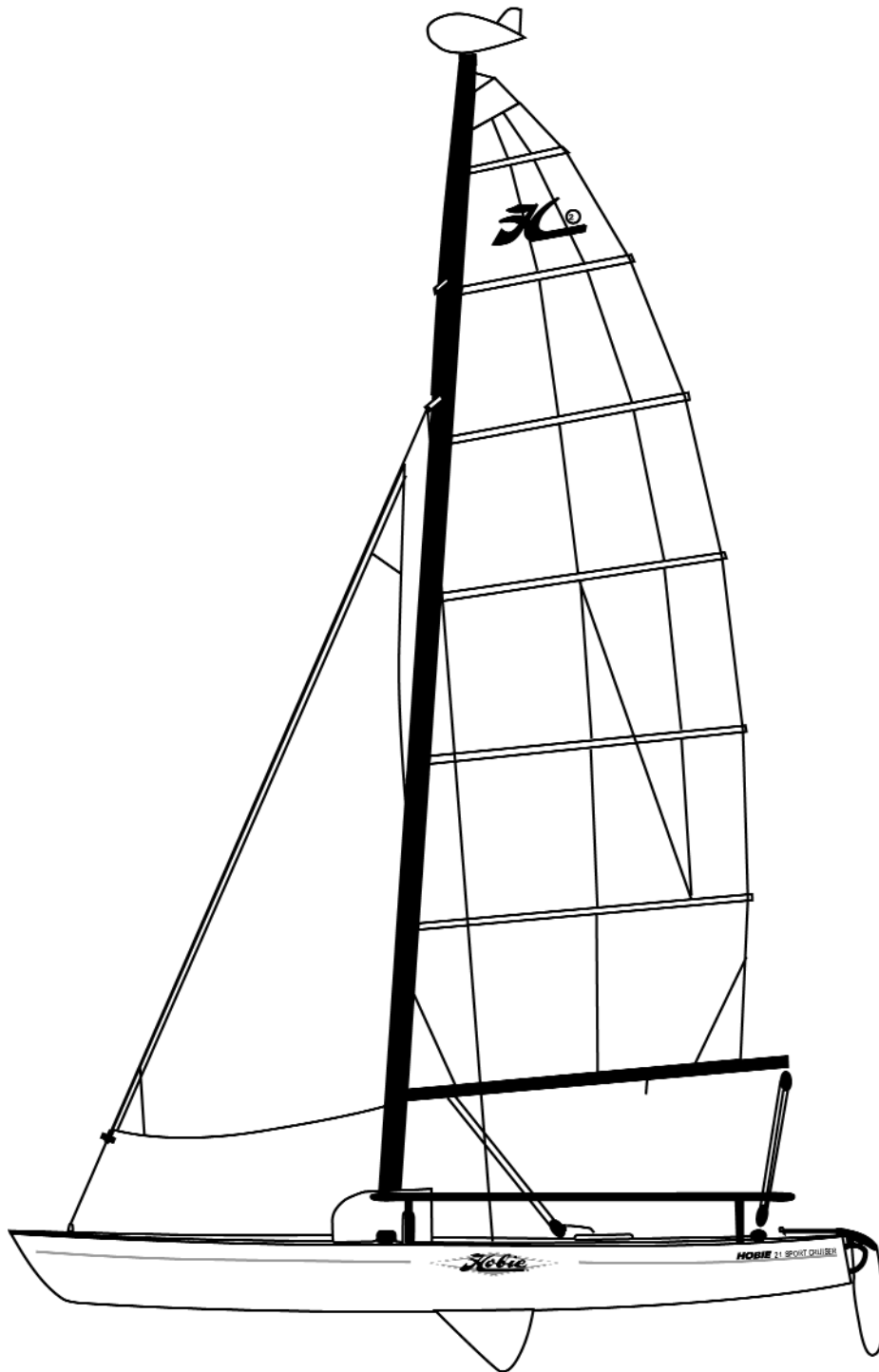


# **HOBIE**

## **21 SPORT CRUISER**



### **ASSEMBLY MANUAL**



## **WELCOME TO THE HOBIE WAY OF LIFE**

*Congratulations on the purchase of your new HOBIE 21 Sport Cruiser and welcome to the HOBIE® sailing family. The beauty of the 21 Sport Cruiser is that 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 Hobie 21 SC ready for the water. Please read them carefully and familiarize yourself with the boat and all of the parts spread before you.*

*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 21 SC to you and hope that you'll take as much pride in owning her.*

**Fair winds and good sailing!**

**Hobie.**

# HOBIE 21 SPORT CRUISER ASSEMBLY MANUAL

This assembly manual takes you step-by-step through the setting-up and sailing of your new HOBIE 21 SC.

This manual will help you understand each part in detail.

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NOTE - READ ALL INSTRUCTIONS PRIOR TO ASSEMBLY.

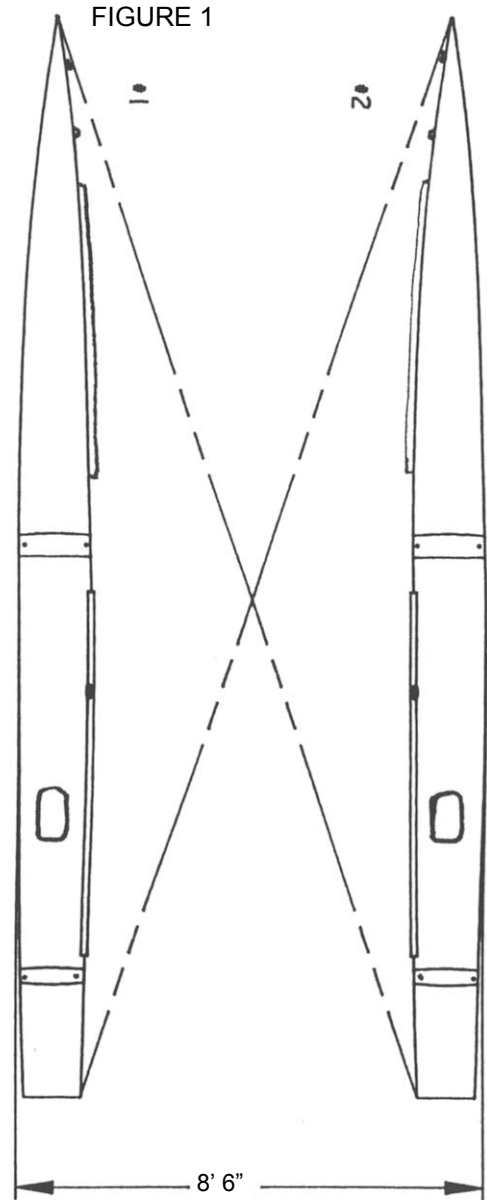
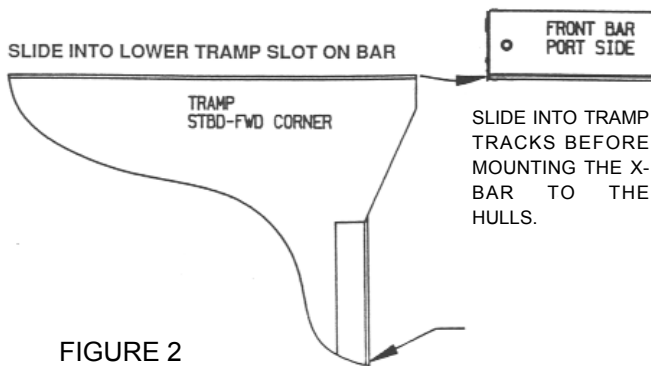
## I. FRAMING YOUR BOAT.

I.1 USING THE CARDBOARD CRADLES FROM THE SHIPPING BOX, PLACE HULLS PARALLEL TO ONE ANOTHER SO THAT PHANTOM LINES 1 AND 2 ARE OF EQUAL DISTANCE. WIDTH APART = 8'6" (FIGURE 1)

1.2A INSTALL MAIN TRAMPOLINE INTO LOWER SLOT OF FORWARD CROSS BAR. (FIGURE 2)

1.3 INSTALL FRONT CROSSBAR (SEE NEXT PAGE FOR DIAGRAM)

### TRAMPOLINE INSTALLATION



## 2. INSTALLING CROSS BAR BOLTS

Applies to both front and rear cross bars

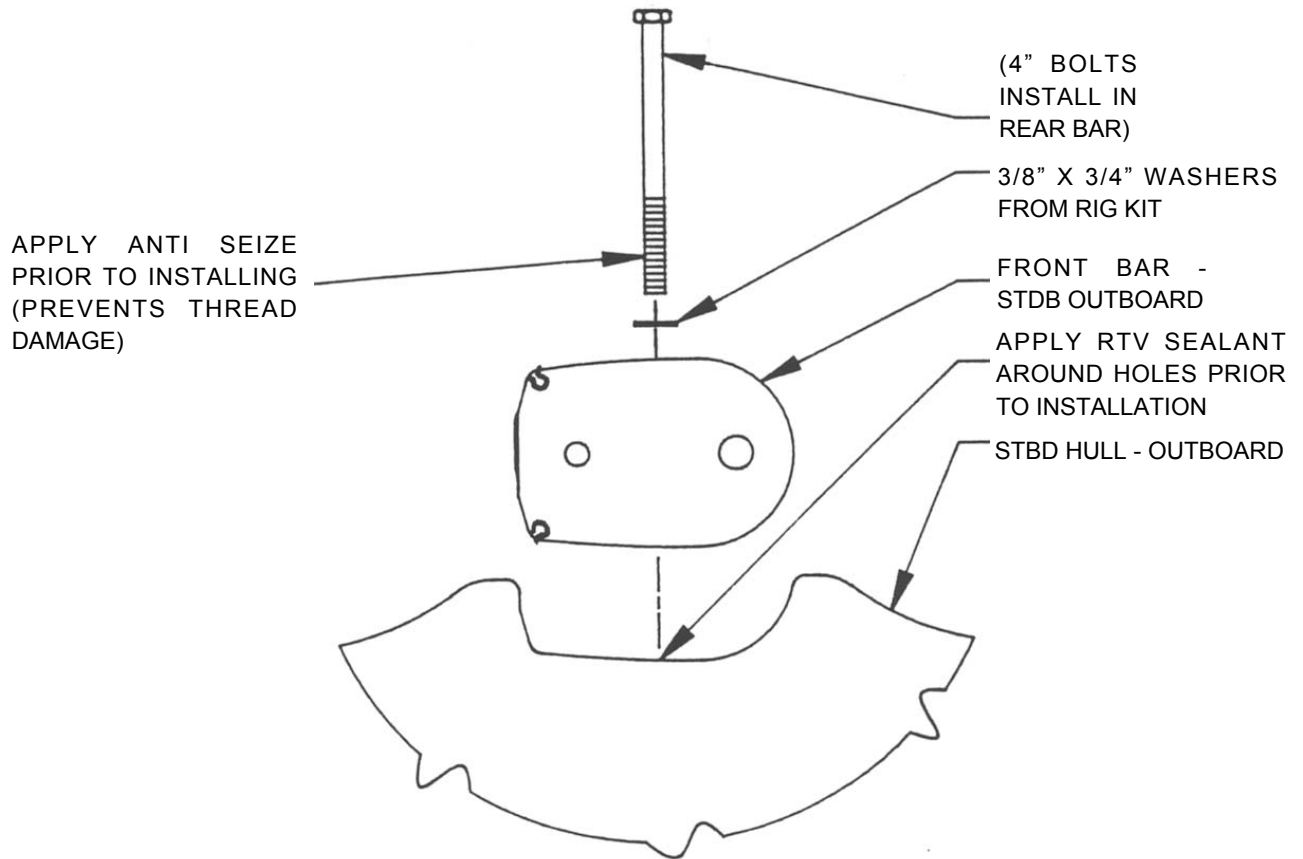


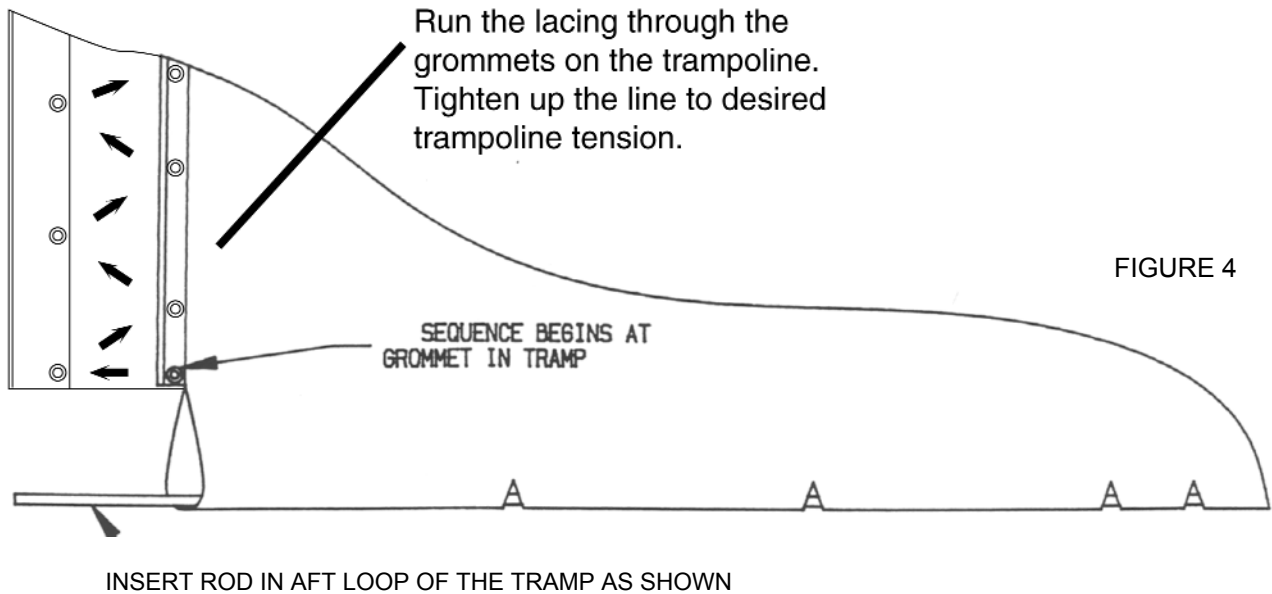
FIGURE 3

-CAUTION-  
If BOLTS FEEL LIKE YOUR FORCING THEM  
TO THREAD, BACK THEM OUT AND CHASE  
TAPPED HOLES WITH A 3/8" -16 TAP.  
FORCING THREADING WILL DAMAGE THE  
BOLT AND TAPPED HOLE THREADS.

### 3. LACING YOUR TRAMPOLINE

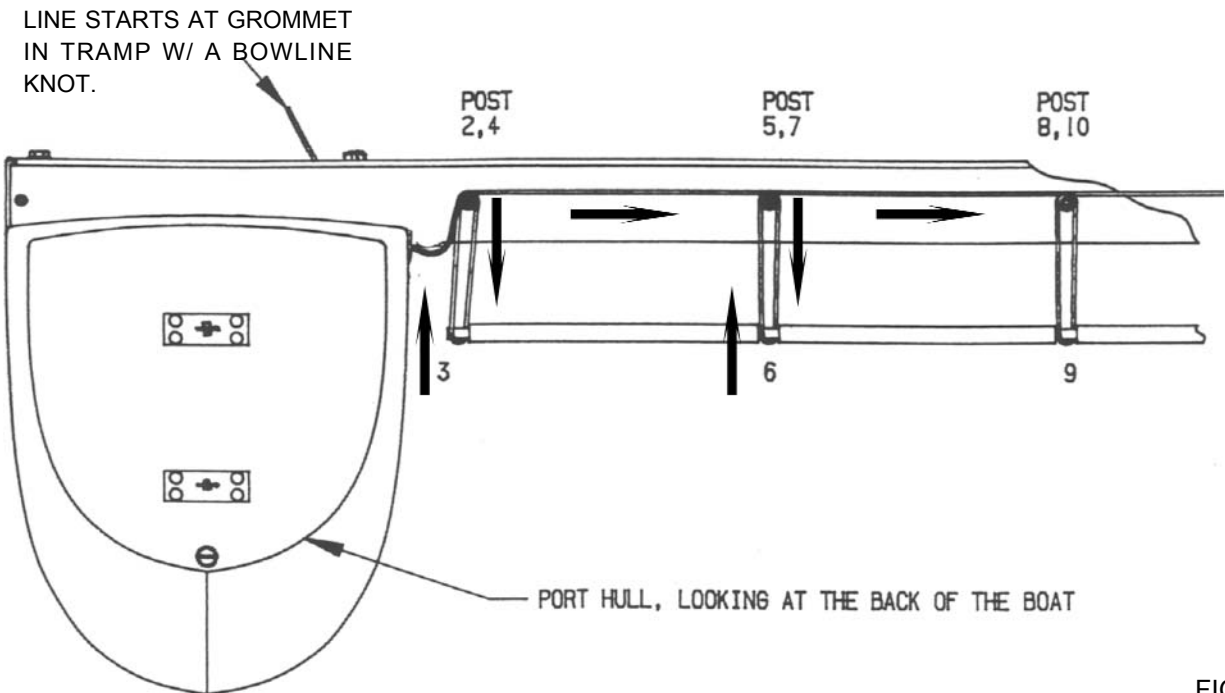
3.1 Before lacing, slide the tramp into the tracks in both of the hulls. Be sure to slide back as far aft as possible. Using soapy water helps with the installation of the tramp.

3.2 Place tramp lace bar in tramp as shown below. (FIGURE 4)



3.3 Follow the rear X-bar lacing diagram (Figure 5)

NOTE: Tighten tramp to individual preference. Do not use any tramp tightening device. This may cause damage to the tramp.





## 7. CAT CABIN

(FRONT TRAMPOLINE MUST BE LOOSE) POSITION BOX OVER FRONT CROSSBAR. EASE DOWN OVER CROSSBAR. STUDS IN THE BOTTOM OF CAT CABIN PASS THRU THE TRAMPOLINE SLOTS. REMOVE TWO BLACK PLATES, FOUR BLACK LOCK KNOBS AND LOCK WASHERS FROM RIG KIT. PLATES INSTALL SO THAT THE CABIN IS REMOVABLE FROM BELOW THE BOAT BY HAND.

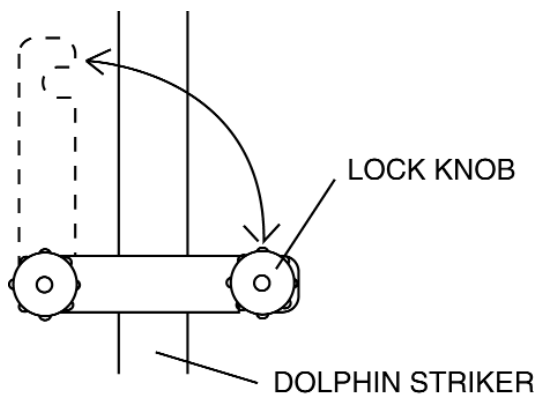


FIGURE 7

## 8. WINGS

8.1 Identify the left and right wing assemblies.

Red Dot = LEFT

Green Dot = RIGHT

8.2 Mark the legs with tape as shown. These points indicate full and complete insertion of the legs into the hull. (FIGURE 8)

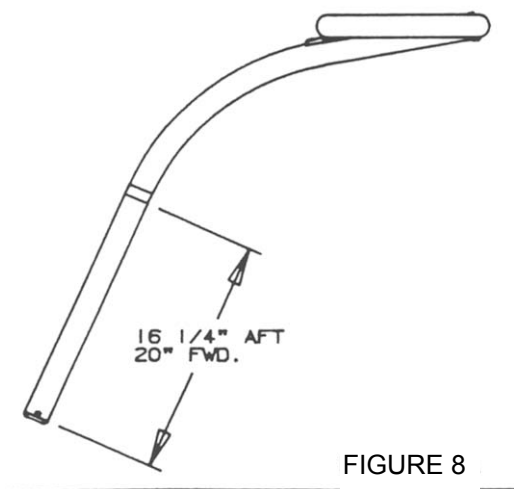


FIGURE 8

8.3 Put the right wing legs into the sockets and place the right seat onto the legs. All parts are pre-drilled so the holes should line up properly. Rivet the seat onto the legs using rivets and rivet caps. (FIGURE 9)

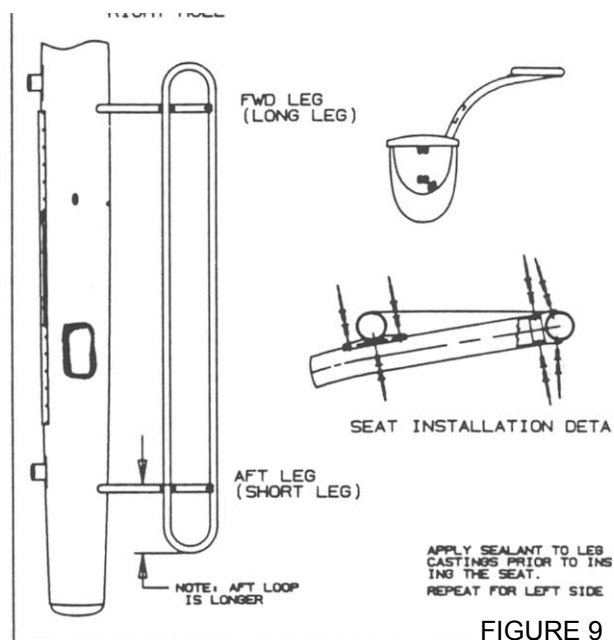


FIGURE 9



8.4 Lace the wing tramp as shown. (FIGURE 10)

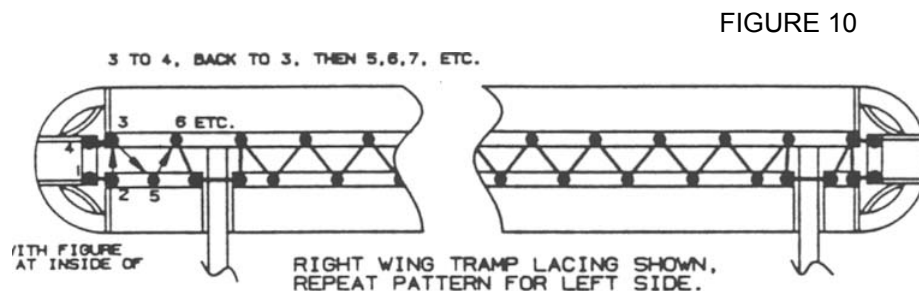


FIGURE 10

**NOTE:** INSTALL WING TRAMPS SO LACE LINES DO NOT INTERFERE WITH CUP HOLDERS (FIGURE 11)

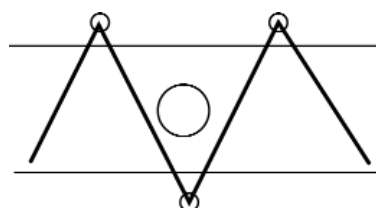


FIGURE 11

8.5 To insert the wings, simply work the leg tubes into the hull sockets an inch or so at a time. Push one leg of the wing into the tube, then the other and continue alternating until both sides are completely inserted. If the wings cannot be easily inserted using this system, check the end caps and sockets for debris (such as sand), improper fitting or metal burrs.

8.6 Before sailing, secure the wing legs on the hull with a short piece of line. (FIGURE 12)

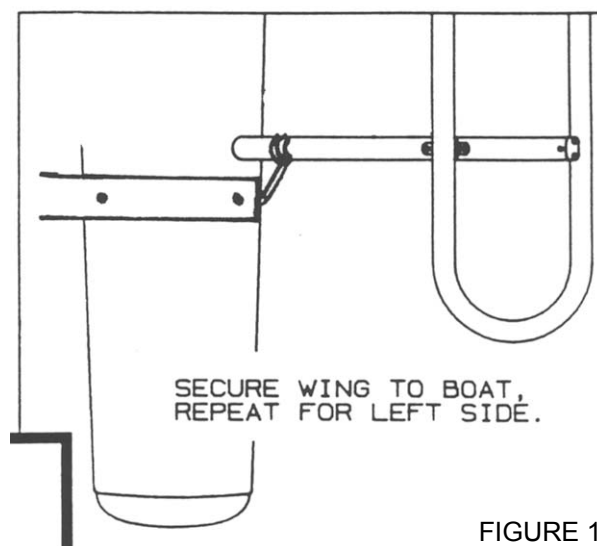


FIGURE 12

**CAUTION**

It is very important that the wings are completely inserted when sailing or whenever any load is applied to them. Failure to completely insert the wings will result in hull and/or wing damage. You have inserted the wings completely when the band of tape on the outboard side of each insertion tube aligns with the top of the hull deck.

**WARNING:**  
**WINGS WILL NOT FLOAT!**

## 9. RUDDERS

9.1 Identify the left and the right rudder assemblies.

Red Dot = LEFT

Green Dot =RIGHT

9.2 Insert one nylon bearing into the bottom of each hole in the rudder castings. (FIGURE 13)

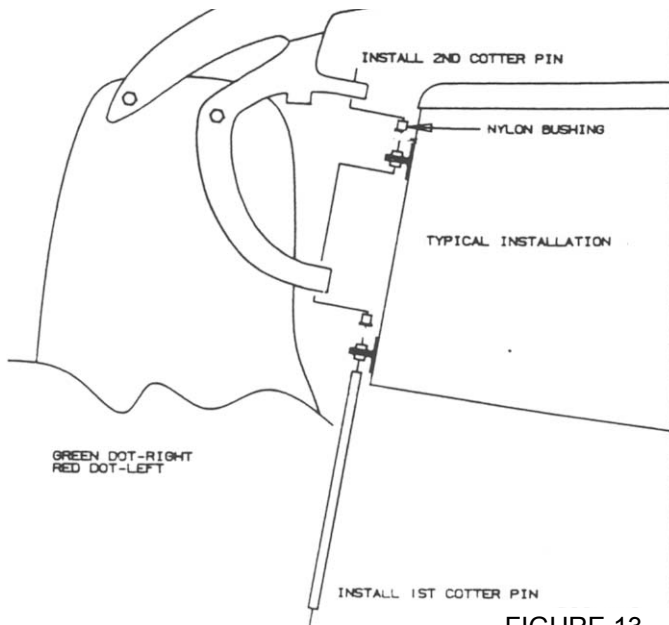


FIGURE 13

9.3 Put one cotter pin on each rudder pin. (FIGURE 13)

9.4 Set the casting on the gudgeons. (FIGURE 13)

9.5 Push the rudder pin UP through the lower gudgeon and make sure to place a stainless steel washer between the gudgeon and the nylon bearing in the casting. (FIGURE 13)

9.6 Repeat step 4.5 for the upper gudgeon. (FIGURE 13)

9.7 Secure the top of the rudder pin with a second cotter pin. (FIGURE 13)

9.8 Repeat for the other rudder assembly.

## 10. TILLER CROSSBAR

10.1 Place the red dot end (left) of the tiller crossbar on the red dot (left) rudder.

10.2 Insert the tiller crossbar onto the rudder arm pin so that the crossbar sets on top of the arm.

10.3 Capture the tiller arm to the tiller crossbar with the keyhole retainer clip on the tiller arm. (FIGURE 14)



FIGURE 14

10.4 Attach the tiller extension to the yoke of the tiller crossbar by inserting the clevis pin and retaining ring. (FIGURE 15)



FIGURE 15

# 11. CENTERBOARDS

The centerboards are spring loaded for positive locating at desired positions and to allow retraction if contacted from below.

11.1 When the handle is lifted slightly and moved forward in the key slot, the board is free to descend. Several adjustment knots can be placed in the line to permit the boards to extend to a variety of depths. When the board is fully extended it should reach 19 1/2 inches (49.5cm) as measured from the bottom of the hull to the tip of the board. When the board is fully retracted, the centerboard line should measure 21 1/2 inches (51.6cm) from the deck to the underside of the centerboard handle. To raise the board, pull up on the handle and slide the line into the key slot just below the last figure-eight knot. (FIGURE 16)

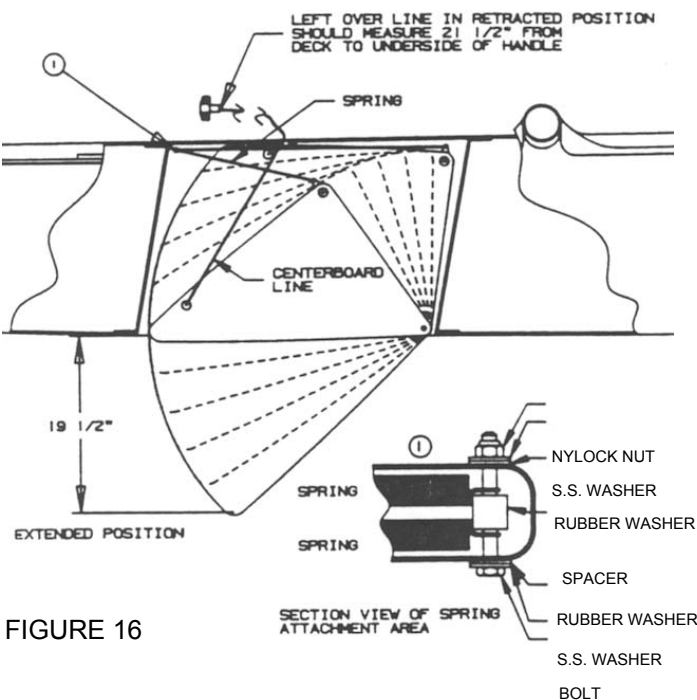


FIGURE 16

11.2 If you ever need to remove a centerboard, instructions are included. (FIGURE 17)

## CENTERBOARD AND COMPONENT REPLACEMENT

### TO REMOVE A BOARD

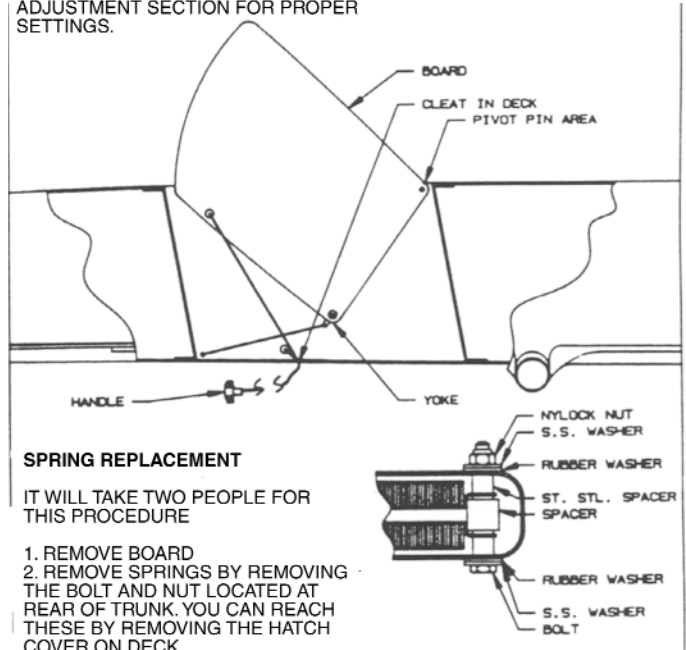
NOTE-BOAT TO BE TURNED OVER FOR PROCEDURE

1. REMOVE CENTERBOARD HANDLE.
2. REMOVE PIVOT PIN SCREWS AND PIVOT PIN.
3. PULL UP ON BOARD TO EXPOSE SPRINGS AND DETACH THEM FROM YOKE.

### TO INSTALL A BOARD

1. REINSTALL CENTERBOARD LINE ON NEW BOARD.
2. NOW GRAB THE SPRINGS IN THE TRUNK WITH A PIECE OF WIRE SHAPED LIKE A HOOK AND ATTACH THEM TO THE YOKE ON THE CENTERBOARD.
3. ONCE ATTACHED GUIDE BOARD INTO PLACE WHILE THREADING THE CENTERBOARD LINE THROUGH THE CLEAT IN THE DECK, ONCE IN PLACE REINSTALL PIVOT PIN USING R.T.V. ON SCREWS TO INSURE PROPER SEAL.

ONCE INSTALLED REFER TO CENTERBOARD ADJUSTMENT SECTION FOR PROPER SETTINGS.



### SPRING REPLACEMENT

IT WILL TAKE TWO PEOPLE FOR THIS PROCEDURE

1. REMOVE BOARD
2. REMOVE SPRINGS BY REMOVING THE BOLT AND NUT LOCATED AT REAR OF TRUNK. YOU CAN REACH THESE BY REMOVING THE HATCH COVER ON DECK.
3. TO REINSTALL, LIGHTLY TAPE ST. STL. SPACER. SPACER AND SPRINGS IN POSITION SHOWN TO A 2 FOOT PIECE OF ROUND STOCK ABOUT 3/8" IN DIA. WHILE ONE PERSON ALIGNS THE SPRING AND SPACERS WITH THE HOLES IN THE TRUNK THE OTHER PERSON MUST SLIDE THE BOLT IN PLACE. REMEMBER TO INSTALL FASTENERS AS SHOWN, AND TO PROPERLY SEAL BOLT HOLES WITH R.T.V. SEALANT. REINSTALL BOARD AS SHOWN IN STEPS ABOVE.

FIGURE 17

## 12. DRAIN PLUGS

12.1 Drain plugs are the most often forgotten item during rigging, but among the most important. Even championship sailors forget to put their drain plugs in once in a while, but you can't go very far with them out. **BE SURE TO CHECK YOUR DRAIN PLUGS BEFORE LEAVING SHORE.** Make certain the gaskets are in place and free of sand, or other debris, which can prevent sealing. The drain plugs are located below the lower gudgeon. Do not overtighten the drain plugs. This may distort the rubber gaskets and water will leak into the hulls. (FIGURE 18)

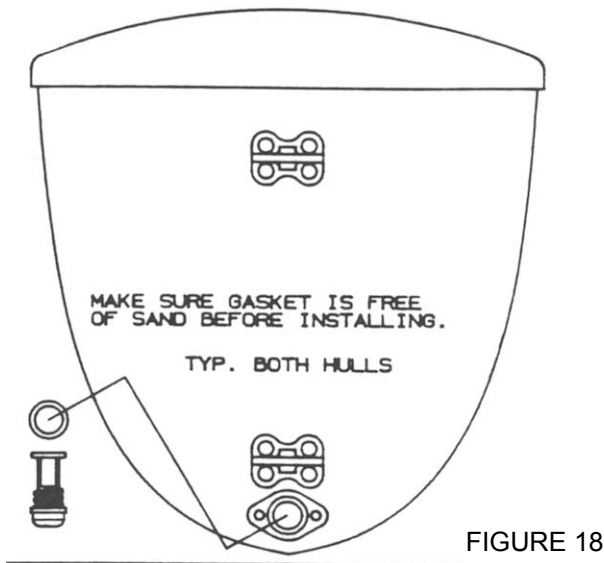


FIGURE 18

## 13.MAST

9.1 Attach the spreader arms as shown and secure them with cotter pins. (FIGURE 19)

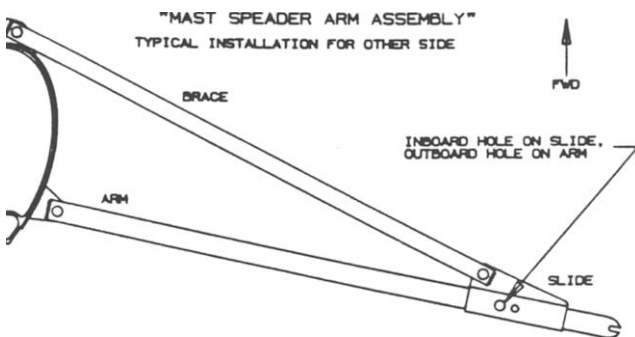


FIGURE 19

13.2 Attach the jaw end of the diamond wire to the diamond wire tang located below the mast tang. Use a clevis pin and a cotter pin to secure the wire. (FIGURE 20)

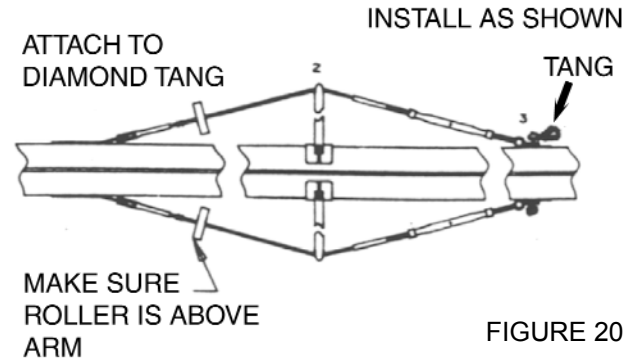


FIGURE 20

13.3 Secure the diamond wire in the spreader arm slot with large cotter pins. (FIGURE 20)

13.4 Completely cover all cotter pins with tape to protect the sails.

13.5 Loosen the locknuts at each end of the turnbuckle and expand the turnbuckle, keeping the threads in view inside the barrel. Note that both the locknuts rotate in the same direction.

13.6 Secure the bottoms of the turnbuckles to the mast, **ADD TANG TO STARBOARD SIDE.** (FIGURE 20)

13.7 Tighten the wires evenly by rotating the turnbuckles and secure them with locknuts. When the turnbuckles and locknuts are tight, tie a 12" (30cm) piece of 1/8" line through one turnbuckle body; around the front of the mast; and through the other turnbuckle body. This will keep the turnbuckles from turning.

**WARNING:**

It is extremely important that the turnbuckles are adjusted equally. Overtightening one side can cause a bend in the mast. The diamond wire adjustment not only affects mast bend and sail shape, it is an important support component of the mast extrusion. If the diamond wires are loose or broken, the mast can be permanently distorted or could fail completely. The diamond wires cannot be tightened sufficiently by hand. Use a wrench to make the last two or three revolutions of the turnbuckles. Wires stretch with use and require periodic inspection and retightening.

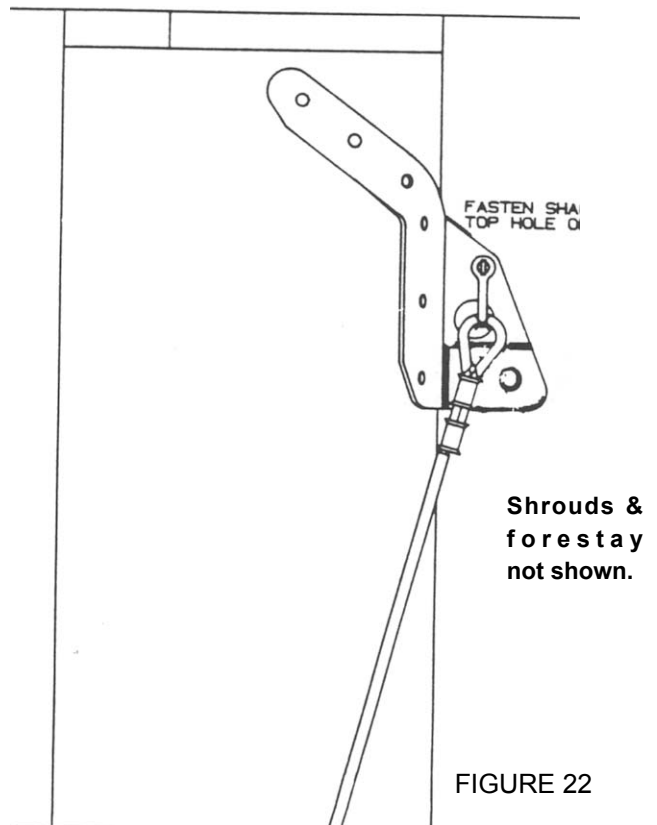


FIGURE 22

13.8 Locate the shroud wires and the upper forestay wire. Place the three wires on the large bell shackle. The upper forestay wire should be positioned between shroud wires. (FIGURE 21)

13.9 Put the pin of the large shackle through the bottom hole on the mast tang. After

tightening, secure the shackle pin to the shackle with safety wire to prevent the pin from backing out. (FIGURE 21)

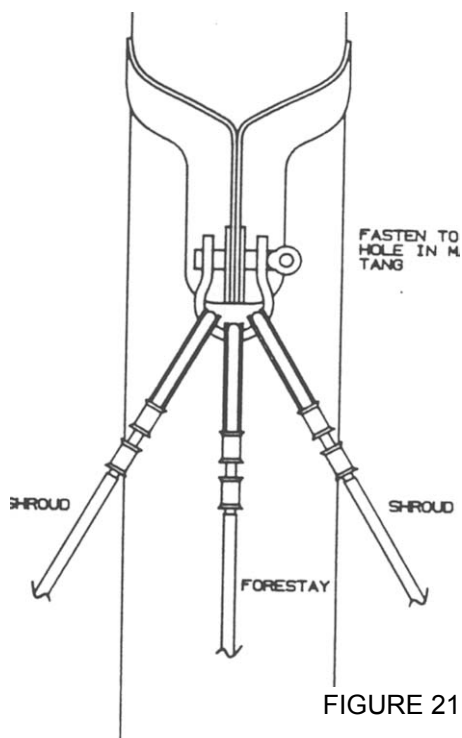


FIGURE 21

13.10 Place the small bell shackle in the middle hole of the mast tang. Slide one of the trapeze wires onto the left side of the shackle and one on the right side of the shackle. (FIGURE 22)

13.11 Secure the shackle by attaching the pin through the top hole of the mast tang. Be sure to tighten with a pair of pliers. (FIGURE 22)

## 14. RAISING THE MAST

**CAUTION: BEFORE RAISING THE MAST, BE SURE THE AREA IS FREE OF OVERHEAD POWER LINES. SHOULD THE MAST COME IN CONTACT WITH AN OVERHEAD POWER LINE THE RESULTS COULD BE FATAL.**

14.1 Secure the trapeze wires to the bottom of the mast so they will be out of the way when raising the mast.

14.2 Attach the jib halyard line to each end of the jib halyard wire to form a very large loop.

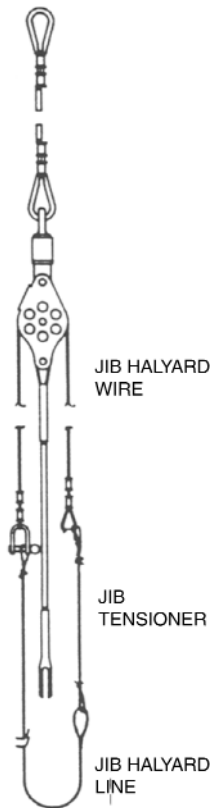


FIGURE 23

The halyard line must be connected to the halyard wire before the mast is raised, or you will lose access to it when the mast is raised. (FIGURE 23)

14.3 Place the mast base over the mast step ball located on the front crossbar and insert the mast step pin through the entire assembly. The pin should be visible on the opposite side of the mast base. Secure the pin with clevis ring. (FIGURE 24)

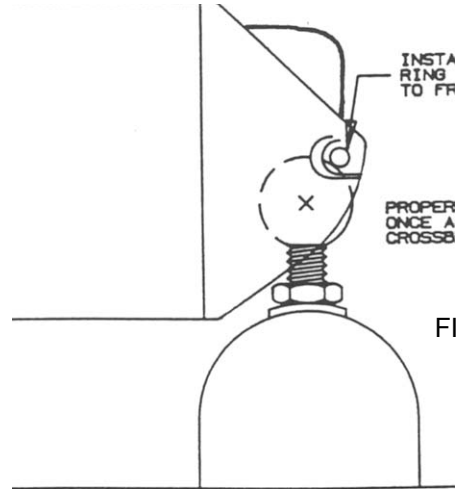


FIGURE 24

14.4 Attach the bridles to the furler...then attach the furler to the forestay.

**Note: If the mast has to be laid down before raising, support it below the COMPTIP and forward of the tiller crossbar assembly.**

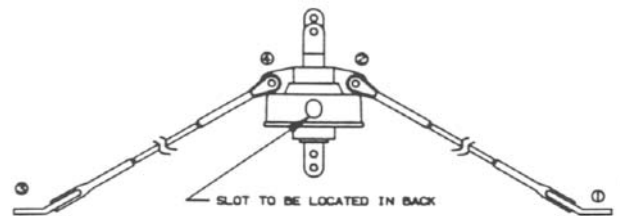


FIGURE 25

14.5 Attach the left shroud to the top hole of the left shroud adjuster with a 1/4" x 1/2" clevis pin and lock ring. Secure the base of the shroud adjuster to the toggle with a clevis pin and lock ring. Then secure the toggle to the tang on the left hull using a clevis pin and lock ring. (FIGURE 26)

\*Note:  
SEE UPRIGHT  
INSTRUCTIONS  
ON FOLLOWING  
PAGE

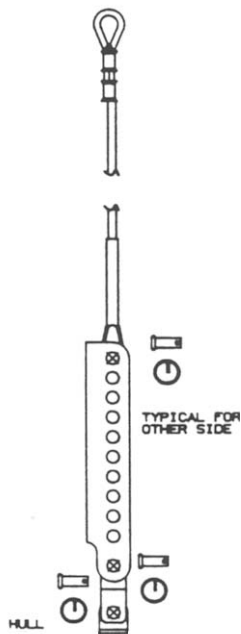


FIGURE 26

14.6 Repeat step 10.9 for the right shroud and shroud adjuster.

## 15. TRAPEZE WIRES

15.1 Untie and clear the trapeze wires.

15.2 Lead the trapeze shock cord through the grommets on the outboard side of the trampoline, then under the trampoline and through the opposite grommets.

15.3 Arrange the trapeze wires so they lead outside of the shrouds. Then tie the line to the J & H handle with a bowline knot. After the line is led through the thimble on the end of the trapeze wire, attach the rope lock. Then tie the end of the line to the shock cord with another bowline knot. (FIGURE 27)

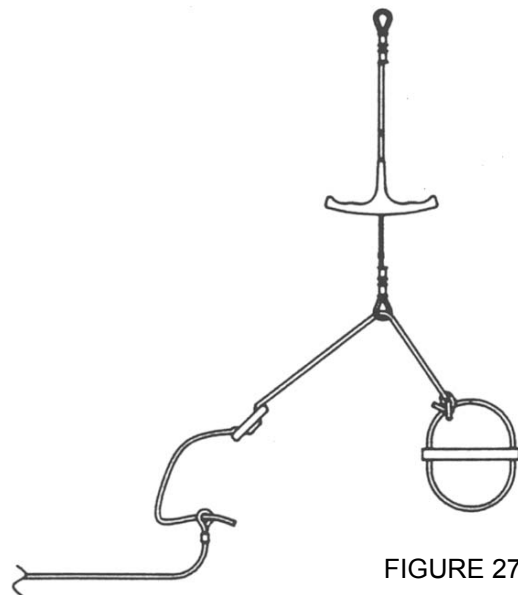


FIGURE 27

## 16. Shroud Extender Installation

16.1. The clevis pin holding the shroud to the shroud adjuster must be removed and replaced by the ball lock pin that is part of the shroud extender wire assembly.

16.2. Using the clevis pin removed in #1 above, pin one end of the shroud extender wire assembly to the shroud adjuster. For single handed sailing the shroud tension should be less than that for racing. This is to reduce pressure on the quick release pin so that it may be removed more easily to extend the shroud.

16.3. Attach the other end of the shroud extender wire assembly to the shroud per the drawing. You may have to strip the wire coating in order that the clamp will slide on the shroud.

Note: The final tension of the shrouds and shroud adjustment will vary according to personal preference. Shroud tension must be relieved to lower the mast.

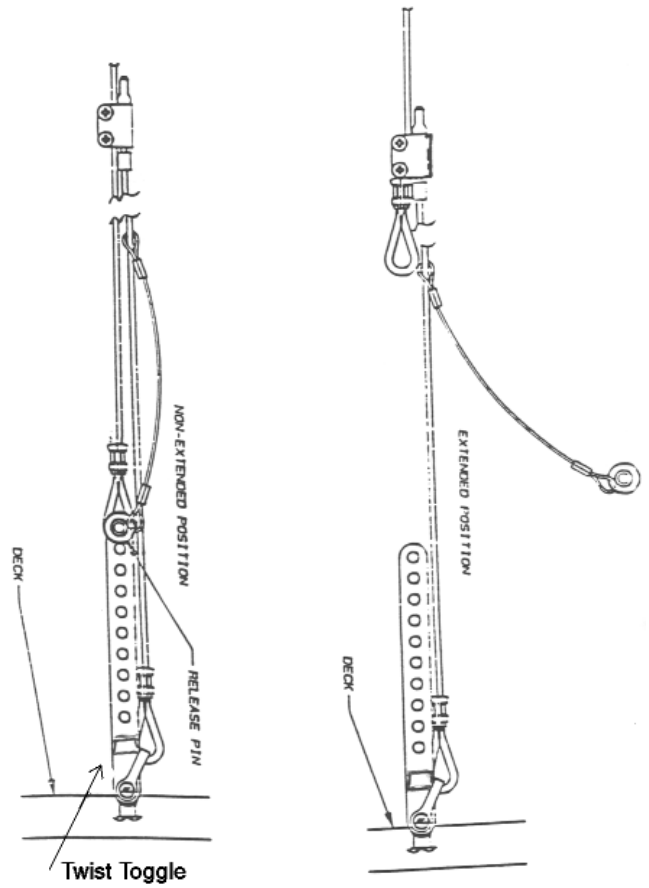


FIGURE 29

FIGURE 30

## 17. FLOAT TOP/ LIFT ASSEMBLY

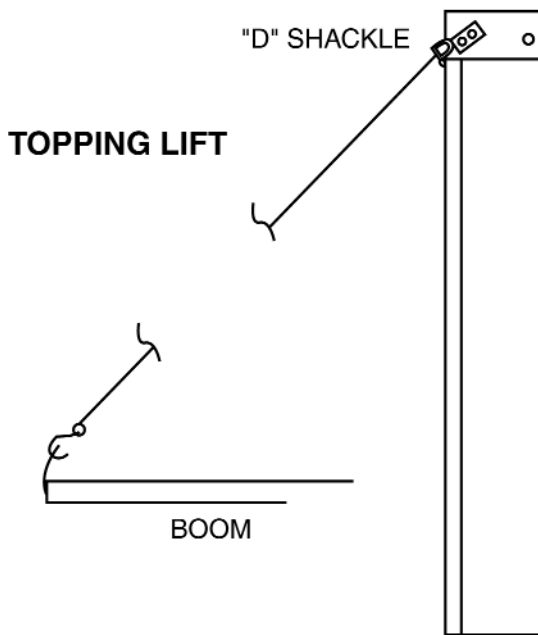
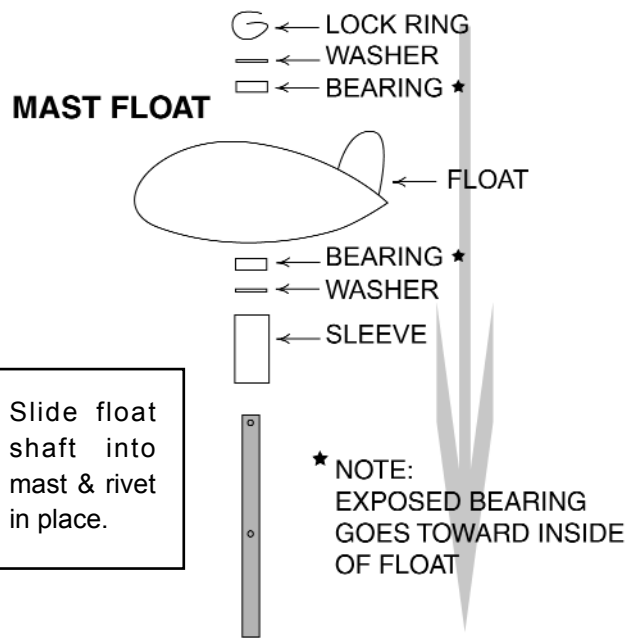


FIGURE 28



Slide float shaft into mast & rivet in place.

FIGURE 31



## 18. Mast Stepper Pole Installation & Instructions

NOTE: Read all instructions prior to installing and using the mast stepper. Also watch the video for complete operating procedures.

18.1. (Rigging the mast stepper) Follow the diagram below for rigging front XBAR.- Follow number sequence. (Fig32+33 are preinstalled)

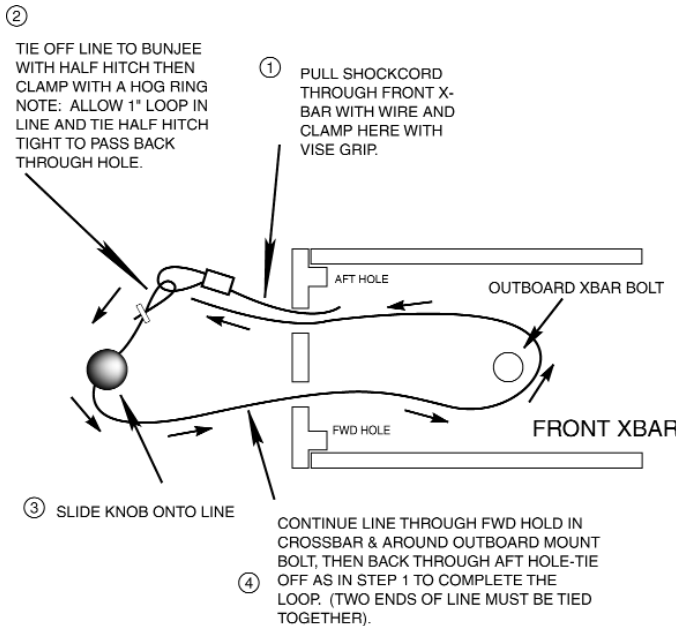
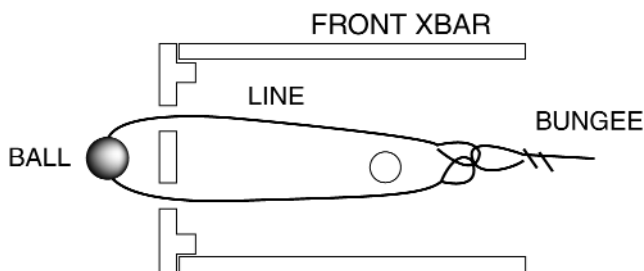


FIGURE 32

⑤ RELEASE VISE GRIPS & PULL BUNGEE INSIDE XBAR AS SHOWN BELOW



⑥ REPEAT ON OTHER SIDE

FIGURE 33

⑦ INSTALL THE 10 HOLE STAY ADJUSTER IN THE FURLER ALONG SIDE STD. STAY ADJUSTER SUPPLIED. LEAVE 1 1/2 HOLES EXPOSED AT THE BOTTOM OF THE FURLER.

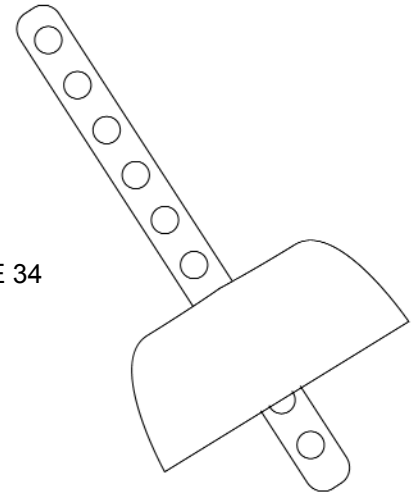


FIGURE 34

⑧ USING FAST PINS SUPPLIED, ATTACH POLE TO FURLER & MAIN SHEET SYSTEM, THEN SHEET TO FWD TRAMPOLINE BAR AS SHOWN (MAST UP SHOWN).

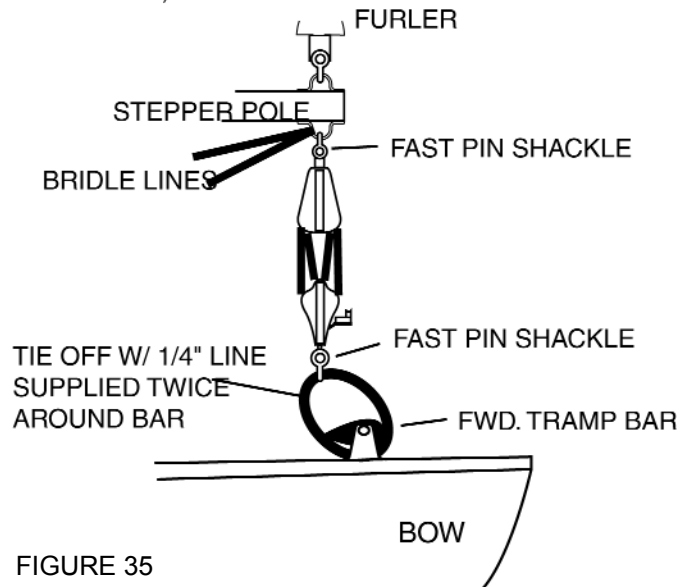


FIGURE 35

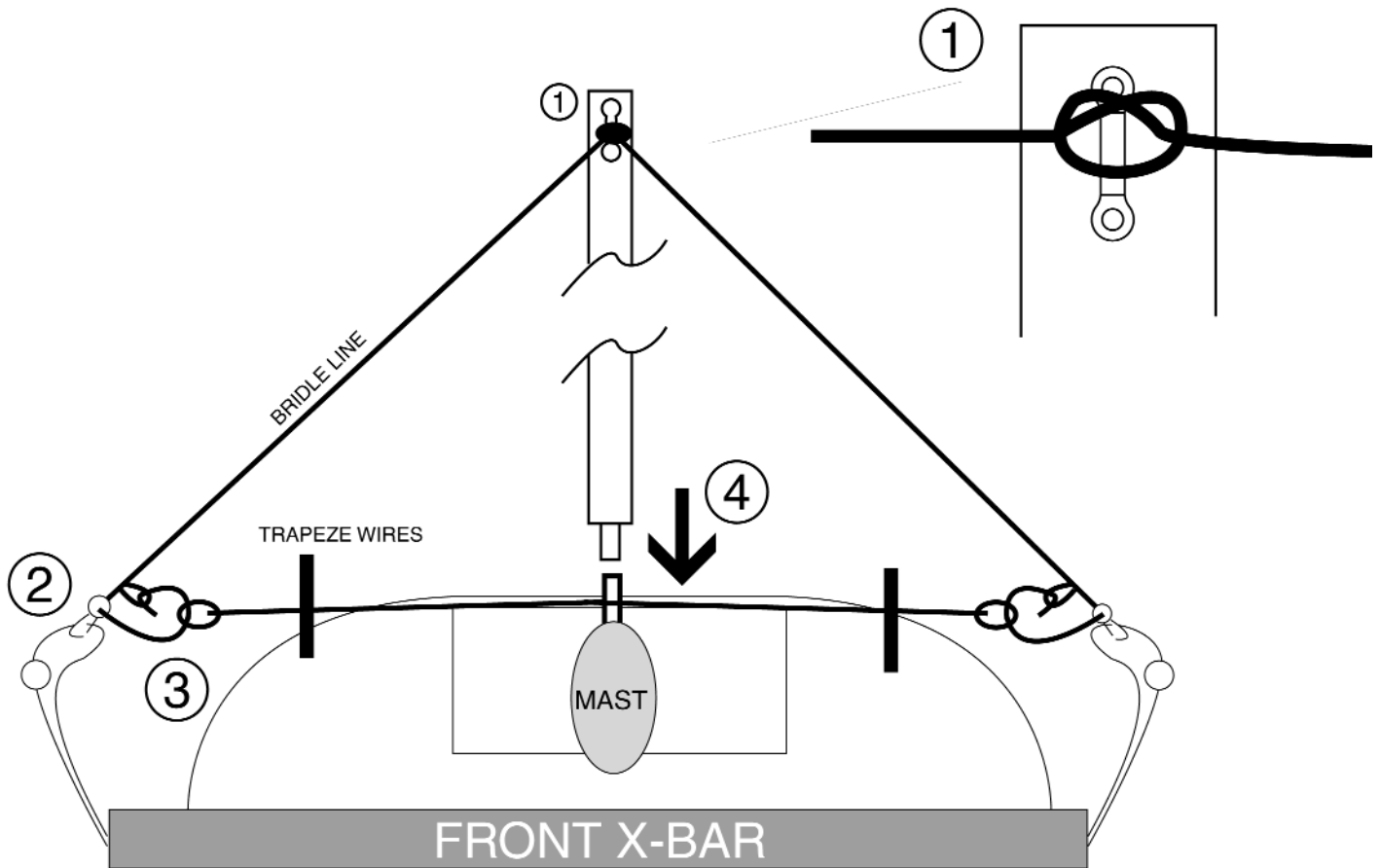


FIGURE 35

1. Tie off to one of the padeyes on the pole so that the ends of the lines are equal distances from the pole.

Tie off hook on each end of the bridle lines so that it is approx. 87" from the pole to the end of the hook.

2. Snap the hook to the line at the end of the front X-Bar.

4. Lift the pole in the upright position and insert the pole stud into the compression plate at the base of the mast.

3. Tie a loop near the end of the snap hook and run the remainder of the line through the

trapeze thimble. Take up the slack and tie it off. (Leave a small amount of slack in the bridles as it will get tighter as the mast is stepped)

Be sure to check all connection, wires, etc. for safety.

See that the trapeze wires to the stepper pole prevent the mast from swinging from port to starboard more than a few feet.

5. Sheet in on the mainsheet system to the step the mast, cleat, then attach the bridle wires.

6 Remove pole stepping system.

## 19. BOOM INSTALLATION

Push gooseneck pin through mast and fasten main furling handle with clevis pin and ring. (FIGURE 36)

Attach topping lift wire to outboard end of boom.

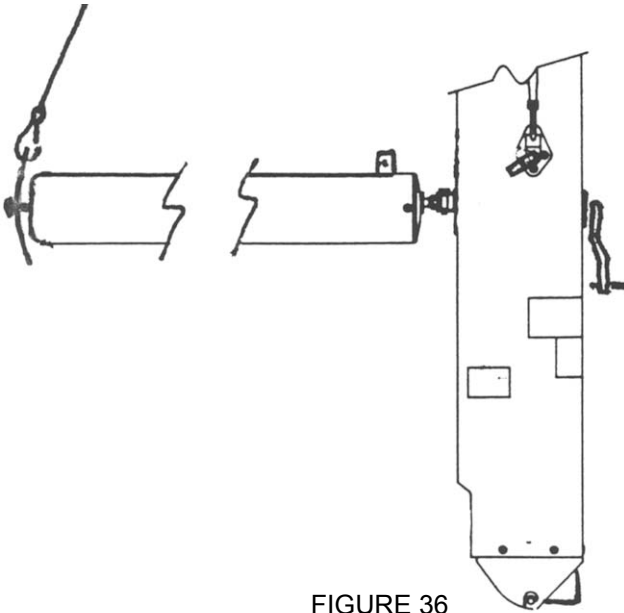


FIGURE 36

## 20. MAINSHEET ATTACHMENT

20.1 Attach the main sheet system as shown. Tie off the traveler line end (B) with a figure-eight knot. (FIGURE 37)

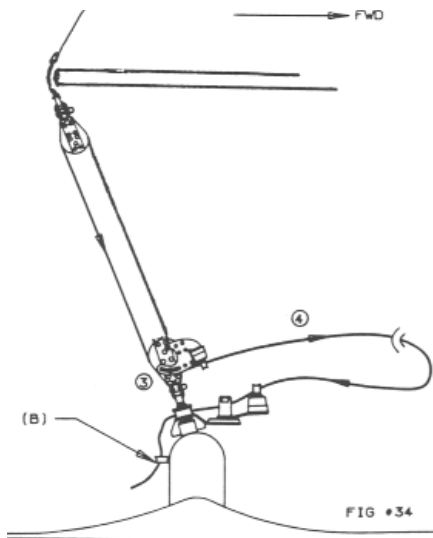


FIGURE 37

20.2 Move and secure the traveller car to the left side of the boat. Using the mainsheet, sheet in tight. Now tighten the left shroud by moving it down two or three holes in the adjuster. Secure the shroud with a clevis pin and ring. (FIGURE 38)

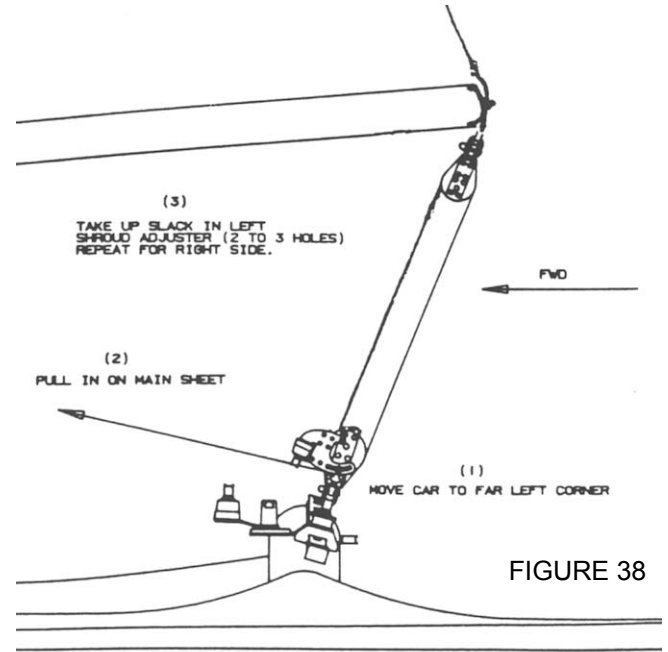


FIGURE 38

20.3 Release the tension on the mainsheet and move the traveller to the right side. Repeat to tighten the right shroud.

20.4 Release the tension on the mainsheet when the tightening procedure is finished and return the boom to its normal position.

NOTE: Whenever the boat is set up, tightening will be required to achieve proper shroud tension.

## 21. JIB BLOCKS

21.1 Remove the end stop of the left jib track located on the hull. Insert one of the jib blocks into the track with the slide adjustment on the block facing the rear of the boat. (FIGURE 39)

21.2 Insert the end stop and secure. Apply a small amount of silicone sealant to the threads before reassembly.

21.3 Repeat steps 21.1 and 21.2 for the right jib block.

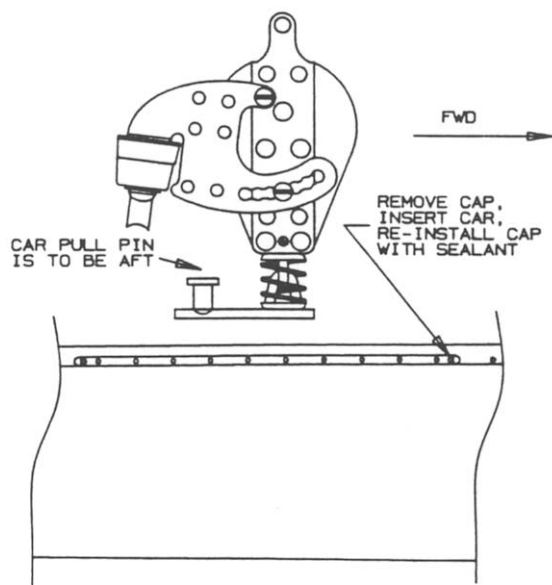


FIGURE 39

## 22. JIB SAIL

22.1

**CAUTION:** Before attempting to raise the sails, the boat must be pointed into the wind.

22.2 Attach the shackle on the end of the jib halyard wire to the head of the jib. (FIGURE 40)

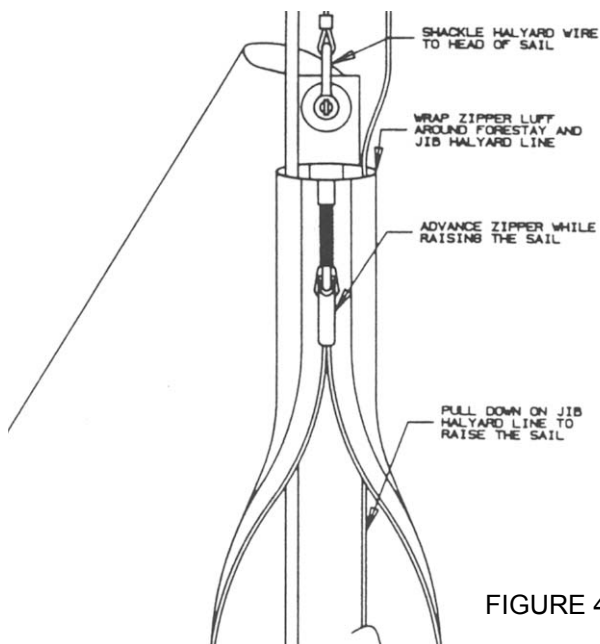


FIGURE 40

22.3 Wrap the jib luff pocket around the lower forestay. Make sure that the jib halyard line is inside the luff pocket. Then engage the zipper. (FIGURE 40)

22.4 Raise the sail by pulling on the jib halyard line and, at the same time, advancing the zipper down the luff until the jib tack can be attached to the shackle on the neck of the roller furler housing. (FIGURE 41)

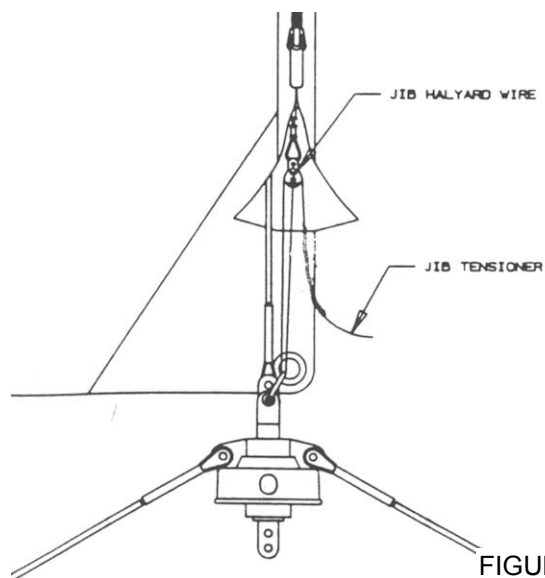


FIGURE 41

22.5 Untie and store the jib halyard line. Connect the jib tensioner line to the block on the end of the jib halyard wire. Thread the tensioner down and through the tack shackle and back up through the block on the halyard wire. Then secure it to tack shackle with half hitches. (FIGURE 41)

JIB SHOULD ONLY BE TENSIONED WHEN THE MAIN IS SHEETED TIGHTLY.

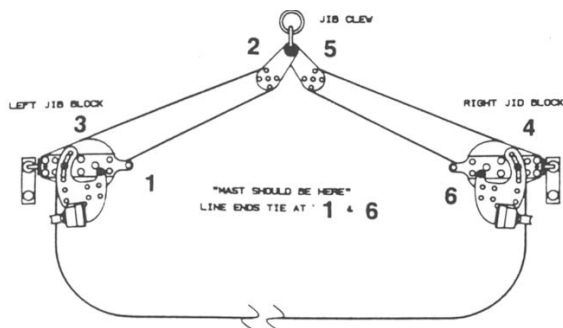


FIGURE 42

22.6 Attach the jib clew blocks to the jib clew plate using a shackle. (FIGURE 42)

22.7 Attach the jib sheet as shown. (FIGURE 43)

22.8 Temporarily attach the roller furler line to the jam cleat on the top of the front crossbar.

22.9 To adjust the roller furler line:

- A. disconnect the clew blocks;
- B. pull the furler line all the way out of the spool and cleat it off on the forward crossbar;
- C. wrap the jib clockwise completely around the forestay;
- D. reconnect the clew blocks (this is the furled position);
- E. to unfurl the jib, release the furler line from the cleat on the front crossbar and pull in on the jib sheet. (FIGURE 43)

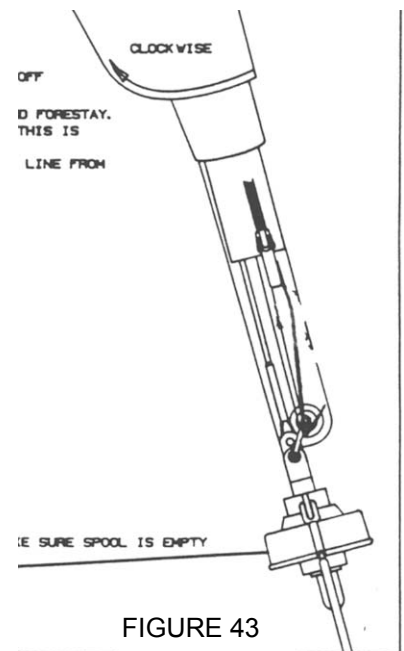


FIGURE 43

22.10 To furl the jib, uncleat the jib sheet (both port and starboard) and pull the furler line until the jib is completely furled. Do not partially furl the sail because this will cause uneven stretching of the exposed sail.

22.11 Once the rigging has been tensioned, the jib luff may need final adjustment before sailing.

## 23. MAIN SAIL

23.1 Lay the sail flat. It's important that the sail is perfectly flat on the ground. A wrinkled sail could lead to a tear in the sail fabric when the battens are pushed into their pockets.

23.2 Place the battens next to the proper pocket.

23.3 Insert the battens, flat end first.

23.4 Tie each batten as shown. (FIGURE 44)



- 1) LAY SAIL FLAT.
- 2) PLACE BATTENS NEXT TO PROPER POCKET.
- 3) INSERT BATTENS FLAT END FIRST.
- 4) TIE EACH BATTEN AS SHOWN.

FIGURE 44

Note: Final batten tension will vary with the wind conditions and personal taste in sail shape. Do not overtension the battens.

23.5 After the battens have been tensioned, check to make sure that the boat is pointed into the wind and the halyard is free and not twisted around the mast or shrouds.

23.6 Slide sail foot onto the boom.

23.7 Pin tack of sail at front boom end.

23.8 Attach the shackle on the halyard to the grommet in the headboard at the top of the sail and secure it with the shackle pin. (FIGURE #41)

23.9 Insert and feed the bolt rope into the mast track while raising the sail. (FIGURE #41)

**CAUTION: WHEN RAISING THE MAIN SAIL...STAY CLEAR OF THE FURLING HANDLE AS IT SPINS FREE TO UNROLL THE FURLED MAIN SAIL. IT IS BEST TO STAND TO THE AFT AND STARBOARD WHEN PULLING THE MAIN HALYARD UP.**

23.10 Pull the main halyard to raise the sail. If the sail binds in the track, back it down a bit, then continue pulling up. Coating the luff with a sail lubricant will make raising the sail easier. It is recommended that this be done on a periodic basis to prevent the luff from binding. A sail feeder can also be installed on the mast if desired.

23.11 Hoist the sail fully, run halyard around the cleat, through the block, apply tension, and tie off at the cleat. (FIGURE 45)



Tension completely to keep sail head within aluminum section at top of mast.

FIGURE 45

## 24. DOWNHAUL AND OUTHAUL

24.1 Attach the downhaul and outhaul assembly as shown below. (FIGURE 46)

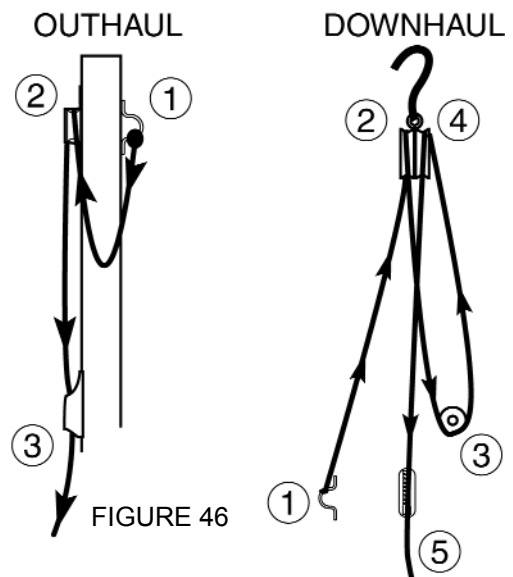


FIGURE 46

## 25. HULL STORAGE HATCHES

It is very important to fully secure the hatches when sailing. The compartments are sealed with bulkheads to prevent flooding the entire hull if the hatch fails. The hatch should also be fully secured when trailering to prevent loss.

Inspect the hatch and become familiar with the locking mechanism.

The "T" bar will turn a full 90 degrees to engage the deck when locking. You will hear a distinctive clunk when the bar hits the 90 degree stop built into the hatch.

When removing the hatch the bar will turn 90 degrees back and hit the stop again.

Be sure that items stored in the hull do not block the "T" bar from turning fully and hitting the 90 degree stop.

**FIRST**-Spin the locking lever counter clockwise to fully loosen the "T" bar. This will allow full clearance in the hull when turning to the locked position.

**SECOND**-Move the "T" bar to the open position. Align the "T" bar and the lever as a visual indicator of the "T" bar position when the hatch is placed in the hull.

**THIRD**-Turn the locking lever clockwise until you hear the "CLUNK" and confirm that the lever is positioned 90 degrees to the open position (This confirmation may seem redundant but the hatch must engage the hull at the full 90 degree position to assure a secure seal!).

**CAUTION!!** The "T" bar may contact items stored in the hull or the lip of the storage compartment and not move to the full 90

degree position before the hatch is tightened. The lever can be tightened in this position and not secure the lid!!!

**FOURTH**-Continue turning the locking lever in the clockwise direction until the gaskets are partly compressed. It is not necessary to fully compress the gaskets to achieve a secure hatch and may damage the gaskets if over tightened.

NOTE: It will take fewer turns of the lever to remove the hatch. When reinstalling, it is very important to further loosen the lever to assure proper "T" bar clearance in the hull!!!

## 26. THE TENT (option)

The tent is installed below the boom and may be installed around the furled mainsail. The boom should be supported by the topping lift.

Attach the collar around the mast below the boom.

Attach the boom straps.

Tie the halyard to the outboard end of the boom.

Attach the line and bungee cord hooks along the outer edge of the wing trampolines, passing the line over the wings.

Pull the halyard up to level the rear door. Tension the bungee and lines.

Attach the sticky back velcro along the hull lip to accept the side wall velcro.

Place short sections of sticky back velcro under the front of the cabin to accept the front tent hold down velcro (it is advised to lightly sand the hull lip and under side of the car

cabin to accept the sticky back more permanently.

To waterproof the tent... a tent seam spray must be used and the luff groove of the mast must be blocked with a dab of silicone.

## 27. CRUISER MOTOR MOUNT INSTRUCTIONS (option)

### CRUISER MOTOR MOUNT INSTRUCTIONS

1. CLAMP MOTOR MOUNT ON C.L. OF REAR CROSSBAR AS SHOWN BELOW.
  2. USING HOLES IN MOTOR MOUNT CASTINGS AS A DRILL GUIDE, DRILL HOLES IN CROSSBAR WITH A #11 DRILL BIT AND SECURE IN PLACE WITH RIVETS SUPPLIED. ONCE CLAMPED IN POSITION, DRILL AND RIVET TO SECURE THEN RELEASE THE CLAMP
- KICK UP BLOCK IN DOWN POSITION  
CLAMP IN POSITION WITH THE SHAFT IN THE DOWN POSITION AND PARALLEL TO THE WATER LINE

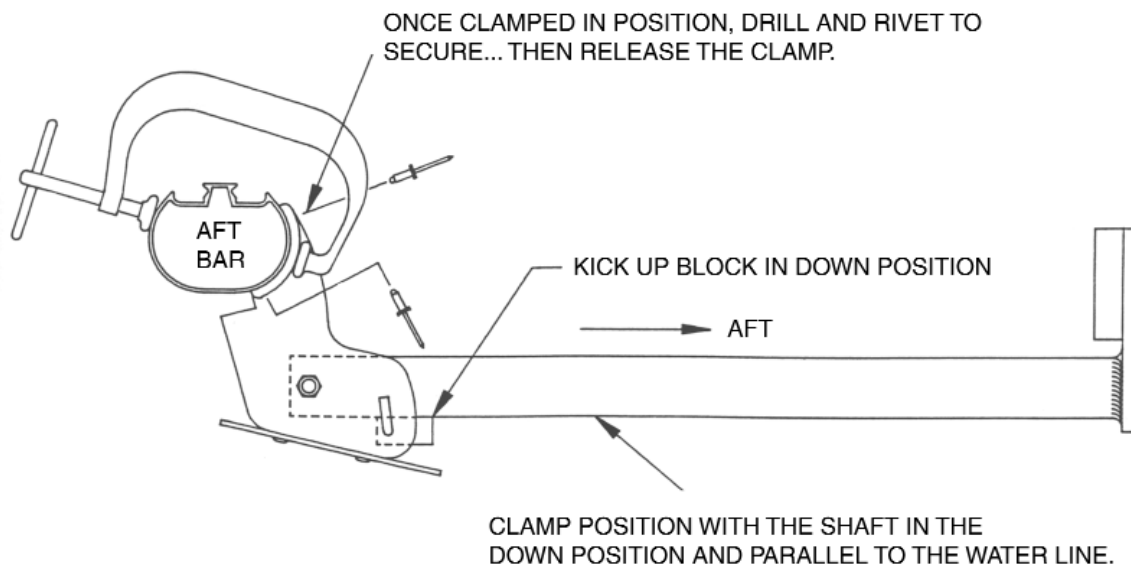


FIGURE 47

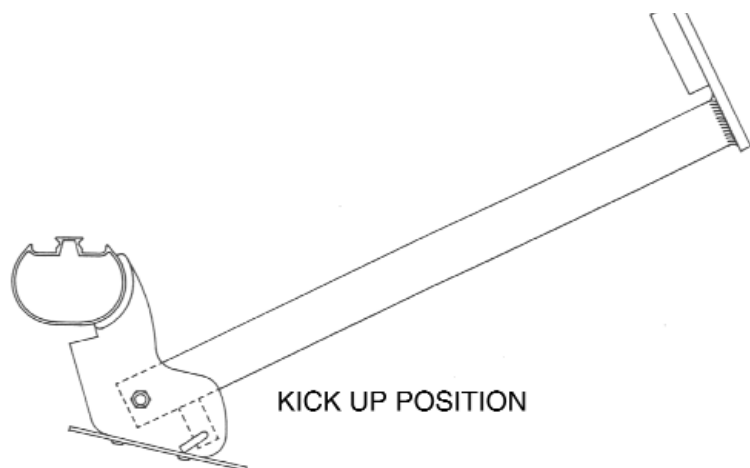


FIGURE 48



## 28. SAILING THE 21 SPORT CRUISER

**CAUTION: WHEN RAISING THE MAIN SAIL...STAY CLEAR OF THE FURLING HANDLE AS IT SPINS FREE TO UNROLL THE FURLED MAIN SAIL. IT IS BEST TO STAND TO THE AFT AND STARBOARD WHEN PULLING THE MAIN HALYARD UP.**

### TOPPING LIFT

The topping lift is only attached when furling the sail. It must be removed from the boom end when sailing. It may be hooked to the tang provided at the bottom of the starboard diamond wire or...

: A short piece of bungee may be added to the connection points to allow you to unhook it.

: But keep it at the rear of the boom. The bungee will stretch when the sail is sheeted.

### FURLING THE MAINSAIL

1. Attach the topping lift
2. Detach the down haul and hook it to the tang provided at the starboard diamond wire location.
3. Pull the furling handle clear of the mast
4. Ease the halyard as you turn the handle in a clockwise direction.

Reefing: Stop at the desired reefing point (be sure that the sail head is stopped at the aluminum track reef point when using the first reef). Insert the furling handle into the mast and tie off the halyard. Hook the downhaul into a reef point grommet and tension. Rerun the outhaul and tied off taught. Detach the topping lift and your sailing.

### RIGHTING THE 21 CRUISER

The 21 will right quite easily when using the mast float and standard shroud extender system along with a righting line. Keep a minimum of 15' of line available to right the boat.

When capsized, the mast float is designed to keep the boat from turtling. Climb up to the upper shroud and remove the quick pin. With the wind coming perpendicular to the forestay, the boat will be righted with a minimum amount of crew weight.

The boat has been righted with crew weight as little as 280 LBS in testing the system.

It is advised that you should become familiar with and even test the system so that you understand the workings before a true need arises.

**NOTE: IT IS ADVISED THAT THIS IS NOT A COMPLETE TEXT OF RIGHTING TECHNIQUE AND FURTHER STUDY AND OR LESSONS BY YOUR DEALER ARE REQUIRED FOR THE NOVICE TO AVOID DAMAGE TO THE BOAT OR INJURY.**

## 29. TRAILERING

When trailering the 21, follow all instructions included with your trailer and obey all the relevant state laws concerning trailering boats.

Remove each wing and insert it into the opposite side of the boat. The right wing will go into the left hull and the left wing into the right hull. This will allow the wings to remain in a straight-up position to reduce the beam of the boat to a lawful trailering width.

Tie down the mast both in the front and in the back (below the COMPTIP) to prevent the mast from coming loose during transport.

Securely strap or tie down your boat to the trailer before starting your way.

**WARNING:**

NEVER trailer your 21 so that the plastic luff track of the COMPTIP rests on the rear crossbar or mast support because this may result in damage to the luff track.

WARNING: DO NOT USE WINCH LINE FROM YOUR TRAILER TO TIE THE MAST.

## 30. COMPTIP MAINTENANCE

Because surface contamination can allow the COMPTIP to conduct electricity, the fiberglass tip should be carefully and thoroughly cleaned with fresh water after each use. In the event fresh water will not remove surface film or other contamination, use soap and water only. DO NOT attempt to clean the COMPTIP mast with any type of solvent. Acetone or other solvents will damage the luff track.

Do not leave the mast tip in direct sunlight for extended periods. Cover the tip whenever it is not in use so ultraviolet rays will not degrade the surface.

Always trailer the luff track facing up. Do not allow mast tie-downs to touch the luff track. Use a minimum of 1 1/2" of soft padding around the mast tip and place the padding between the luff track and any tie-down lines.

When storing the mast, be sure the luff track is facing up. DO NOT apply any pressure to the luff track during storage.

Please remember that the COMPTIP mast is not total guarantee against injury or death in the event of a mast/power line contact. If the surface or luff groove is contaminated with moisture, salt, dirt or other foreign matter, or if the mast touches a line carrying extremely high voltage, an electrical injury could still occur. Additionally, the protection is confined to the tip area only. A contact of the aluminum portion of the mast, shrouds or forestay is still extremely dangerous. The only sure protection for any sailor, on any boat, is the complete avoidance of electrical power lines.

## 31. ROUTINE MAINTENANCE

The 21 must be tightened periodically. After sailing and trailering, inspect all nuts, bolts and, most importantly, the shrouds and gudgeons to make sure that these critical elements are fitted tightly and properly to insure safe performance.

Use beach wheels or dollies when launching the boat off a beach. Never drag it over sand or rocks.

After each sail, especially a salt water sail, thoroughly rinse your boat with fresh, clean

water to remove salt, grime, or other foreign material. This will help prevent metal parts from corroding.

When not using your boat, keep the trampoline and hulls covered to protect them from the damaging rays of the sun. Remove the trampoline when storing your boat for the winter and keep it indoors.

Carefully inspect all metal parts, fittings and wires for signs of stress and wear as you rig your boat before each sail. If a wire is frayed or corroded, replace it! All replacement parts should meet factory specifications and are readily available from your local dealer.

After a high-speed capsize, or a pounding in the surf, completely examine your boat for any signs of damage. Look at the crossbar to hull area, the rudder system and any other part of the boat that might have sustained damage.

When storing your boat for the winter, cover it with an opaque sheet of plastic. Form the plastic into an A-frame. By tenting your boat, you will prevent snow, leaves and other debris from accumulating on the hulls.

**WARNING: Be sure no water lies in the hulls or the wing sockets. Freezing water in those areas could cause hull damage.**

Regular cleaning, waxing and polishing will keep your boat looking good for years to come.

**REMEMBER TO SEND IN YOUR WARRANTY CARD!**

## 32 SAFETY

**EVERY SAILOR MUST TAKE RESPONSIBILITY FOR INSURING THEIR SAFETY, AS WELL AS THEIR PASSENGERS SAFETY, ON THE WATER.**

32.1 Always wear a personal flotation device (PFD) and make sure that your crew does the same!

32.2 Never sail alone!

32.3 Make sure that someone on shore knows where you are sailing and when you plan to return!

32.4 Never sail in threatening wind or water conditions!

32.5 Do not sail in wind or water conditions that are beyond your sailing abilities! If in doubt, don't go out!

32.6 Do not overload the boat or wings!

32.7 Always carry boat righting lines and equipment! Righting water bags and shroud extenders are recommended.

32.8 Sail within sight of the land! Be especially cautious on large bodies of water.

32.9 Always watch out for overhead power lines!

32.10 For more information about boating, or available classes and seminars in your area, call the toll-free boating education hotline at 1-800-336-2628(BOAT). You may also write to your state boating authority, local power squadron, or the U.S. Coast Guard, Office of Boating, Public and Consumer Affairs, Washington, D.C. 20593.

### 33. H21SC JENNAKER SYSTEM (option)

#### FURLER AND BRIDLES

Install furler and bridles onto forward bow tangs. Wind the furler line into the drum. Install using jib system as guide.

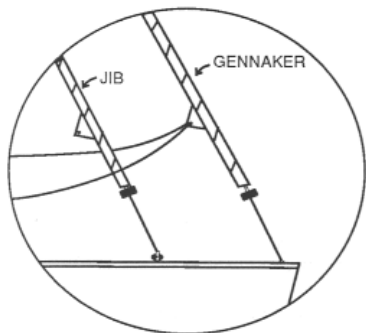


FIGURE 49

#### FURLER CLEAT

Install furler cleat onto Cat Cabin next to and left of existing jib furler cleat.

#### HALYARD BLOCK AND CLEAT

Install swivel block onto upper mast tang. Install halyard cleat into mast luff track using screws and square nuts. Position in desired location (just above cooler).

#### JENNIKER HALYARD AND SWIVEL

Install swivel to head of Jennaker (plastic sleeve may need to be removed). Tie halyard to "D" shackle and attach swivel. Run halyard up through halyard block and down mast to cleat. Attach Jennaker tack to furler drum. Hoist Jennaker.

#### SHEETING SYSTEM

Install as shown in Fig. 51. Tang fittings are bolted with outboard rear cross bar bolts. Hang Ratchet blocks on tangs. Hook bungee towing tramp lacing. This holds block upright. Tie sheet to Jennaker clew and run around boat as shown in Fig 50. Sheets run outboard of shrouds to inboard of wing through ratchet block across tramp and through opposite ratchet block. Run sheet forward then in front of jib but behind Jennaker system then tie to clew. Trapeze wires must be run inboard of wing.

#### NOTES:

Jennaker should not be left furled and or hoisted when not in use. The materials are nylon and do not handle long term UV. Jennaker is designed for down wind sailing. You may broad reach with he Jennaker but undu stress may be caused if attempting to sail on a close reach or in higher winds.

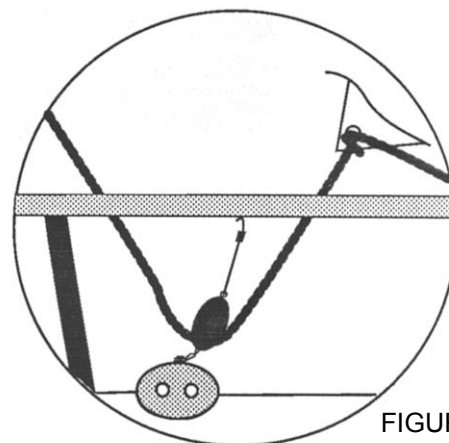


FIGURE 51

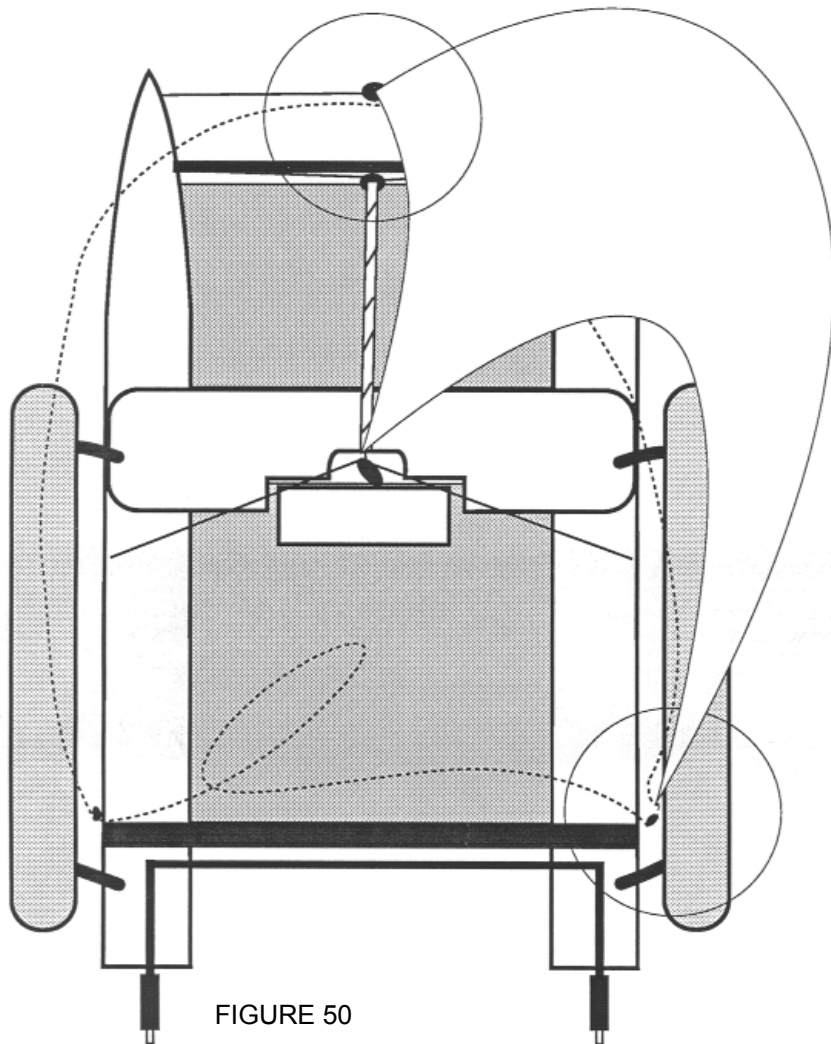


FIGURE 50

# SAILING BASICS

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

**Always wear a life jacket when boating.**

## 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 hand that is forward to hold and control the mainsheet. Use your hand that is aft to steer.

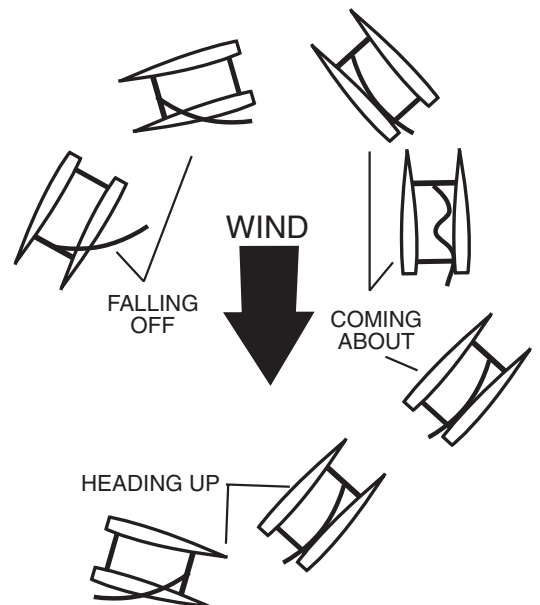
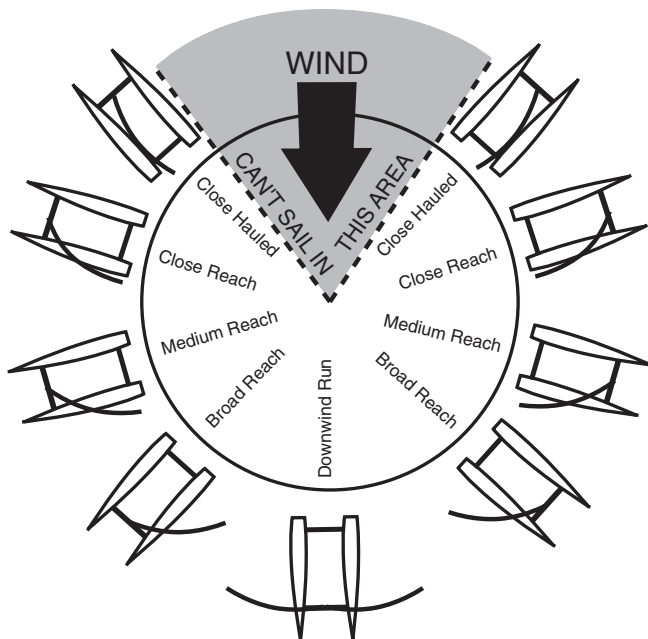
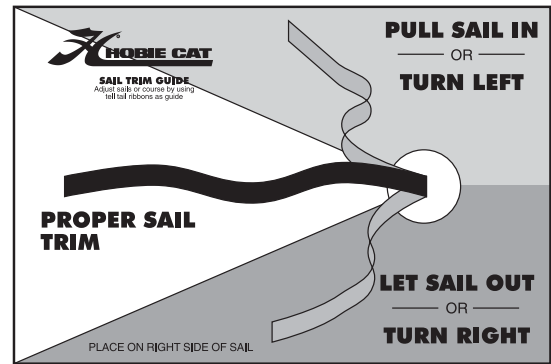
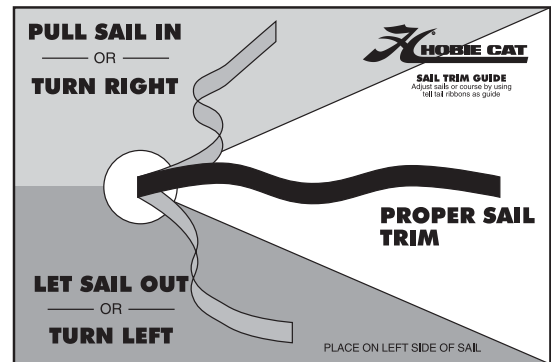
## STEERING

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 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

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, 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. The crew should move across the trampoline at the same time. The crew is responsible to ease the jib sheet just after the main sail is released and sheet the jib onto the new course before the mainsheet is trimmed. This action by the crew will prevent the boat stalling head to wind. 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 the proper sail trim. If you stall pointing into the wind and you cannot steer the boat, refer back 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 correctly for the desired point of sail.

## LAUNCHING THE BOAT

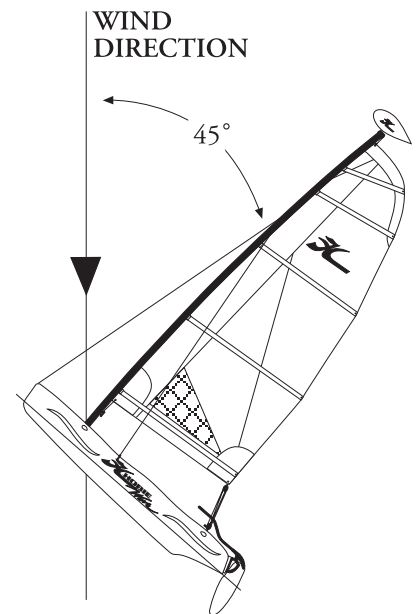
Launching the boat is easiest when the boat can be pointed into the wind to keep it de-powered and floated into deep enough water to lower the rudders. It is possible to launch in shallow water with the rudders partly up. Try not to steer with too much force on the rudders until you lock them in the down position. Keep the sail loose and trimmed out completely until you can power up and steer away from any obstacle. 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 you simply keep the boat pointed

into the wind. Drift backwards with the rudders in the up position and your weight towards the front of the boat. 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 it 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.

## RIGHTING THE BOAT

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. Skipper and crew should climb up on the hull and stand up. Follow the instructions on page 23 for the shroud extenders.

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. Be well 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.

again. Be well 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 21 SC 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.

Approaching a beach when the wind is blowing from the beach out towards the water will require some planning so that you maintain power. Turn into shore just before the hulls or rudders touch bottom. Plan so the final tack towards 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 on the previous tack to account for wind shifts in direction and speed. This will give you a little room for error. This will allow you to point a little further away from the wind after the tack to gain speed before heading up into the beach to de-power at the last moment.

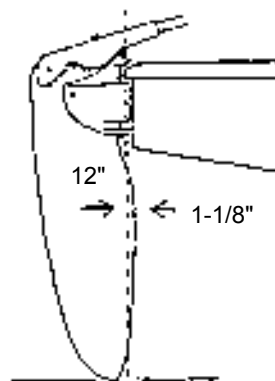
When approaching a beach when the wind is blowing onshore, sail in towards the beach from either side of the landing spot. Sail in just short of touching the bottom with the rudders. Allow some distance to turn the boat out towards the water and into the wind just out from the landing spot. Turn sharply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

You may adjust the rake of your rudder blades on your Hobie 21 SC. 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

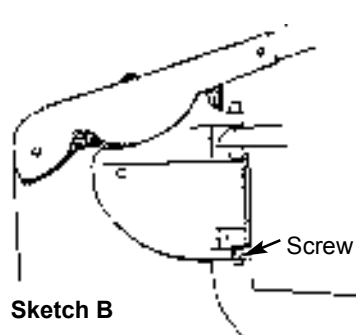


Aft for more pull on the tiller

Forward for less pull on the tiller

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.



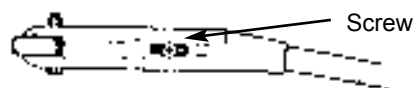
Sketch B

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.

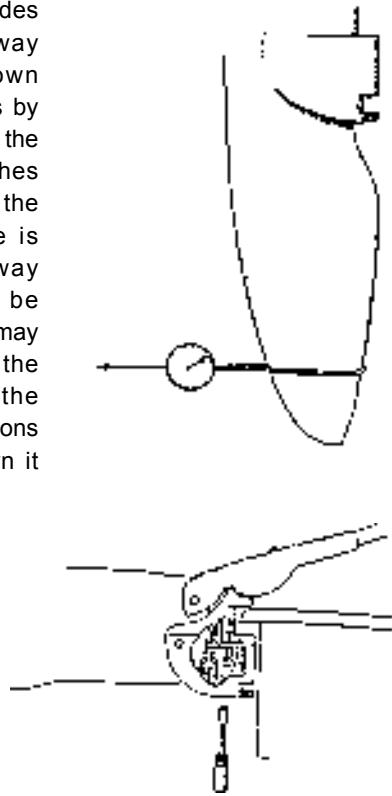
4) If you wish to decrease the amount of forward rake turn the adjusting screw clockwise using a 3/16" Allen wrench. Check the decrease in the rake by the procedure in step 3 above .

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.



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.



#### 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. A more permanent solution is to shift the axle position before taking your boat to water the very first time.

#### 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, 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 trailer boatman should be familiar with traffic and highway laws relating to the towing of trailers. Towing a Hobie has particular hazards that should be mentioned. A Hobie is very wide. Obstacles should be given plenty of room when you are passing them. 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 up 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 the boat is in the water. Back trailer to the left if possible; backing left gives better launching visibility. Avoid dunking wheel bearings wherever 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.



## 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 21 Sport Cruiser 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. 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.
- **When trailering the 21 Sport Cruiser 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 21 Sport Cruiser 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.



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