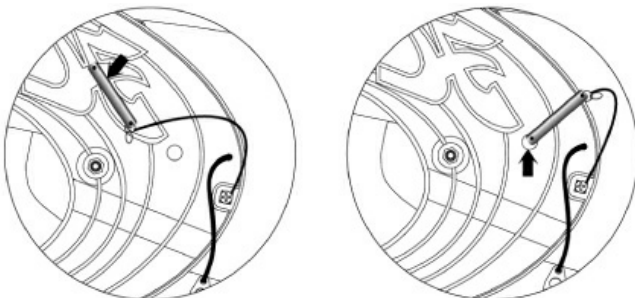
To maintain power while approaching a beach when the wind is blowing from the beach out toward the water, will require some planning. Then turn into shore just before the hulls or rudders touch bottom. Plan so the final tack toward the location you choose to land is the tack that is nearest straight into the wind. Get a little closer to the beach than you need to on the previous tack to account for wind shifts in direction and speed. This will give you a little room for error. This will also allow you to point a little further away from the wind after the tack to gain speed before heading into the beach to de-power at the last moment.

When approaching a beach when the wind is blowing onshore, sail in toward the beach from either side of the landing spot. Sail in just short of touching the bottom with the rudders. Allow some distance to turn the boat out toward the water and into the wind, just out from the landing spot. Turn sharply to head into the wind and stall the boat. Raise the rudders and drift back onto the beach.

Always keep the boat pointed into the wind while beached and keep the sail trimmed out and un-cleated.

RUDDER NOTES

Attached to the side of each rudder is a locking pin. This pin is designed to keep your rudder in the up position during transportation. Bumpy launch ramps or steep angled beaches could cause the rudders to drop down, causing the blade to dig into the ground. To install the pin, put the rudder in the up position and simply remove the pin that is snapped to the casting and insert it through the hole in the side of the rudder. When you want to put the rudder back down, remove the pin and snap it back into the side of the casting.

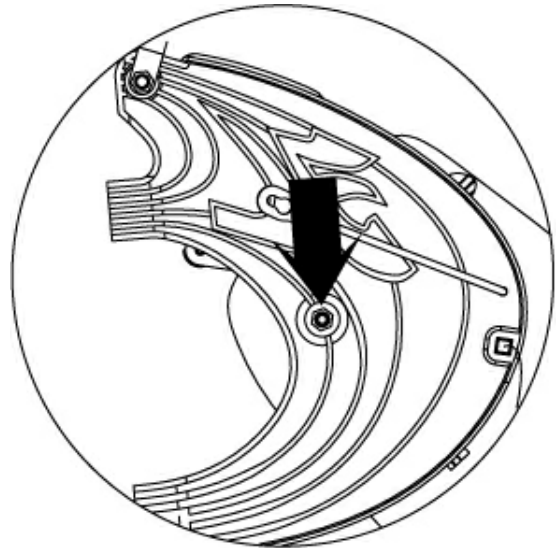


Upkeep and Precautions

1. When in use, make sure that the rudder is locked in the down position. You will know if your rudder isn't down all the way if steering feels heavy.
2. If used in saltwater, it is always a good idea to rinse rudder assembly with fresh water.
3. If boat is stored outdoors for extended periods of time without being used, remove rudder assembly and store indoors.
4. Avoid storing rudder assembly in extremely hot locations such as in direct sunlight in a vehicle with windows closed.

Rudder Detent Pressure Adjustment

Your rudder assembly comes from the factory preadjusted for optimal detent pressure. This detent keeps the rudder in either the up or down position. With much use, the rudder detent pressure may need to be adjusted. To increase the amount of detent, tighten the bolts on the side of the rudder housing. It doesn't take much adjustment to make a big difference (maximum 1 full turn). **If the bolt is tightened too much it will bind the rudder movement.**



...The FUN starts here!

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.** Know your limitations. Do not take the Wave out in the surf and do not head out to the ocean unless you are an experienced sailor.
- **Wear a life jacket.** Wearing life vests while sailing is important for everyone. Due to the large number of novice sailors who have purchased the Wave, 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 is to stay with the boat. If you happen to fall overboard, or when righting the boat, you 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 Wave.** (The combined weight of the Wave hulls and mast is approximately 190 lbs.)
- **When trailering the Wave 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 Wave in the water on a mooring,** as 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.



HOBIE CAT COMPANY

4925 Oceanside Blvd.
Oceanside, CA 92056

Phone (760) 758-9100 Fax (760) 758-1841
WWW.HOBIECAT.COM



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