

O'DAY 27

RIGGING INSTRUCTIONS AND OPERATING MANUAL

NOT AN OFFICIAL O'DAY PUBLICATION

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O'DAY 27

OPERATING AND RIGGING INSTRUCTIONS

READ THESE INSTRUCTIONS THOROUGHLY BEFORE RIGGING AND SAILING YOUR BOAT.

SAFETY INFORMATION

The mast, the stays, and all other parts of O'Day sailboats, following the general boating industry practice, are not grounded, except inboard models which are 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 the 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:
Headstay, Lower Sidestays (4), Upper Sidestay (2), Backstay, Mainsheet, Boom Vang, Jiffy Reefing, Downhaul, Outhaul, Topping Lift, Jib sheet, and Winch Handle.
4. A package containing the table.
5. A package containing the curtains.
6. Sail bag containing the mainsail and jib, battens for mainsail.
7. Three penboards that seal off the main cabin.
8. Five Berth Cushions and V-berth Insert.
9. Two Life Lines.
10. One self-contained head.

Suggested Equipment For Rigging Boat:

A medium sized screwdriver, a pair of pliers, and a small roll of tape.

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 fitting with a slot in the other end. These spreaders should be fastened with cotter pins on to the fittings on either side of the mast about one third up. Attach all stays to mast. The four short lower Sidestays attach to a tang on either side of the mast, just below the spreaders. Attach upper Sidestays to the tangs on either side of the mast, 20" below the top of the mast. (See Fig.). Attach Headstay to forward end of masthead fitting. Attach Backstay to aft end of masthead fitting. After they are in place, tape all cotter pins. (See Fig.). 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. Tape after wire is wrapped. (See Fig.). Before you step the mast, pull the ends of the halyards 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 aft end of masthead. (See Fig.)

Stepping the Mast

This will have to be done with the assistance of a crane. Open the turnbuckles at ends of stays to full open position. When mast is in position, attach the stays to their chainplates, with clevis pin and cotter ring (See Fig.) and proceed to attach Sidestays, both uppers and lowers, to the side chainplates. The lower Sidestays that run up to the spreader bases are attached to the forward and aft chainplates, while the upper Sidestays running from the top of the mast are attached to the middle chainplates (See Fig.). Attach the back- stay to the stern chainplate on the transom with the clevis pin and cotter ring. Attach the Headstay to the bow stem fitting (See Fig.). 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, Backstay, the two upper Sidestays, should be tightened 3-5 turns more than hand tight. Loweres should be hand tight.

After the stays have been adjusted, insert the cotter pins in the holes provided in the turnbuckles and bend over the ends to keep them from falling out. This 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 (See Fig.). To hold up the after end of the boom, attach the topping lift to aft end of the boom.

Mainsheet

Attach fiddle block to boom and reeve line through the block with the cam cleat attached to the stern. See main drawing.

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 2/3's of the way up on the starboard 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 the sail feed slot in the mast is a piece of metal and lockscrew. This is positioned in the opening 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. (See Fig.)

To Hoist Jib:

Fasten all the snaps on the luff of the jib to the Headstay and attach the shackle on the on the tack to the stemhead fitting. The jib halyard is then attached to the head of the jib and then run each jib-sheet outside of the Sidestays, and then through the block mounted on deck, approximately three feet aft of the chainplate, then to the jibsheet cleat provided. Tie a figure eight knot in each end of the jibsheet so as not to lose it. The jib is now ready to hoist. The O'Day 27 comes with a jib halyard winch to make adjusting the luff much easier.

Jiffy Reefing

- Your mainsail can easily be reefed, as the boat comes equipped with jiffy reefing.
- First, release the main halyard until the reefing tack cringle, approximately 4 feet up from 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 and cleat.
- Third, tighten line that runs through reefing clew cringle and secure to forward on starboard 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.

Boom Vang

*Boom Vang (see attached sheet)

This is a four-part system with a fiddle block on one end, and a fiddle block with becket and cam cleat on the other end. The fiddle block with becket and cam cleat is attached to a pad eye at the base of the mast, with the cam cleat facing aft. The other fiddle block is then attached to the bail on the boom.

***Engines**

Please follow the engine manufacturer's recommendations on maintenance, and be sure all items on dealer-commissioning list, under engine, are completed.

*** If applicable.**

Outboard Motor

We recommend a maximum of 15 horsepower with a long shaft. The outboard motor is attached to the outboard motor bracket.

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. 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 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. **XDYMhhhhMyym** XDY = O'DAY, M = 27, hhhh = hull/class #, M= model year format, yy = model year, m = month. Model Years ran from Aug. to July (ex: 1976 model year: Aug 75 to July 76)
2. Customers are required to provide approved life saving devices for each crew 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 obliged 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.

General Information

The following information is to be used as a general guide, and if you are unclear or need more help, do not hesitate to call upon our dealer or us. (Call D&R Marine: (508) 644-3001)

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.

Bottom Paint

Recommended in both fresh and salt water. Follow directions on can.

Leaking

Should any leaks develop through hardware fastenings, hull and deck joints, etc.; these can easily be fixed by applying a sealant similar to G.E. Silicone Sealant.

For The Racer

The rake of the mast can be changed by adjusting the Headstay turnbuckle and then readjusting 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 so 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 taped to Sidestays 2 ft. to 4 ft. up from chainplate, and a wind pennant on top of the 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.

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. See Fig. 3 and main photo. The vang's purpose is to keep the boom steady and horizontal while sailing.

BOW: The forward part of a boat.

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 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.

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 is set on a Headstay,

HULL: Main body of the 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. Also, to flutter as 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.

OUTHHAUL: 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 the 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-RIGHTING: A feature, which enables the keel ballast to right a boat that has capsized, should almost prevent a capsize from happening.

SHACKLE: A piece of metal with a pin across the open ends.

SHEET: A rope used to trim the 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.

TACK: The lowest 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.

TURNBUCKLE: A device used to maintain correct tension on rigging.

WINDWARD: Toward the wind.

O'DAY 27 Specifications:

Designed by: Alan P. Gurney, 1972 Produced: 1972-78 (Model years 1973-78)
LOA: 27' 0" **LWL:** 22' 9" **Beam:** 9' 0" **Draft:** 4" 0" (A few boats had a deeper, 5' keel)
Displacement: (Outboard): 6,700 lbs. (Inboard): 6,950 lbs. **Ballast:** 2,230 lbs. (Lead)
Ballast with shoe: (5' Draft) 2,430 lbs.
Sail Area: 340 sqft. **Mast Height above waterline:** 38' 6"

Aux. Power:

Outboard to 15 hp, or optional inboard [gas: Atomic 4 (30 hp), or Vire (7 hp), or diesel: various]

Rig Measurements:

E (Mainsail foot): 9.25' **J** (Fore triangle base): 11.67' **P** (Mainsail luff): 39.5' **I** (Fore triangle height): 35'

GOOD INTERNET SITES TO CHECK OUT FOR O'Day INFO.

D&R MARINE / O'Day SAILBOATS: <http://www.odaysailboats.com>

P.O. box 921, 14 Water St., Assonet, MA 02702

Ph: (508) 644-3001 Fax: (508) 644-3002

<http://www.drmarine.com>

CAPE COD SHIPBUILDING: www.capecodshipbuilding.com

SAILNET: www.sailnet.com/link/index.htm

THE SAILING SOURCE: <http://sailingsource.com/>

USCGAUX Vessel Safety Check Website: <http://www.safetyseal.net>

O'Day Owners information and discussion: <http://www.odayowners.com/>

O'Day Enthusiasts: <http://www.greatlakesweb.net/oday/>