How To Rig Your SCYC El Toro

Make sure you have all your gear.

Boat
Mast
Mast Blocks (with lanyard)
Boom
Sail (with battens and outhaul line)
Daggerboard
Rudder, tiller, and tiller extension.
Main Sheet (large white line looped between the thwart and bridle).
Boom Vang Tackle (small white prestretch line exiting the port-side through-deck fairlead by the mast).
Cunningham Tackle (small red prestretch exiting the starboard-side through-deck fairlead by the mast).
Painter (bow line)
Bailing bucket and sponge (secured to boat at the eyestrap that holds the forward end of the hiking strap, or tied around the daggerboard trunk)
Life Jacket

Place your boat on a grassy area, on padding, or on your dolly.

DON'T PUT YOUR BOAT ON ANYTHING YOU DON'T WANT TO LIE DOWN ON NAKED YOURSELF!!

Don't sit or stand in your boat unless it's well padded or in the water. Boats are like whales, they rely on the pressure of the water to help support their structure and are actually pretty flimsy when not afloat. Especially <u>don't</u> sit or stand in it on the dolly.

You may place your boat on a wooden dock if you check first to make sure there are no nails or screws sticking up above the wood.

NEVER place your boat on a concrete or asphalt surface, or on one of the floating aluminum launching ramps at the harbor.

Step the mast. (Have an adult help with this until you get some confidence.)

Check and completely clear the mast partners and mast step.

<u>LOOK UP</u> to check for electrical wires, tree branches and anything over your boat.

Pick up the mast at the balance point (not quite half-way up).

Place the mast heel against a solid object (curb, dolly wheel, or buddy's foot). DO NOT place the heel in mud or gritty dirt. (If you do get dirt or grit on the heel, wipe it off before you step it in the boat.)

Keeping the mast heel pressed against the object, walk toward the heel, while moving your grip hand over hand down the mast until it is vertical, with the heel still on the ground.

Practice picking up the mast a few times.
Keep the it as straight up as possible.
Keep your hands and feet spread to maximize your leverage.
If there's wind, try to anticipate which way it will try to blow the mast.

Move the mast next to the bow of the boat. If the boat is on the grass, make sure you're on the side which is heeled towards you.

Turn the mast so that the gooseneck points towards the stern.

Pick the mast up, in one smooth movement, slide the heel down through the partners until it bottoms out in the mast step. Remember, if the boat is heeled over on the grass or on the dock, you must heel the mast the same amount to get it to line up with the step.

Secure the mast with the mast retainer line

Note: This is a very important step. If you capsize and turtle (turn completely upside down) your mast can come out of the step unless it is securely tied in. This will result in severe damage to the boat with a possible loss of watertight integrity (in other words, the boat might sink out from under you).

The mast retainer line is a small diameter line about 4 feet long, which passes through the two stainless steel eyestraps mounted on the aft face of the mast step. These eyestraps secure the bullet blocks through which run the vang and cunningham control lines. The mast retainer line does not pass through the blocks themselves, just through the eyestraps. One end of the mast retainer has a small loop (bowline) tied in it.

Kneel down next to the bow of your boat.

Make sure the retainer line is clear (forward)of the vang and cunningham controls.

First, pass the end of the retainer line with the loop up through the deck, alongside the mast, in the triangular space at the aft corner of the mast partner opening. Hold the loop just above the deck.

Next, pass the plain end of the retainer line up through the deck alongside the mast on the opposite side.

Then pass the plain end through the eyestrap which secures the vang becket block to the aft side of the mast just above the deck. (It's the only block on the mast below the gooseneck.) Don't put it through the block, just through

the eyestrap.

Now, pass the plain end of the retainer line through the loop in its other end and back up through the vang block eyestrap in the opposite direction to the one you first put it through.

Finally, tension the retainer line by pulling on its tail (the end now coming back through the eyestrap) as hard as you can, and finish it off by tying two half hitches (the second can be a slip hitch) around all its parts below the eyestrap. (Squeezing the parts of the retainer together will make it tighter.) Tuck any extra tail back down through the deck at the mast partner.

Install the mast blocks.

Mast rake (fore and aft angle of the mast) is controlled by a set of T-shaped wood or plastic blocks, of varying thicknesses, which fit into the mast partners forward and aft of the mast. These all have small holes drilled in them to allow them to be tied into the boat Make sure they are. Generally, mast rake should be slightly less in windy conditions. But, unless instructed otherwise, all the blocks should be forward of the mast.

Put the boom on the gooseneck. Make sure the pin is all they way in.

Rig the main sheet.

The main sheet is the principal control line on the boat. It controls the athwartship location of the boom. When not rigged, it should be coiled between the thwart and transom bridle (do not unreeve the sheet from the mainsheet ratchet block). The mainsheet must always have a figure-eight stopper knot in its forward end and a figure-eight limit knot which prohibits the boom from traveling beyond a right angle to the centerline of the boat.

To rig the sheet:

Uncoil it from the thwart and bridle.

Make sure the sheet is lead through the ratchet block in the correct direction. (With the ratchet on, when you pull on the end of the sheet with the figure eight knots in it, the block should click.)

Take the end which has no knots in it (which comes out of the other side of the ratchet block) and pass it, from the bow towards the stern, through the single block on the boom located approximately at its midpoint.

Continue aft along the boom, pass the end of the sheet through the webbing strap which hangs down below the boom and then through the single block at the outer end of the boom.

Finally, tie the sheet around the transom bridle using a bowline.

Rig the boom vang.

The boom vang (or kicking strap in English sailing vernacular) is a tackle which connects a point on the mast just above the deck, with a point on the boom approximately equidistant from the gooseneck. Its purpose is to control the height of the outer end of the boom, and hence the amount of twist in the mainsail. This is a very important control--failure to have it properly rigged will result in a loss of control downwind and could cause a capsize.

The vang on your El Toro consists of a four part tackle which splits and leads to clam cleats mounted on the side tanks above the outer ends of the thwart. The end of the tackle comes up through the port side through-deck fairlead just aft of the mast. When not rigged, this line should be brought aft over the deck and secured to the thwart (do not pull it back down through the deck).

To rig the vang:

Untie its tail from the thwart and lead it from its through-deck fairlead up through the vang becket block on the aft side of the mast just above the deck. (Make sure you pass it through the block itself, so it runs over the sheave, and not through the becket.)

Next, pass the end through the vang block on the boom (the first one on the boom aft of the gooseneck) from the bow towards the stern.

Finally, lead the tail back down to the becket block on the mast and secure it to the becket with a bowline.

Before you try to raise your main make sure your vang is uncleated and slack.

Rig the Cunningham.

The Cunningham controls the luff tension of the mainsail by pulling down on the forward lower corner (tack). This affects the point of maximum fullness of the sail. The windier it is, the more tension is needed on this control. The more you pull, the flatter the sail gets.

The Cunningham on your El Toro consists of a length of small diameter red prestretch which leads from a clam cleat on the thwart up through the starboard side through-deck fairlead just aft of the mast. When not in use it should be led aft over the deck, secured to the thwart, and tensioned with the cleat. (Do not pull it back down through the deck.)

To rig the Cunningham:

Untie its tail from the thwart. Then after making sure it is clear of the vang tackle, pass the end through the tack cringle (grommet) of the mainsail.

Next secure the end to the ring on the top of the gooseneck with a bowline.

Before you try to hoist your mainsail, the Cunningham must be completely slack and uncleated.

YOU ARE NOW READY TO LAUNCH YOUR BOAT!!

At this point, if you wish, you can finish unrolling your mainsail and bend the halyard onto the headboard using a Jotz halyard hitch. Be sure you look up to make sure the halyard is not twisted or fouled. You can then put the top of the bolt rope into the bolt rope slot and pull the sail up slightly (eight inches or so) and cleat off the halyard.

If it's windy, or you don't plan on going out for a while, it can be a good idea to leave the sail rolled up in the boat. This reduces the chance that a puff might blow it over the side.

Place your daggerboard and rudder in the bottom of the boat near the transom, with the rudder on top. Position them so the trailing edges won't be damaged by their sliding around.

Place or slide the boat onto your dolly. Remember, the further back you push the boat, the easier it is to lift the bow, but don't over do it, or you'll do a wheelie and the transom will hit the ground!

PUT ON YOUR LIFEJACKET!!!!

Roll your boat to the launching ramp or down the dock (watch out for the cleats).

Decide whether to ship your rudder before or after you launch your boat. If you decide to ship it before you launch, do it now (see below).

Make sure which direction the wind is coming from. Always launch your boat on the leeward, or downwind, side of the dock. In other words, your boat should be free to blow away from the dock, and swing until it is pointing into the wind, like a weather vane. Always moor your boat with between two to three feet of slack in the bow painter. Try to space your boat out from other boats and watch out for the metal brackets which secure the dock to the pilings, the metal cleats on the dock, and protruding bolts and nails on the side of the dock.

Ship the rudder.

On the dock.

You may install the rudder before you launch your boat if you wish (it's easier).

Turn the boat on the dolly until it is diagonal on the dock with its transom just overhanging the edge.

Take the rudder and tiller from the bottom of the boat, hold it outside of and astern of the boat, and slide the tiller forward **under** the transom bridle. DO NOT DRAG THE RUDDER AND TILLER UNDER THE BRIDLE AND UP AND OVER THE TRANSOM.

Then, insert the pintles on the rudder into the gudgeons on the transom of the boat. Always insert the longer bottom pintle first. Sometimes it helps to tip the rudder slightly sideways to get the bottom pintle started.

Finally, make sure you work the rudder down until it is completely seated on the gudgeons, and the rudder retaining spring pops out, thus locking the rudder in position. If your rudder retaining spring is bent or broken to the point where it does not lock the rudder in place, you should not go sailing until the condition is remedied. If you capsize and turtle, your rudder will come off and you will be very unhappy.

You may now turn your boat at right angles to the dock, push it aft until the rudder is clear of the dock and launch it by lifting the bow and slowly sliding the boat down into the water.

In the water.

Sometimes the water may not be deep enough where you launch your boat to ship your rudder (it takes about two feet). In which case you'll need to install it while afloat.

Carefully step into the boat and kneel in the stern.

Pick up the rudder and tiller and place the rudder over the stern while holding firmly onto the tiller. Let the rudder float out astern of the boat until you can slide the tiller under the bridle and gradually draw the rudder toward the boat. DO NOT PUSH THE RUDDER AND TILLER UNDER THE BRIDLE AND OVER THE TRANSOM. KEEP THE RUDDER FITTINGS AWAY FROM THE BOAT UNTIL YOU'RE READY TO INSERT THEM INTO THE GUDGEONS.

Then, leaning over the transom, insert the pintles into the gudgeons as described above. Keep your hands spread on the rudder, it will give you more control.

Daggerboard.

Your El Toro will not sail without its daggerboard. It provides lateral resistance to the forces which are trying to push the boat sideways. This resistance is one of the primary reasons why the boat moves forward.

Pick up the daggerboard and place it in the daggerboard trunk with the blunt, rounded edge facing forward.

Slip the shock cord retainer over the top of the board.

Note: If you plan on leaving your boat unattended at the dock, you should pull the daggerboard half way up. This will make it easier for the boat to swing into the wind should it be struck by a puff. Also, the board should be raised half way when the boat is being towed.

Hoist the mainsail.

You are now ready to go sailing. If you plan on going out immediately, follow this step. If not, leave your mainsail down until you are ready to go out.

First, make sure the mainsheet, boom vang, and cunningham are uncleated, pulled all the way out, and clear.

Make sure the end of the boom is clear of the bridle, tiller, and tiller extension.

If your halyard is not already bent onto the headboard, and the sail inserted into the bolt rope slot, do so now, using the Jotz halyard hitch. Make sure you look aloft and check that the halyard isn't twisted or fouled.

Pull the bow of the boat near the dock and make sure she is pointed into the wind. Put your foot on the painter, if necessary, to keep her close.

Hoist the mainsail, using both hands, while checking to make sure the sail is feeding cleanly into the bolt rope slot. If the bolt rope jambs, you may have to lower the sail slightly to clear it before resuming hoisting.

Once the sail begins to lift the boom, because of the added weight, it will get harder to hoist. You can overcome this by learning to "spring" the halyard for the last foot or so. To do this, take a turn under the halyard cleat and hold the halyard tail with one hand. Don't let it slip! Now, grab the halyard with your other hand, about even with your shoulder, and pull it towards you sideways. As long as you don't let the halyard slip around the cleat, where you're holding it with your first hand, the sail will go up. Then, gradually let the halyard back towards the mast, while pulling on the tail with your first hand to take up slack around the cleat. Repeat the process over again. Once you learn how, it's possible to "pump" the sail right up the last foot or so.

Once the sail is at full hoist, belay (secure) the halyard with a full turn around

the base of the cleat, a figure eight around the horns, and a final half-hitch. Coil the tail of the halyard and insert it between the halyard and mast just above the cleat. Or, if your boat has one, insert it into the shock cord retainer loop on the aft face of the shearwater.

Before you cast off, make sure to snug up the cunningham and boom vang. The windier it is, the harder you should pull on these. When adjusting the latter, try to remember to keep the tail, or the amount of line coming through the clam cleats, even on both sides.

A FEW SUBTLE TIPS

Where's the wind??

Sit facing across the boat with your back to the wind.

Where's the wind??

Steer with your aft hand and trim the sheet with your forward hand.

Where's the wind??

When you trim the sheet, use both hands. Draw it in with your forward hand, while pulling it towards your back hand on the tiller. Grab the sheet with your hand on the tiller and hold it against the tiller while you reach with your forward hand up to the ratchet block for another handful. Remember, trim with your forward hand, hold with your tiller hand.

Where's the wind??

When you change tacks, switch sides and hands, and keep your back to the wind.

By the way, where *is* the wind??

Get up on your knees and face forward when changing sides.

Where's the wind??

Don't sit cross-legged in the bottom.

Where's the wind??

Don't sit on the mainsheet.

Where's the wind??

Try to keep the tiller extension up out of the bottom of the boat (hold it like a microphone) and don't let it get stuck in the arm hole of your life jacket, your pants pocket, the sleeve of your jacket, your underpants, your ear, or any other place you might not be able to get it out of quickly!!!!!

WHERE DID YOU SAY THE WIND WAS ?????