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Mariner

Operating & Rigging Instructions

CAUTION: Do not begin operating or rigging your boat until you have read all of the following operating and rigging instructions thoroughly.

SAFETY INFORMATION:

The mast, the stays, and all other parts of O'Day sailboats under 26 feet, following the general boating industry practice, are **not grounded. Should your O'Day sailboat be struck by lightning or make contact with electrical power lines, substantial injury may result to the occupants.** We recommend that if you wish to be protected from injury resulting from lightning that you have your O'Day sailboat grounded by an authorized O'Day dealer or other reputable boat yard in the manner recommended by the American Boat and Yacht Council of New York, New York. Under all circumstances, whether or not your boat is grounded, when lightning is present in your boating area, contact with the mast, the stays, and other metallic objects should be avoided.

We do not believe that grounding would be effective to avoid injury to occupants of your sailboat, if contact is made with electrical power lines.

When operating your sailboat on waterways, charts should be regularly consulted, not only for normal hazards, but also for the presence of electrical power lines. In addition, a lookout should be maintained for the presence of overhead electrical power lines, particularly during launching and hauling.

The following is a list of standard equipment which comes with your boat.

1. A mast, and one set of spreaders.
2. A boom.
3. Box of rigging containing stays, main halyard, jib halyard, main sheet, boom vang assembly (less plate), jib sheet, outhaul line, and downhaul line.
4. Flat package containing rudder and tiller.
5. Sailbag containing mainsail and jib. The battens for the mainsail and jib will be found in the sailbag.
6. Berth cushions.

Optional Equipment

See your dealer on what is available. Optional equipment comes complete with installation instructions, where applicable.

Suggested Equipment for Rigging Boat

You will need a medium-sized screwdriver, a pair of pliers, and a small roll of tape to cover cotter pins.

Mast

The first step is to remove the two spreaders which are taped on to the mast. You will notice that these two aluminum tubes, or spreaders have a hole in one end and a slot in the other end. These spreaders should be fastened with clevis pins on to the fittings on either side of the mast about one third up. Open ends of cotter pins after they are in place and tape. See Fig. 1.

Into each of the slots place the upper shroud (the longest one). A small wire will be found in a hole at the slotted end of the spreader. Wrap the wire around the stay as many times as possible which will prevent the stay from jumping out of the slot. This area should then be covered with tape to protect the mainsail. Before you step the mast, tie a figure 8 knot in the end of each halyard to prevent them from getting out of reach, then pull the shackles on the other end of the halyards to the foot of the mast. This puts the shackles in reach when the mast is stepped.

Stepping the Mast

We recommend that you have assistance in stepping the mast. Open the turnbuckles at ends of stays to half open position. Then, attach the back stay to the stern chainplate with clevis pin and cotter ring, and proceed to attach sidestays, both upper and lower, to the side chainplates. The lower stays that run from the spreaders are attached to the rear chainplate, while the stays running from the top of the mast are attached to the steamhead fitting. See Fig. 3. Do not attach the headstay as of yet. A tabernacle is provided on the cabin top of the Mariner for ease in mast stepping. With mast in a horizontal position and with sliding cabin hatch closed, insert base of mast with pin in tabernacle. Next push up and forward on the spar until the mast is in a vertical position. With one person holding the spar, attach the headstay to the stem fitting on the bow with the clevis pin and cotter ring. See Fig. 2. After all stays are securely attached, take the slack out of the rigging and tighten. With the mast plumb (in a vertical position), the headstay, back stay, and the two upper sidestays should be tightened no more than hand tight. The two lower sidestays should just be taut, not hand tight.

CAUTION: It is very important that you do not tighten the stays too much, as this can cause damage to the hull.

After the stays have been adjusted, take a pair of pliers, tighten the lock nuts on the turnbuckles which will prevent the turnbuckle from unwinding. To be on the safe side we strongly recommend that you wire and tape the turnbuckle so it will not unwind.

Attaching Boom to Mast

Slip the gooseneck, which is on the forward end of the boom, into the slot on the mast. See Fig. 7. Use the main halyard or tie the line from the backstay loop to the end of the boom to hold it up.

Mainsheet: The mainsheet has a shackle on the end of it. This is attached to the block on the centerboard. From there the line is run to the block on the boom, down to the block on the centerboard, back up to the block on the boom (double sheave block), then back down to the centerboard block, and then through the jam cleat. Tie a figure eight knot at the end of the mainsheet so you won't lose it.

To Attach Rudder

On the stern of the boat are two gudgeons into which are inserted the pintles on the rudder. Be sure to store the rudder and tiller in the boat when not in use. If the rudder blade is left in the water for any long period of time, rot could develop which would weaken it structurally. See Fig. 6.

Centerboard

The centerboard winch is a reel-type winch which makes it possible to raise or lower the 165 lb. centerboard. WE RECOMMEND YOU KEEP AT LEAST A TURN AND A HALF OF WIRE ON THE DRUM AT ALL TIMES, which will prevent the wire from pulling out of the drum. See Fig. 5.

NEVER lower the centerboard all the way, as it can hit the front of the centerboard trunk and could fracture the fiberglass. Be sure to raise the centerboard all the way and insert the centerboard pin through hole in the centerboard trunk so it will pass through centerboard, which will take the strain off the cable while trailing or when you are through sailing.

The position of the c/b can be changed by adjusting the c/b pendant — while sailing the amount of helm (pressure) on the tiller can be changed by c/b position; i.e., raise to decrease; lower to increase. It is not recommended to raise more than half way as this would create too much sideslip.

Should the centerboard bolt leak, it can be tightened. If leaking still persists. seal the bolt with a substance like silicone sealant.

To Hoist or Raise Mainsail

To raise the mainsail, insert battens and then starting near the gooseneck, feed the foot of the sail, clew first into the slot on the boom. The pin in the gooseneck slips through the tack of the sail to hold it in place. See Fig. 10. Draw the foot of the sail out along the boom until the foot is tight. The outhaul line should be attached to the clew of the sail, then passed through hole in fitting on end of boom, then cleated on boom cleat which is located approximately 2/3 of the way up on the right side of the boom. See main drawing. The cleat is located here to permit the crew to change the tension on the foot of the sail while sailing. A "block-action outhaul" is a help here as it greatly reduces the friction on the outhaul line. Next, fasten the main halyard to the head of the mainsail and feed the luff of the sail into the mast slot cutout. Hoist the sail fully and cleat it.

Glossary

AFT: In the neighborhood or direction of the stern.
BATTEN: A thin wooden or plastic strip placed in a pocket in the leech of a sail to help hold its form.
BLOCK: Pulley consisting of a frame in which is set one or more sheaves or rollers. Ropes are run over these rollers.
BOOM: Spar at the foot of the mainsail.
BOOM VANG: The wire pendant attached to one of the boom vang blocks slides into a plate secured to the bottom of the boom, about 3' aft of the gooseneck. The other block attaches to an eye at the base of the mast. The vang's purpose is to keep the boom steady and horizontal while sailing.
BOW: The forward part of a boat.
CENTERBOARD: A keel-like device that can be hoisted or lowered in a trunk that acts as a keel in shoal draft boats.
CENTERBOARD PENDANT: Line used to raise and lower centerboard.
CHAINPLATES: Strips of metal fastened to the boat's hull near the deck line to take the stress of stays.
CLEAT: A fitting to which ropes are made fast.
CLEVIS PIN: A small stainless steel pin that has a hole in one end for a cotter pin and is used to secure stays to chainplates and mast fittings.
CLEW: The aftermost lower corner of a sail.
COCKPIT: The open area lower than a boat's deck where the occupants sit.
COTTERPIN: A straight or circular split metal pin used to hold a clevis pin in place.
DOWNHAUL: A device used to tighten the luff of a sail.
FAIRLEAD: An eye used to lead line in the direction desired.
FOOT: The lower edge of a sail.
GOOSENECK: A metal device that secures the boom to the mast.
GUDGEON: A metal socket attached to the transom to receive the pintle of the rudder.
GUNWALES: The upper edge of a boat's side, where it meets the deck.
HALYARD: A line for hoisting (or raising) the sails.
HEAD: The upper corner of a sail.
HEADBOARD: The fitting at the head of a sail with a hole in it to receive the main halyard.
HEADSTAY: The foremost stay on a sailboat. A jib is set on a headstay.
HULL: Main body of a boat.
JIB: A triangular sail set forward of the mast.
JIB SNAPS: Small fittings that are attached to the luff of a jib which secure the jib to the headstay.
JIBE: The action of the mainsail when shifting from one side of the boat to the other.
LEECH: The after edge of a sail.
LEEWARD: Away from the wind.
LINE: The common expression for a rope in use.
LUFF: The forward edge of a sail.
MAINSAIL: The principal sail on the mainmast.
MAINSHEET: The line used to trim a mainsail.
MAST: An aluminum tube designed to stand on end so as to support a boom plus one or more sails.
MASTHEAD: The top of the mast.
MASTHEAD FITTING: The fitting at the top of the mast.
MAST STEP: A metal fitting that holds the base of the mast in position.
OUTHAUL: A line used to haul the clew of a sail out to the end of the boom.
PINTLES: Pins on the forward side of a boat's rudder designed to rest in and pivot on the gudgeons secured to the transom.
PORT: The left side of a vessel facing forward.
REEFING: To reduce a sail by rolling or folding up part of it.
RIGGING: The wire supporting the spars is called standing rigging (stays or shrouds) and the ropes used in setting and trimming sails are known as running rigging (halyards and sheets).
RUDDER: A vertical plate attached to the stern of a boat used in steering it.
SELF-RESCUING: A feature which enables the crew to right and sail away a boat which has capsized.
SHACKLE: A U-shaped piece of metal with a pin across the open ends.
SHEET: A rope used to trim a sail.
SHROUD: Same as a stay.
SLACK: The opposite of taut. Slack away or off, to pay out.
SLOOP: A one masted vessel with two or more sails.
SPAR: A mast, a boom, etc.
SPREADERS: Aluminum tubes that project from a mast in a traverse direction in order to keep a stay at proper tension and to help hold the mast erect.
STARBOARD: The right side of a boat, facing forward.
STAY: A length of wire used to support a spar.
STEMHEAD FITTING: The fitting nearest the bow on the deck, where the headstay attaches.
STEP: To step a mast is to set it in position.
STERN: The after part of a boat.
TABERNACLE: A fitting designed so that the mast can be lowered when passing under obstructions; also facilitates stepping and unstepping the mast.
TACK: The lower forward corner of a sail.
TILLER: A piece of wood connected with the rudder head. By this the rudder is moved as desired.
TOPPING LIFT: A wire and/or rope with one end attached to the top of the mast, with the other end attached to the aft end of the boom. Its purpose is to hold the end of the boom up when the mainsail is lowered.
TRIM: To trim sails. To put them in correct relation to the wind, by means of sheets.
TRUNK: A centerboard housing.
TURNBUCKLE: A device used to maintain correct tension on rigging.
WINDWARD: Toward the wind.

Boating Safety Act

A Federal Boating Safety Act was passed in 1971 to further encourage safety in boating. O'Day endorses the general nature of this Act and certifies that it reasonably complies with requirements of the Act. There are several specific aspects of the Act new customers should understand.

1. Every O'Day boat has a special numbering system. Numbers are permanently molded into the transom on all models. The first three letters are our manufacturing serial number, the next letter represents the boat model code letter, the first four numbers are the sail or class number and the last four digits represent the model year and the month the boat was built.

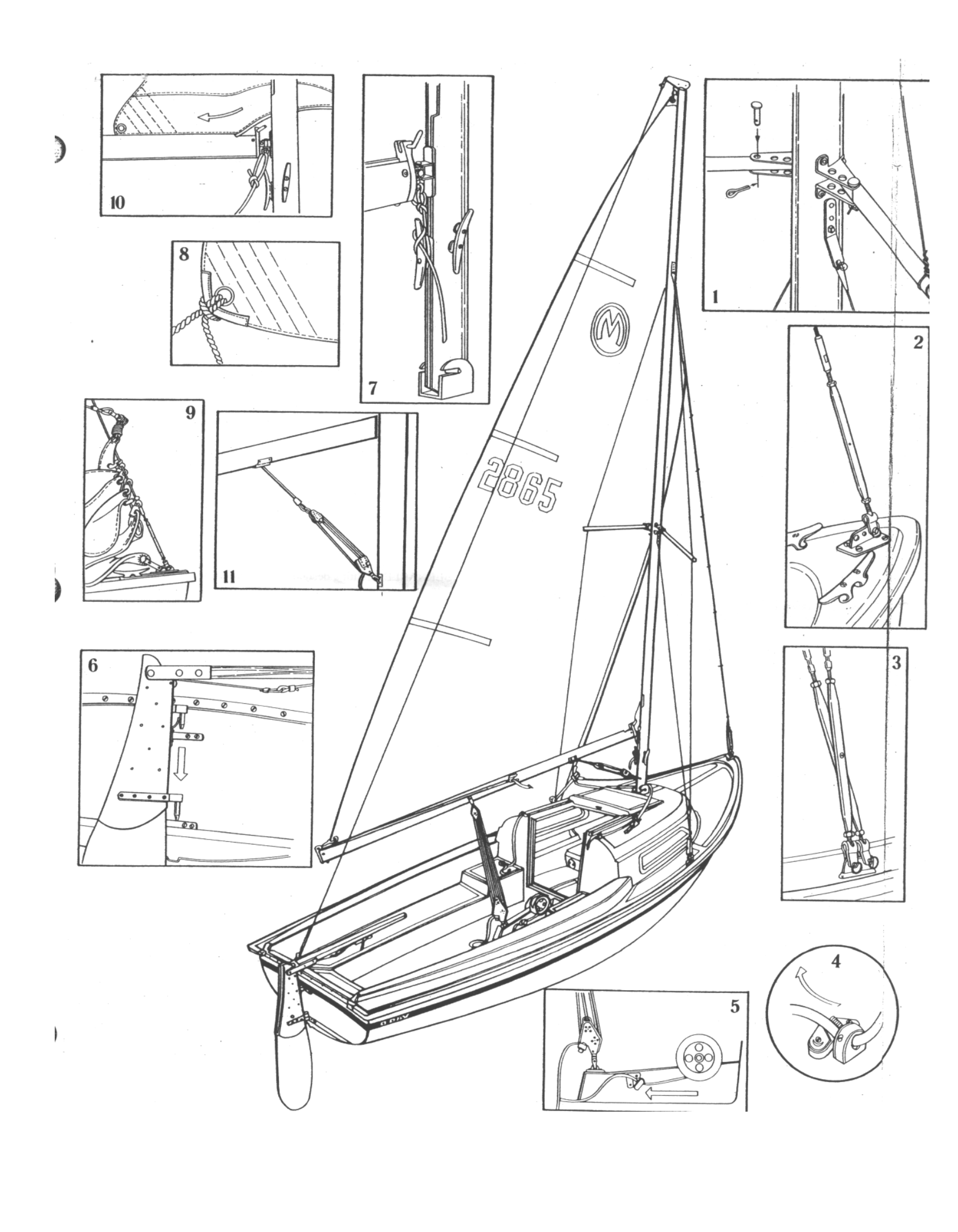
2. Customers are required to provide approved life saving devices for each crew member on board.

3. Availability of approved fire extinguishers is required on many boats. Customers should consider having an extinguisher even when not required.

4. Recommended horsepower for engines is included in O'Day's catalog and should be complied with for safety and warranty reasons.

5. After dark boats must be lit in an approved fashion — customers must make provision for this.

6. O'Day is obligated to inform customers of manufacturing defects which may exist in specific boats. O'Day must describe the defect, evaluate the hazards involved, and state the action it is taking to eliminate the defect. Obviously O'Day cannot do this readily without record of each boat's owner, which is supplied by the return of the Warranty Card. The Company strongly urges this Card be returned promptly.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General Information

The following information is to be used as a general guide, and if you are not sure or need more help, do not hesitate to call upon us or our dealer.

Tuning — Do not overtighten stays, as mainsheet tension will dictate tension on headstay. While sailing, the leeward stays will always go slack due to mast bend, stretching, etc., so under no circumstances should you tighten them under sail — all adjustments should be made while at rest with the sails down.

Maintenance

Fiberglass Repairs — although fiberglass is a relatively simple material to work with, we urge that you familiarize yourself with the proper procedures in order to insure good results.

The surface color (gelcoat) should be cleaned and waxed at least twice a year in order to maintain its luster. The color may fade due to weathering and if ordinary cleaning will not bring the color back, try a regular automotive compound followed up by waxing.

Sails — Dry and fold carefully after each use and if used on salt water, wash with fresh water every so often. Fold by stretching out the sail on the lawn or clean surface and starting at foot with person at clew and tack, make one foot to two foot folds by bringing the head down towards you gradually and evenly. Finally, fold from clew to tack or vice versa.

Woodwork — Varnish at least once a year, using any good marine varnish. Teak can be either oiled or varnished. Teak should be oiled at least twice a year to prevent splitting.

Bottom Paint — Recommended in both fresh and salt water. Follow directions on can carefully. Be sure to paint keel and/or centerboard as well as bottom.

Leaking — Should any leaks develop through hardware fastenings, hull and deck joints, etc., these can easily be fixed by applying a good marine sealant.

Trailer — Normally any good marine boat trailer is sufficient that will support the complete boat's weight plus say 20 percent which will cover weight of normal gear.

A "trailing package" is a great help, as it keeps mast and boom off the boat and makes tying down easier.

For The Racer

The rake of the mast can be changed by adjusting the headstay turnbuckle and then re-adjusting the sidestays. In general, a boat will perform better while sailing to windward with some aft rake and better downwind with the mast plumb or slightly raked forward. Races are usually won to weather, so favor more aft rake, if anything.

Sail Set

The jib halyard should be taken up so that the tension on the luff, while under sail, is the same as on the headstay. The tension on the foot and luff of the mainsail should be such that there are no stress lines or wrinkles in the sail. Apply more tension as the wind increases, which will move the draft forward and decrease heeling moment, etc. In general, the outhaul should be slackened while sailing off the wind in order to create more draft in sail.

Tell Tales are an invaluable aid in determining wind direction - 8 inch pieces of yarn tied to sidestays 2 ft. to 4 ft. up from chainplate, and a wind pennant on top of mast.

6 to 8 inch pieces of yarn taped to luff of jib on both sides every 3 feet or so on bottom half of sail 8 inches back from luff wire are excellent wind-flow guides. If you point too high, weather yarn flutters, and if pointing too low, leeward yarn flutters. Both should flow back evenly - remember this only tells you flow pattern for a given jib trim, so trim must be correct for sailing angle.

Downhaul

Tighten the luff of the sail by pulling down on the line attached to the gooseneck and then cleat it to the downhaul cleat. The position of this cleat on the mast may be changed by loosening the two screws, moving cleat, and then tightening screws again. See Fig. 7.

To Hoist Jib

Insert battens and then fasten all the jib snaps on the luff of the jib to the headstay and attach fitting on the tack to the stemhead fitting. The jib halyard is then attached to the head of the jib just as the mainsail was. See Fig. 9. Tie the center of the jib sheet to the clew of the jib (see Fig. 8) and run them aft on either side of the mast inside the stay wires, through the blocks on tracks mounted on either side of the cuddy, then to the cam-action jam cleats on the cuddy. See Fig. 4. Tie figure 8 knot in end of each sheet so that you won't lose them.

Roller Reefing

A "Roller Reefing Claw" is necessary (see current catalog).

Your mainsail can be easily reefed, as the boat is equipped with a spring loaded gooseneck. First, remove the block in the middle of the boom. Second, release the main halyard but keep it under tension. Third, pull the boom back from the mast so that you can turn it. Fourth, roll the boom either way as you or your crew lets off slowly on the halyard. The sail will roll on the boom. Fifth, when you have rolled about 5 or 6 times, you will have reduced your sail area by 1/3. Experience will teach you how much to reef under various conditions. Sixth, lock your boom back into place by letting the boom go forward and tighten up halyard. When reefed, the boom block for the mainsheet is attached to the roller reefing claw. To shake out, just reverse procedure.

Outboard Motor — Recommended 10 HP Maximum long shaft

The transom is reinforced so an engine can be clamped directly to it on either side of rudder. We recommend a pad or transom plates which will prevent engine loss and scarring of fiberglass.

CAUTION! Be careful when turning the rudder blade as it can come in touch with the propeller.

Flotation

There is sufficient flotation material located in the boat to support the crew and normal gear, should the hull take on water through a leak or hull puncture. Be sure to check these areas prior to sailing and pump out any water.

Cockpit Drains

Check for leaks and be sure the drains are not clogged which will prevent draining.

O'day
A Bangor Punta Company
P.O. Box 991, 848 Airport Road, Fall River, Massachusetts 02722