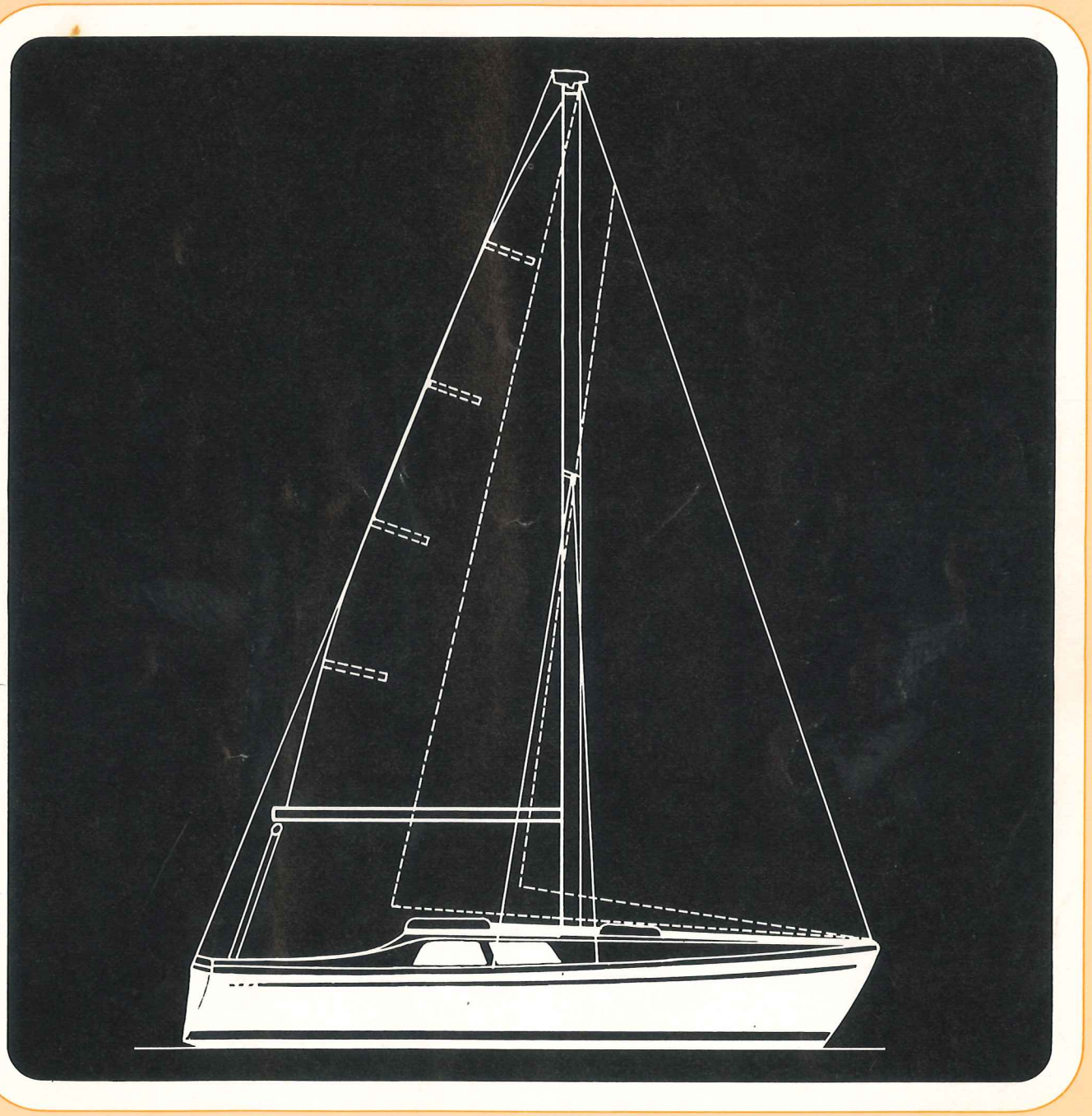
THE CHRYSLER 22

Rigging and Outfitting Your Chrysler Sailboat



CHRYSLER
Marine

PRICE $1.95 ORDER NO. 13710

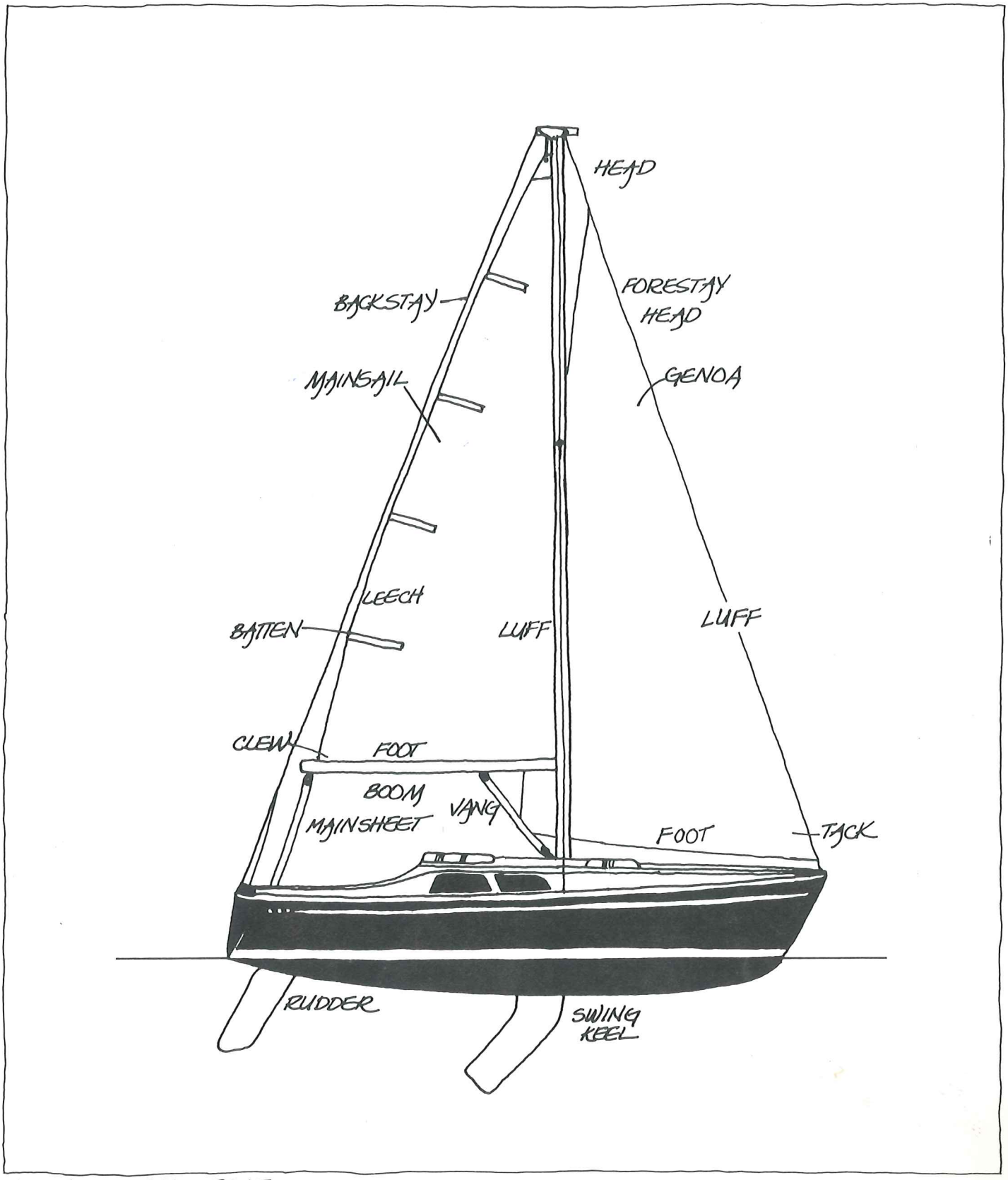


FIG. 1 THE BASIC BOAT

Hey skipper! Congratulations on your purchase of a Chrysler C-22 cruising sailboat. She's been designed and engineered by Chrysler Marine division with Halsey Herrshoff as the consulting designer — an unbeatable combination. The C-22 will give you the utmost in cruising pleasure and the pride of ownership befitting a Chrysler Marine sailor. Her sleek lines will slice through any sea and you are just the skipper to handle her. But, to handle her properly you have to know her below and topside. So, be sure to read this set of rigging instructions carefully and completely to ensure a safe and pleasant voyage.

C-22 STANDARD PRODUCT FEATURES

General
Cove and waterline stripe
Stainless steel keel pennant
Hand-laid fiberglas hull and deck
Honeycomb sandwich deck construction
Positive foam flotation
Rear mast carrier
Retractable inboard rudder

Cockpit
Clean sweep deck
Three-piece teak door with hasp
Full-length toe rails with integrated rub rails
Large main and forward hatch
Large cockpit lockers with hasps
Large cockpit scuppers (drains)
Deep cockpit sides

Cabin
Dinette and berth cushions
Large hatches for ventilation
Sleeps five
Non-skid cabin floor
Under-step winch location
Large storage areas
Full inner cabin liner
Large cabin entryway

Hardware
Screw-type adjustable turnbuckles on stays and shrouds
Forward winch location
Stainless steel bow eyes and stern rings
Adjustable tiller
Sail slides
Roller-bearing block outhaul adjustment
Mainsheet traveller
Harken roller bearing hardware

Rigging & Sails
Standard main and 110% genoa (lapper)
Heavy duty easy-step mast section
High aspect-ratio rig
Full masthead rigging
Heavy duty stays and shrouds
Anodized mast, boom, and toe rails
Rectangular boom
Split backstay
Wire halyards with rope tails
Dacron running rigging
Dacron sails with 2-year sail guarantee

RIGGING PACKAGE

The Chrysler C-22 comes complete, as standard in three separate units:

a) the boat
b) the mast package
c) the rigging box; which contains the rigging, sails, small parts bags 1 thru 3, and this set of rigging instructions.

Mast Package	Parts #s
1 mast assembly 333	815855
1 boom assembly 333	815721

Rigging Box Assembly 333	
A. 2 spreaders 333	844361
B. 2 halyard assemblies 26'6"	815853
C. 1 forestay assembly 28'5½"	815852
D. 1 backstay assembly 24'8"	815851
E. 2 low backstay assemblies 5'	815850
F. 2 shroud assemblies 27'¾"	815849
G. 2 lower shroud assemblies 13'11"	815848
H. 1 sail set	25405
I. 1 small parts bag #1	815856
J. 1 small parts bag #2	815825
K. 1 small parts bag #3	815826
L. 4 plastic battens	25405
M. 1 winch handle	25343

A further breakdown of small parts bags #1 thru #3 continues:

Small Parts Bag #1	
A. 1 mast pin for erection	830438
B. 1 swivel fork shackle	25377
C. 2 clevis pins ¼"x1½" s/s	25341
D. 1 ring s/s 2" DIA.	25332
E. 6 clevis pins ¼"x9/16" s/s	25409
F. 4 clevis pins 3/16"x½" s/s	25196
G. 2 fast pins ¼"x1⅝" GRIP	25296
H. 4 cotter pins ⅛"x1¼" s/s	25288
I. 2 keeper rings	25255
J. 4 cotter pins 1/16"x¼"	25035
K. 6 cotter pins 3/32"x¼" s/s	25328
L. 1 cotter pin 1/8" x 2"	25414
M. 2 polish strips	815889

Small Parts Bag #2	
A. 1 fiddle cam block	25318
B. 1 hark block with becket	25317
C. 1 bullet hark block	25294
D. 2 single hark blocks	25260
E. 2 small 250 shackles	25255

Small Parts Bag #3	
A. 2 outhaul/downhaul lines	828631
B. 2 ⅜" jib sheets 333/35'	828630
C. 1 ⅜" mainsheet 333/35'	828629
D. 2 rope halyard tails 333/29'6"	828628
E. 1 set of rigging instructions	13710

FIG 2-THE RIGGING BOX

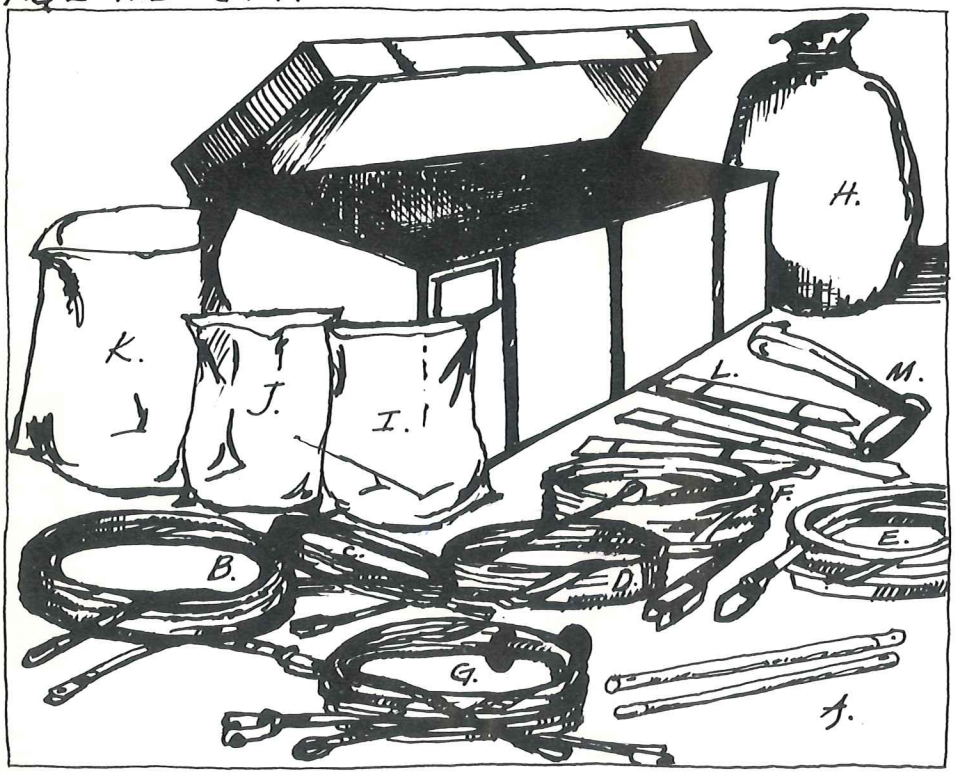
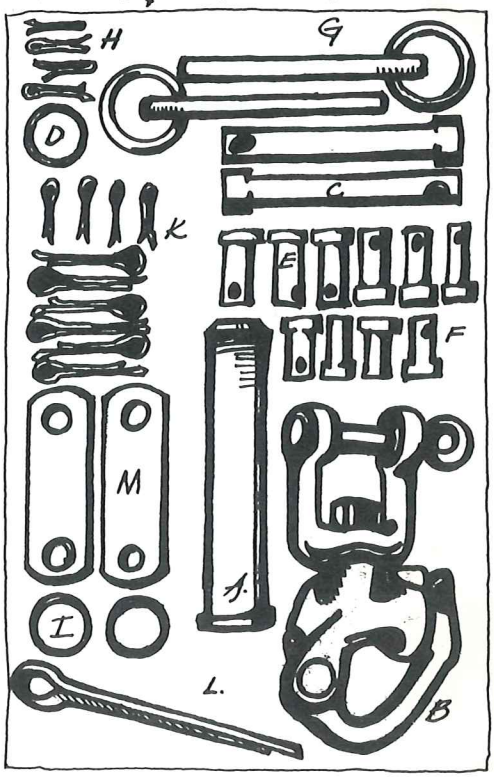


FIG. 3-SMALL PARTS BAG #1



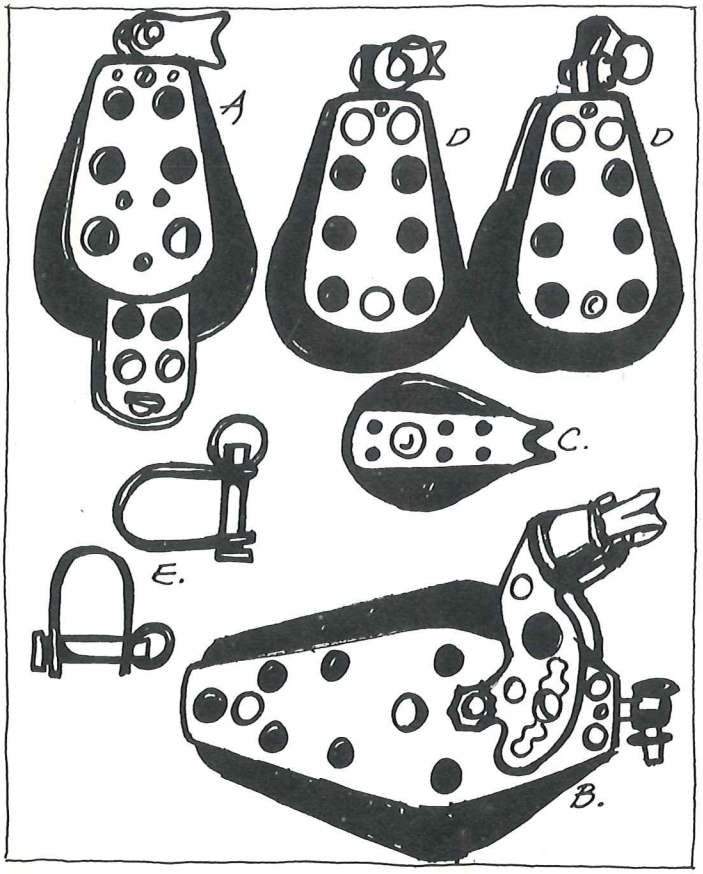


FIG. 4 SMALL PARTS BAG #2

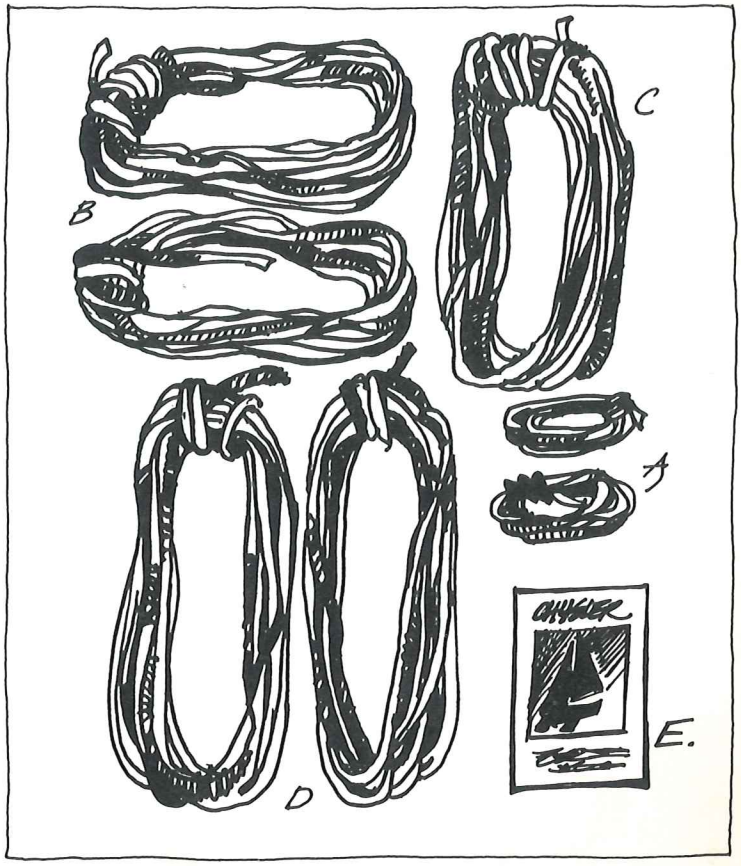


FIG 5.-SMALL PARTS BAG #3

READY ON THE RIGGING

To realize the best possible performance from your C-22 it is imparitive to have the craft rigged and tuned properly. Before attempting to rig the C-22 it is suggested that you read these rigging instructions from start to finish and familiarize yourself with the components that comprise the rigging packages.

When rigging the boat for the first time it is desirable to set all the screw-type turnbuckles to a rather slack position.

SPREADER INSTALLATION

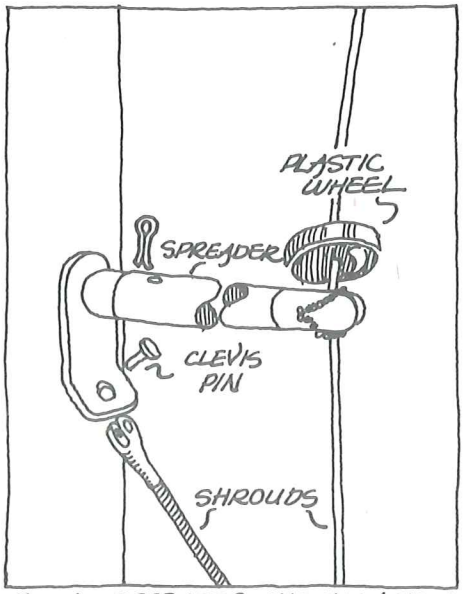


FIG 6 - SPREADER INSTALLATION

1. Place spreaders, #817253, slot outboard, onto mast and align spreader slot vertically, parallel to mast.
2. Making sure the spreaders are tilted towards the top of the mast, secure spreader bars to mast tang with a cotter key.
3. Sort shrouds. You will find; 2 lower shroud assemblies, #815848; 2 shroud assemblies, #815849; 2 lower backstay assemblies, #815850; 1 backstay assembly, #815851; and 1 forestay assembly, #815852.
4. Making sure the plastic wheels are above the spreader bars, attach shrouds to spreader ends using the seizing wire provided. The plastic wheels keep the jib from fouling on the spreader tips.
5. To turnbuckle end of backstay attach 2 stainless straps, #815889, by removing clevis pin. And insert straps with the larger hole end into jaws and replace clevis and cotter pins.
6. Attach 2 short wires, #815850, to straps through smaller strap holes using clevis and cotter pins.

MAST ASSEMBLY

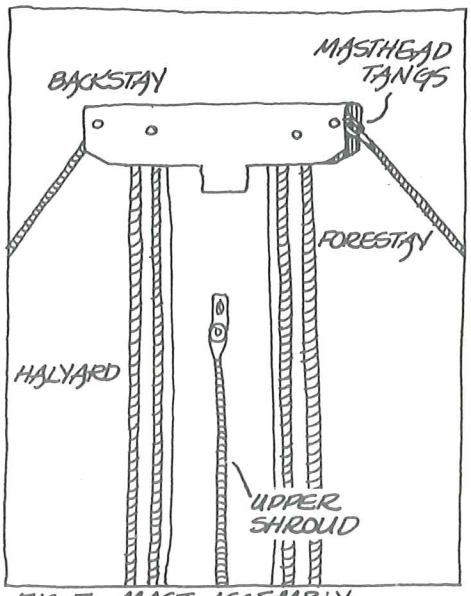


FIG 7 - MAST ASSEMBLY

1. Run out turnbuckles until half of threaded portion is exposed. Attach backstay, #815851, to toggle at masthead on aft side. Attach forestay, #815852, to forward masthead toggle in same manner.
2. Attach lower shrouds, #815848, to masthead tangs below spreaders. Use 5/16" clevis pin to secure, run pins through hole so that cotter pins are underneath tangs on mast side. Attach upper shrouds, #815849, to masthead tangs in the same manner.
3. Insert main halyard, #815853, with masthead grooved side facing you, place thimble end of wire halyard in right aft side of mast and leading down to secure halyard.
4. Insert jib halyard, #815853 in same manner, but in opposite direction. Enter thimble left forward side, exit on aft side, and lead down aft side of mast.
5. Tie or splice rope halyards, #828628, to thimble ends of wire halyards and your C-22 mast is ready to place on the boat.

MAST ERECTION USING GIN POLE METHOD

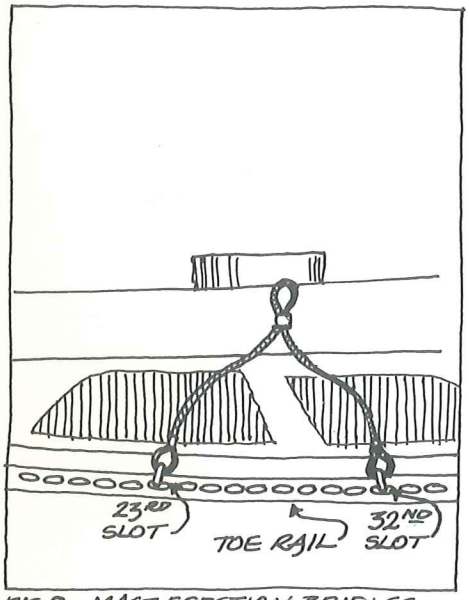


FIG 8 - MAST ERECTION BRIDLES

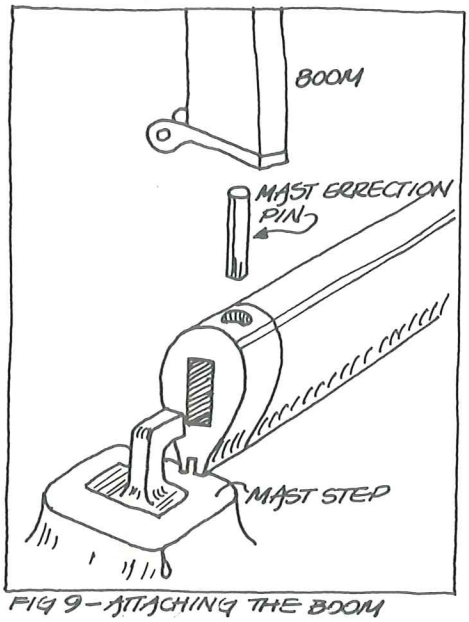


FIG 9 - ATTACHING THE BOOM

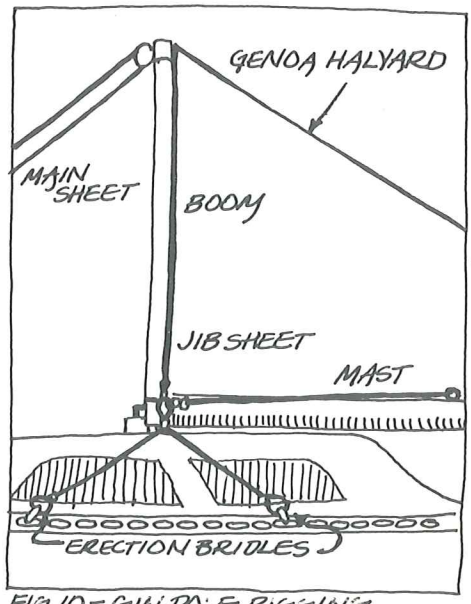


FIG 10 - GIN POLE RIGGING

Step 1

The two main advantages of raising your C-22 mast using the gin pole method are: One, it will save your back; and two, it is the safest and easiest way to hoist the mast. Please note that the erection bridles used in this section are optional accessories and do not come as standard equipment.

1. Rest mast on boat, grooved side down, with mast foot hooked to mast step and support mast aft with mast carrier or stern pulpit.
2. Attach lower shrouds to inner chain plate eyes and inversely attach upper shrouds to outer chain plate eyes.
3. Attach ends of divided backstay to eyes on transom top. Align to avoid twisting when mast is raised, and inboard of carrier or stern rail.
4. Shackle the two optional accessory erection bridles, #950, to toe rails. Forward end of bridle attaches to 23rd slot from bow. Aft end of bridle attaches to 32nd slot from bow.

Step 2

When using the gin pole method to raise the mast, the purpose of these erection bridles when used with the jib sheet, is to provide support for the boom when it is standing erect in the mast foot. This will prevent the mast from swinging off the centerline as the mast is raised.

1. Insert the stainless steel ⅝"x3" mast erection pin, #830438, into the hole at the base of the mast foot.
2. Locate mid-point of jib sheet, #828630, and tie center to gooseneck on forward end of boom.
3. Attach genoa halyard to 16" piece of line and secure to gooseneck. Attach mainsheet boom block, #25317, at bale on gooseneck at boom end.
4. Attach fork snap shackle, #25377, to aftermost hole in bow plate (forestay fitting).
5. Attach mainsheet fiddle block with jam cleat, #25318, to snap shackle, #25377. Reeve mainsheet, #828629, through mainsheet blocks.
6. Holding the boom vertically, tighten and cleat both mainsheet blocks attached to the bow plate and genoa halyard.

Step 3

The boom should be standing, securely held fore and aft by the genoa halyard and mainsheet system. To prevent the mast from falling off due to the weight of the mast that overhangs the stern of the boat; secure a line to the toe rail in front of the mast at the hatch mid-point, pass through the ring in the mast groove, and secure tightly to the opposite toe rail.

1. Secure the two ends of the jib sheet that are tied to the gooseneck at the boom top to the center eye or thimble of the wire bridles that are shackled to the toe rails. Now the boom is supported by these guy lines and cannot topple sideways.
2. Lead remaining ends of guy lines aft from the center thimble to the strap eye on the mast (located about 7 feet up from mast foot) and tie securely.
3. Check to make sure that genoa halyard, boom and mast guy lines, mainsheet tackle, shrouds, and backstay are properly installed, secured and cleated, and free and clear.
4. Have forestay clevis pin and cotter pin on deck near the bow plate in preparation for fastening the forestay to the bow plate.
5. Take up mainsheet tackle, pulling the boom top forward, thereby raising the

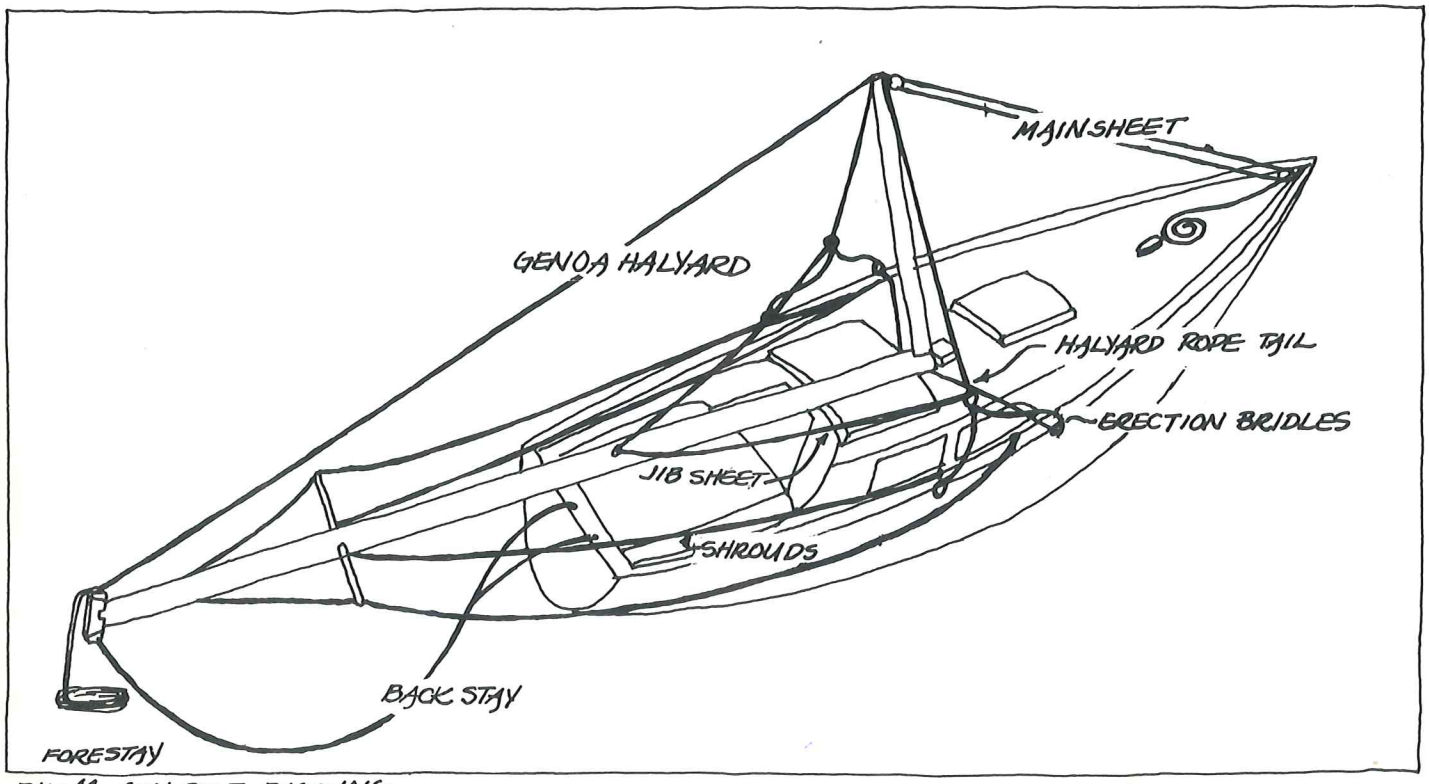


FIG 11- GIN POLE RIGGING

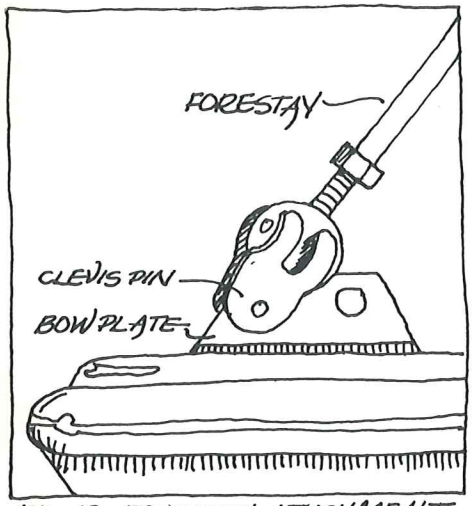


FIG 12- FORESTAY ATTACHMENT

mast. Once up, cleat mainsheet securely when mast is stopped by backstay.

6. Attach forestay to forward hole of bow plate, snap shackle to the rearmost hole. Now begin to tighten turnbuckles to a moderate setting.
7. Remove boom and rigging used for raising the mast and attach boom to the gooseneck fitting.
8. Finally, sight mast from all angles to ensure straightness.

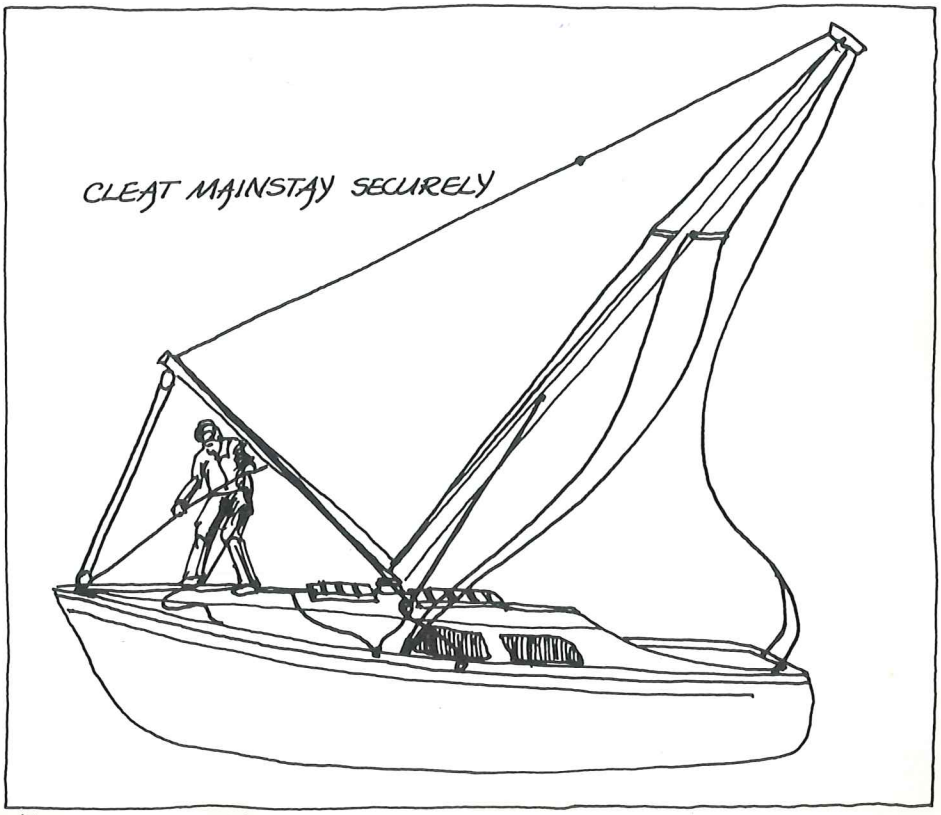


FIG 13- THE MAST RAISING

RIGGING THE BOOM

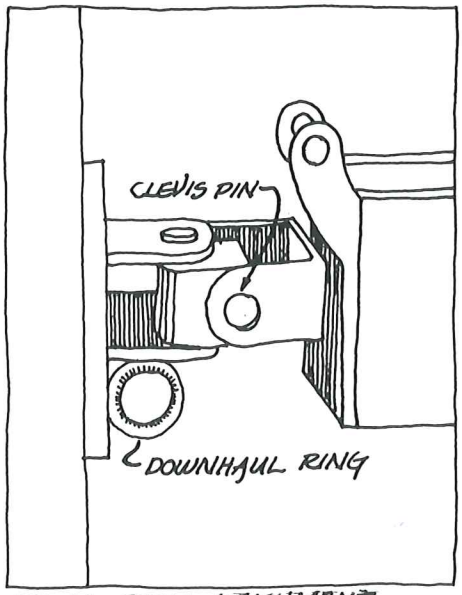


FIG 14 - BOOM ATTACHMENT

1. Attach boom to mast at gooseneck using clevis pin. The boom may be held horizontal by attaching a line from the boom to the backstay.
2. Attach and secure downhaul line, #828631, to bottom of gooseneck.
3. Attach outhaul block, #25294, to the left aft end of boom casting with clevis pin and shackle, #25255.
4. Attach mainsheet boom block, #25260, to the bale on the boom end.
5. Attach mainsheet block with cleat, #25318, to the traveller top.

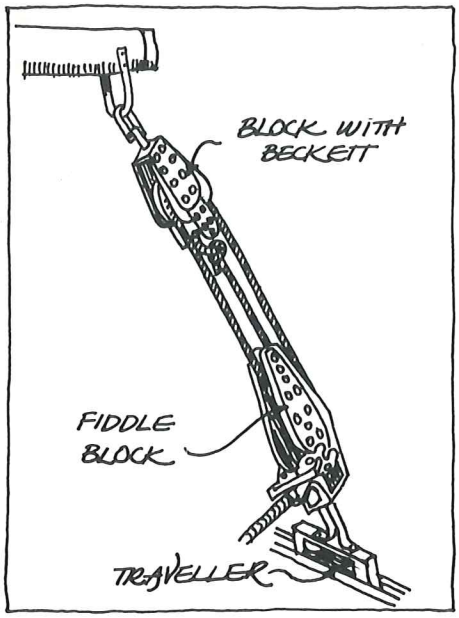


FIG 15 - MAINSHEET ATTACHMENT

RUNNING RIGGING

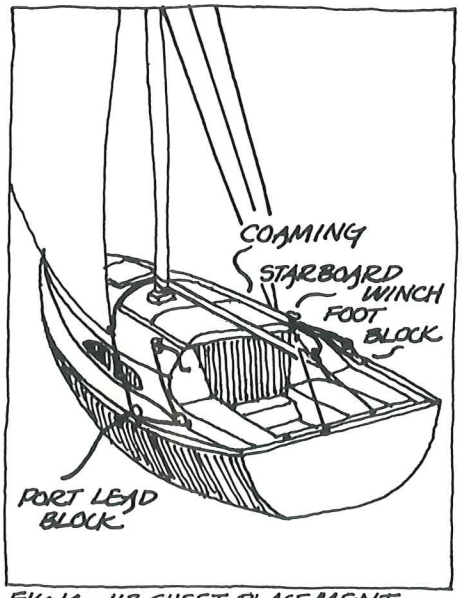


FIG 16 JIB SHEET PLACEMENT

Chrysler Marine has enhanced the efficiency of the C-22 with dacron running rigging. Dacron rigging will carry a maximum load and assures the longest possible life. We have engineered the C-22 to protect against rigging failure, and to provide less maintenance and lower upkeep costs.

Keep all running rigging in good order and neatly coiled for ready use at all times. The tails of the main and genoa halyards should be seized to the cleat at the foot of the mast. This prevents one from loosing the halyard aloft when lowering the sail. Once a sail is raised, the halyard should be coiled and the coil hung off the cleat or tucked between the taut halyard and the mast. When securing a halyard shackle and tail after sailing, it is wise to look aloft to ensure that all parts are clear with no twists.

In light air sailing it is sufficient to have a halyard taut and simply secured to the cleat. The C-22 halyards are proportioned to allow one to easily obtain further tension when conditions warrant. This is accomplished by using a double purchase on the halyard. Once the halyard is almost hoisted, pass the halyard about the bottom of the cleat and back onto itself at the juncture of rope to wire. At this point pass a bite (double loop) of the halyard through the rope loop at the point of connection. This bite is carried back to loop around the bottom of the cleat. Draw taut on the free end of the halyard and you now have a simple double purchase for tensioning.

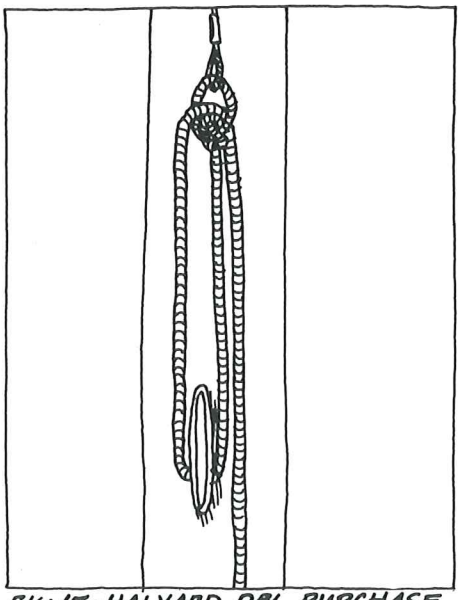


FIG 17 - HALYARD DBL. PURCHASE

The mainsheet should rove through the blocks with no twists in order to ensure free running. The number of blocks make adjustment to the mainsheet quite easy. The free end of the mainsheet is rove through the jam cleat. For safety, keep the free end of the mainsheet neatly coiled in the cockpit.

For use with the genoa the port and starboard jib sheets are fastened individually with a short bowline to the clew of the genoa. Lead the sheets outside of the stanchions and lifelines and through the lead blocks shackled to the rail slots at a position for a good genoa setting. Lead the sheets through the foot blocks on the coaming and forward around the (optional) winches at the aft end of the cabin top and secure to the clam cleats there. Three or four turns around the winch work well in most any weather. A winch handle is employed in heavy air to rachet the sheet in with about four turns on the drum.

The optional boom vang is an important device for holding the boom vertical and excessively freeing the upper leech of the mainsail. The vang should rove through its' blocks without any twists. The blocks are secured on the center boom bale and on the lower mast wire strap. The hauling part works off the lower fixed block in order that the free end can be coiled and secured there.

BENDING ON THE MAINSAIL

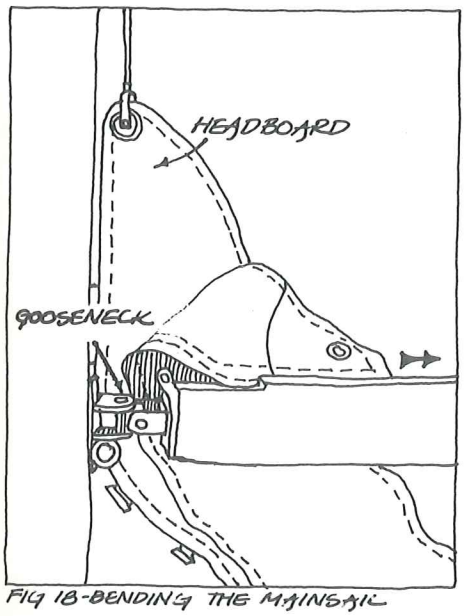


FIG 18-BENDING THE MAINSAIL

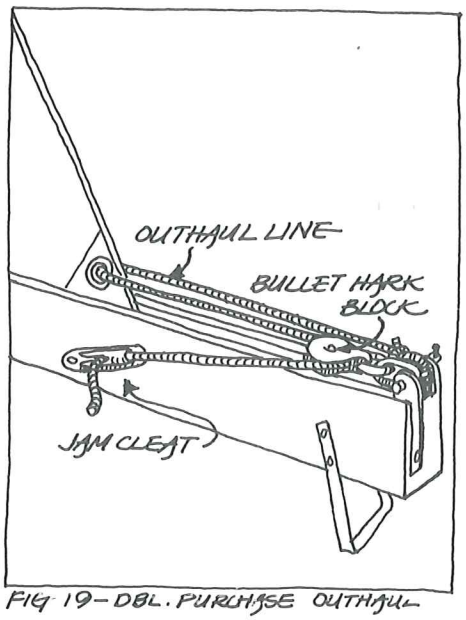


FIG 19-DBL. PURCHASE OUTHAUL

Remove mainsail from sail bag and insert clew end into the slot at the boom gooseneck. Feed the foot of the sail into the boom groove until the tack grommet can be secured with a clevis pin at the gooseneck.

For the most efficient results on the main outhaul a double purchase is suggested. Secure a small line to the right aft side of the boom casting. Run this same line back through the clew, then back through the bullet hark block and secure in the jam cleat on the aft port side of the boom. Use a double shackle on the bullet hark block to allow it to lie flat on the boom.

If the boom end is tied to the backstay, release it to swing freely as the sail is raised so that the wind will not catch the main until you are ready to sail. Insert and push battens all the way in until you can tuck the end of the batten under the nylon flap at the pocket opening. Next, feed the mainsail slugs into the mast groove through the mast gate, working from the uppermost slug to the last slug at the tack grommet. Close mast gate and tighten with fastener screw. Inspect the luff of the sail to be sure it is not twisted and attach the halyard shackle to the headboard. Pulling on the main halyard the sail is raised. Cleat the halyard and bring tension on the luff by downhauling on the boom. Secure this line at the ring on the base of the mast. Generally, less tension is used on the main foot and luff in light winds than in heavier air.

BENDING ON THE GENOA

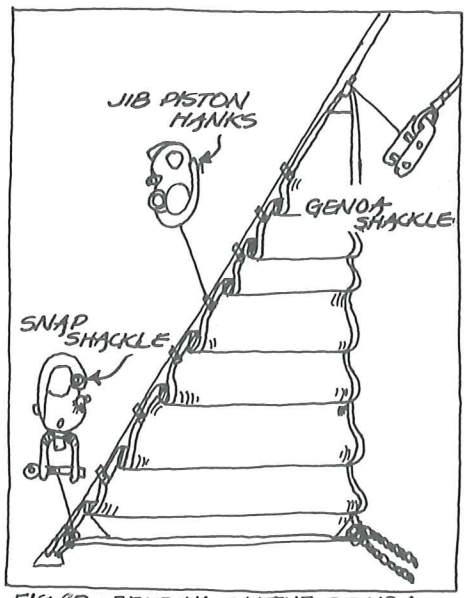


FIG 20-BENDING ON THE GENOA

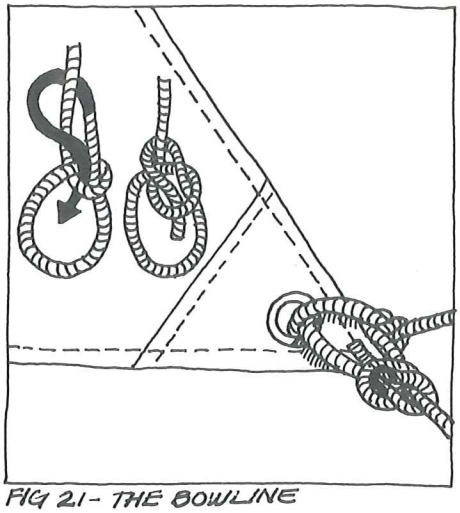


FIG 21- THE BOWLINE

1. Attach and secure genoa foot to the bow plate using a snap shackle #25531.
2. Starting from the genoa foot, rove genoa piston hanks onto the forestay. Starting from the foot ensures that the genoa will not become twisted as it is raised.
3. Attach genoa halyard shackle to the genoa headboard.
4. Attach genoa sheets to the clew using a bowline; and then reeve through toe rail swivel blocks.
5. Now you are ready to hoist the genoa. Be sure that the boat is either on the leeward side of the dock, or out in open water before you raise the sail.

TUNING YOUR CHRYSLER C-22

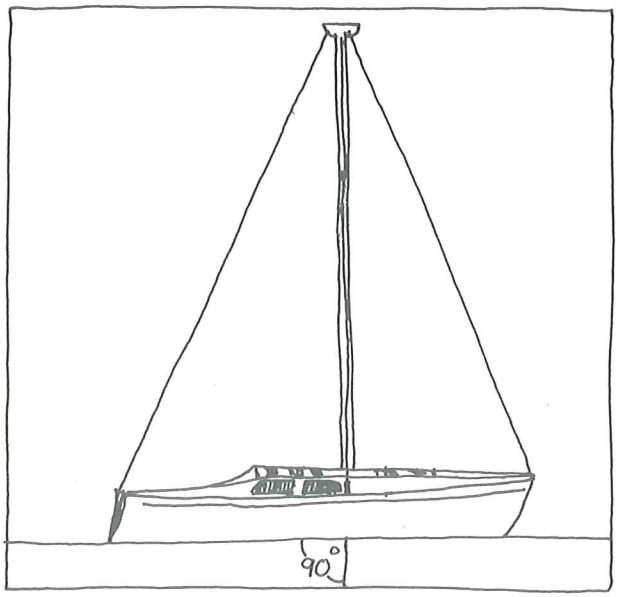


FIG 21- PLUMB MAST

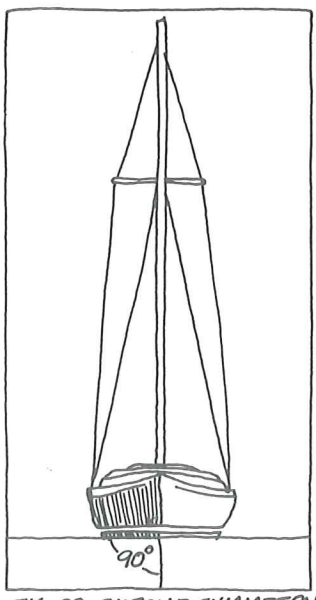


FIG 22- SHROUD SYMMETRY

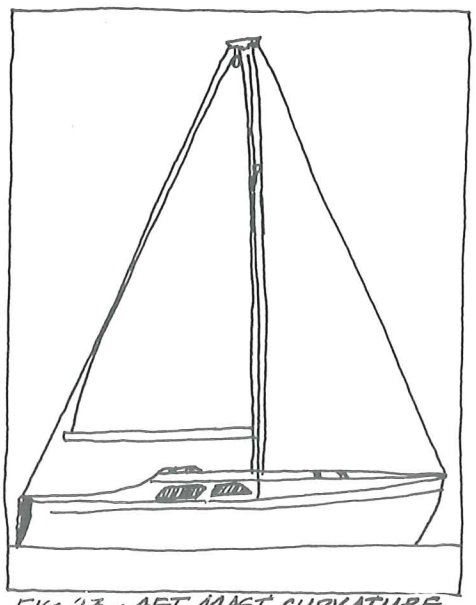


FIG 23 - AFT MAST CURVATURE

The Chrysler C-22 is engineered and designed for the utmost in sailing performance. To realize the full potential of the craft it is necessary to set and tune all rigging properly.

The standing rigging should be set so that the mast is angled plumb, that is, slightly aft from a vertical position from the level waterline. An easy way to check whether or not the mast is plumb is to tie a wrench to the main halyard and use this as a plumb line. When the wrench is completely vertical the mast is plumb. Once this is achieved, tighten the forestay, backstay, and shrouds. If you still find that the mast is angled, make further adjustments in the forestay and backstay until the problem is alleviated.

When the boat is headed into a light, moderate breeze it is the best time to observe your shroud placement. The mast should appear in a straight line from the stern through a centerline toward the bow.

Make an initial setting of your shroud turnbuckles before you set sail. Tighten your shrouds so they are approximately equal in tension on both the port and starboard sides, and follow for both the upper and lower shrouds. The symmetry of the boat is such, that you should be able to count an equal number of exposed turnbuckle threads on the equivalend two sides of the shrouds. This will ensure that the mast is plumb rather than heeled to one side.

Regarding the bend in the mast to either the forward or aft position; it is best to sight up the mast from the grooved side and determine the necessary tensioning and slackening of the upper and lower shrouds. This is easily accomplished with a few trial and error settings.

Once your turnbuckles are set and secured in the approximate positions, you are ready to make the final adjustments under sail. Choose a day with a light, moderate breeze. When under sail the boat will heel somewhat and put a slight load on the rig. Have someone take the helm so that you can take a nice long look at the mast from the foot to the masthead. If the top bends to leeward, tighten the windward upper shroud. If the outer is displaced to leeward, tighten the windward lower shroud (or, if already quite tight, you may want to slacken the windward upper shroud). This procedure is followed until the mast is as close as possible to a straight line vertically.

The easiest way to accomplish this type of mast tuning is to tack the boat or run dead before the wind after making the settings in order to easily adjust the turnbuckles. Then sail back into the wind for a final check. If there are further adjustments to be made, simply tack and repeat the process. This procedure should be followed on both port and starboard tacks until all settings are correct. Take your time to ensure the maximum performance of your boat.

When standing on deck and looking aloft you should notice a slight aft curvature in the mast under sail. This curvature can be further enhanced by applying more tension on the backstay turnbuckle. You have probably noticed the shrouds are placed on deck slightly aft of the mast in accordance with the spreaders, and the spreaders also angle slightly aft of the mast, too. It is the forward component of the inward thrust of the spreaders that causes much of the noticable mast bend in the center plane of the boat. Believe it or not, this is a desirable feature for the proper control and shape of the mainsail while under sail.

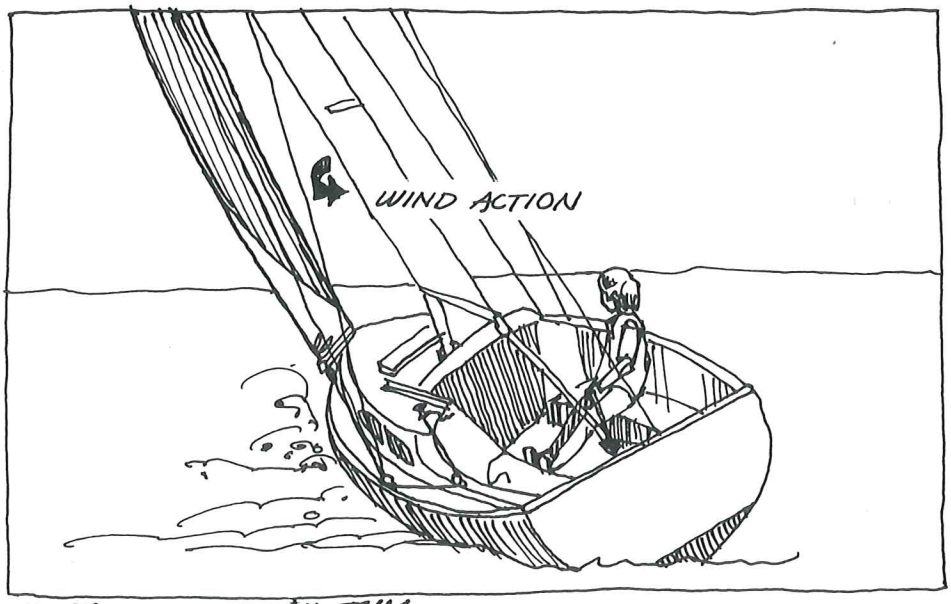


FIG 25 - PROPER SAIL TRIM

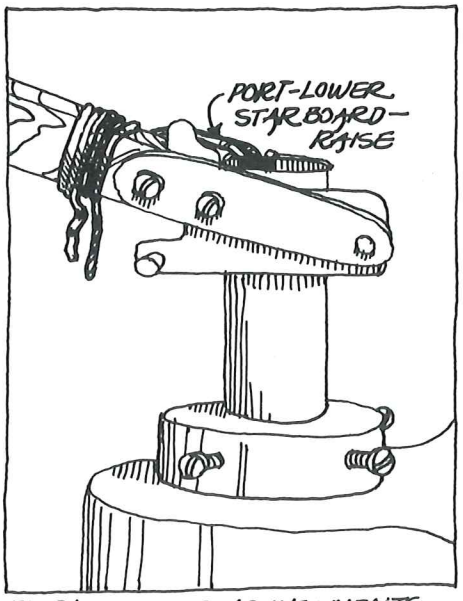


FIG 26 - RUDDER ADJUSTMENTS

When starting to trim sails, lower the swing keel by turning the winch handle under the cabin step in a clockwise direction. The C-22 has an automatic winch brake to stop the winch handle and the keel. The ideal position for the keel is about 60° to the waterline. To accomplish this, let the keel all the way down and then turn the handle about five turns on the winch, then play with the keel until you have the best possible balance onboard. Once you have established this position mark it in some fashion so that you will always know where the boat is properly balanced.

On the C-22 the rudder is adjustable, too. You will notice two lines emitting from the top of the rudder stock. By adjusting these sheets the rudder will move either up or down. Generally, the port line lowers and the starboard line raises the rudder. For future quick reference, tie a double knot in one of the lines to differentiate between the two. To adjust, simply pull on one line or the other and secure to the jam cleat on the tiller top. Always leave the rudder in the full down position while under sail.

Another thing to consider when sailing your C-22 is the state of balance between the action of the air on the sails and the force of the water on the hull, keel, and rudder. The balance of the boat alters because of wind and sea variations, selection and trim of sails, weight shifts, and skipper action. In each particular case there is an appropriate action.

Below are listed some tips to incorporate to give you optimum sailing performance.

1. Keep the sailboat as level as possible by distributing weight both fore and aft. Keep weight to the weather side in all but light winds.
2. Flat sails are best for strong winds and sailing to windward. Full, loose sails are best for light winds and free sailing angles.
3. The boat should be kept at an off-the-wind angle with the sails loose and full before tightening up to sail to windward.
4. The genoa sheet lead block should be set to ensure a constant vertical setting. The genoa luff should occur at both the top and bottom of the sail at the same time.
5. When loosening sheets for better speed while reaching, shift the traveller off-center to leeward. The main should be prevented from twisting off to leeward aloft with a boom vang. A boom vang prevents the main from twisting aloft by holding it in a straight plane.
6. Use full 60° centerboard when sailing to windward and use a slightly less angle when reaching or running. Set the keel in full up position when dead before the wind.
7. Keep the rudder blade full down unless in shallow water.

If you have no prior experience in sailing and you want to improve your skills and confidence, take a sailing class, or a Power Squadron piloting and navigation class, or even a close friend who can teach you the rudiments of sailing. Sail smart, and you will sail safe.

The C-22 "Pop-Top"

It is a cabin top that pops up to quickly convert your C-22 into a cabin with a full 6'3" of walk-around headroom. It's simple. It's easy. It adds a whole new dimension to cruising comfort and roominess. Simply unsnap the fasteners, place the forward end into a special mast fitting, lift the aft end, and slip the provided pins into the elbow struts. Presto! The "Pop-Top".

When you are ready to set sail the "Pop-Top" collapses and lays on the deck in a soft, watersealed, cushioned slot. Buckle her down with the fasteners and you are off sailing in any weather. All four elbow struts fold neatly out-of-sight from inside and out.

Whether up or down, the full-width hatch slides full forward to the mast—and all the way back for sturdy overhead protection. The "Pop-Top" design is available with swing keel only.

WELCOME ABOARD MATE

Join the crew — the Chrysler crew that is and become a member of the fastest growing circle of super sailors in the whole U.S.A.! If you are a new member to our family you have a lot of catching up to do because we are one of the fastest moving groups of competitive and social sailors around.

You will receive our quarterly magazine, **The Quarterdeck** as a class association member. **The Quarterdeck** will keep you abreast of what is happening in other parts of the country and keep you informed with hints and tips by other owners. And bring you relevant articles about sailing to give you the opportunity to learn from others about our terrific family of Chrysler sailboats. So, kick off your shoes, kiss the land goodbye, and get ready for a bundle of sunny afternoons of fun.

For complete information write to:
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Association Headquarters
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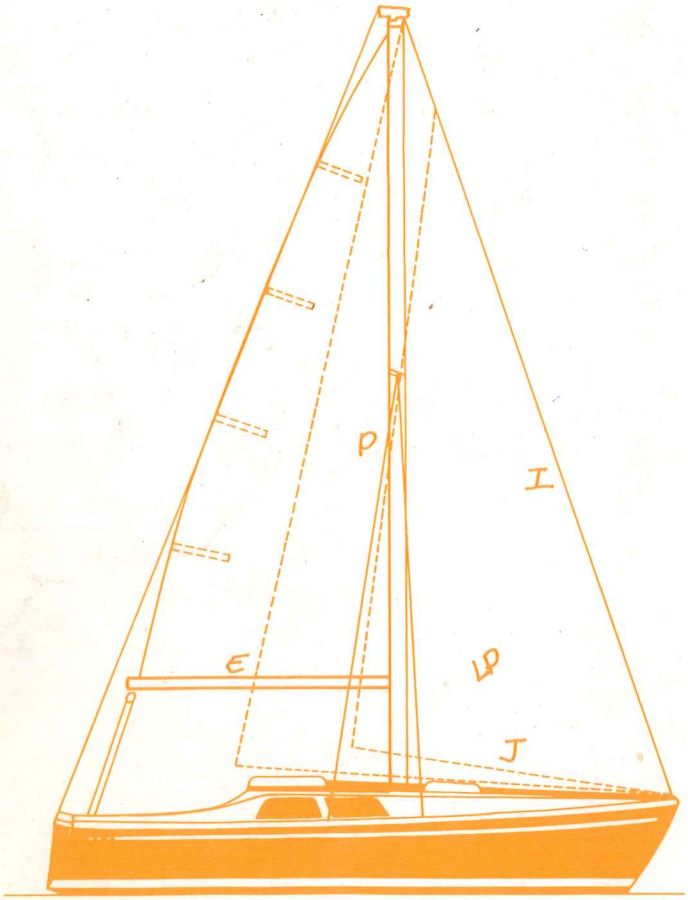
Detroit, Michigan 48288



THE CHRYSLER 22

Rigging and Outfitting Your Chrysler Sailboat

CHRYSLER Marine

SPECIFICATIONS

L.O.A. — 22′
L.W.L. — 19′
Beam — 7′9″
Draft:
Swing keel — 1′11″ to 4′6″
Fixed keel — 3′9″
Displ. — 3000 lbs.
Ballast:
Swing keel — 825 lbs.
Fixed keel — 1010 lbs.
Sail area:
Main — 88 sq. ft.
Jib — 84 sq. ft.
110% genoa — 114 sq. ft.
Mast length — 26′6″
Consulting engineer: Halsey Herreshoff

MAINSAIL-RATED SAIL AREA (RSAM)

P = luff / 25 ft.
E = foot / 8.0 ft.

FORETRIANGLE-RATED SAIL AREA (RSAF)

J = measured foretriangle base / 8.75 ft.
I = measured foretriangle height / 29 ft.
LP = girth of largest genoa (luff to clew) / 9.5 ft.