



VANGUARD

Vanguard Sailboats
200 Highpoint Avenue
Portsmouth, RI 02871

**For the dealer
nearest you call**
800.966.SAIL

Rigging Manual

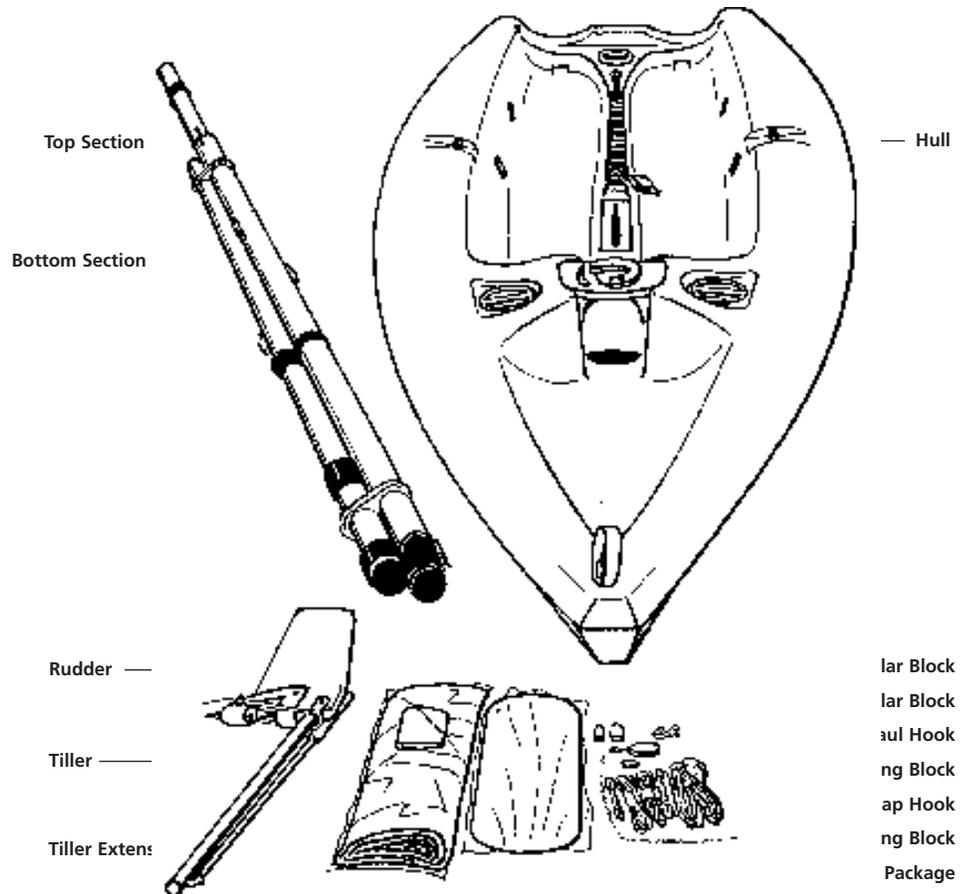
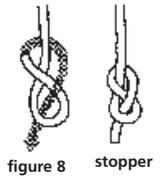
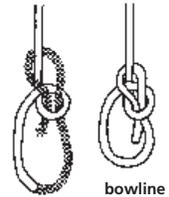
PICO

Getting Started

Unpacking and preparation

Unpack the major parts listed below and lay them out on a soft piece of ground free of sharp objects. To avoid damaging contents, do not cut into packaging. You will need two adjustable wrenches and knowledge of the following knots.

1. Hull
2. Mainsail
3. Line package (all lines are labeled)
4. Block package which includes:
 - Small traveler block
 - Large traveler block
 - Outhaul hook
 - Large vang block
 - Snap hook
 - Line package
 - 4 Brummel hooks
5. Rudder
6. Tiller/tiller extension
7. Daggerboard
8. Mast kit which includes:
 - Top section
 - Bottom section (larger diameter)
 - Boom (with blocks attached)
9. Pico Plus Box (optional): jib sheet, jib



Tools

To rig your Pico the first time, you will need the following:

- Knife
- White electrical tape
- 2 adjustable wrenches
- and/or pliers



Before you launch

Check to make sure the hatches and stern plug are secure. Lock the rudder up and attach it to the boat by passing the tiller under the traveler and lining up the rudder pin with the pintles. The bottom groove should fit into the bottom pintle, and when you push down on the spring loaded pin, the top groove will slide into the top pintle. Release the spring to lock the rudder in place, making sure the rudder is securely connected to the boat at both top and bottom.

Once in the water, slide the daggerboard into the daggerboard trunk. (You will have to turn the boat sideways to the wind to keep the boom clear.) Drop it down as much as depth permits. As soon as it is deep enough, push the rudder down until it locks in place. NOW YOU ARE READY TO SAIL. FOR YOUR OWN SAFETY, WEAR APPROPRIATE CLOTHING AND OBTAIN PROPER TRAINING BEFORE SAILING. HAVE FUN AND DON'T FORGET YOUR LIFEJACKET!

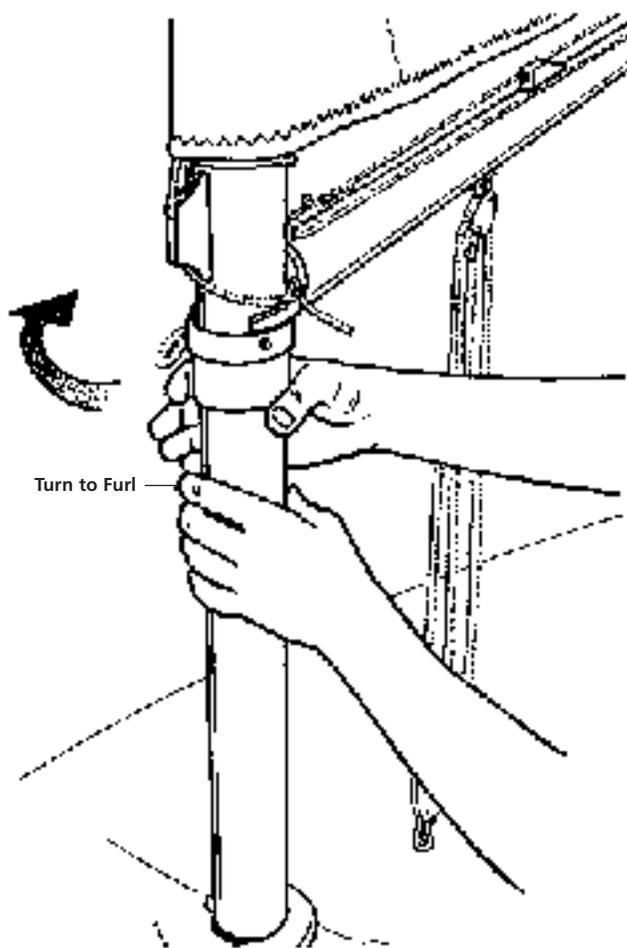
Furling

To reduce sail area for lighter crews or stronger winds, slack off the vang and unclip the larger v-cleat block from the mast. Uncleat the outhaul line and pull slack in it to release the tension on the foot of the sail. Rotate the mast one full turn in the direction of the furling arrows. This rolls the sail around the mast, reducing sail area (which is called reefing), which makes the boat easier to handle. Recleat the outhaul and pull it tight. Resecure the vang and tighten.

Unrigging

When approaching shallow water, pull up the daggerboard as much as possible without obstructing the boom. After you hop out of the boat, remove the daggerboard and place it in the boat, leaving the safety line attached. Pull the rudder up until it locks and leave it attached to the boat. Once the boat is on land, unhook the vang from the mast and release the clew from the outhaul hook. Roll up the sail, following the arrows, until the entire sail is furled, then clip the furling strap around the sail and mast. Make sure the sail is furled tightly so that it doesn't unroll on its own. If the boat is staying put, you can leave everything else on the boat; simply rehook and snug the vang, and tighten up the mainsheet to keep the boom from moving around.

All gear should be washed with fresh water, if sailing in salt water, and the sail should be allowed to dry before it is rolled up.



Rudder & Daggerboard



Rudder & Tiller
Assembled and mounted

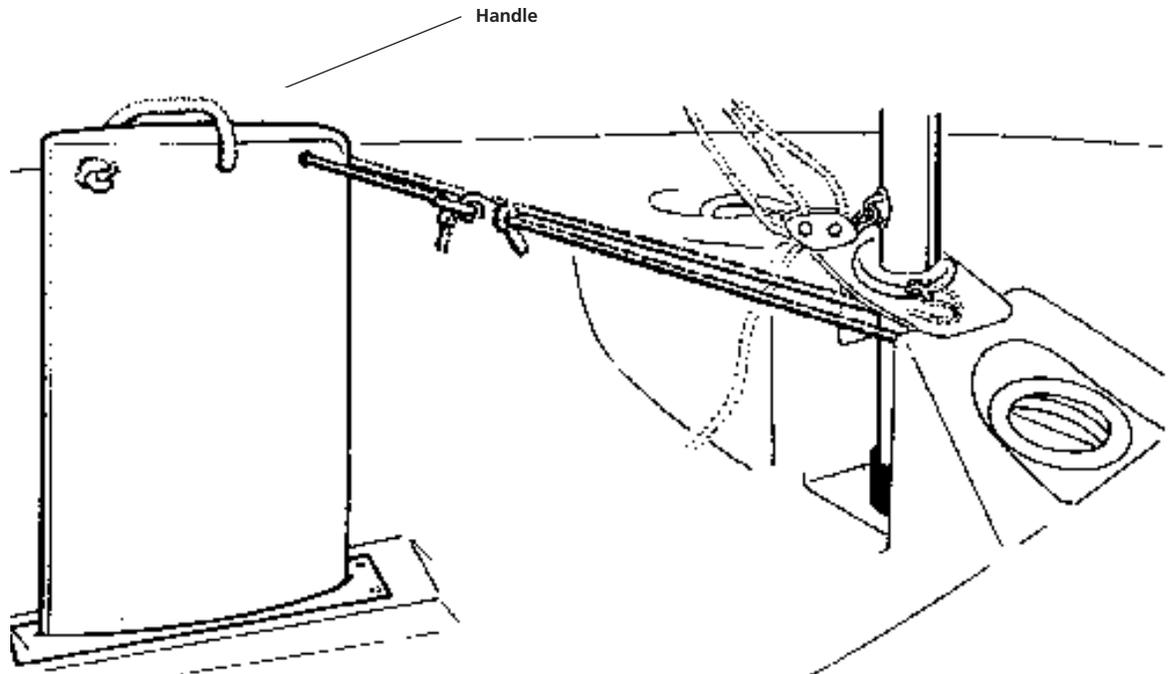
Rudder assembly

Attach the rudder to the tiller using the supplied bolt, nut, and washers. The washers sit between the tiller and the rudder, one on each side.

Daggerboard

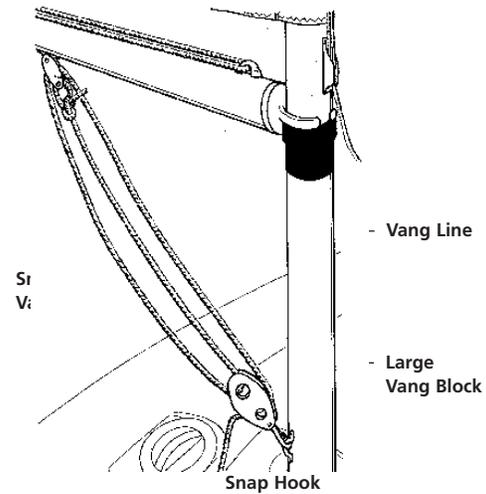
Locate the daggerboard and the short line labeled daggerboard handle. Pass the two ends of the line through the two aft holes in the top of the daggerboard and tie stopper knots, so that the line forms a short handle on top of the board.

Place the daggerboard in the boat, close to the mast. Pass the daggerboard safety line through the third (smaller) hole in the top of the daggerboard, forward around the mast, and attach the brummel hooks to the shock chord with stopper knots. Then connect the two brummel hooks. This line keeps the daggerboard with the boat and should be secured at all times while sailing, to prevent loss of the daggerboard.



Vang

The vang system consists of two blocks, a snap hook, and a vang line. The smaller block attaches to the eyestay on the underside of the boom close to the jaw end, using the small pin and ring. The larger block (with the v groove cleat) attaches to the snap hook, which will clip into the eyestay on the mast once the boat is rigged. Lay out the smaller block to the right of the v-cleat block, leaving about two feet between the two. Tie one end of the vang line to the becket on the smaller block, run it through the nearest sheave of the v-cleat block, back through the sheave in the smaller block, through the second sheave of the v-cleat block and out through the cleat. Tie a stopper knot in the free end, and make sure the line runs without crosses between the two blocks.

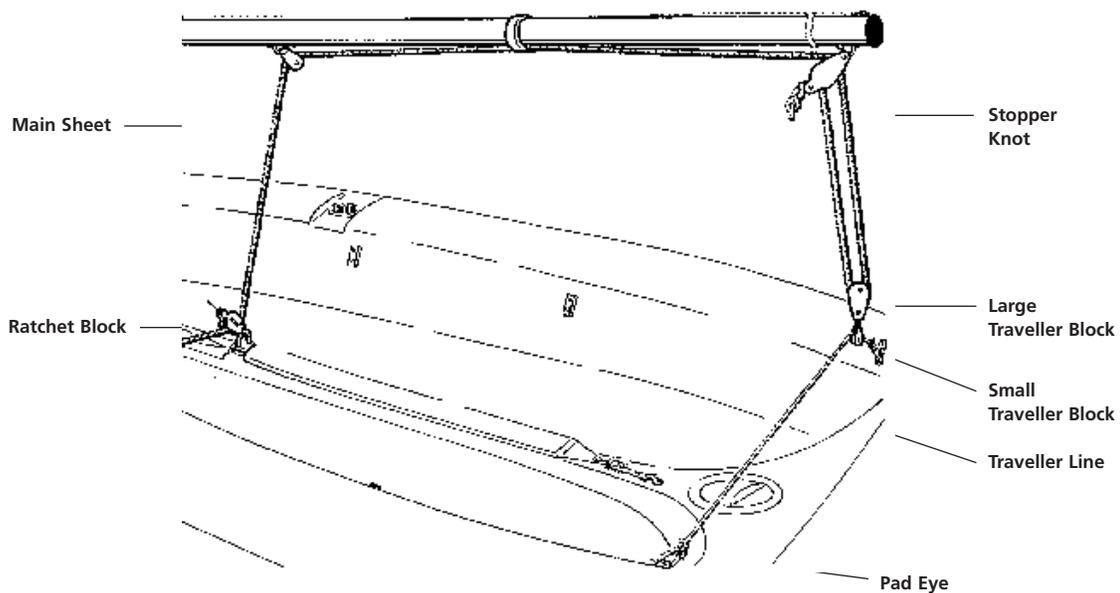


Traveller

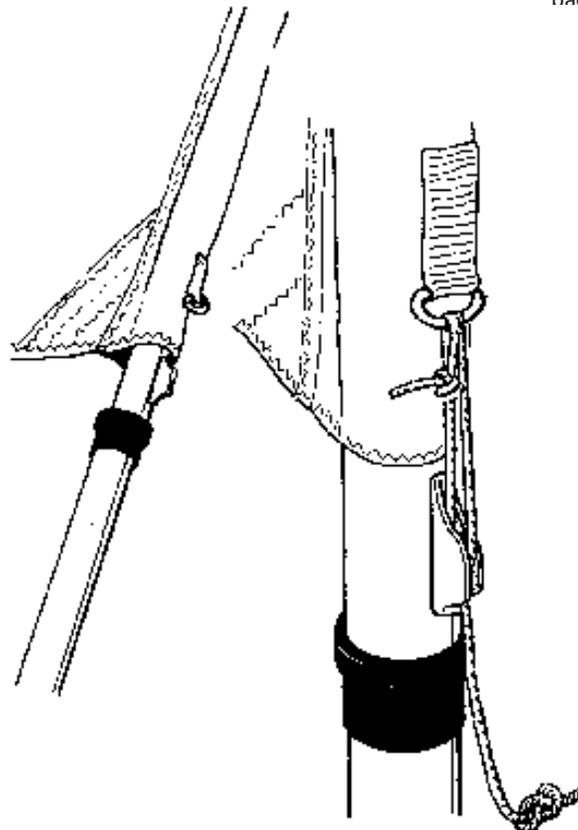
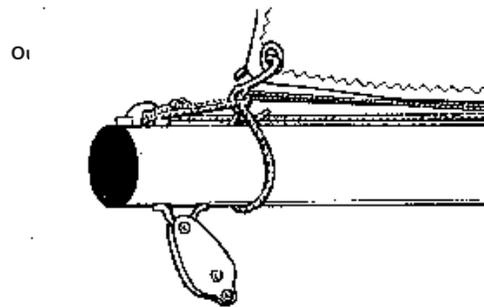
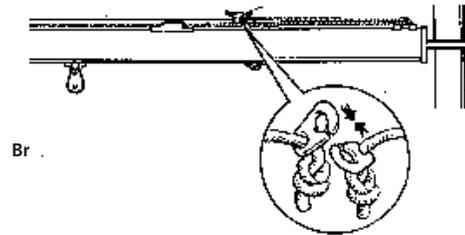
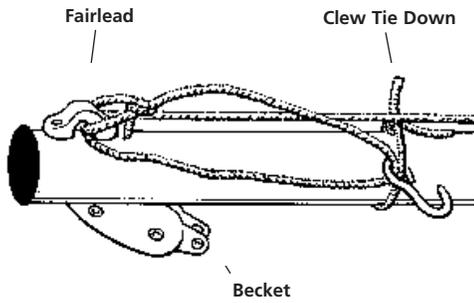
Locate the traveler line and two traveler blocks and tie the line to the padeye on one side of the stern. Thread the other end of the line through the smaller traveler block and tie it to the padeye on the opposite side of the stern. Clip the larger block into the smaller block.

Mainsheet

Lay the boom on the boat so that the block closest to the end of the boom is even with the stern and the jaws point toward the bow. Thread the mainsheet through the ratchet block in the bottom of the boat AGAINST the ratchet, through the forward block on the boom, aft along the boom, and through the aft block. Lead it forward through the larger traveler block, back up to the block on the aft end of the boom, and secure it to the becket with a stopper knot.



Mast Assembly



Outhaul

Locate the outhaul, outhaul cleanup shockcord, and clew tie down from the line package. Thread the clew tie down line through the eye in the outhaul hook (from the block package) and secure it around the aft end of the boom, in front of the fairlead at the outer end. Tie the outhaul to the blue fairlead at the end of the boom, pass it through the eye in the outhaul hook, back through the fairlead, and lead it forward along the boom and through the fairlead at the forward end. Thread the end through the small eye in the brummel hooks and tie a stopper knot. Secure one end of the outhaul cleanup line to the eye in the outhaul hook. Pass the other end through the small eye in a second brummel hook and tie a stopper knot; then clip the two brummel hooks together. Now the outhaul is under tension and out of the way.

Mast, sail and boom

Insert the collared end of the mast top section into the bottom section until the collar is tight against the aluminum (VERY IMPORTANT: Make sure the cunningham cleat on the bottom mast section lines up with the eyestay on the top section).

After checking that there are no sharp objects in the area, unroll the sail. Slide the sleeve of the sail over the mast, aligning the slot in the sleeve with the eyestay on the forward side of the top section removing any twists in the sleeve. The head of the sail does not rotate easily on the masthead, so double check that it is not twisted before stepping the mast. Locate the cunningham from the line package and attach one end to the metal D ring at the bottom of the eave. Thread the line through the roller on the cunningham and back through the D ring, then pass it out through the cleat and tie a stopper knot in the loose end.

— D Ring

— Cunningham Cleat

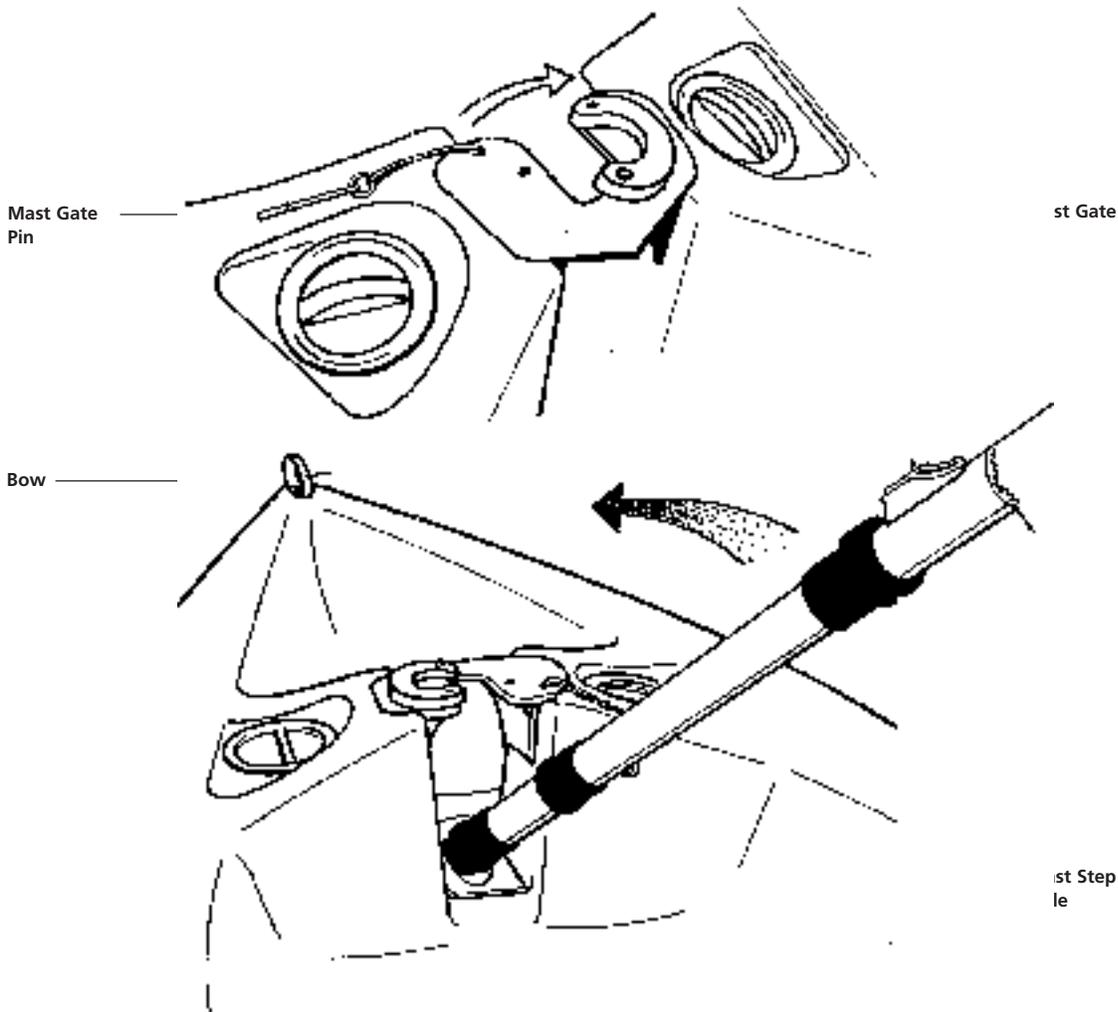


Mast Assembly

Stepping the mast

Make sure the bow of the boat is pointing into the wind and that there are no overhead electrical wires in the area. Also make sure the mast step hole and mast butt are clean; any sand or dirt in the mast step will grind into the hull and eventually damage the boat. Remove the mast gate pin and open the gate. Place the butt of the mast into the mast step and push forward until the mast gate closes around it. Do not let go of the mast until the pin is reinserted into the gate, locking it closed. Make sure the tab at the bottom of the mast gate pin is pushed into the 90 degree "locked" position.

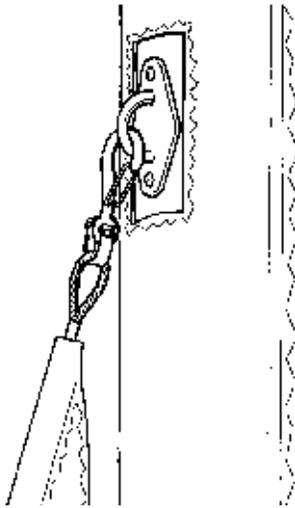
Push the boom jaws onto the mast just above the mast collar until they snap in place. (You may need to hold the boat to keep it from sliding forward.) . Make sure the main sheet will run free, and hook the clew of the sail into the outhaul hook. (Also make sure that the two ends of the furling strap, used for securing the sail around the mast after sailing, are clipped together.) Tension the outhaul, passing the line through the cleat on the boom to secure it. Attach the vang to the mast by hooking the snap hook to the eyestay just above the mast gate.



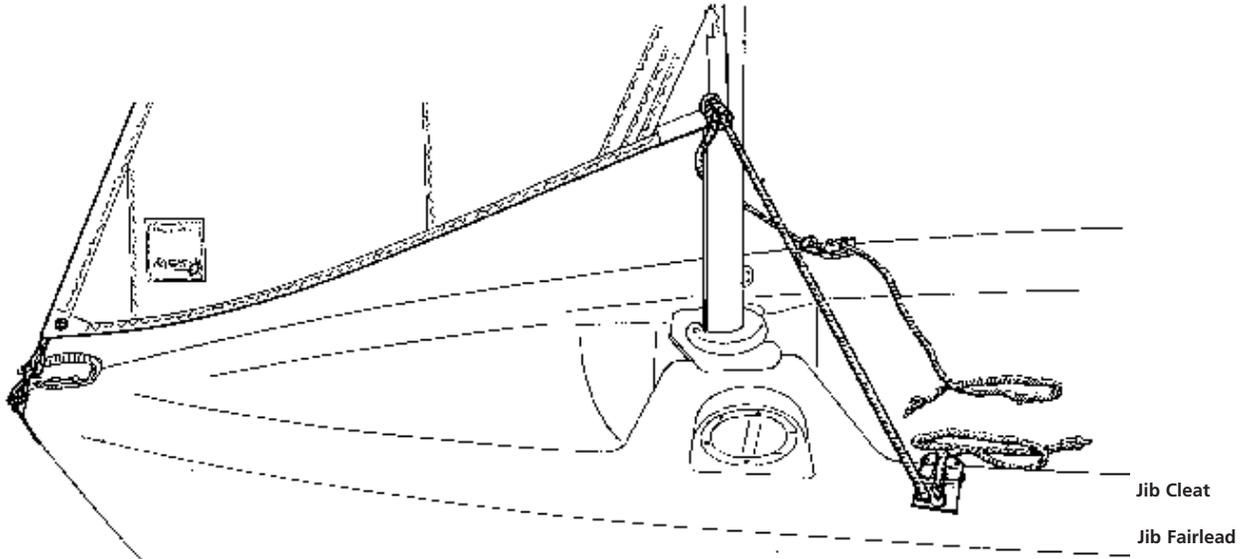
Pico Plus

Pico plus

The Plus option adds a forward sail or jib to the standard Pico rig. Unroll the jib and clip the head (the corner near the narrow part of the sail) to the eyestay on the forward side of the mast top section. If the mast is already stepped, tip the boat over by pulling down on the mast and lifting on the opposite side of the hull, until the eyestay is within reach. Attach the jib tack (the other corner with a clip) to the eyestay on the bow of the boat. If this is difficult, release vang tension and push the end of the boom toward the top of the mast, to push the mast forward. Locate the jib sheets (one line, located in the Plus kit) and find their halfway point; this is where they will attach to the sail. Feed the midpoint through the clew grommet as a loop and pass both tails through this loop, so that when tightened, the line is securely attached to the sail. Lead the nearest end back to the fairlead on the near side of the boat. Lead the other sheet in front of the mast and back to the opposite fairlead. Tie a stopper knot in the ends to prevent them from pulling out when the wind catches the sail. NOTE: The sail can not be reefed when the jib is attached.



Jib Head



Jib Cleat

Jib Fairlead

