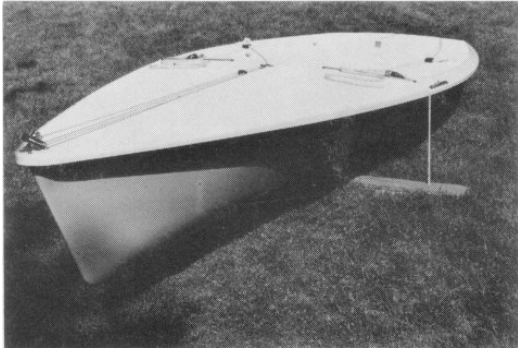


Section I

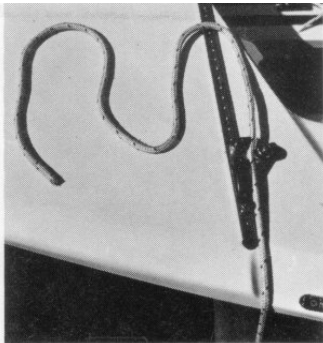
Assembly and rigging instructions

Tasar assembly and rigging instructions

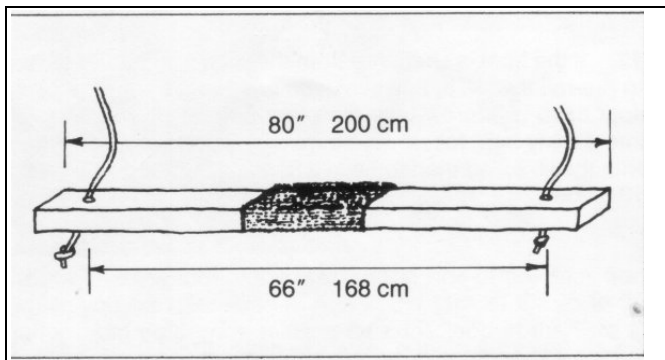


1. Place the hull, bow into wind, on its trailer, a soft surface, or a rigging board. We strongly recommend making a rigging board; it is simple and inexpensive and greatly simplifies rigging and working on the boat.

The Tasar is an exceptionally light boat and must never be left sitting on the ground or dock with the mast up and unsecured. Tie it down to something (a rigging board is best!) or it will blow over in a breeze.



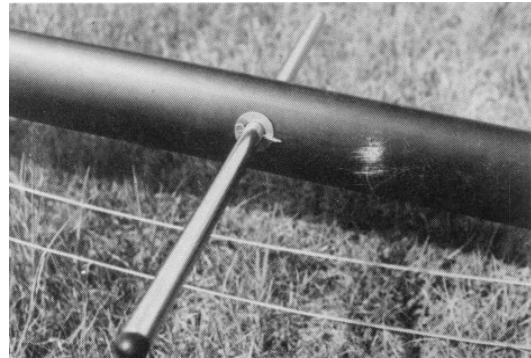
2. Note that the ropes from the rigging board are secured in the cam cleats of the jib fairleads.



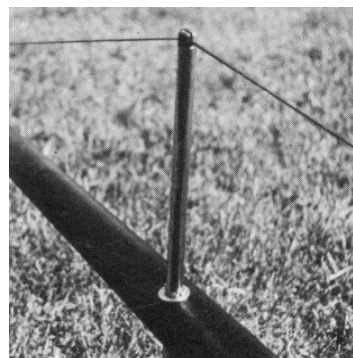
3. Use 2 x 4 for rigging board. Pad with carpet in the middle.



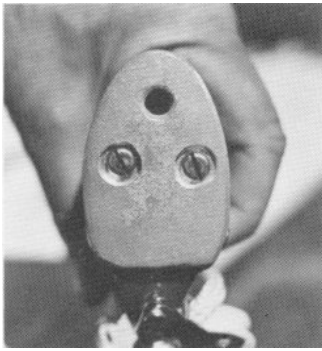
4. Most roof racks are not quite wide enough to properly transport a Tasar. This shows a rigging board with two wooden strips screwed onto the underside to position it over a roof rack. The padding has also been extended the full length of the board so that the boat can be put on from one side and slid across the rack. The boat is best supported on the flats of the side decks just behind the small bump where the foredeck meets the side deck.



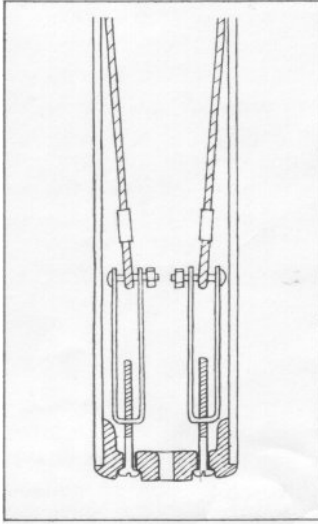
5. To assemble the diamonds on the lower mast section, first untwist the wires, then insert the spreader tube, slip a washer on each side and push the cotter pins through the holes in the tube. Bend over the cotter pins so they will not fall out. Note that the washers are between the cotter pins and the mast.



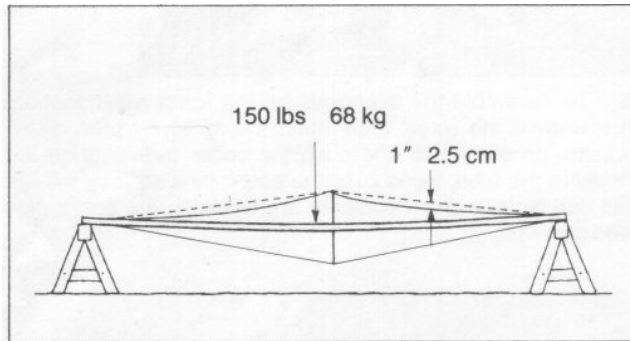
6. Using a piece of wood, plastic or well rounded metal (not a screwdriver!) push the wire all the way down into the plastic end-cap. It should "snap" into place. If for any reason it does not and stays loose, tape over the end of the plastic so that the wire cannot fall out when it goes slack.



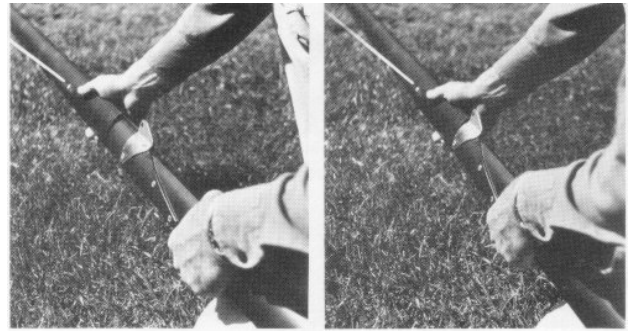
7. You will find 2 screws in the bottom of the mast plug. Tighten these up evenly so that the mast is **absolutely straight** (check by sighting along boltrope groove.)



8. The cutaway drawing shows the internal working of the diamond adjuster.



9. Tighten the screws so that the upper wire just goes slack when a 150-lb man puts his full weight in the middle of the lower mast when it is supported at each end. At this tension, the windward diamond wire will become slack when the boat is sailing with both crew hiking. The boat will not sail faster in any wind strength with the diamond wires either tighter or looser than this.



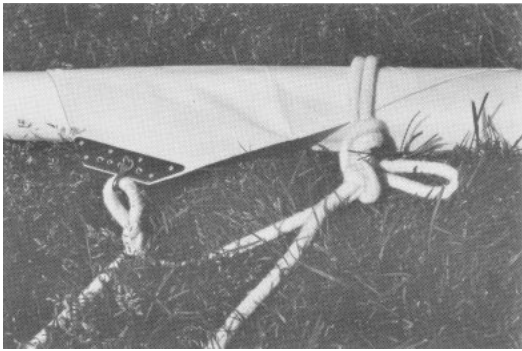
10. Assemble the mast by first sliding the top section into the lower section until the stainless steel metal tang is right against the lower section. Take both ends of the halyard (shackle and rope tail) and secure temporarily near the bottom of the mast. This is done so that you don't put the mast up and find you have left the halyard shackle at the top!



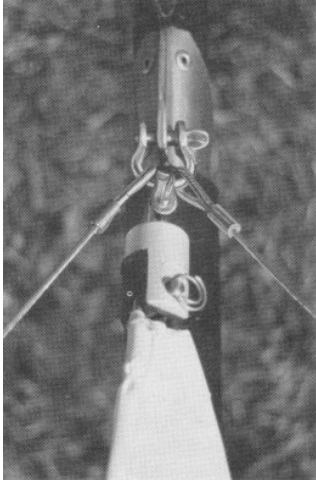
11. Place mast on deck with **foot facing forward and leading edge up.**



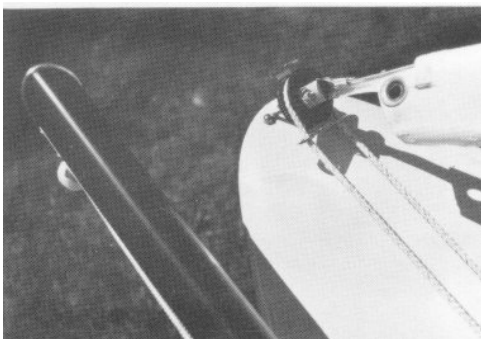
12. If the boat is sheltered from the wind it is not necessary to pre-roll the jib. If, however, you are trying to rig in a windy spot have your crew take the other end of the jib and roll it into a fairly tight roll. It will be much easier to raise the mast with the jib rolled than to have it flapping in the wind. See fig. 18 below.



13. Attach the jib sheets with the shackle provided (use the hole second from the top to start with) and use one end to tie a loop around the rolled jib to prevent it from unfurling while raising the mast later.



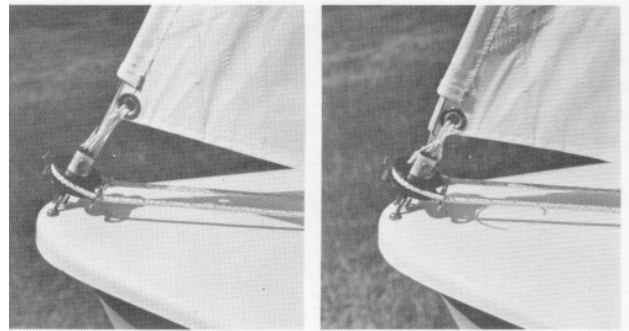
14. With the mast still lying on the deck, leading edge up, shackle the head of the jib to the swivel as shown. (The swivel should already be attached to the large shackle **between** the two side stays.) Attach the large shackle to the hole in the mast fitting. (The mast has been removed from the boat for photographic purposes only.)



15. Move the foot of the mast to the side of the deck from which you will later raise it. Attach the tack of the jib to the furler drum as shown, making sure the loop in the wire as well as the small grommet in the webbing are **both** held by the pin.

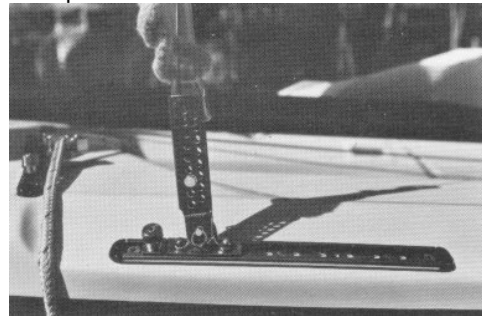
For the sake of clarity we have removed the jib luff tensioning cord (downhaul) which comes looped between the large grommet in the tack of the jib and the formed stainless steel thimble in the end of the luff wire.

In simplest terms there should be no tension on this line in very light air and maximum tension in very heavy air as

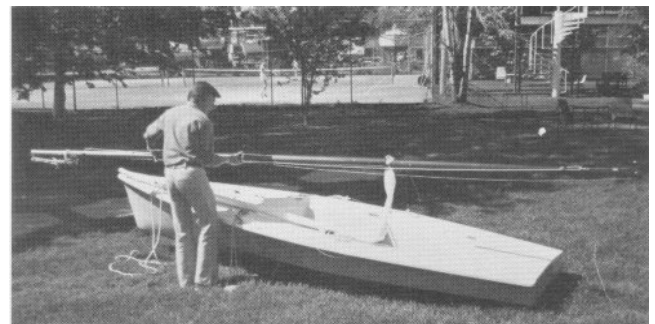


depicted in the two photographs above. This is more fully explained in the sailing manual.

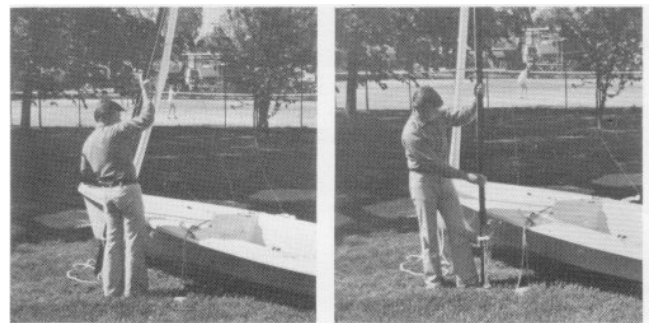
However, **it is important to have several turns of the line secured at all times.** It is possible that, due to kinking or other damage, a jib stay could break, and in the event of that happening, the jib luff attached to the furler by the downhaul will keep your mast up and allow you to sail home for repairs.



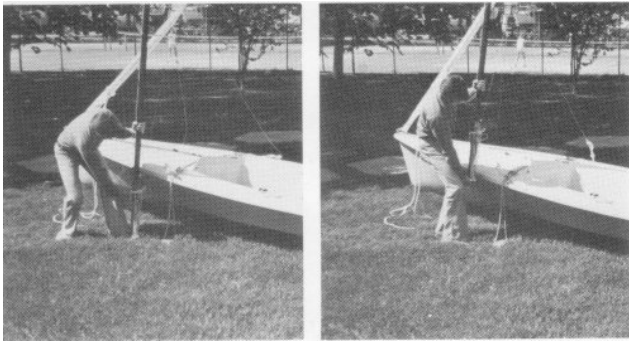
16. Without crossing the side stays take each one directly from the mast fitting (fig. 14) to the slides which are mounted in tracks on the gunwale of the boat. Make sure the slides are all the way forward in the tracks. (The stay in the picture is being held up by hand to make clear the method of attachment.)



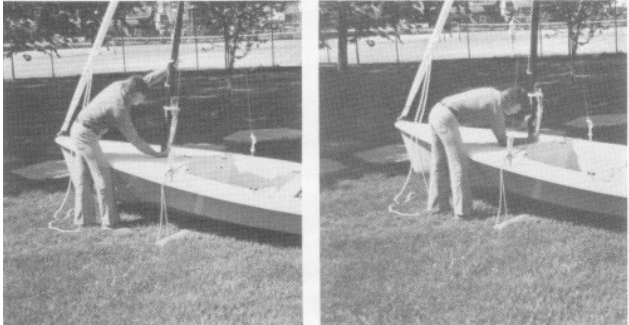
17. Lift the mast off the boat and place it vertically along side the boat. Do not place it on the ground if there is any



chance of getting sand or dirt in the pivot hole. Rather, place it on the top of your shoe as shown.

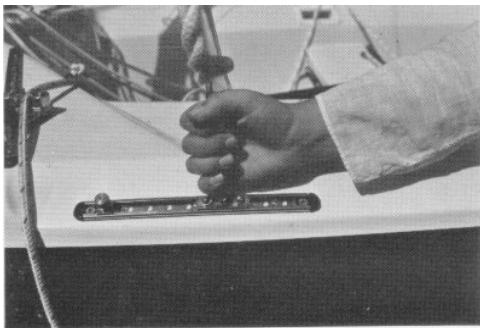


18. When the mast is steady and balanced, lower your grip and raise it straight up placing your strongest hand (right if right-handed!) under the base plug.

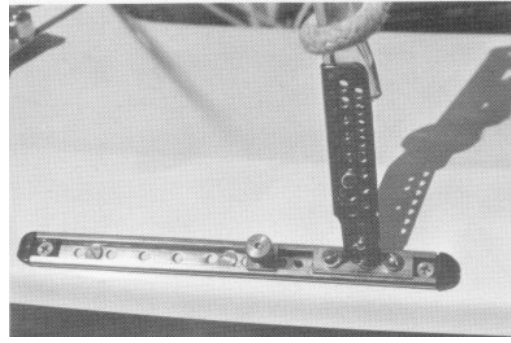


19. Slide this hand onto the deck just forward of the mast pin. The mast won't fall over in this position and you can now take your time placing it over the pin with both hands. If the mast does not go over the pin it is because the stay slides are not all the way forward or there is a kink in one of the three wires holding up the mast.

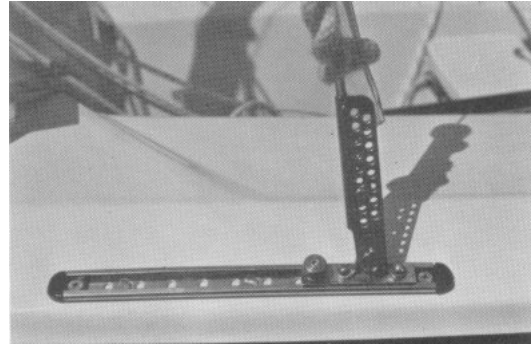
There is also the possibility that the pins in the adjustable chainplates on the end of the stays have been moved from the factory setting or — heaven forbid — wrongly placed at the factory. Simply lengthen the stays equally by moving the pins in the chainplates until the mast can slip over the pin.



20. The tension of the stays should be set up so that, when one slider is fully aft, the side stays and forestay just become taut when the other slider is 3" to 4" forward from the fully-aft position as shown. Thus the final 3" to 4" of aft movement fully tensions the stays and forestay.



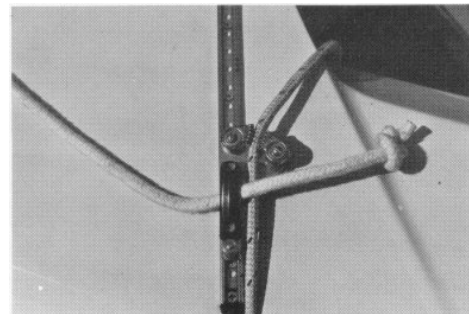
21. Slide both stays fully aft and lock in place with the spring plunger-stop provided. You will notice that the gun wale has been drilled out underneath one hole in the track. This is the aftermost position of the plunger.



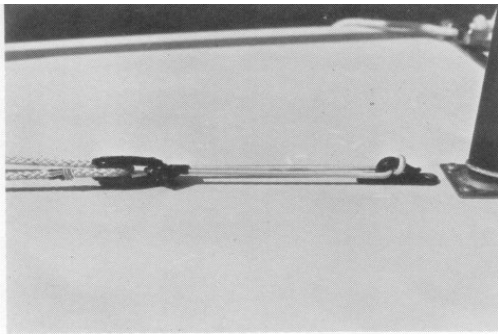
22. Stay fully aft and plunger in position.

23. We have done an initial set-up at the factory, but, during the first few hours of sailing in fresh winds, the stay wires will progressively bed into their thimbles etc., and the stay adjusters as well as the diamonds must be re-set to compensate. Once this "bedding" is complete, no further adjustment will be needed unless the wires are stretched (because their elastic limit has been exceeded).

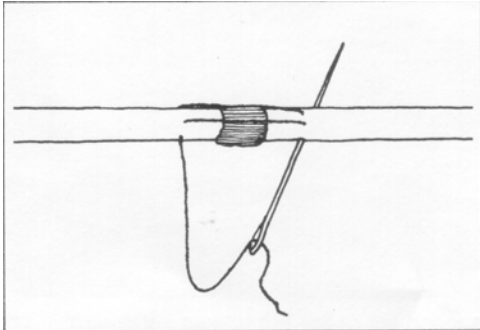
With the stays set up as in fig. 20 above, the leeward stay will become slack when the boat is hiked firmly. It will also be possible to raise the mast and slip it over the pivot pin with both stays and the jib attached, provided of course the slides are all the way forward in their tracks.



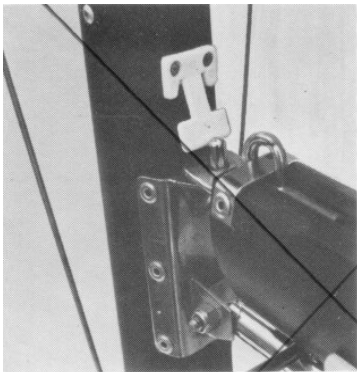
24. Pass the jib sheets through the fairleads and place figure-eight knots in their ends. Note that the rigging board ropes are still in the cleats.



25. The tension on the jib furler line should be sufficient to keep the jib furled until tension is applied to the jib sheets to unroll it. If there is not sufficient tension, take an extra turn around the small black cleat with the shockcord.



You will also note that the furler rope is hot-melt spliced in the middle. This is a tricky operation for the factory because if it is kept too long in the melted state the material becomes brittle and will subsequently crack and separate. Take a few minutes and pass a needle with whipping cord through the rope on either side of the splice two or three times as shown in the sketch.

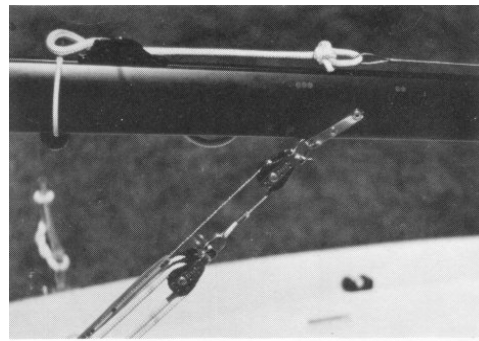


26. Place the boom on the gooseneck pin and push down. This should lock the boom under the plastic fitting. (Simply depress the fitting if you wish to lift the boom off.) Be sure not to lock the boom down before hoisting the main later on or you will not be able to raise the sail high enough to engage the halyard lock.

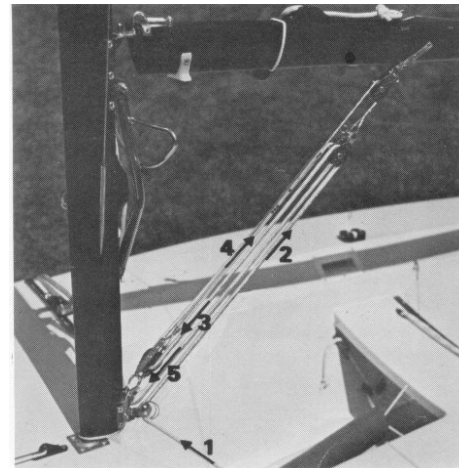
If you do not have this fitting on your boat (early boats only) ask your dealer for one and install it with the self tapping screws provided.

Note To Rigging Instruction Nov '79

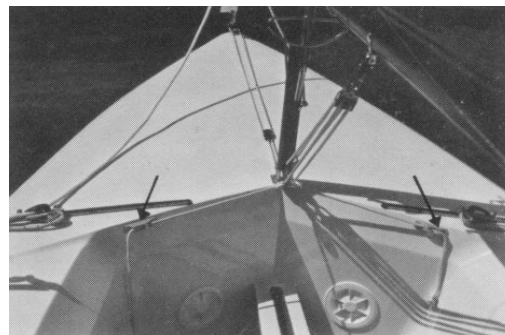
1. The fitting referred to in Paragraph 26 has proved to be merely a nuisance. It was never fitted to Australian boats, and is now not fitted to overseas boats.



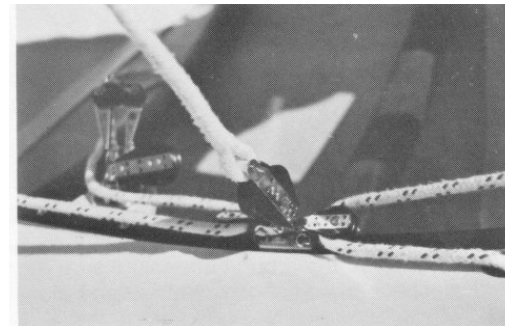
27. To rig the boom vang, shackle the single block (which is captive on the boom vang wire) to the boom as shown.



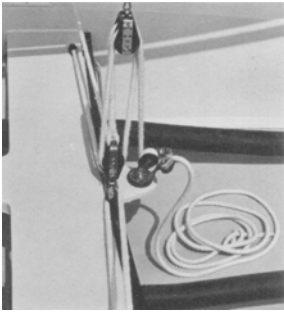
28. Thread the line through the blocks as shown; make sure your boom vang is rigged the same way.



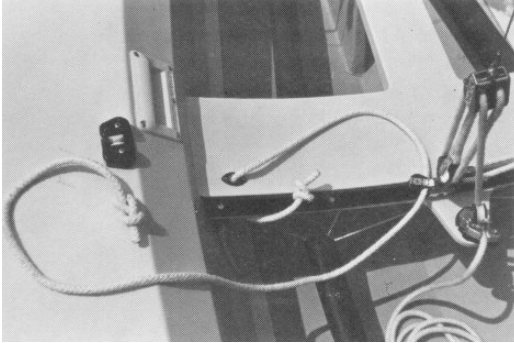
Note that the line goes to cleats on either side of the cockpit.



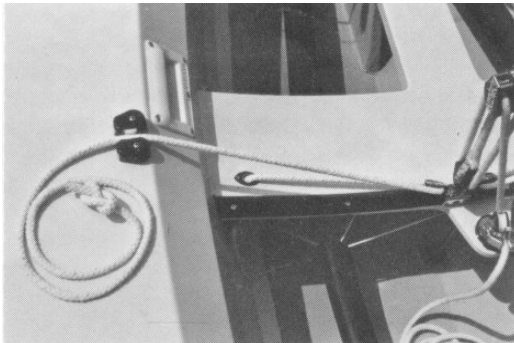
29. Attach the spliced loop in the mainsheet to the beckett on the traveler block. Make sure the block is mounted in the fore-and-aft direction on the traveler car.



30. Rig the mainsheet as shown, starting from front to back through the double block hung from the boom.



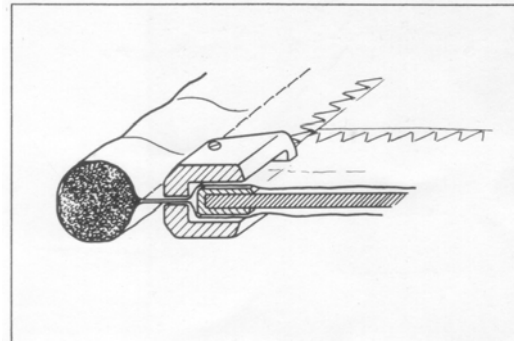
31. Install a traveler control line on each side of the thwart as shown. A figure-eight knot tied to the short end will stop the line from slipping through the eye.



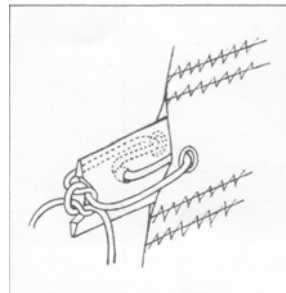
The traveler lines are cleated using the cam cleats mounted on the side decks.



32. The first time you rig your boat, have your crew hold the end of the boom level to the ground and make sure the boom vang and mainsheet ropes are correctly reeved before hoisting the sail.

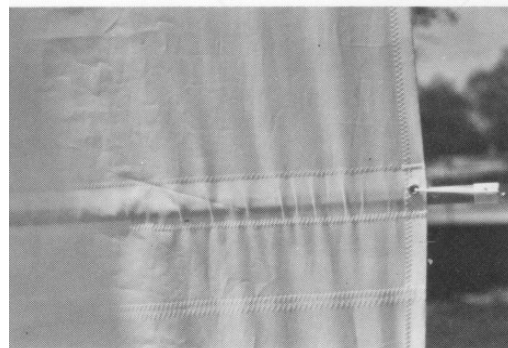


33. Install the battens in the sail. Each batten has two end caps. The end cap with a small hole and a V-notch belongs at the leech of the sail; the other end should be inserted into the pocket. Ensure that this end of the batten fits snugly into the plastic protector fitted on the sail at the forward end of the pocket.

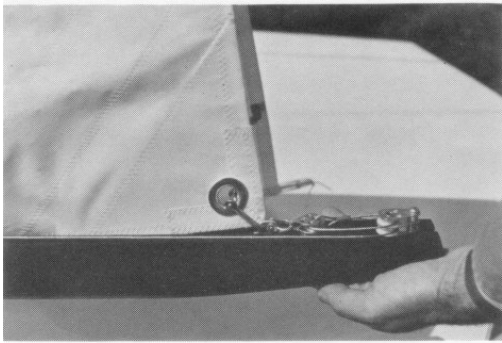


34. To secure and tension the batten at the leech, start from one eyelet, pass the batten tie through the hole in the batten, through the other eyelet, then knot both ends of the tie across the notch in the end of the batten. Tension the tie until the sailcloth along the batten pocket just shows tension.

The sail shape, type of cloth used, and the flexibility of the rig are all designed to use a "passive" batten in the sail. This means that extra tension applied to the batten will gain you nothing but rather destroy the ability of the sail to be used to its optimum in the full range of conditions under which the boat will normally be sailed.



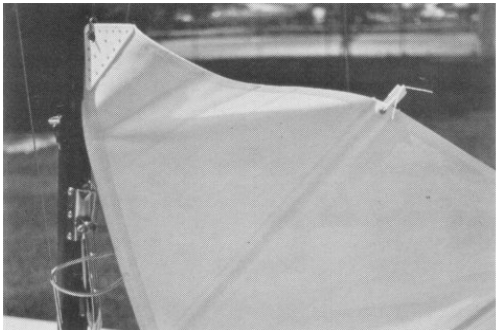
35. Notwithstanding the paragraph above, if vertical puckers appear near a batten while sailing, increase the tension on the batten tie until the puckers disappear. The tension on that batten will now be correct and should not need further adjustment regardless of wind conditions.



36. Attach the outhaul of the mainsail to the shackle at the end of the boom. Make sure the wires are all running smoothly and are not kinked.



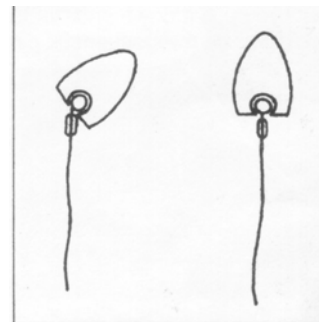
37. Attach the tack of the sail to the boom at the forward end with a shackle.



38. Shackle the halyard to the headboard and start the bolt rope into the groove of the mast. (On most early boats the sail will have to be started into the groove before attaching the shackle. The halyard was made shorter so that the sail head would always stay attached to the mast when lowered.) Note that the mast rotation lever is lowered flat against the mast to permit easy access to the bolt rope groove.



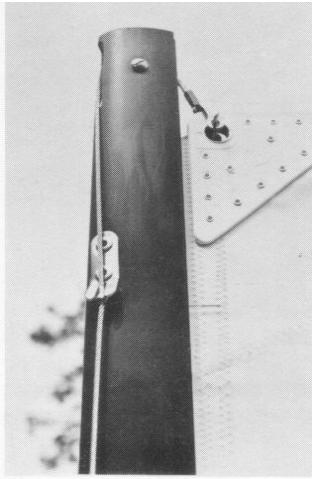
39. If you are on shore and can hoist the sail before putting the boat in the water, one person hoists the sail and the other guides it into the groove in the mast. A fully battened mainsail is always a little hard to hoist, due to the presence of the stiff batten and the friction between the pocket protector and the back of the mast. After a while, you will find that it becomes easier, particularly if a little silicone spray or paraffin wax is applied to the bolt rope and the front of the batten pocket protectors.



It also helps if the mast is aligned exactly in the direction of the sail so that the batten protectors do not bind on the back of the mast. Make sure the boom vang is slack and not cleated.



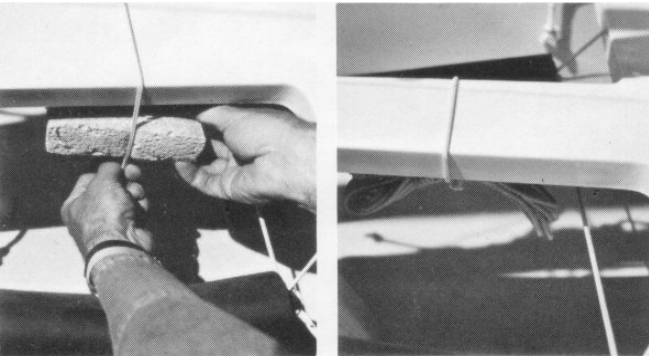
40. When the sail is nearly at the top, lift the boom off the gooseneck pin; it helps if one person holds the boom up to take its weight off the sail. Loosen the vang, because if it is tight, it will hold down the end of the boom and raising the sail to the top will be impossible.



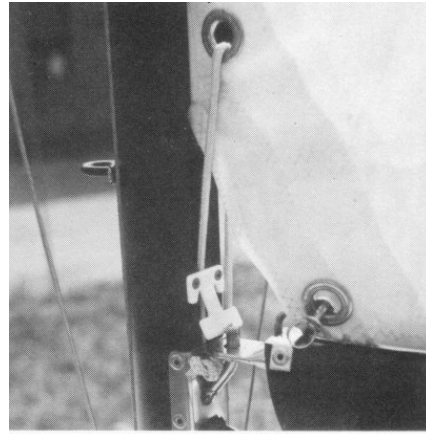
41. Hoist the sail until you can engage the small ball on the wire under the jaws of the hook (halyard lock). When this is done you can release the tension on the halyard and it will stay up under all conditions until you pull it down and out to release it. Push the boom back down on the gooseneck pin until it clips under the lock.



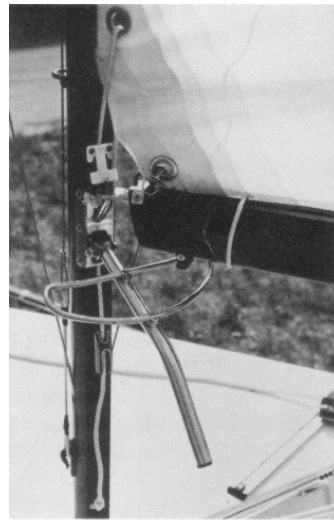
42. When the halyard is locked at the top of the mast, pass the loop of the shockcord under the small black hook and remove the rope tail completely.



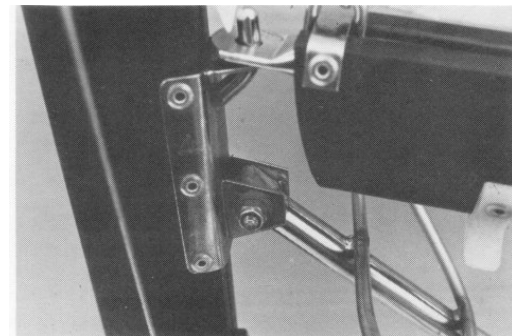
43. A useful method of carrying the halyard tail is to make a loop of shockcord around the centerboard capping. Use this to carry a sponge for cleaning up the boat and carry your halyard tail under the capping between sponge and shockcord.



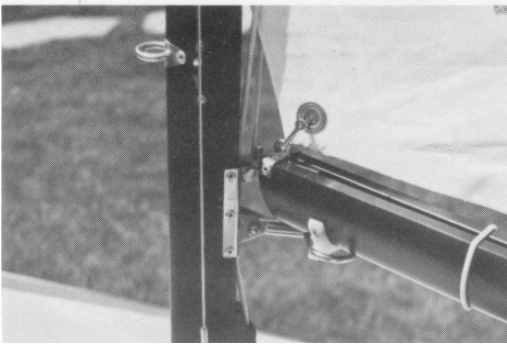
44. You will find the luff downhaul (cunningham) attached to the gooseneck fitting. Undo the end at the fitting, pass it through the grommet (about 6" up the luff) and then back down under the pin and knot it.



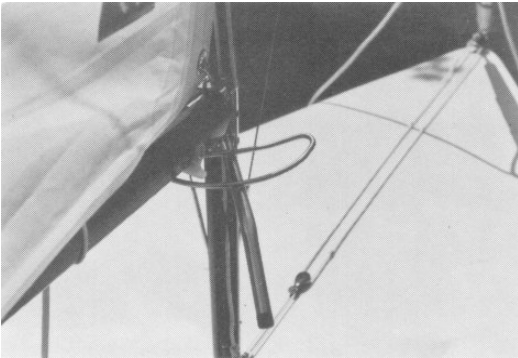
Finally rigged, it will look this way. All adjustments to either tighten or ease the tension on the luff of the sail can now be made at the black clam cleat below the gooseneck.



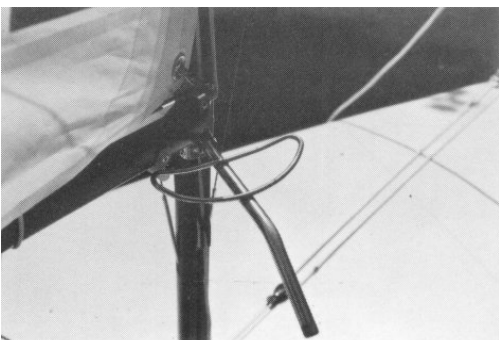
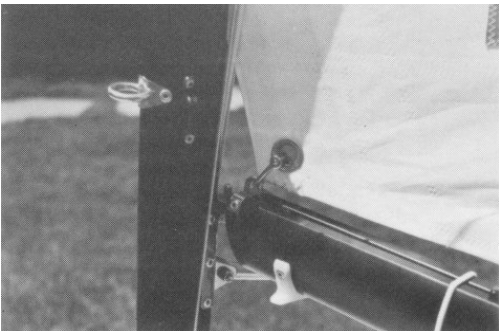
45. Before going on the water, familiarize yourself with the operation of the mast rotation lever. The locknut holding it to the mast should be adjusted so that the lever can readily be moved up and down but still stay in place when placed in the normal up position as shown above in fig. 44.



46. When sailing close hauled, the lever will be rotated either to the left or right until the “ears” come up against the plastic stop on the boom. When you are sailing on port tack the lever is rotated to starboard as shown in the photograph.

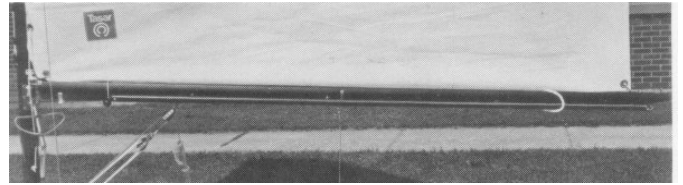


47. Another view of the lever (Set as above) but seen from the other side (leeward side) of the boat.



48. When sailing on any other course (ie reaching or running), lower the lever slightly and rotate it even further. Then raise it and lock it behind the plastic stop as shown in these two photographs taken from opposite sides of the sail. This is important as the mast will usually flip out of rotation (only annoying, rather than anything else!) as soon as the mainsheet is eased for reaching.

49. If the mast does not stay rotated when close hauled it is probably because you do not have enough tension on the vang and/or mainsheet or you may have set up the mast with a bend in the lower section (see fig. 7). For more detailed discussion of the rotation of the rig, consult the sailing manual.



50. If it is necessary to launch the boat before hoisting the sail, first check that you have rudder, tiller, centreboard, whisker pole, paddle, life jackets, etc. aboard.

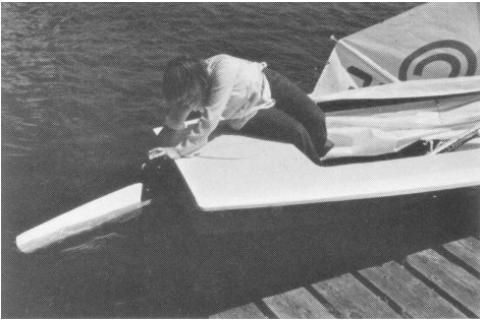
The whisker pole should be stowed by putting one end through one of the large plastic loops on the back of the boom and hooking the other end into the shockcord (with knob attached) at the front of the boom.



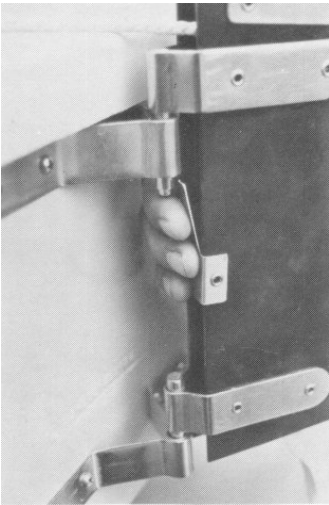
Check and tighten all inspection hatches. Tie a painter to the bow fitting which can be left in place while on the water.

51. The Tasar is very light and **you should not try to step on the deck unless another person is already in the cockpit.** When someone is in the cockpit the boat settles in the water on its designed lines and dockside stability increases enormously. The further back the person sits in the cockpit (and the heavier she/he is) the more stable the boat at the dock.

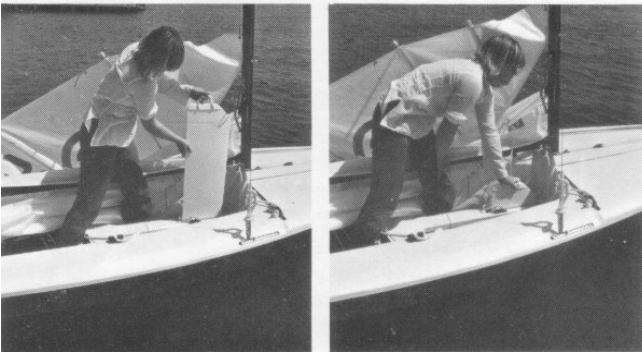
52. Before attempting to hoist the sail, it is suggested that you install the rudder and centreboard. It is not absolutely necessary to do things in this sequence but, once the sail is hoisted, the boom will probably swing from side to side in the wind (particularly so in a strong wind) and installation of these two items will be more difficult, not to mention the possibility of tripping over them on the cockpit floor.



53. Make sure you push the rudder all the way down until the spring clip locks under the top gudgeon. Note that the blade is in the up position requiring no depth of water. Do not install the tiller yet as it will only tend to catch the sail while hoisting.



To remove, simply depress the spring and lift.



54. Make sure the carpet in the centreboard box is clean, dip the centreboard in water to lubricate it and insert into the box as shown making sure the cut-off corner at the top is forward. Put it down as far as you can as it will help prevent the boat rolling from side to side while hoisting the sail. If the water is very shallow, however, leave it out until you leave the dock as it will get in the way while hoisting.



55. The procedure for hoisting the mainsail is the same as on shore, however, one person sits on the deck with a leg on either side of the mast; the other person sits on the centreboard capping or thwart. The person on deck should hoist and the other guide the sail into the groove. In particularly windy conditions, the boat will be more stable at the dock with the heavier person in the cockpit, and not as shown in the picture!



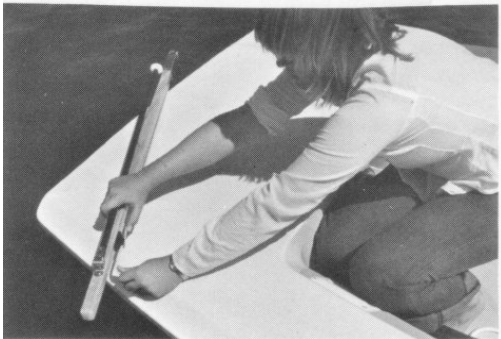
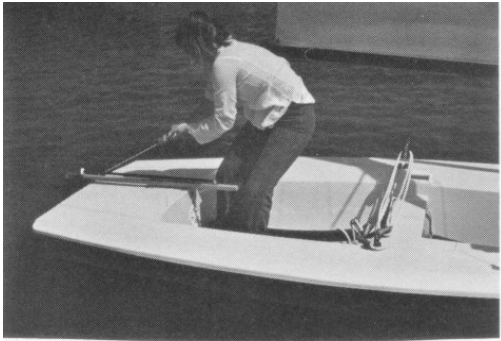
56. When the sail is almost all the way hoisted, the person in the cockpit should assist by raising the entire boom to take its weight off the sail.



57. In order to put the ball into the halyard lock, use the rotation lever to turn the mast at right angles to the person on deck. At this point the halyard lock will be directly overhead. (Remember this also for lowering the sail — use the lever to make the halyard lock accessible and then re-align the mast with the sail so that it will come down smoothly.)



58. A hint for windy days. Pull the outhaul very tight to make sure the sail is completely flat. This greatly reduces the tendency of the boom to flog from side to side.

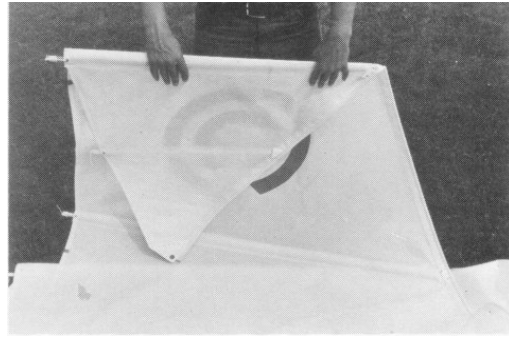


59. Install the tiller, pull hard on the downhaul line (if the water is deep enough) and cleat. Use as much tension as you can so that the rudder is always maintained in the straight down position. If it swings up, steering will become more difficult; if it swings all the way back, almost impossible.



60. Untie the boat, step in gently, unfurl the jib and you're off!

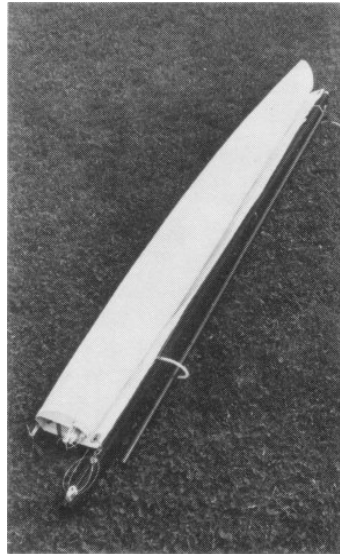
Storing the sails



61. The mainsail will normally be stored and carried fully battened and rolled in a long sailbag. There is no reason why the boom and whisker pole should not remain attached to the mainsail.

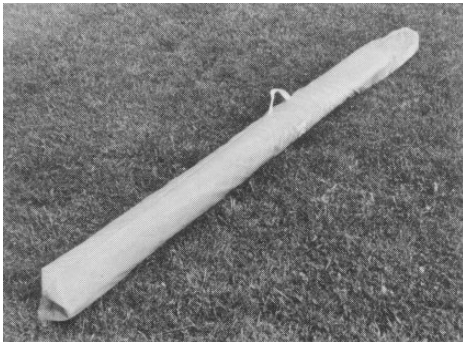


Fold the sail at the second or third batten and roll down to the boom. Never roll the sail around the boom, (boom fittings mark or damage the sail).





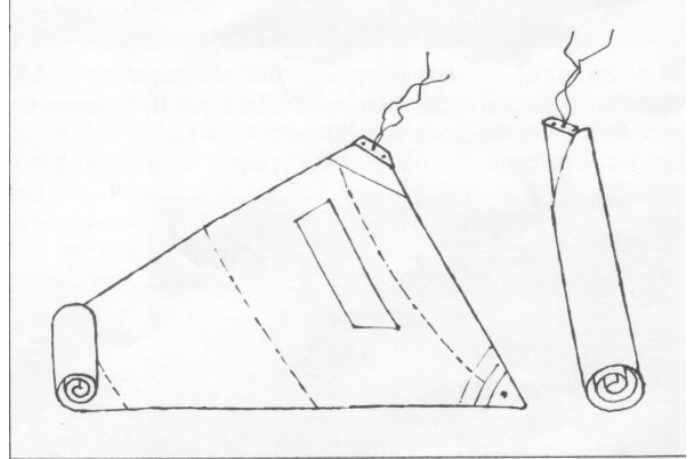
For storage other than overnight, release batten tension by springing the batten ties out of their notches. It is not necessary to untie them. Tension the ties by springing them back into their notches before next hoisting the sail (fig. 34).



Always dry the sails thoroughly before storing them. Sails stored wet can discolour with mildew, and prolonged moist storage can soften the stiff cloth of the jib. While it is not essential to hose salt off sails (until the build-up becomes objectionably stiff), salt-free sails will crease less, will be faster in light winds, and will last longer.

Fully battened mainsails enjoy long racing lives — four to five seasons in windy and salty coastal conditions (Sydney, Australia) is normal, and up to double that in fresh water and lighter breezes. Jibs look “used” after about half this exposure.

Should any batten be lost or damaged, replace it temporarily with an untapered batten of approximately the same stiffness as the other battens in the sail. (A timber batten will work satisfactorily as a temporary replacement.)



62. For storage, roll the jib from the head downwards as shown above. It will then fit into its bag without folding and will unroll, ready for use, without creases. **Never fold the jib across the window.**

When furling or unfurling the jib around the forestay it may be necessary to centre the rotation lever under the boom. This is particularly true when the mast is over rotated as in fig. 48. The swivel will bind at the top of the jib, locking it in either the furled or unfurled position.

Performance Sailcraft

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