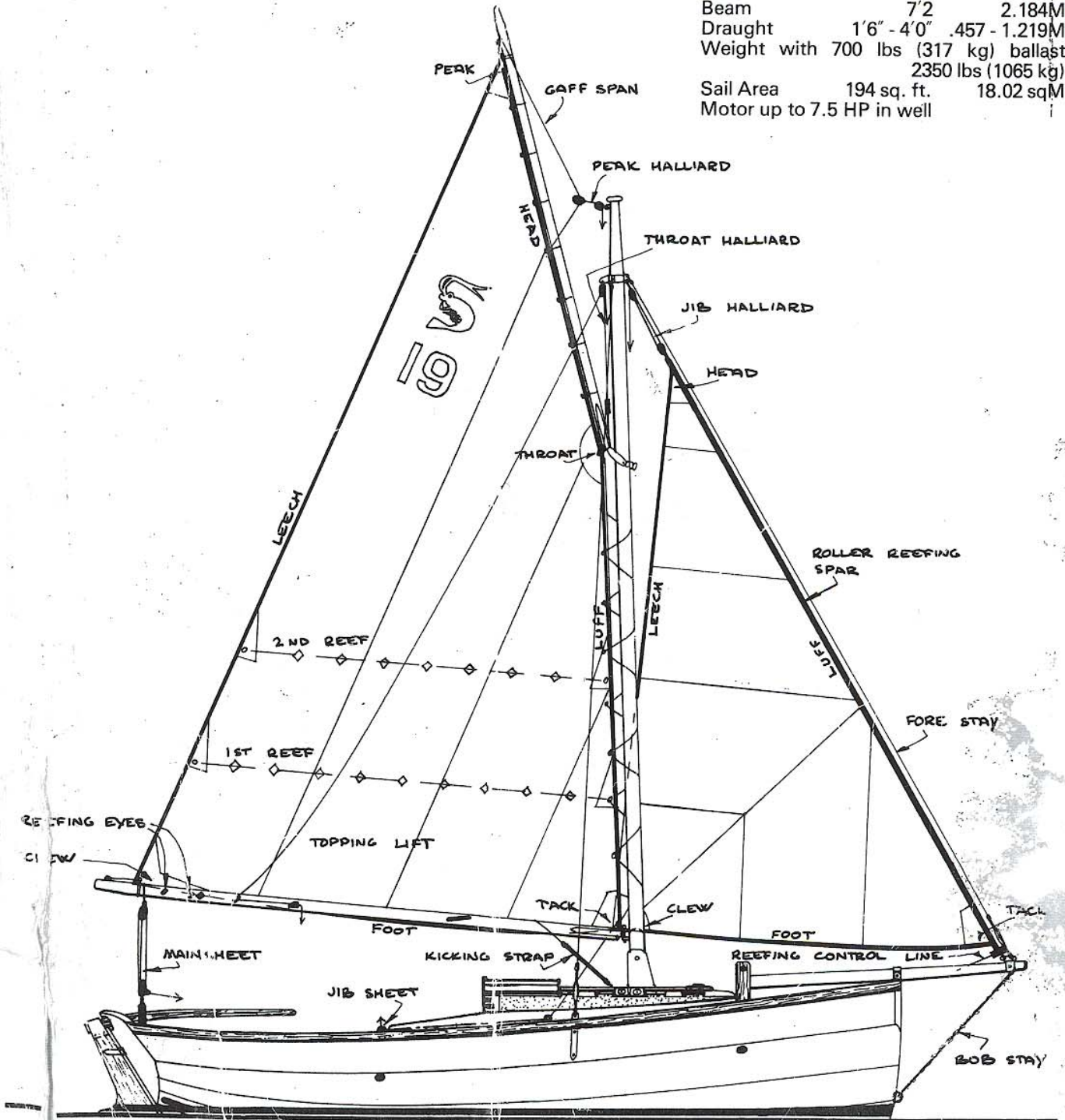


Rigging, Handling and Maintenance Notes

CORNISH SHRIMPER

Designed by Roger Dongray

Length O.D.	19'3"	5.867M
Length W.L.	17'6"	5.334M
Beam	7'2"	2.184M
Draught	1'6" - 4'0"	.457 - 1.219M
Weight with 700 lbs (317 kg) ballast		2350 lbs (1065 kg)
Sail Area	194 sq. ft.	18.02 sqM
Motor up to 7.5 HP in well		



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CORNISH SHRIMPER

NOTES ON RIGGING, HANDLING AND MAINTENANCE

A. GENERAL

1. When each complete Cornish Shrimper leaves our Works, the mast and spars are already fitted with standing rigging and most of the running rigging. Other loose items eg. sails, will be found stowed inside the cabin. Where kit Shrimpers are supplied, the spars are not pre-dressed with rigging and Owners of kit craft should refer to the rigging section of their Kit Building Instructions.

2. Some owners of the Cornish Shrimper will not necessarily wish to take advantage of her easy trailability and will prefer to keep the boat on moorings throughout the Season. In this case the under-hull will certainly need to be antifouled against weed growth and extra items such as an internal boat cover will be found most helpful to avoid the build-up of rain water in the cockpit well during periods of the Season when the boat may remain unattended for many days at a time.

Other owners will wish to take full advantage of the ease with which the boat can be trailed, rigged and launched. With practice and aided by the following notes, the operations involved can be achieved with great speed to the point that regular launching each weekend is no chore, whilst the owner gains the considerable benefits of not needing a permanent mooring and being able to vary his sailing area over an extended Season with minimized running costs.

B. RIGGING UP - COMPLETE CRAFT

1. There are various shackles attaching rigging to the mast, spars and the sprit etc. All of these should be tightened home so that there is no chance that they will come loose, indeed some people may prefer to wire the shackles. Additionally, the threads of the bottle screws on the shrouds and forestay should be lightly greased before raising the mast.

2. Insert the bowsprit through the stem iron and locate in the samson post recess. Attach the bobstay at the sprit end and apply down pressure to the sprit if necessary to fit the other bobstay shackle to the boweye.

3. Before attempting to raise the mast, the Holt Allen reefing spar should be prepared (see sketch A). This spar comprises an alloy tube complete with luff groove and within this tube, a wire jibstay is pre-fitted. At the foot of the spar a reefing drum is located and this drum is already fed with a reefing line and a securing lanyard. At the head end of the spar, a short lacing is already attached for tensioning the luff and the jib. Lay the spar down on a flat and clean surface and introduce the jib sail (peak first) to the luff groove through the sail entry slot near to the drum. By pulling the peak of the sail up the groove towards the head of the spar, the whole of the luff can be accommodated with the tack above the sail entry slot. The tack of the sail can now be pulled until the tape loop can be introduced to the split pin, just above the drum, and locked in position spreading the split pin slightly. The sail can now be pulled out to moderate tension along the luff using the lacing at the head of the spar and involving about three turns and tying off. Next, attach the jibsheet at its mid point to the clew of the jib and roll the sail smoothly and completely round the spar, securing it with a few turns of jibsheet. Finally, remove all but three or four turns of reefing line from the reefing drum and thread through the

fairlead on the drum bracket, which is opposite the securing lanyard.

4. Lay the mast on the boat with the masthead over the stern, introduce the mast heel to the tabernacle and insert the mast pivot bolt. Next, sort out the two shrouds and connect them with the bottle screws to the port and starboard shroud plates. Locate the forestay and leave this running free and forward for later attachment. Next, shackle the lower end of the jib reefing spar to the aft hole in the bowsprit end fitting, then untie the jib halyard and shackle the running block to the top of the jib reefing spar so that the spar is now lying along the mast, making sure that the jib halyard is not twisted, then reeve the fall through the port cheek block on deck. Take in the slack and secure the halyard in the clam cleat to port of the main hatch. Next, lead the reefing line through the three small fairleads provided and back to the small clam cleat, also to port of the main hatch.

You are now ready to raise the mast but before doing this, make sure the craft is stable and reasonably level, whether she is still on the trailer or afloat. It is perhaps wise to avoid raising the mast for the first time in a strong cross-wind for obvious reasons. The technique of mast raising can be managed single-handed but is easier at first with a second adult to assist, if necessary. Standing on the cockpit seats, astride the cockpit well, fairly well aft, lift the mast by hand to shoulder height. The mast can then be pushed up further by walking forward towards the cabin and raising the mast to your full reach with the right hand. At this stage, haul in the jib halyard as tight as possible and re-cleat securely. The mast is then locked in a half raised state when the mast can be worked fully upright by standing on the bridge-deck and heaving on the jib halyard. (An assistant is particularly helpful here when raising the mast for the first time).

On completion of this operation, put maximum tension on the jib halyard and then view the mast relative to the boat from forward and from the side. The mast should clearly be vertical to the waterline when viewed from ahead and astern but should still have approximately 6" rake aft, when viewed from the side. It may be necessary to adjust the bottle screws on the shrouds to achieve this. Once the proper angle has been achieved (with the jib halyard under maximum tension) attach the forestay via its lashing to the shackle at the forward hole on the bowsprit end fitting. The lashing should be set up as in Sketch A so that the tension on the forestay is slightly less than the jib halyard/reefing gear. With this arrangement, maximum stiffness of the jib luff will be obtained whilst the forestay acts merely as a safety device. The shroud rigging screws can now be locked by tightening the nuts against the barrel of each rigging screw. The threads can be greased and taped off with (say) electrical PVC tape. The spike hole on each rigging screw should also be covered with tape to avoid water lodging within the barrel. Secure the drum bracket of the reefing gear so that it cannot revolve when reefing, using the short securing tie around the lashing for the forestay, as shown in Sketch A.

5. Position the boom and place the eye bolt through the gooseneck. Fasten the topping lift by tying one fall to the eye on the port side of the boom (see Sketches C and D) and lead the other fall through the cheek block on the starboard side and then to the clam cleat just forward of this block. By adjusting the topping lift, the boom can now be supported at its approximate working height (see cover diagram). Next, shackle the mainsheet jamming block to the traveller and reeve the mainsheet, incorporating the other mainsheet block already on the boom. For ease with further rigging,

lock the traveller amidships with the stops on the mainsheet track and apply tension to the mainsheet, jamming it against the tension of the topping lift to "lock" the boom. Next, shackle the kicking strap to the strop over the inboard end of the boom and to the eye on the tabernacle.

6. Position the gaff on top of the boom between the topping lift falls and fit the parrel balls to the gaff jaws around the forward face of the mast. Shackle the throat halyard block to the strop at the inboard end of the gaff above the jaws, and the peak halyard to the block on the gaff span, ensuring that the peak halyard is led between the topping lift falls.

7. Lead the falls of the peak and throat halyards through the cheek blocks on the starboard side of the cabin top, (peak halyard to forward cheek block) and then back to the clam cleats starboard of the main hatch, taking the loose ends on to the horn cleats on the starboard main bulkhead and coiling. Position the peak halyard to the outer starboard clam cleat and the throat halyard to the inner.

8. MAINSAIL - Shackle the throat cringle to the eye on the gaff throat, pull out the head of the sail and tension this (fairly tight) to the eye at the gaff peak with short lacing, then lace the sail to the gaff with marlin hitches (see Sketch B). Shackle the tack cringle to the gooseneck eye and lightly tension the clew cringle to the boom end with the adjustable outhaul tackle (see Sketch C). Then use short lacing through the clew cringle and around the boom two or three times so that the clew is held down close to the boom but so that it can still move forwards or aft when the clew outhaul tension is adjusted. Start hoisting the gaff via the throat and peak halyards and lace the luff of the mainsail to the mast as shown in Sketch C.

Note; that the luff lacing should not be set up too tight, the object being for the luff to be supported in a straight line and parallel to the mast face when the sail is fully hoisted. Indeed the luff lacing tension may need to be adjusted during the first sail to achieve a good luff shape without sag or distortion of the mainsail.

9. JIB - Free off any temporary knot in the jibsheet which was used to hold the jib furled round the luff spar during mast hoisting, and take the sheets back to the port and starboard jam cleats via the adjustable fairleads, making sure that the sheets pass outside the shrouds (see cover diagram). Next, pull out the jib itself from the spar until it is fully unreefed, freeing off the reefing line but maintaining moderate tension on the line during this manoeuvre to snug the line onto the drum. When the sail is fully extended, there should be sufficient reefing line left off the drum to pass through the clam cleat on deck to retain the line under very slight tension. If there is insufficient length, it will be necessary to take a further turn off the drum and re-reeve. Finally, check reef and unreef the jib two or three times to make sure that the whole system is working smoothly.

10. RUDDER AND TILLER - the rudder can now be fitted on to its pintles with the rudder plate left down temporarily. The control line for the rudder plate should be brought up the forward face of the rudder and after insertion of the tiller, this control line can be threaded through the bullseyes provided on the tiller and tied off to the tiller cleat. Now test raise and lower the rudder plate. (The plate should be left up whilst launching and also whenever the craft is not under way).

11. HOISTING AND SETTING THE SAILS - set the boom at approximate sailing height (see cover diagram) with the topping lift and hoist the mainsail by first hauling on throat and peak halyards together. Due to the different gearing, the peak will reach position first so to avoid this, cleat the peak halyard temporarily when the gaff jaws reach about half way. Complete hauling the throat halyard to tighten the luff of the mainsail and then cleat home.

Continue then hauling on the peak halyard until the whole sail is properly supported then free off the topping lift. Final adjustment of the peak halyard can then be made so that the sail is properly shaped with no diagonal crease from peak to tack or from throat to clew. Before sailing make sure that the topping lift is left free enough to avoid the rope spoiling the aerofoil shape of the sail. Also during the final hoisting operation, the mainsheet should be left slack to avoid the boom being held down unnaturally.

Adjust the mainsail clew outhaul to suit weather conditions. Clearly clew outhaul tension controls the fullness of the foot of the mainsail and generally you will require minimum fullness in stronger winds and greater fullness in light winds.

The kicking strap can be now set up by sheeting the mainsheet fairly hard amidships and then apply tension to the kicking strap tackle.

12. MAINSAIL REEFING SYSTEM - A slab reefing system is used for the 2 reefs available on the Shrimper mainsail. With practice a reef can be taken in or shaken out with considerable speed even whilst the boat is under way, but of course it may be necessary to ease the load on the mainsail and sail under jib alone whilst a reef is being taken in.

There is much to be said for leaving the reefing lines (for both reefs) permanently attached and in position ready for use and they should be set up as shown in diagram 1 of Sketch D. From this diagram it will be seen that the inboard first reef line (5' 6" long) is attached to the lower reef cringle in the mainsail luff by a very short bowline then led down the portside of the sail to the tack cringle where it is threaded through to emerge on the starboard side of the sail. Tie a bowline in the end of this line to form a loop say 3" in diameter which will be convenient to grab. This "tail" can be left hanging loose ready for use.

The outboard first reef line (11' long) is first tied to the aftermost port bullseye on the boom with a tight bowline, led up through the first reef cringle on the leech of the sail, down the starboard side of the sail through the aftermost starboard bullseye and then forward through the junior clamcleat on the starboard side of the boom as shown in Sketch D Diagram 1. A bowline loop of say 3" diameter can be formed in the end of the line so that it is easy to grab. When sailing under full sail make sure there is enough slack in the line so that the mainsail is free to take its natural shape when sailing.

Lines for the second reef (inboard line 8' long and outboard line 19' 6" long) are set up very similarly to those for the first reef utilising the second reef cringles on the mainsail and with tails emerging on the portside of the boom. Again these lines should be set up tidely but with no tension on them which would cause distortion of the natural sail shape.

To take in the first reef, first ease the kicking strap, then tension the topping lift which will hold the boom up when the mainsail halyards are eased. Next ease windload on the mainsail by easing the mainsheet or by holding the Shrimper head to wind. The throat halyard can now be eased sufficiently to enable the first reef to be pulled down by hauling on the first reef line to a point where the first reef cringle is as close as possible to the tack cringle on the mainsail luff. The reefing line can then be secured under maximum tension by jamming it in the minicleat at the starboard forward end of the boom. The after reefing line can then be hauled in, again with maximum tension so that the leech cringle is as close as possible to the boom when the reefing line can be secured in the junior clamcleat on the starboard side of the boom. The loose tail of the line can be coiled and secured to the central horncleat on the boom. During this operation the peak halyard may need adjustment and in any case after the reef has been secured both halyards can be finely adjusted, topping lift released and the kicking strap re-tensioned

ready to sail. There is no particular need to tie up the sail by its reef points except for tidiness as the mainsail is loose footed. However if the reef points are used, remember that they should not go around the boom (see diagram 2 Sketch D). The putting in of a second reef is more or less a repetition of the above and the reefs can be shaken out by reversing the procedure.

C. SAILING AND HANDLING NOTES

1. These notes are only intended as a general guide as the owner will soon discover the best sail settings and techniques for himself. However, it is important to stress that at all times the sails should look 'Right' and if creases occur across the mainsail or on the jib luff, adjustment of halyard, outhaul or lacing tension is necessary. Once the sails have settled down after a very brief period of initial stretching out, it is unlikely that lacing tension will need to be adjusted very often, but the mainsail clew outhaul can be adjusted regularly to suit wind conditions, tension being increased to flatten the sail to suit increasing wind conditions.

2. Getting Underway - if the Shrimper is lying to a mooring or to an anchor where there is no adverse tide, i.e. no tidal stream or tide flowing more or less from the same direction as the wind, it will be possible to hoist the sails whilst moored and merely cast off when ready but if the yacht is 'Tide-rode' it may be simpler first to cast off from the mooring under power and hoist sails, using the engine to keep the yacht head to wind. You will find however that even with tide against wind, once the feel of the boat has been gained, it will be possible to hoist sails at the mooring particularly if the centreplate is kept in the raised position whilst hoisting and until you are ready to cast off. In this way the lateral resistance below water is kept to a minimum and the boat may lie still head to wind.

3. When the sails are hoisted the centreplate and rudder plate should be lowered and it will be found that the Shrimper will pick up forward way on a tack quite quickly. However, it may again be wise to keep clear of other moored yachts when setting sail for the first time by the use of the engine because until the owner has got used to the distance required for picking up forward motion the bowsprit remains a deadly weapon!

The rudder plate should be kept down at virtually all times when sailing as it gives a very precise helm, although the Shrimper will handle adequately with the plate retracted. Likewise the centreplate can be left down at all times when sailing, although it can, with slight advantage, be hauled up when broad-reaching or running to reduce wetted area and thus friction. Whilst the Shrimper will not sail well to windward with the centreplate up we would recommend that the owner tries this out for himself within the process of getting to know the boat as she will still sail to windward but with increased leeway and a knowledge of her performance with the centreplate up can be very useful should the owner need to pass over very shoal ground or approach a beach under sail to dry out or take off passengers. (See Note 10).

4. Once the Shrimper is sailing, the owner can give some attention to tuning the sheeting positions to achieve optimum performance. The stops on the mainsheet traveller can be positioned more or less fully outboard so that the boom is held downwards as well as inwards by the mainsheet particularly when beating. The jibsheet fairleads should initially be set up midway along their track but the ideal position will be found for them to achieve the ideal jib shape and jib leech tension. It is important not to over sheet the Shrimper when sailing to windward as the boat will then appear to point high but lose forward speed. Again the owner needs to experiment but as a rough guide when beating the main boom should not go much further inboard than the boat's own quarter and the jib sheets should not be tensioned so tight that the curve is totally pulled out of the foot of the sail. With a little practice the owner will find that the Shrimper will perform extremely well to windward pointing very high on the wind and with very little weather helm, denoting good balance.

With regard to downwind technique, it is important not to let the boom out so

far that the gaff is bearing hard on the shroud. This will clearly result in considerable strain on the fastenings of the gaff jaw assembly to the inboard end of the boom.

5. Reducing Sail and Heavy Weather - full sail can be carried into Force 4 (Beaufort Scale) depending of course to some extent on the combined weight of the crew and the helmsman's skill but towards the top end of Force 4, it may be more comfortable to consider reducing the sail area, particularly when sailing against the wind. The most immediate and simple method is to progressively reef the jib using the reefing gear. Very good helm balance will still be obtained when the jib is half reefed and further reduction is quite feasible even to the point where the jib is totally reefed. Indeed it is recommended that owners should try out sailing the boat to windward at an early stage on the mainsail only, when it will be found that the Shrimper will still point quite high with sufficient speed for full control and she can be made to tack quite smoothly. Sail area reduction by reefing the jib alone is a particularly suitable and quick approach when one is caught out in a sudden blow perhaps not far from home, but when setting sail in strong wind conditions, there is a case for reefing the mainsail first which leaves the reefing potential of the jib still available if weather conditions should demand it. In general with winds up to Force 5, one reef in the main will be satisfactory with or without some reduction in jib area, but over this two reefs can be taken in with advantage and the procedure for reefing is described in the Rigging Notes 12 and Sketch D.

As wind increases, the outhaul on the fully rigged mainsail should be tensioned further to flatten the foot of the sail and when the mainsail is reefed in stronger winds, the reefing lines should be tensioned as much as possible to keep the reduced sail foot flat.

6. Heaving-To - the Shrimper will heave to quite well, either in full sail or reefed, by leaving the jib aback after tacking and lashing the helm. Of course, the boat will tend to fore-reach a little in strong winds, nevertheless, heaving-to will be found a useful manoeuvre when sailing single handed and when it is necessary to leave the helm.

7. Gybe-ing - in most gaff boats it is worth controlling a gybe to ensure that the mainsheet traveller etc. are not exposed to unnecessary stresses and the risk of damage. Other than in light winds it is worth hauling in on the mainsheet and then easing out, fairly rapidly but with control, as the gybe occurs and in stronger winds it is certainly worth centring the mainsheet traveller on the track, by means of the stops, to stop the traveller crashing from one end of the track to the other which can damage the stops or the traveller itself.

8. Under Power - the Shrimper will be found to handle exceedingly well even with outboard motors down to 4hp. If your motor is fitted with a reverse gear, make sure that the 'reverse lock' is set to operate otherwise the engine will tend to lift from its normal mounting angle by its own efforts and this could cause damage.

The outboard well in the Shrimper is offset to starboard and if the steering angle of the engine is left exactly fore and aft the Shrimper will tend to turn left under forward power unless the helm is used to counteract this tendency. Many outboard motors have a simple screw mechanism with which the steering joint can be tensioned to more or less lock the steering angle and if the motor being used is so equipped it is worth while checking the Shrimper under power and adjusting the steering angle until the Shrimper will go straight ahead without the owner holding the boat's tiller.

Owners should note that when moving forward under power, the boat will turn slightly easier and tighter to port than to starboard. This should cause no problems but it is as well to be aware of the effects. Similarly the Shrimper will reverse a little more easily to port than to starboard.

There is no reason why the outboard cannot be left in position in the engine well when the boat is under sail as the drag from the static propeller is not excessive. However, owners who wish to obtain maximum sailing speed (perhaps during Club racing) can lift out their engine and stow it in the adjacent locker.

9. Mooring - when mooring or anchoring the Shrimper it is quite acceptable to bring the mooring line, or anchor warp, straight in over the roller bow fairlead, tying the inboard end securely to the samson post, but if the Shrimper is to be left unattended, particularly in stronger winds, there is a case for secondarily attaching the mooring line to the boweye with a shackle or with a strong lashing. This procedure has the advantage that should the Shrimper tend to veer from one side to the other eg. with strong wind against tide, the mooring line will not grind against the bobstay. (The ideal method of organising a mooring attachment to the boweye is shown in Sketch F).

10. Restricting Centreplate Travel - The hull and centreplate construction of the Shrimper ahead of the plate is massive and capable of withstanding extremely heavy loads. However, there is a clear advantage in restricting slightly the full travel of the centreplate so that the plate does not bang against this structure in rough sea conditions. To achieve this, first let the plate down to its fullest extent, always keeping some control on the rope. When the plate is fully down, pull in the plate rope between 4-6" and mark the rope at the point where it issues from the fairlead fitting in the bulkhead at the forward end of the cockpit. Now pull the plate up further and having temporarily cleated it, tie a stopper knot (or figure of eight) in the centreplate rope so that the face of the knot nearest the plate is just level with your mark. Having done this, un-cleat the rope and test lower when it should be found that even when letting the centreplate rope go completely for the last foot, the plate does not bang against the plate case.

There is no need to control or restrict the travel of the rudder plate.

11. When leaving the boat at a mooring it is worth while developing a personal check list which should be worked through before rowing ashore. This ensures the boat's safety in the Owner's absence and avoids the annoyance of having to return aboard having beached the dinghy or worse still, having driven half way home! Herewith some important items:

- a. hoist centreplate and rudder plate fully
- b. Check that mainsail is fully furled and tied up and that the mainsail cover is fitted (if this item has been purchased)
- c. Make sure the jib is fully furled and that jib sheets are left taut
- d. check that mooring is properly attached
- e. Pull in mainsheet hard against the tension of the topping lift. Tie off mainsheet as an extra security and centre the stops to eliminate traveller movement
- f. pump out cockpit bilge

- g. remove engine from outboard well if it is not antifouled and stow in outboard locker (port side aft) or better still place in cabin where the boat will be left unattended for several days (better air flow around engine to avoid condensation and corrosion)
- h. remove any loose items from the cockpit and place in cabin and lock cabin
- i. Lash the tiller centrally to eliminate movement of the rudder and wear on the rudder pintles
- j. fit internal cockpit cover, if purchased, tying up the centre of the cover to the boom so that rain water will naturally drain off onto the side decks and out through the scuppers.

D. LAUNCHING, RECOVERY AND TRAILING NOTES

1. If the boat has been already rigged as previously described and is on its trailer, all that is required to prepare for towing to the launching site, assuming the sails are stowed on the spars, is to disconnect the parrel line around the gaff jaws and remove the gooseneck eye bolt with sail tack still attached, leaving luff lacing in position pull gaff and boom sideways, just clear of the mast. Slacken off topping lift and peak halyard. Disconnect forestay from bowsprit and lower the mast with jib halyard while standing on the cockpit seats until the mast can be reached and lower gently onto a pad on mainsheet horse. Remove mast pivot bolt and slide mast forward and tie everything down. There is, of course, no need to disconnect the shrouds from the bottle screws. With the rudder and tiller removed you are now ready to go.

There is a case for removing the outboard from the well and placing this in the towing vehicle, which will reduce the trailed weight.

Before hitching the trailer to the towing vehicle, check that the trailer is 'front end heavy'. As a guide it should be necessary to apply about 50lbs. of lift by hand at the coupling to raise the jockey wheel of the trailer off the ground. The necessary weight may vary slightly depending on the towing vehicle and the nature of its springing, but the object is to select a weight which will facilitate smooth towing and braking of the trailer without 'sway'. Having connected the trailer to the towing vehicle, make sure that the jockey wheel is raised and locked up, that the over-run brakes are operating, that the number plate is attached and that the number plate lights are operating having connected the trailer wiring to the car socket. Trailer tyre pressure should be checked and grease applied if necessary to the bearings. After the first mile of towing it is sensible to stop and check that the whole rig is riding satisfactorily. Tyre pressures should be 45 p.s.i.

STANDARD TRAILER - LAUNCHING

2. Having arrived at the launching site, remove the trailer number plate, untie any transit lashings, place the outboard in the well and raise the mast etc., reversing the sequence in 1. above. Insert the rudder and tiller, leaving the rudder plate up and lashing the tiller amidships. Make sure the trailer bearings are well greased and spray the trailer generally with WD40 or a similar inhibitor. The towing vehicle can be used to back the trailer down the slipway, or beach, to the water's edge when the vehicle can be disconnected, having first applied the trailer brakes, and the winch hook or shackle can be released from the boat's boweye. If the slipway is steep it can be helpful to take a warp from the trailer around the tow hitch on the car to control the trailer's descent. Before launching, make sure a mooring warp is attached to the bow of the Shrimper so that she can be controlled as she floats off. On steeper slipways, the Shrimper will probably float off before the wheel bearings are immersed but on shallow inclines it may be necessary to completely immerse the trailer wheels. If this occurs it is well worth while spraying off the trailer with fresh water after the trailer has been retrieved, paying particular attention to the brake drums.

STANDARD TRAILER - RECOVERY

3. Recovery should be just as simple but try to avoid strong currents or cross winds. If this is unavoidable it will pay to fit stern ropes attached to the Shrimper as well as the bow rope to prevent the boat slewing around before the bow is located on the trailer.

Position the car and trailer on the slipway and have the trailer winch line paid-out along the trailer, ready to attach to the boweye of the boat. Uncouple the trailer from the car and use a warp if necessary taken back to the towing vehicle hitch (in addition to the trailer brakes) to control the trailer's descent to a point where the bow of the Shrimper will float into the guide and onto the first roller of the trailer. Operate the tilt back mechanism on the trailer, pulling on the boat's bow rope until the Shrimper has come onto the second roller. Then having locked the trailer by applying the brakes and if necessary also tying off the warp back to the towing vehicle hitch, winch the

Shrimper onto the trailer. Depending on the steepness of the slipway, it may be necessary during the winching operation to allow the trailer to move slightly deeper into the water. When the Shrimper is fully located with her bow against the bow snubber, the trailer can be connected to the towing vehicle either immediately or after having towed the trailer a little way up the slope with the warp to the tow hitch. The trailer can now be moved clear of the slipway, washed down with fresh water, and the boat packed up ready for towing.

4. COMBINATION ROAD TRAILER - OPERATING TECHNIQUE

General.

We have developed a combination trailer specifically for the Shrimper comprising a launching trolley and a road unit on to which the Shrimper and the trolley can be loaded.

The great advantage of this combination is that the wheels of the road unit need never be immersed in salt water. Thus the launching trolley is off loaded from the road unit on any convenient surface adjacent to the water (e.g. in the boat park near to the slipway) and loading can be effected similarly. Loading/off loading operations are best carried out on fairly level ground but if there is a slight gradient the trailer unit should be facing up hill. In addition, throughout offloading and loading it is best to keep the road unit hitched properly to the towing vehicle (which obviously should have its hand brake on).

Off-loading.

When the Shrimper is handed over by us on the combination trailer, the unit will be set up correctly ready for use on the road and all ready for off-loading. Note that the heavy duty winch on the launching trolley is holding the Shrimper via the winch rope and hook with its bow firmly against the snubber on the winch post. The hitch coupling on the trolley will be locked over the ball hitch which is bolted to the strong post on the road unit so that the trolley is locked in position and the jockey wheel of the trolley will be resting on top of the spine of the road unit with the wheel "trailing aft". Before attempting to off load for the first time examine the winch closely and note that there are two positions for the winch handle providing high gear and low gear winching. Set the winch handle to the low gear position (more turns - less effort) if it is not already so located. Next, note that the winch is equipped with a friction brake which is operated by a lever. Note also that the ratchet and lock operation of the winch itself can be reversed via the small change lever sited on top of the winch, indeed by adjusting this lever you will be able to free off the winch rope from its initial tension, so that the winch hook can be removed from the boweye of the Shrimper. However, before removal, use a short lashing to secure the boweye to the winch post assembly which will prevent the Shrimper moving back on the trolley during offloading.

Now pull out more slack by easing the winch handle so that the winch hook can be connected forward to the welded ring on top of the strong post of the road unit. Tension the winch rope hard, then ease the rope a little, then lock the winch so that it cannot unreel any further by correctly positioning the change lever. The slack you have produced should be such that the winch rope would become taut again if the trolley were to be moved back 2" from its present locked position on the road unit.

IT IS MOST IMPORTANT THAT YOU ESTABLISH THE ABOVE CONDITION WITH THE WINCH LOCKED AGAINST FURTHER UNREELING OF THE ROPE BEFORE YOU PROCEED ANY FURTHER (otherwise the launching trolley could run back off the trailer with dangerous speed and possibly damage).

Next, the jockey wheel should be reversed so that it will be trailing rather than leading as the trolley comes off the road unit. This can be achieved by using the telescopic facility on the jockey wheel assembly so that the wheel is lifted sufficiently to reverse it by hand. The trolley coupling can now be released from the ball hitch on the strong post by using the telescopic

facility on the jockey wheel assembly having freed the catch on the coupling. The small amount of slack in the winch rope described above will allow the coupling to lift clear of the hitch so that the trolley is ready for off loading.

Certainly it is wise to have two persons available for the off loading procedure. The first person should grasp the friction brake lever with the left hand and apply the brake when he will be able to free the winch rope and re-position the change lever of the winch so that the rope can be played out under control with the winch handle being held firmly in the right hand. Initially and until the rear wheels of the trolley have moved completely down the road unit ramps, the trolley will exert considerable pressure aft which must be held in check by the person controlling the winch handle and the friction brake. During this manoeuvre the second person should help the trolley to move aft initially if this is necessary and at the same time should ensure that the area behind the Shrimper remains free of bystanders !

Once the trolley wheels have moved off the ramps of the road unit and on to the ground the second person may need to push the trolley further aft, whilst the first person remains available to control the winch. When the trolley has moved aft to the point that the jockey wheel is approaching the aft end of the central spine, both people can lift the fore end of the trolley and ease it further back so that the jockey wheel is now on the ground.

Having placed chocks as necessary behind the trolley wheels, the winch rope can be disconnected from the strong post on the road unit and all slack taken in. The road unit can now be towed out of the way by the towing vehicle and after disconnection the towing vehicle can now be used to manoeuvre the launching trolley treating it in a similar way to the launching technique described in Sections 2 and 3 of the Launching Notes above.

The launching trolley can of course be totally immersed as necessary as there are no brake drums or complicated bearings. However, it is wise to hose off the trolley carefully after immersion and to use an inhibitor such as WD 40 regularly. A small amount of grease should be applied occasionally to the trolley wheels.

Re-Loading.

Having recovered the Shrimper on the launching trolley the laden trolley can be manoeuvred, if necessary with the towing vehicle, to a suitable place for loading on to the road unit. It is better that this loading should be achieved on level hard ground. Having attached the road unit to the towing vehicle the trolley can be manhandled into position aft of the road unit so that it is lined up fair and square. Two people can then lift the front end of the trolley so that the jockey wheel can be placed on to the aft end of the road unit spine. The winch rope can then be pulled out so that the hook can be connected to the strong post, then, with the change lever in the correct position, the trolley can be winched forward on to the road unit. Providing the trolley has been lined up correctly the aft trolley wheels will enter the ramps of the road trailer easily. Then with increasing pressure on the winch the trolley can be winched up the ramps until the unit is "fully home". The trolley coupling will now be above the hitch on the strong post and by using the telescopic facility on the jockey wheel assembly the coupling can be locked on to this hitch. Now the winch hook can be removed from the strong post and re-sited on the Shrimper bowline with tension on the winch rope.

After de-rigging the boat, fitting the number plate and tying any securing ropes the trailer combination is ready for the road.

Tyre pressures for the combination trailer are as follows :

Road unit wheels 6.5 p.s.i. Trolley wheels 85 p.s.i.

Finally, remember to think first before off-loading or loading the combination trailer. It is important to observe the proper sequence to avoid damage or injury.

E. ROUTINE MAINTENANCE

1. CENTREPLATE -

(a.) Routine Check of Centreplate Hoisting Mechanism - the centreplate mechanism is very simple involving a Holt Allen drum winch. The drum is fed with rope which issues into the cockpit via a fairlead in the cockpit bulkhead and rope pulled on or off the drum during the act of raising and lowering rotates a concentric smaller spindle around which is wound the centreplate cable. The cable itself is approximately 6' in length and its type is "7 X 19 flexible". One end of this cable is attached to the spindle tube through a small hole with a stopper at its end to anchor it. The other end is attached to the aft top corner of the centreplate, through a small hole in the plate and is again anchored by a swaged stopper. The cable passes over a sheave in the top of the centreplate case between the winch spindle and the plate itself.

The whole system has considerable life (measured in years) but the flexible wire cable might exhibit some deterioration after a season or two, dependent upon how frequently the boat is sailed. Thus it is prudent to examine the cable for wear and to visibly check over parts of the mechanism at the end of each season.

To gain access to the mechanism generally, it is necessary to remove the fibreglass step moulding which fits over the aft end of the plate case, and which forms the moulded step entry into the cabin from the companion way. This moulding is held in position by two bolts which are readily visible and they should be removed after which the complete moulding can be slid away to expose the mechanism.

It is perhaps easiest to check the cable when the boat is hard aground, or on the road trailer, in other words when the plate is fully up and held up by physical contact with the ground or some other support. When the boat is in this state, the cable will be fully wound onto the spindle and if the inspection hatch is opened on the starboard side of the case, the top of the centreplate and the cable connection to the plate will be visible in more or less the centre of the hatch opening. From close inspection of the cable, the Owner can check whether the cable is whiskering, fraying or exhibiting any chafe and this inspection can be facilitated by revolving the winch drum a little which will have the effect of loosening the cable turns around the spindle and thereby permitting the Owner to check the condition of the stopper and the area of cable immediately adjacent to it at the centreplate end of the cable in particular.

Inspection of the cable can if necessary be carried out with the boat fully afloat but it would not then be possible to check the attachment to the centreplate itself.

In addition to the cable, it is worth checking the condition of the sheave in the top of the plate case, the drum winch itself and the winch rope. Providing there is no noticeable wear, the step moulding can be replaced and the mechanism can continue in use without replacements.

(b.) Replacing the Centreplate Cable - for this operation, the centreplate needs to be held in the fully retracted position by a means other than the cable, thus the Shrimper needs to be aground on a reasonable firm surface or on the road trailer etc.

In the most unlikely event of a broken cable, the Owner could find himself afloat with the plate fully down. In this case, the Shrimper can be grounded

carefully on a falling tide or could be winched back onto a road trailer, either again having the effect of pushing the plate into the retracted position. Having removed the GRP step moulding to gain access to the mechanism, the damaged or broken cable can be removed with the aid of a pair of pliers and a small hacksaw or wire cutters. At the centreplate end, the swaged end stopper can be pulled out through the side opening of the centreplate and at the spindle end, having loosened the cable turns, the end attachment can be worked out through the spindle tube and the cable drawn out.

A replacement cable, supplied by us, will be fitted with a swaged stopper at one end only. Feed the new cable through the hole in the centreplate so that the stopper is finally sited neatly within the side opening. The cable can then be passed over the sheave and the free end introduced to the hole in the spindle tube in the winch mechanism. Work the cable through so that the cable end comes out of the tube, then with a pair of pliers, make an overhand knot near the end of the cable and pull it tight with the aid of pliers. This knot can now be drawn back into the tube and will form a stopper. The loose cable can now be turned neatly around the spindle and between the guides until it is fully wound up, after which the rope on the winch drum can be rearranged with approximately one complete turn of rope around the drum, after which the winch rope can be cleated to hold the plate up. When the boat is next afloat, the plate can be test lowered to make sure all is functioning correctly, after which the step moulding can be replaced.

NOTE Replacement cables are always available from us but an effective replacement can be effected by using a 6' length of 7 X 19 flexible cable from a local Chandler or Yard, when an overhand knot can be made in both ends to form end stops. However, the Owner must make sure that the knot at the plate end in particular is firmly made and not likely to slip.

2. OUTBOARD MOTOR -

Always turn off any fuel taps on the outboard when leaving the boat and if the engine is fitted with a remote tank, it is better to disconnect the fuel pipe from the engine and close the air vent on the tank when not in use.

Occasional spraying over of the engine surfaces with an inhibitor, such as WD40, is worth while followed by cleaning off any excess with a dry cloth. Also, apply grease occasionally to the engine clamp screws to avoid corrosion.

3. SHACKLES -

Shackles generally will benefit from a touch of oil, grease or WD40 on the threads from time to time to prevent corrosion. Indeed, WD40 is a very effective protection to most of the metal fittings on the boat.

4. HULL -

Avoid abrasive cleaners on the fibreglass hull as this could damage the glecoat surface with resultant loss of gloss and a tendency to fade. Washing-up liquid and a sponge is an ideal method of cleaning and a wax polish will do much good, perhaps once a season.

5. EXTERIOR TEAK TRIM -

The gunwales and other teak trim can be allowed to bleach off or alternatively the Owner can keep the wood lightly oiled. Oiled teak work retains its colour but beware, over application of teak oil can cause the wood to go black. A good method of treatment is as follows:

- a. Perhaps twice per season scrub off the teak with a scouring pad e.g. a green plastic 'Scotchbrite' pan scourer which should be regularly dipped in water and sprinkled with Teak Brite powder (available from Chandlers) Lightly scrub the teak work with the pad but avoid scrubbing any adjacent glass fibre. This will remove any ingrained dirt and will dress the surface.
- b. When the wood feels smooth to the touch, swill off well with fresh water and allow to dry.
- c. When the teak is thoroughly dry, apply a very sparing quantity of teak oil, rubbing in well with a lint-free cloth making sure to wipe away any excess oil.

Treatment is now completed and this will normally last several weeks in the open before repeating the treatment.

6. EXTERIOR VARNISH WORK - eg. spars and rudder etc.

Should you scratch or chafe the varnish work, it is worth touching up the scratch as soon as possible to prevent any moisture creeping under the surrounding varnish. We have used two-can polyurethane varnish but one-can polyurethane varnishes are compatible and may be easier to use for touch-up work and general revarnishing.

7. ANTIFOULING -

If your Shrimper is lying afloat for long periods of the season, she will need to be antifouled. However, some mooring areas are more prone to weed growth etc. than others. Therefore it is worth inspecting the under hull occasionally during the season which can be done afloat by examining an area near to the waterline or by unshipping the rudder to inspect the under water section. If there is sign of commencement of weed growth, it is worth while beaching the Shrimper and scrubbing off the under hull surface with a brush when it will come off easily. Providing the hull has been painted with antifouling at the beginning of the season there should be no need to repaint until the following year and the cleaned off surface should last several weeks before a further scrub.

In areas where there is low weed growth, it is quite possible that scrubbing will be totally unnecessary during the season but in any mooring area, it may be necessary to wipe off the boot-top with a car sponge (say) about once a month and this job can be undertaken with the boat afloat.

8. SHORT LIST OF FINISHING MATERIALS USED BY US ON YOUR SHRIMPER -

- (a) Antifouling Paint - Little Ship Coastguard (normally obtainable from us for repainting but otherwise Blakes Tiger antifouling should be compatible if used with a Blakes' recommended barrier coat).
- (b) Exterior Varnished Woodwork - 2-can polyurethane varnish
- (c) Interior Varnished Woodwork - 2-can polyurethane varnish
- (d) Interior Paint - Dulux Muffin, eggshell finish
- (e) Exterior Teak eg. gunwales, hatch trim and Iroko cockpit floorboards - Teak Oil.

F. WINTER LAYUP AND ANNUAL MAINTENANCE

The following notes will be more than obvious to experienced cruising people but may be of some help to the newcomer in helping to preserve your Cornish Shrimper and minimise the need for extensive refit work, which can often arise from neglect.

These notes are intended only as a relatively brief guide to Winter storage and maintenance as there are many books on the subject. The main intention is to highlight the major points and to indicate the need for care of your boat to ensure a long and trouble-free life.

Length of Season before Winter Layup; in the United Kingdom there has been a tendency for the sailing season to be regarded as over somewhere around October, often linked with the end of British Summertime. This may well remain the case for many Owners but now of course, the advent of trailable sailing cruisers gives the opportunity for a slightly different approach and for a greatly extended sailing season, where boats are launched during the Autumn and Winter weekends for family sailing, when the weather forecast is suitable. Indeed, because of this some Owners may wish to keep their Shrimpers in commission and ready to go on their trailers throughout the Winter and these Owners may regard maintenance as a matter of timely attention when the need arises, as the result of fairly regular inspection. Owners who wish to cease sailing in the Autumn until the following Spring may on the other hand "winterise" their boats at the end of the Season and tackle any maintenance jobs in good time, so that their craft are in good condition and ready for the water the following Spring.

It is important to remember that whilst corrosion, particularly of metal parts, is minimised on boats with careful use of the correct metals with the correct surface treatments, a certain amount of corrosion is likely to occur particularly if avoiding action is not taken. Indeed, the risk of corrosion may be at its worst during Winter months when the boat is laid up and for this reason, it is very important to ensure good ventilation to the craft during the Winter and that metal parts are inhibited, preferably after washing off with fresh water. Again, the use of inhibitors such as WD40 is recommended for metal parts. Owners who possess trailers should pay special attention to the trailer unit, either at the time of Winter layup or at some point mid Winter if they are keeping the rig in commission, to check that all is well. It is worth while inspecting trailer bearings, checking brakes and brake drums and lubricating the trailer generally including the winch, and these actions should ensure a long trailer life. Additionally, tyres should be checked for wear and pressure.

It is also important to ensure as much as possible that when your Shrimper is ashore either temporarily or during the Winter, that she is supported with the waterline level (the front end of the trailer can always be raised or the boat chocked up level on supports where a trailer is not purchased). This levelling ensures that the decks and cockpit area will drain properly during Winter.

It is strongly recommended that the outboard motor is given a proper Winter service by a competent Outboard Engineer during the Winter months and if the unit is to remain un-used for some weeks, it is advisable to flush out the cooling system with fresh water and store the engine in a cool, dry place. Mixed petrol fuel tends to deteriorate when left stored for long periods which can cause difficult starting of the engine when it is next used. Thus it is not wise to leave fuel in your tank throughout the Winter months.

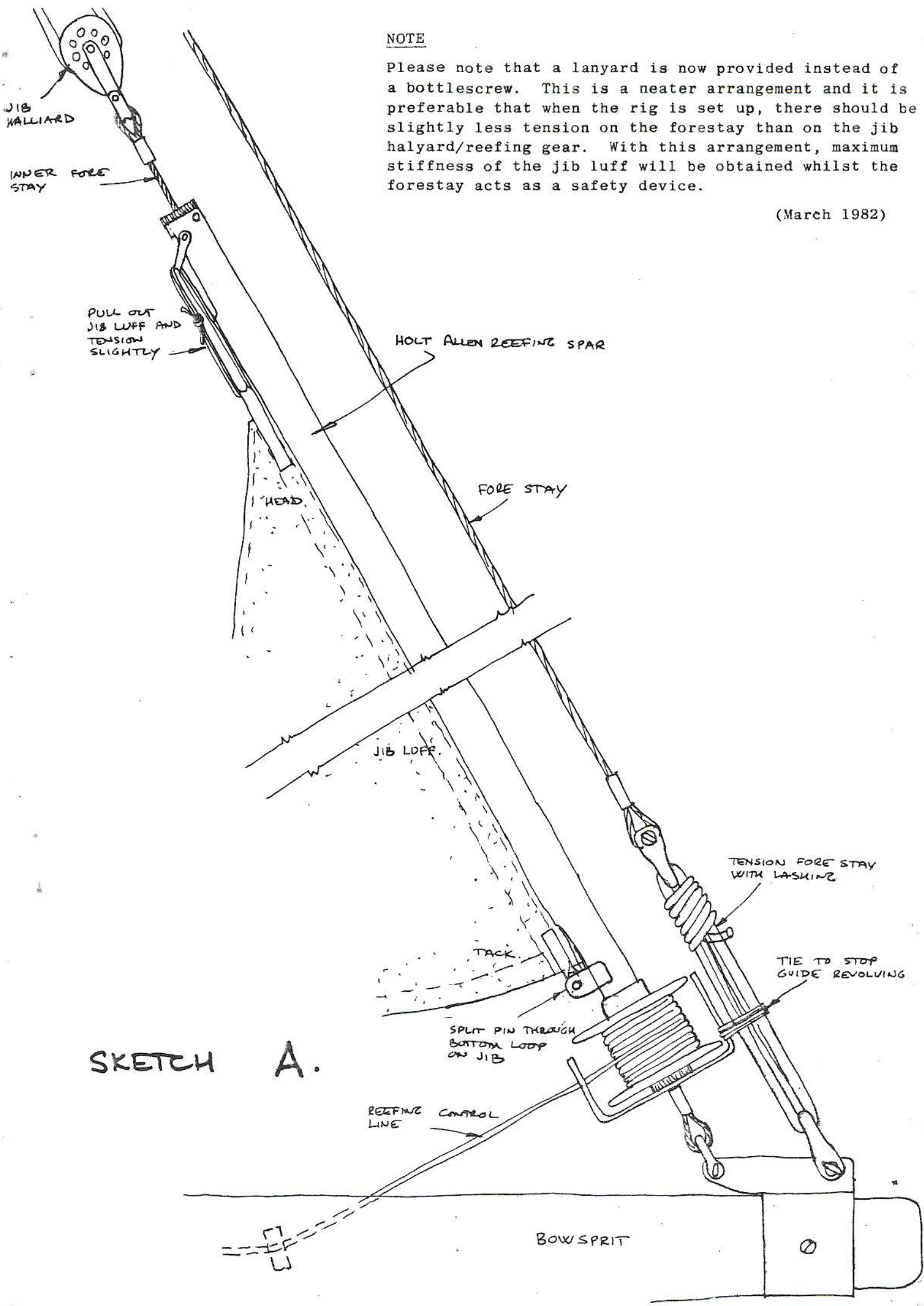
Again for any prolonged storage period, the cabin area of your Shrimper should be cleared of loose items such as tins of food, sailing gear, clothing and sleeping bags and all of these items should be kept in a dry place. Similarly, berth cushions can either be removed from your Shrimper to a dry storage area or they can be stowed on their sides within the cabin so that air can flow around them with the zips left open. If your Shrimper is to be stored outside, try to choose a place which is sheltered from the worst of the weather and fit some sort of overall cover. If your storage place is exposed to strong winds, make sure the cover is well tied down so that it will not chafe varnished woodwork, but also make sure that there is some airflow still possible by arranging end openings and using some form of strongback over the cabin as a rigid support.

Peter Keeling
June 1981

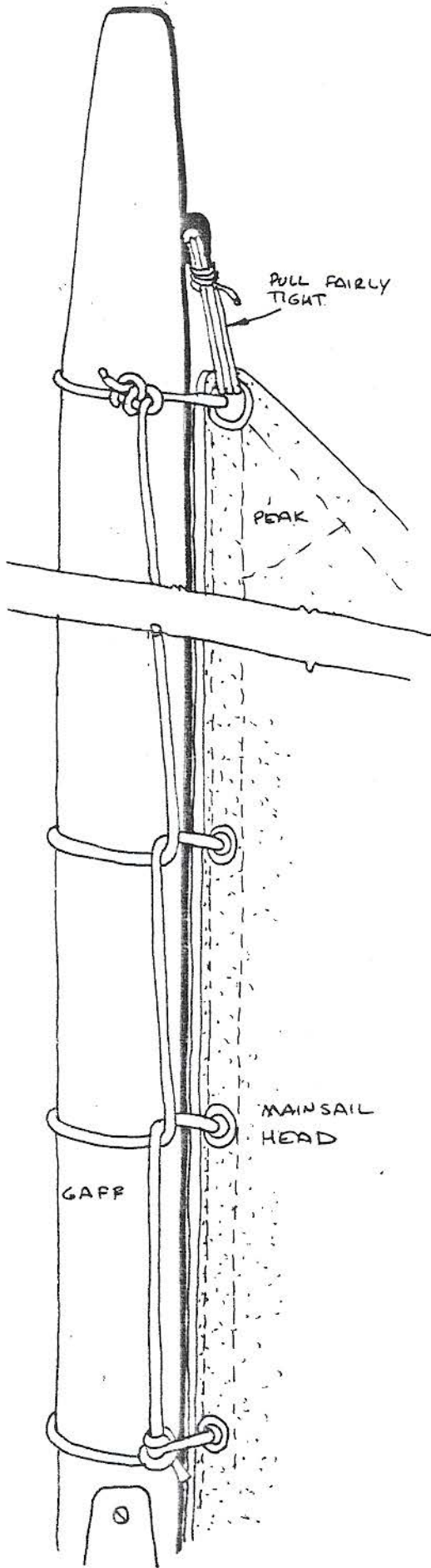
NOTE

Please note that a lanyard is now provided instead of a bottlescrew. This is a neater arrangement and it is preferable that when the rig is set up, there should be slightly less tension on the forestay than on the jib halyard/reefing gear. With this arrangement, maximum stiffness of the jib luff will be obtained whilst the forestay acts as a safety device.

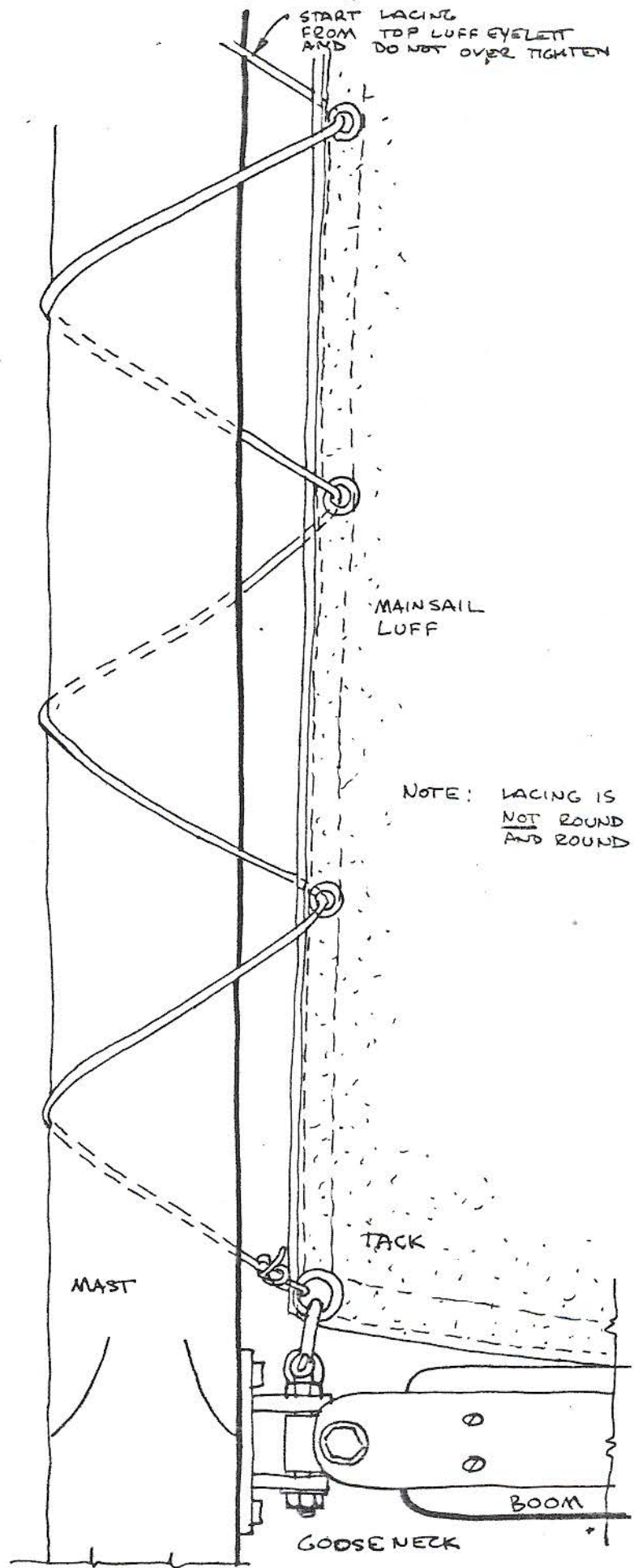
(March 1982)



SKETCH A.

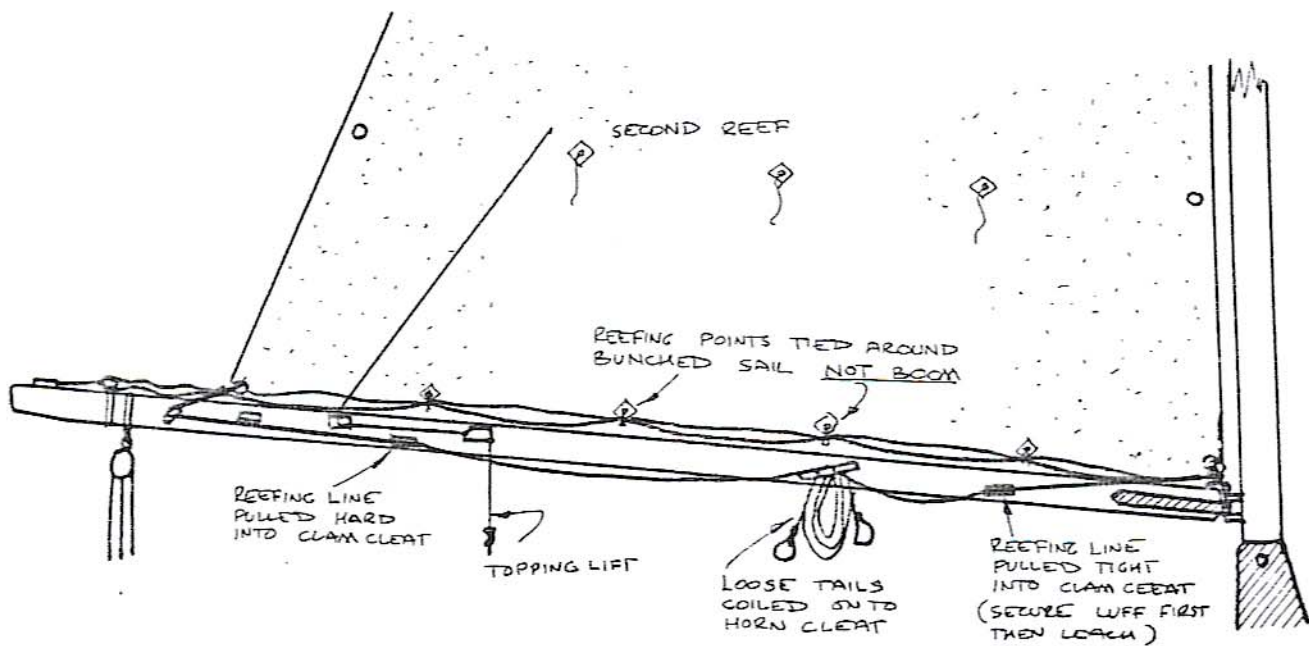
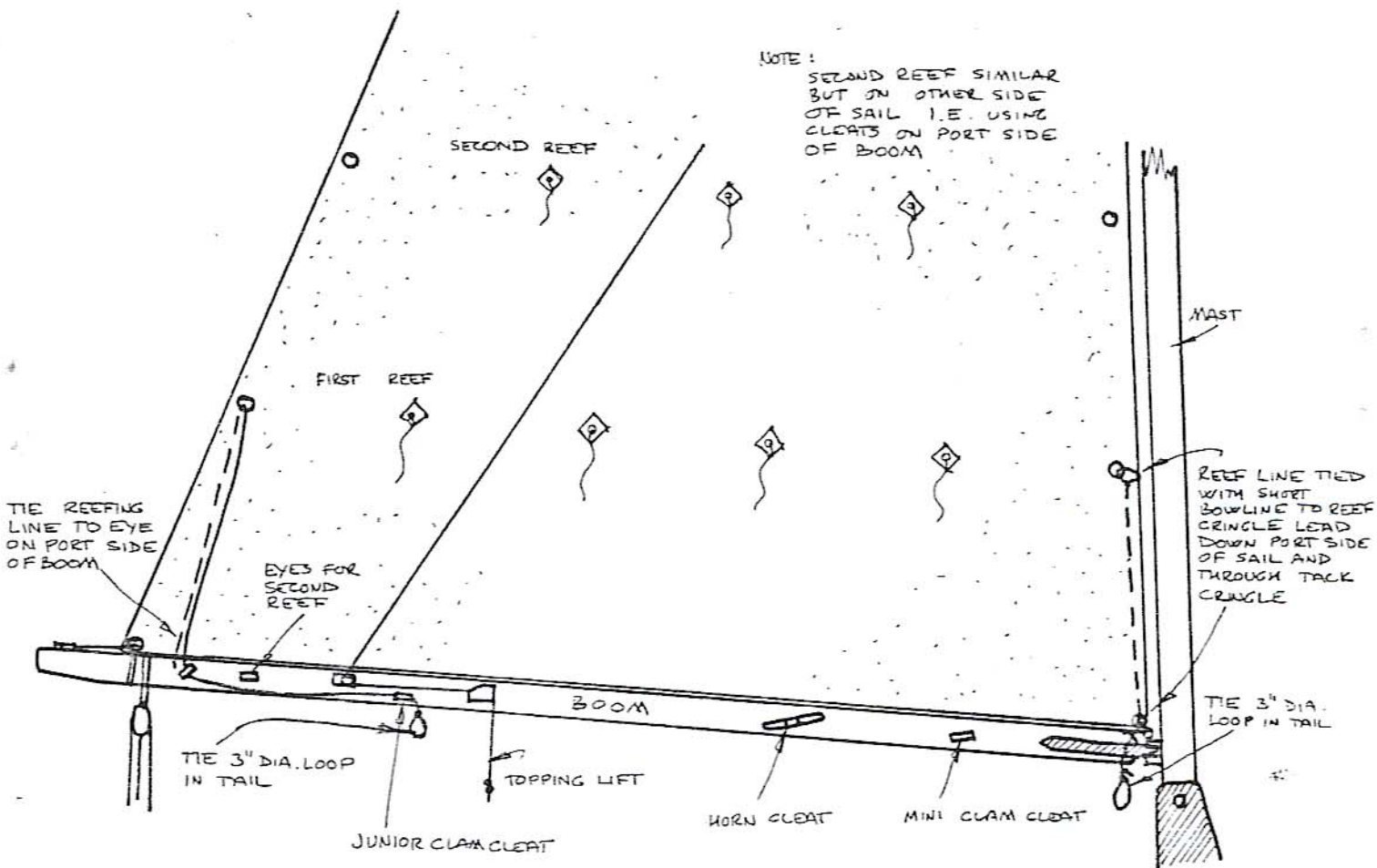


SKETCH B.

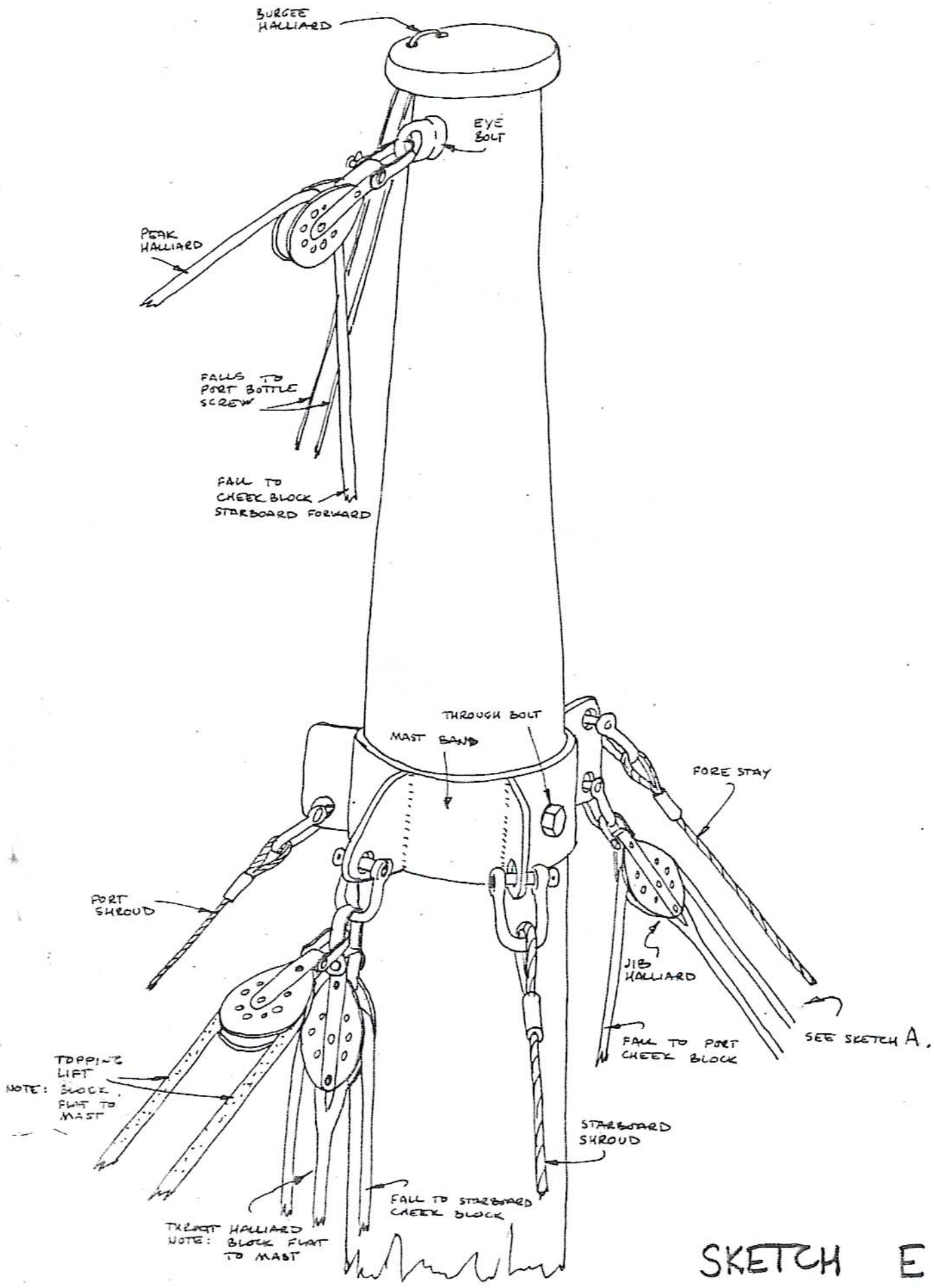


SKETCH C.

NOTE: LACING IS NOT ROUND AND ROUND



SKETCH D.



SKETCH E.

SKETCH F.

