INDEX

INTRODUCTION

This manual is intended to assist you to know your new Chrysler Yacht. It is important to familarize yourself thoroughly with each aspect of operating and maintaining your yacht in a safe and efficient manner. Read your manual carefully as well as the manuals supplied by each manufacturer of components. When questions arise for which you cannot find an answer, your Chrysler Yacht dealer will be pleased to assist you or write to us directly.

When delivery of your yacht is completed, be sure to read and understand the Chrysler Yacht warranty. Fill in the commissioning record, warranty card and return these items directly to us immediately.

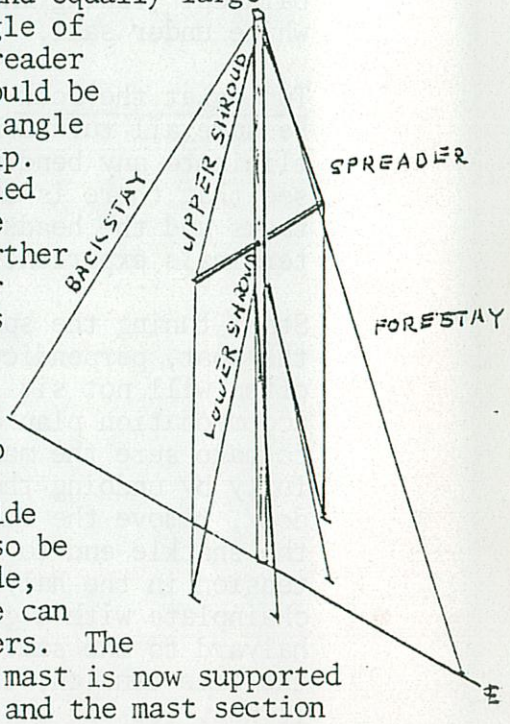
We know you will have many satisfying and adventurous hours of sailing in your Chrysler Yacht.

RIGGING

General Desceiption

To do an effective job of mast tuning, it's important that you understand the principals involved. Let's start with some definitions and some explanations. The trem' standing rigging' refers to fixed pieces of stainless steel wire or rod which support the mast. If they offer principally fore and aft support, they are called 'stays (backstay, forestay, etc.). If the support is principally transverse, they are called 'shrouds'.

The shroud which rins from the masthead to a chainplate on the deck near the rail is called the main or upper shroud. If it were to travel the route directly, then the angle of support would be so fine as to induce extremely large tansile forces in the shroud and equally large compressive forces in the mast. To increase this angle of support to the desirable 12 degrees or greater, a spreader is inserted approximately half way. The spreader should be angled upwards approximately 5 degrees to bisect the angle formed by the shroud as it bends over the spreader tip. A horizontal spreader, or worse still a spreader angled slightly down, is not only unsightly but unseamanlike and dangerous; the spreader may be forced to slip further down the shroud resulting in the loss of the spreader and thus collapse of the mast. This spreader becomes a compressive member and when properly loaded would tend to push the middle of the spar to leeward. To avaod the resulting leeward bow, a lower shroud is installed running from the mast at the spreader to the deck near the upper shroud chainplate. Although the principal purpose of the lower shroud is to provide atwartship support, some fore and aft support can also be achieved at times by adding two lower shrouds per side, one running forward and the other aft. Therefore, we can have a single spreader rig with single or double lowers. The addition of the spreader and lower shrouds means the mast is now supported at more places transversely than it is fore and aft; and the mast section itself need not be as strong transversely as it does fore and aft. Thus, almost all keep boat masts have a greater fore and aft dimension than transverse.



Spars

It is an obvious extension that the more spreaders and shrouds used transversely, and intermediate forestays and running backstays used longitudinally, the smaller the allowable mast section will be. This can be advantageous as it reduces the weight and windage of the mast, and thus the undesirable influence of the mast on the mainsail. The smaller the mast section, the better the flow over the main. However,

Spars (cont'd)
to keep such a small section standing would require a complex maze of wires. The spar would be difficult to keep in tune and the running backstays and the intermediate forestays would make tacking difficult. Therefore, except in the case of very sophisticated racing craft with large experienced crews, we design the rigs as simple as possible to reduce the degree of attention required. However, even while maintaining an uncomplicated rig, we have attempted to reduce the drag of the spar and its detrimental influence on the main by using our own highly developed triangular and diamond-shaped sections, and extruded aluminum airfoil spreaders.

Tuning involves adjusting the tension in these shrouds and stays so that the mast will remain straight under most sailing conditions and at the dock with the desired amount of rake for comfortable helm balance. Tuning involves two phases - tuning at the dock, and turning while under sail.

Tuning at the Dock
Be sure all turnbuckles are equipped with toggles at their base to eliminate any bending load on the swaye and turnbuckle threads. Also see that there is a toggle at both ends of the forestay. As the boat tacks and the headsail loading varies from side to side, the forestay terminals experience a much higher fatigue loading.

Start tuning the spar by ensuring that the mast is in the center of the boat, perpendicular to the designed transverse waterline. Boats often will not sit level at the dock due to the distribution of their accommodation plan and the internal weight or location of crew. So to make sure the mast is plumb transversely, slacken the lower shrouds fully by undoing their turnbuckles. If the spar is stepped through deck, remove the mast wedges as well. Take the main halyard and lead the shackle end to a point on the rail or chainplate. Adjust the tension in the halyard so that the shackle just touches the rail or chainplate with a given tension, and then cleat the halyard. Take the halyard to the same location on the other side of the deck and with the same tension, the shackle should just touch the rail or chainplate. It not, let off one upper shroud's turnbuckle and take up on the other to bring the masthead closer to centerline until the halyard shackle touches both points u der the same tension. The particular part of the rail or deck you choose as your reference point is not important as long as it is the same point on each side. After the mast is centered transversely, tighten both upper shroud turnbuckles uniformly, one full turn on one side, then one full turn on the other. Repeat until the turnbuckles become difficult to turn. Tighten up the lower shroud turnbuckle so that almost all of the slack is removed. That is, the shroud itself should be able to flop about 1" in each direction. Sight up the trailing edge of the spar to make sure that it is still straight.

Tuning at the Dock (cont'd)

Now check your rake. Rake is the fore and aft angle of the spar. The spar on the CY-27 should be set up with a perfectly plumb angle of rake. Fine tuning of your spar should be done in consultation with your dealer or local sailmaker.

Forward rake should be avoided. Again, use the main halyard to check the amount of rake. Waif for a reasonably calm day and hang a weight, such as a hammer, a wrench or even a bucket of water, from the main halyard at approximately gooseneck level. The fore and aft distance between the halyard and the mast at the gooseneck is the amount of rake. Ease off the forestay turnbuckle and tighten up on the backstay turnbuckle or versa until the desired rake is achieved. Now, pin the forestay turnbuckle and the backstay turnbuckle. Unless the rake has to be readjusted in the future to correct the helm balance, these will need no more adjusting. Any additional tensioning can be applied by the backstay adjuster.

Re-install the mast wedges if the mast is required, and step through deck and pin the other turnbuckles.

At this time, check that the ourboard end of the spreaders are taped and padded to avoid wear on the genoas when tacking. You are now ready to go sailing to complete the tuning procedure.

Tuning While Sailing

Select a pleasant sunny day with a steady 8 to 12 knots of breeze. Put the boat on a starboard tack, close hauled. Sight up the luff groove of the spar. If the mast seems to fall off to leeward at the spreaders, luff up slightly and tighten the starboard lower shroud a couple of turns. Put the boat back on the wind and check the spar again. When the mast appears straight, put the boat about and do the same on the port side. Check the following carefully. First, if the upper shrouds are at optimum tension, when at about 15 to 20 degrees of heel, the leeward rigging should begin to look slack. This is quite natural and should never be tightened. Secondly, when close hauled under genoa and main, the forestay will appear quite sagged. Tensioning the backstay will reduce the amount of sag, but the sag itself can never be eliminated. As a rule of thumb, the maximum static backstay pressure should not exceed one-quarter the backstay breaking strength

The mast should also be fixed at the step by either pins or wedges to prevent fore and aft movement and to hold the mast in the step.

If your boat is equipped with double lowers, as in the case of the 27 Chrysler yacht, the forward lower shrouds should be tightened marginally

Tuning while Sailing (cont'd)

more than the aft lowers to encourage a bit of a forward bow to mast. This forward bow is counteracted by the luff of the mainsail and the aft lowers. Aft bow should not be allowed. It destroys the sail shape and is countered only by the forward lower shrouds. If you find that the mast, whether or not you have double or single lowers, tends to bow aft rather than forward under backstay tension, the problem may then lie in your mast step. For example, if the mast is resting on its forward end, it may tend to bow aft. There, to correct this situation, wedge up the after part of the heel to encourage a forward bow.

If yours is a brand new boat, chainplates may seat and the rigging may stretch to the extent that tuning from scratch will be necessary in a matter of weeks. However, after this initial working-in period, you will find that your boats tends to hold this tune for fairly long periods of time. After becoming used to the feel of the boat, you may wish to ei her increase or decrease the amount of "weather helm" - that is, the amount of feel on the tiller. Any sailboat, when going upwind, should have a tendency to 'round up' slightly or head into the wind if you let go of the helm. However, if you're constantly fighting the boat in order to hold her off the wind, you have too much weather helm. This can be alleviated by taking some rake out of the spar; i.e., raking the spar further forward, and thus moving the center of effort of the sailplan further forward. If you find when sailing upwind that the boat tends to fall off the wind and you are constantly having to push her to weather, then you probably have lee helm. This can be overcome by putting a bit more rake into the spar.

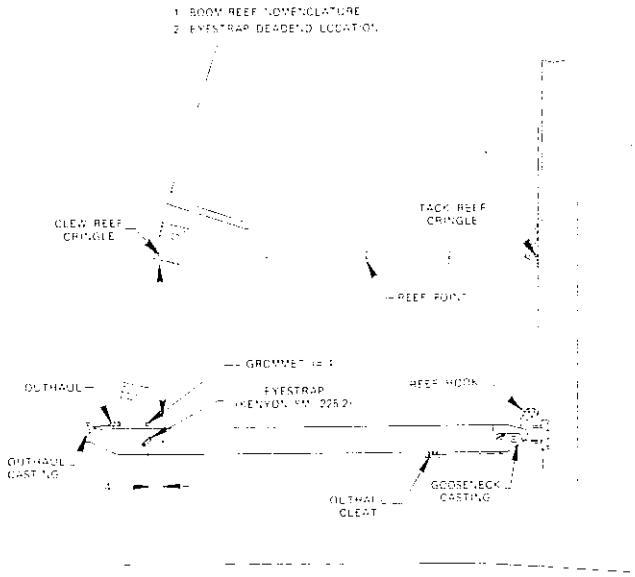
With constant tuning as the season progresses, your boat performance will improve. The boat will feel more comfortable to sail. You will find that tuning is a bit of an art; you will begin to notice subtle changes in the behaviour and response of your boat as you make subtle changes in tuning. The important thing to remember is to go about things in a slow and orderly fashion, and before you make any changes, make sure it makes sense in your own mind.

Kenyon Marine

KENYON INTERNAL BOOM SYSTEMS

Kenyon now offers its new internal boom systems in three different sizes. Our 'D', 'E' and '3550' sections use newly designed end castings which internalize outhaul, jiffy reef lines and topping lift. The outhaul casting houses three sheaves and has a clevis pin attachment point for the topping lift. The gooseneck casting houses three internal exits for outhaul and reef lines.

The gooseneck consists of a rugged stainless steel universal block, a tack bracket with three position tack location, and welded reefing hooks. This system offers a clean, simple and efficient method of boom controls. Since this system may differ from what you have been using, follow these instructions for efficient operation.



How to Setup Boom

1. A deadend for the reef line must be installed (unless 3550 boom is being used and then you can tie the reef line around the boom in proper location). This will vary in location depending on the cut of the sail and the reef location in the sail.
2. To determine the location of the deadend, lower the mainsail at the dock to the reef position. Place tack reef cringle on reef hook provided at gooseneck. Stretch sail tight by pulling on the clew reef cringle towards the outhaul. Mark position of clew reef cringle on boom when sail is tight. From this mark, measure 4" towards outhaul and mark on boom. At this point install an eyestrap (Kenyon SM-225-2) using (2) 10-24 x ½" round head machine screws. An alternative deadend can also be a grommet installed by your sailmaker in the foot tape of the mainsail in the same location as described for the eyestrap.
3. Use similar method to locate 2nd reef deadend point.

SEE DIAGRAM

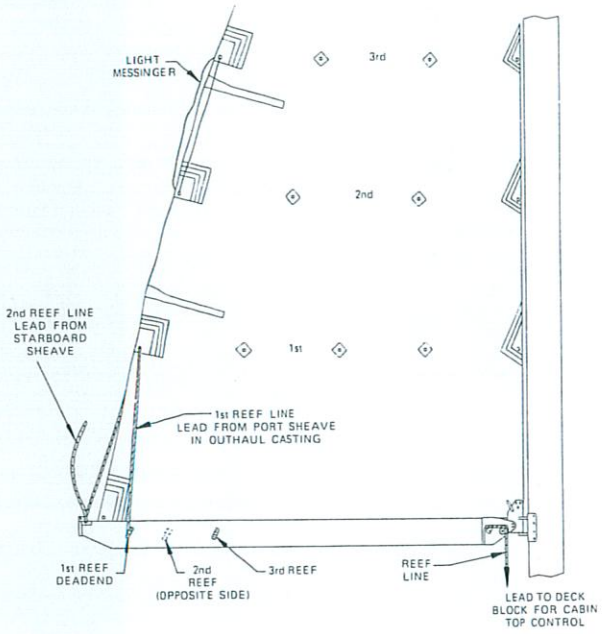
Rigging the Reef Line

1. Take reef line from outhaul casting, up through clew reef cringle and back down to the eyestrap on boom (tie bowline in eyestrap).
   1a. Alternative method - take reef line from outhaul through clew reef cringle back down *and* around boom. Pass end line through grommet in foot tape of main and tie figure eight knot or timber hitch.
2. Use similar method to rig 2nd reef line (use available 2nd outside sheave in outhaul casting).
3. If you have a third reef point, rig an endless messenger between the 2nd and 3rd cringles with a short end loose as shown. After you've put in the 2nd reef, untie the now unused first reefing line, tie it to the messenger and pull it through the third cringle and tie to the appropriate eyestrap (or through the grommet in the foot of the sail if you prefer this method) and you are ready to set the third reef.

SEE DIAGRAM

Reefing Procedure

1. Ease boom vang and mainsheet - make sure topping lift is secured in position.
2. Lower main halyard so that tack reef cringle can be placed on gooseneck reef hook. Retension main halyard when hooked in place.
3. Clew reef line must now be tensioned so that clew reef cringle is brought down snugly against boom.
4. Readjust mainsheet and boom vang.
5. Use similar method for 2nd reef.
6. The reefed folds of cloth can be rolled up and secured with short lines through the reef points and around the folds and boom. Be sure to untie these first when preparing to shake out the reef.
7. UNREEFING - just reverse this process to unreef mainsail.



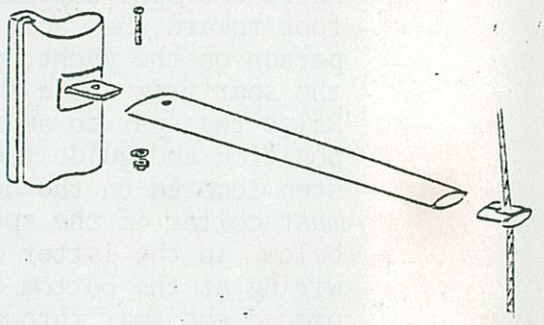
NOTES:

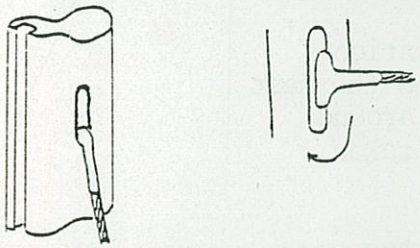
Kenyon Marine
AN OUTDOOR SPORTS COMPANY
P.O. Box 308, Guilford, Connecticut 06437 (203) 453-4374
2730B South Main Street, Santa Ana, California 92702 (714) 546-1101

After Launching

Spars are stepped by two methods, depending on a yacht's design. Some spars are stepped directly on the deck of the yacht, with the imposed load being transferred to the keel by means of a support inside the yacht. Other spars go through the deck at a mast collar and are seated on a mast step located on top of the keel. The procedure for stepping the spar basically is the same for both types.

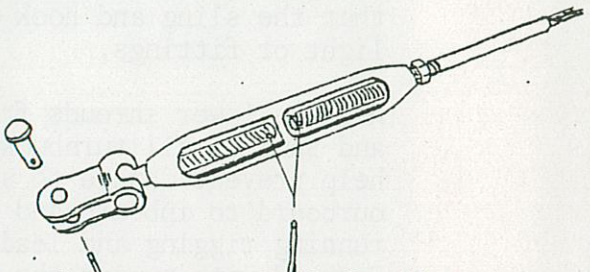
The spar first should be laid out on two or more saw horses and checked carefully. Spreaders should have the pins in place and all standing rigging secured at the proper locations. Halyards must run freely and head sheaves turn easily.. Install and check running rigging. Examine halyards for wear and replace if necessary. The Mast head, plus any mast head wind instruments should be checked. Main upper shrouds should be positioned in spreader ends and locked.





Tie all running rigging together and secure tightly to the spar with light line at a point that will be just above the mast collar when the spar is stepped. tie the forestay, backstay and six shrouds together in a separate bundle and secure with light line to the spar at a point that will be approximately three feet above the deck when the spar is

Remove cotter pins and clevis pins from all turnbuckles and place in a container for future use. Back off all turnbuckles to the maximum. Carefully locate and secure the yacht adjacent to a crane, making sure that the mast step is within the radius of the crane arm. Place the spar on saw horses adjacent to the crane.

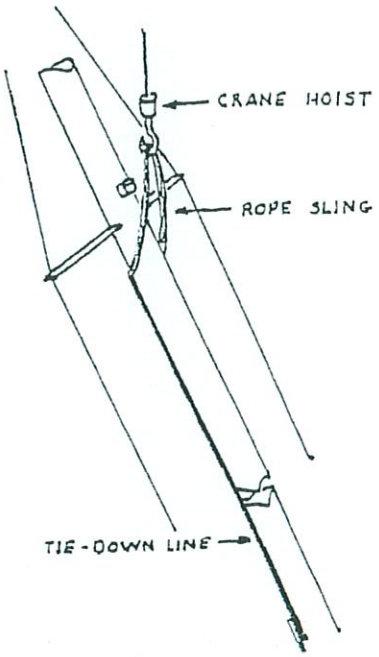


Prepare a rope sling which will take the weight of the spar. A 10 ft. line, minimum 5/8' Dia. tied in a loop will suffice. Place the loop around the spar below the lower spreaders (OUTSIDE THE STANDING RIGGING). THE FORESTAY, BACKSTAY AND MAIN SHROUDS MUST BE OUTSIDE THE SLING. Make fast a 1/2" tiedown line to the sling, securing the other end to a winch or cleat at the bottom of the spar. This line prevents the load of the spar being carried by the spreaders when the spar is raised to a vertical position. It also

After Launching (con'td)

facilities pulling down the sling after the spar is stepped. Attach the lifting hook to the sling. In some snstances, the crane height may not be sufficient or the sling must be positioned below the mid-point of the spar. Additional persons may be neceaaary to offset the weight above the sling and guide the spar into position. At least three persons should be present when stepping the spar in addition to the crane operator. Position one person at the foot of the spar to take the weight of the foot as it is raised and to guide the foot toward the yacht. A second person should clear the rigging as the spar is beside the mast step to guide the foot of the spar into position.

Raise the spar carefully, guiding the foot toward the yacht. Position one person on the yacht; pass the foot of the spar from shore to this person. Raise the spar to an almost vertical position and guide the foot into the step located on the deck or through the mast collar if the spar is stepped below in the latter case, all electrical wiring at the bottom of the spar must preced the spar through the collar. With the foot of the spar through the collar, free the forestay, backstay and main shrouds, ensuring that all are clear of the crane lifting cable. Station a person below to guide the spar into the mast step and place the chocks or wedges around the foot before the weight is fully taken on the step.



With the weight of the spar on the step, attach the forestay, backstay and port and starboard main shrouds. Place the wedges around the spar at the collar to support the spar at this point. Lower the crane lifting cable sufficiently to allow the sling to be lowered and released, taking care that the sling and hook do not damage the spar light or fittings.

Release lower shrouds from their lashings, connect the lower shrouds and snug up all turnbuckles. Replace clevis pins and cotter pins. To help prevent damage to sails, insert all clevis pins fore to aft or ourboard to inboard and tape over the cotter pins. Release all running rigging and lead to the appropriate blocks and winches. Proceed with tuning the spar at the dock.

To unstep the spar, reverse the above procedure. Before removing the spar for winter storage, make a diagram of the location of the running rigging to serve as a guide when the mast is restepped. DO NOT use masking of filament tape on the spar. DO NOT expose a spar wrapped in plastic to sunlight. It is better to leave a stored spar unwrapped

Fitting Out

Prior to Launching

The exterior of the boat should be sponged down with soapy water to reveal any scratches and damages. These areas should be repaired prior to launch by the owner or the yacht yard.

Wax the hull exterior. An idea for polishing the hull is to mix into the wax, if in paste form, a pigment for tinting. You can buy small tubes of pigment the same color as the hull at a paint supply store. Thus, when you wax the hull, the wax will fill in any small scratches and disappear when you polish the hull.

At this time bottom paint the hull. Your marine store or yacht yard can assist in the correct paint.

Check and clean the propeller and check seal leakages on your outboard or inboard drive unit. If a folding propeller is installed, ensure that the blades open and close readily. If the yacht has an inboard with strut and shaft, check for shaft play and in addition check the alignment.

Examine all deck fittings and service all winches.

Check that batteries are fully charged, battery terminals are clean and all electrical connections are secure.

Check that all thru hull fittings are secure and that valves open and close easily. Prior to launching, all thru hull valves should be closed to prevent any leadage.

Whether the yacht is outboatd or inboard powered, install new spark plugs. On inboards replace engine block and water pump drain plugs. Have the water pump impeller replaced. Add a small can of gasoline anti-freeze to the gasoline tank. Remove any winter cover protecting the carburator and the plug or cover at the stern exhaust port.

Sailboat Safety Equipment

Safety should be the first concern of every sailor and certain items should always be carried on each boat to ensure the safety of every person on board. The items listed below are generally considered an absolute necissity on each yacht.

Fire Extinguishers

At least one type B.C. 2 1/2 lb. extinguisher should be carried on board. Depending upon the size of the yacht, many owners carry two or three extinguishers located in the yacht where easily accessible. Each extinguisher should be certified with regular inspection and testing dates listed on the unit.

Life Jackets

One life jacket for each member of the crew must be carried. They should be United States Coast Guard approved life jackets.

Life Bouys

Many yachts carry life buoys of the 'horseshoe/pony ring' type which can easily be stowed in a bracket on the stern pulpit or adjacent to the helmsman. This life buoy should have a gravity actuated strobe or other bright light attached to it and a long line, of which the other end is attached to a man-overboard pole. This pole is stowed on the life line of the yacht and goes overboard after the life buoy.

Life lines

Life lines should be checked regularly to ensure their integrity. Always be sure that the access gate (if installed) is closed before leaving the dock. Check carefully that the swage fittings are not pluling and the lock nuts on the bottle screws are tight.

Safety Harnesses

Just as with life jackets, a safety harness should always be worn by anyone on deck at night and during heavy weather sailing. These harnesses allow the wearer to be attached to some permanent fixture on or above the deck. They should be of good quality and be able to take the full weight of the wearer falling several feet.

Flashlights

The yacht should be equipped with a number of flashlights in good condition with well-charged batteries, not only as a convenience in moving about the boat at night or in trimming sails, but as a safety precaution in locating people overboard. At least two of the lantern-type should be available on the boat.