

# O'Day 23

## Operating and 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 or death may result to the occupants and substantial damage may result to the boat. We recommend that if you wish to attempt to minimize damage resulting from lightning and provide a measure of safety for Occupants 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 Amityville New York. NOTE: That while the grounding system specified by the Council is the most widely accepted lightning protection system known to us, we urge you to avoid exposing yourself to lightning since no system will provide complete protection to the boat and its occupants in all circumstances. Whether or not your boat is grounded, when lightning is present in your boating area, DO NOT TOUCH THE MAST, BOOM, STANDING RIGGING OR OTHER METALLIC OBJECTS. THESE ARE ALL ELECTRICAL CONDUCTORS WHICH WILL CARRY HIGH VOLTAGE AND CAUSE SEVERE SHOCK, INJURY OR DEATH

WE DO NOT BELIEVE THAT GROUNDING WOULD BE EFFECTIVE TO AVOID INJURY OR DEATH 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 that comes with your boat**

1. Mast with one set of spreaders
2. Boom
3. Box of rigging containing stays, mainsheet, jitty reefing, downhaul, outhaul, topping lift, jib sheets and halyards.
4. A package containing rudder, tilter, and table.
5. Sail Bag containing mainsail and jib, battens for mainsail
6. Two penboards that seal off the cabin.
7. 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**

1. A medium sized screwdriver, a pair of pliers and a small roll of rigging tape.
2. Optional mast raising device (If your boat is equipped with the optional mast raising device, please refer to the instructions that come with it.)

## **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 bolts onto the fittings on either side of the mast about one third of the way down from the top of the mast. After they are in place, tape bolts. See Fig 2. Attach all stays to mast. At the end of each spreader insert upper sidestay and wrap wire around stay to hold in place, one end of wire wraps up the stay and the other end wraps down the stay. See Fig. 2

Before you step the mast pull the ends of the halyard to the foot of the mast and cleat the other end of the halyards to prevent them from getting out of reach.

Attach topping lift to mast head. See Fig 1

## **Stepping the Mast**

We recommend that you have assistance in stepping the mast. Open the turnbuckles at ends of stays to full open position. Place mast on deck with head of mast forward. Then attach the head stay to the bow stem fitting with clevis pin and cotter ring, and proceed to attach side stays, both upper and lower, to the side chainplates. The lower stays that run up to the spreader bases are attached to the inside hole in the chain plates while the stays running from the top of the mast are attached to the outside hole in the chainplate. See Fig 4. Do not attach the backstay as of yet. Slide mast forward, being careful not to bend turnbuckles, until the base of mast reaches the tabernacle. A tabernacle is provided on the cabin top of the O'Day 23 for ease in mast stepping. With mast in a horizontal position and with sliding cabin hatch closed, pin base of mast with pin in tabernacle. Next push up and aft on the spar until the mast is in a vertical position. With one person holding the spar attach the backstay to the stern chainplate on the transom with the clevis pin and cotter ring. 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 side stays should be tightened no more than hand tight. The two lower side stays 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 turnbuckles from unwinding. To be on the safe side we strongly recommend that you wire and tape the turnbuckles so they will not unwind.

## **Attaching Boom to Mast**

Slip the gooseneck, which is on the forward end of the boom, on to the track on the mast. Fig 3. To hold up the after end of the boom, attach the topping lift to aft end of boom.

## **Mainsheet**

Take the free end of the mainsheet thread it through the upper sheave on the block attached to the triangular plate in the backstay bring it up through the block on the boom, then back down to the bottom sheave and thru the jam cleat. This type of mainsheet arrangement frees up the cockpit considerably. Tie a figure eight knot in 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. Rudder must be turned all the way to one side or the other before it can be slipped into the gudgeons. See Fig 5. Insert hitch pin into the pinhole in the upper pintle to prevent the rudder from accidentally coming loose.

## **Centerboard**

The fiberglass centerboard is held in the centerboard trunk by a centerboard hanger that holds the board up and is inserted from the bottom of the keel. Should the centerboard need to be removed for replacement, repair, painting, or for pendant renewal, the hanger is easily removed by unscrewing the fastenings that secure it in place on the bottom of the keel. In the forward end of the cockpit there is a centerboard pendant and cleat. To secure the centerboard pendant simply wrap it around the cleat. Watch the pendant for wear and replace when necessary.

## **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. 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 the hole in fitting on end of boom then cleated on boom cleat which is located approximately two-thirds of the way up on the right side of the boom. 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 slides of the sail into the mast slot cutout. Hoist the sail fully and cleat it. Located in sail-feed slot in the mast is a piece of metal and lockscrew. This is inserted in the slot and tightened. This will prevent luff slides from falling out when sail is lowered.

## **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.

## **To Hoist Jib**

Fasten all the jib snaps on the luff of the jib to the headstay and attach the shackle on the tack to the sternhead fitting. The jib halyard is then attached to the head of the jib. Tie the center of jib sheet to the clew of jib, run each jib sheet outside of the sidestays, and then through the block mounted on deck approximately three feet aft of the chainplates then to the jib sheet cleat provided. Tie a figure eight knot in each end of the jib sheet so as not to lose it. See Figs. 6 & 7.

## **Jiffy Reefing**

Your mainsail can be easily reefed as the boat is equipped with jiffy reefing. First, release the main halyard until the reefing tack cringle, approximately 4 feet up luff, has reached the boom. Second, run line that is attached below boom and on port side of mast, up through reefing tack cringle and down to cleat used for boom downhaul. Tighten this line to cleat. Third, tighten line that runs through reefing clew cringle and secure to cleat forward on port side of boom. Fourth tighten halyard. Fifth, wrap the 4 short lines that run through the reef points around boom and tie off. These lines are 3/16 braid, 2' in length, and are run through the reef points (small holes in sails), tie a knot in the middle of each line on each side of the holes, let them hang down until ready for reefing.

## **Outboard Motor**

We recommend a maximum of 15 horsepower with a long shaft. The outboard motor is attached to the outboard motor bracket. CAUTION! Be careful when turning the rudder blade as it can come in contact with the propeller.

## **Trailer**

You will need a trailer that will support the complete boat's weight plus 20 percent which will cover weight of normal gear. It is a good idea to pad all areas of the mast that come in contact with the boat and trailer. All halyards and stays should be securely fastened to the mast while trailering. Also be sure that the boat is securely fastened to the trailer itself. The majority of hull weight should be in the keel support bed of the trailer. Do not have excessive weight on the two side supports, for ease in hauling and launching, and for proper weight distribution on the hull. When launching your O'Day 23 you will have to back the trailer into the water and float the boat off. This can easily be done with any average sloped launching ramp. In salt water, be sure to wash the trailer down immediately to minimize corrosion. If your trailer is equipped with "bearing buddies", be sure to check for sufficient grease.

NOTE Trailers rated for gross loads require a 2 inch trailer ball (E. over 2,000 lbs)

THROUGH HULL FITTINGS - Be sure to check all fittings for water tightness

## **Boating Safety Act**

A Federal Boating Safety Act was passed in 1971 to further encourage safety in boating. Bangor Punta Marine 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 ID Code, the next letter represents the boat model code letter, the first four numbers are the sail, class or hull number and the last four digits represent the model year and the month the boat was built.
2. Approved life saving devices are required 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 engine 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. Bangor Punta Marine is obligated to inform customers of manufacturing defects which may exist in specific boats. Obviously Bangor Punta Marine cannot do this readily without record of each boat's owner which is supplied by return of the Warranty Card. The Company strongly urges this Card be returned promptly.

## **General Information**

The following information is to be used as a 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 ensure good results.

The surface color (gel coat) 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.

## **Preventive Maintenance**

Be sure the screws and bolts on your tabernacle are periodically checked

**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 - be sure to paint keel and centerboard as well as bottom. On boats equipped with OMC saildrive inboards, do not use copper based bottom paint as this will cause severe corrosion of the engine lower unit. It is recommended that a tin or aluminum-based paint be used.

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

## **For The Racer**

The rake of the mast can be changed by adjusting the headstay turnbuckle and then re-adjusting the side stays. 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.

**Sal 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, 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 inch 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 windflow 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 job trim. So trim must be correct for sailing angle.

## 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:** An open area lower than a boat's deck where the occupants sit

**COTTER PIN:** 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 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, when heading down wind

**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.

**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 rope that attaches to the top of the mast and fastens to the 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

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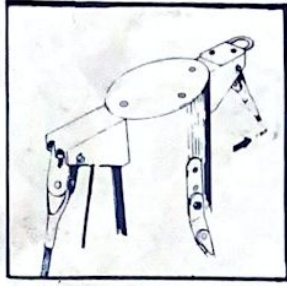
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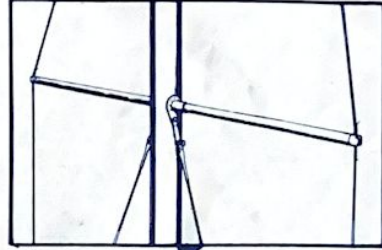
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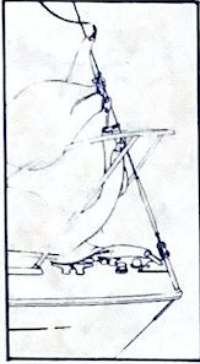
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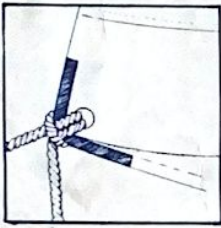
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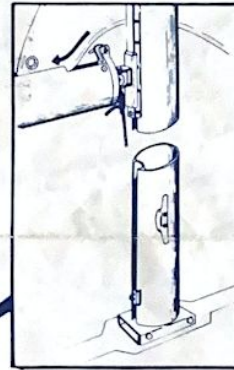
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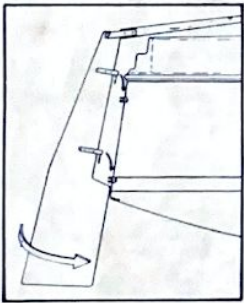
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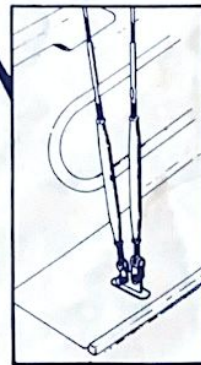
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