

OPERATION

CONSTRUCTION DETAILS AND GENERAL INFORMATION

A. HULL

The hull is hand laid up in a large female mold into which successive layers of material are laid. The mold can be rotated from side to side during the laminating process, allowing the workers to place the fiberglass more accurately and also to allow better resin penetration than would be possible with an upright mold.

The exterior of the boat is an isothphalic NPG gel coat which is sprayed into the mold after the stripe areas have been masked off. Next, the masking is removed and the stripe color is sprayed on. Next, layers of multidirectional glass fiber are laid into the mold to prevent pattern transfer from the successive layers of laminate. Finally, alternating layers of multidirectional fiber and bi-directional roving are applied until the correct layup thickness is attained. The thickness will vary, depending on loads applied and will generally increase from sheer to the keel area.

The interior pan acts as a structural reinforcing member for the hull. The pan is bonded to the hull in every conceivable place in order to make the pan and hull act as a single unit.

B. DECK

The deck is hand laid up using glass strand fibers and woven roving. The deck is balsa cored for strength and weight reduction. In areas of high stress or compression, the balsa core is replaced with either plywood core, aluminum sheet, or solid glass. The nonskid area is molded in, and the deck is gelcoated as with the hull.

C. INTERIOR

The interior headliner is an acrylic fabric that gives a finished appearance to the inside of the boat. This fabric provides both thermal and sound insulation as well. The interior teak woodwork is oiled.

D. KEEL

The keel is an external, bolted on, lead casting. The keel is bolted to an external stub with three 3/4" stainless steel bolts. Additionally, between the hull and keel casting is an epoxy adhesive. The external lead keel is generally recognized as the best way of attaching ballast in order to get the weight as low as possible. Also, an external lead keel provides much better impact resistance

D. KEEL - Continued

than either external iron or internal ballast of any type. The wings also aid in stability and give additional "lift."

E. RUDDER

The rudder of your O'Day 272 is made of a high-density, polyurethane foam core, surrounded by a fiberglass skin. If your boat is kept in the water, your rudder should be treated like the boat's bottom and bottom painted. The top pintle has a hole in it. There must be a pin (supplied) in this hole while sailing, in order to prevent the rudder from coming out. On outboard powered boats, always take care to prevent interference between the rudder and motor, which could possibly occur at certain rudder/outboard angles. Always check the rudder tiller connection for tightness.

There is additional information on the rudder, provided by the manufacturer, in your owner's packet.

F. PLUMBING AND ELECTRICAL

The plumbing systems in the O'Day 272 were designed for efficiency and ease of use. The boat has one plastic 30 gallon tank standard and is located under the port settee. This tank has a deck fill. (See Fresh Water System Diagram.)

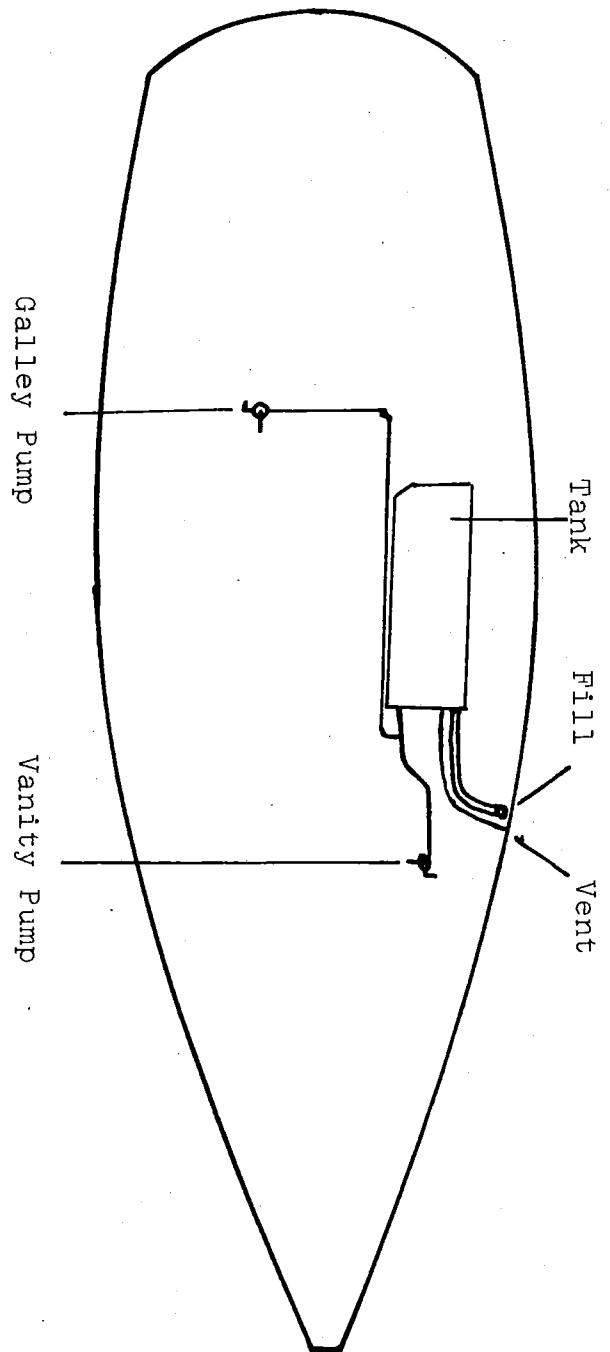
The fresh water plumbing is all semi-rigid PVC with threaded end connections. In the event of leakage at these connections, a slight tightening with an adjustable wrench should stop the seepage.

(CAUTION: DO NOT OVERTIGHTEN.) The water-tank level can be checked by sighting through the tank side.

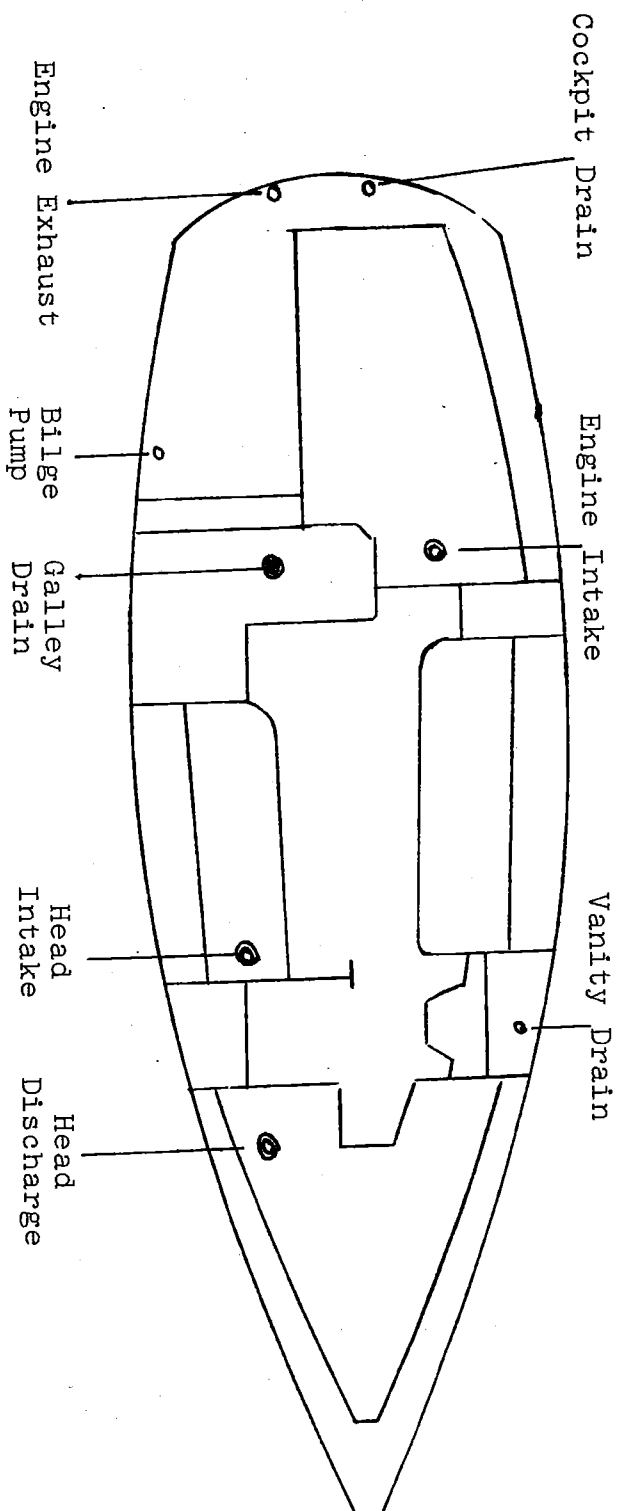
The electrical system and wiring are to the highest industry standards. Specifics of the 12V DC system is covered elsewhere in this manual.

BONDING SYSTEM

In the O'Day 272, all metal thru hulls, shrouds, stays, engine, mast step, propeller shaft and strut are bonded together and to the keel with 8 AWG solid copper wire. This is in accordance with the American Boating and Yacht Council (A.B.Y.C.) specifications for lightning ground systems. While this system should offer added protection, we **DO NOT BELIEVE THAT ANY SYSTEM CAN OFFER COMPLETE PROTECTION FROM LIGHTNING.** We, therefore, recommend that you seek



ODAY 272
Water System
5/2/86 JPF



- o Above waterline thruhull.
- o Thruhull with seacock.

Always close seacocks when boat is left unattended.

To be in compliance with Federal discharge laws, the head discharge must be closed and the handle removed when inside U.S. Territorial waters.

ODAY 272
Thru Hull Locations
JPF
5/2/86

BONDING SYSTEM - Continued

shelter or otherwise avoid lightning. If caught out during a lightning storm:

1. **AVOID TOUCHING** any metal objects, such as shrouds, stanchions, pulpit, steering gear, etc., as these may attract lightning.
2. As much as possible, stay below with the hatches closed.
3. Stay out of the water.
4. If the boat is struck by lightning, compasses and electrical equipment should be checked to determine that no damage or change in calibration has occurred.

THIS SYSTEM IS NOT DESIGNED TO OFFER ANY PROTECTION, IF THE MAST ENCOUNTERS HIGH-TENSION WIRES. Watch your charts carefully for wires and avoid contact with any wires.

Additionally, the bonding system may also minimize the chances of electrolysis, should any individual fitting become electrically hot for some reason. However, as electrical equipment is added to the boat, the chances of electrolysis increases. There are qualified technicians who can detect electrolysis problems, as well as instruments that can be added to the system to detect electrolysis. We recommend that the boat be periodically checked.

Finally, be sure to inspect and clean all bonding connections periodically.

ELECTRICAL SYSTEM

The O'Day 272 is equipped with a 12 volt DC AC electrical system as standard equipment. The wiring is run to prevent chafe or contact with water, where possible, and is supported as needed. We do recommend that you check all the connections at least once a year for corrosion, loose fittings, etc.

DC - 12 VOLT SYSTEM

The DC system is powered by one 95 AH battery located in the cockpit locker. The electrical system is controlled by a circuit-breaker panel located on the port aft cabin bulkhead. On this panel are circuit breakers for the running lights and interior lights. The interior lights are also controlled by individual switches, as the lights themselves. Please consult USCG regulations for use of the running lights.

The O'Day 272 outboard version has no provision for recharging the battery. A good marine type battery charger, connected in a

4-23-86 O'Day 272

DC - 12 VOLT SYSTEM - Continued

seaman-like manner, or removal of the battery to a separate charger will be necessary to insure a fully-charged battery. Always be sure you have an adequate battery charge before setting out. Many modern outboard engines have alternators that can maintain a battery charge. Consult with your O'Day dealer or outboard representative for information. The condition of the battery should be checked frequently and not allowed to run down or "deep cycle". This may ruin the battery. Be sure to check the battery fluid level frequently, and add water as necessary. (See Basic Rules For Battery Care.)

OPTIONAL INBOARD ENGINE

With the optional inboard engine, a four-position battery switch is added to the 12 volt system to control the 12V from the engine's alternator. The switch is located on the aft side of the starboard cockpit locker. The switch controls all electrical power from the battery and must be switched to the "Battery 1" position for any power to reach the system.

WARNING! NEVER TURN THE BATTERY SWITCH TO THE "OFF" POSITION WHILE THE ENGINE IS RUNNING, AS THIS WILL DAMAGE THE ALTERNATOR. WHILE THE ENGINE IS RUNNING, IT WILL AUTOMATICALLY CHARGE THE BATTERY, BUT CARE SHOULD STILL BE TAKEN TO KEEP THE CHARGE UP.

CIRCUIT BREAKERS

Accessory loads may be selected as desired by turning on the master-control panel circuit breakers. The circuit breakers will automatically open the circuit by switching themselves to "OFF" in the event of an overload on a particular circuit. Always investigate the cause of the overload and correct any deficiencies before re-positioning the circuit breaker to "ON".

ALL WIRES, CONNECTIONS, AND TERMINALS SHOULD BE INSPECTED REGULARLY FOR LOOSE CONNECTIONS, WHICH MAY CAUSE ELECTRICAL SPARKS, HIGH RESISTANCE, OR FIRES. THIS IS ESPECIALLY IMPORTANT FOR ENGINE ACCESSORY WIRING.

The boat is wired with a negative ground, and care should be given to this fact when purchasing any auxiliary electronics.

Access to the electrical panel can be easily gained by removing the panel screws. The panel can then be removed and allow access, so that new connections can be added or maintenance work done.

CIRCUIT BREAKERS - Continued

BE SURE TO DISCONNECT ALL BATTERIES BEFORE OPENING THE PANEL, OR SEVERE INJURY MAY RESULT.

PREVENTIVE MAINTENANCE

Electrical systems are adversely affected by moisture and a salt-air environment. Preventive maintenance consists of protecting the system from the elements and periodic inspection for damage created by the elements.

There are several aerosol spray products available for protecting the system. WD-40 and CRC are but two of the better-known types.

Periodically check all wire harnesses and connections for secure fastenings, cleanliness, and any signs of physical damage or corrosion. A dirty or corroded terminal will cause resistance and could generate heat. It is extremely important that connections be kept clean.

WARNING: DO NOT PERFORM ANY MAINTENANCE OR REPAIR FUNCTION ON A "LIVE CIRCUIT".

WARNING: DO NOT TURN MAIN DC SWITCH OFF WHILE ENGINE IS RUNNING. THIS COULD CAUSE DAMAGE TO THE ALTERNATOR.

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O'Day 272

L. NAVIGATION LIGHTS

Navigation lights must be in accordance with the rules and regulations of the waters in which you intend to cruise.

In general, navigation lights are to be used from sunset to sunrise in all weather conditions. It is good practice to use the lights any time visibility is reduced by inclement weather.

Your O'DAY 272 is equipped with the following navigation lights:

- A. Red and Green 10 point side lights mounted on the bow pulpit.
- B. White 12 point stern light.
- C. White 32 point combination bow/anchor light mounted on the mast.

A & B are wired to the "running lights" switch on the DC panel.

BOW/STEAMING/ANCHOR LIGHT

The O'DAY 272 has a combination Steaming/Anchor light on the masthead. The Steaming light must be used while under power or power and sail at night. The Anchor light should be used while at anchor. There are two systems used:

1. If your O'DAY 272 has two switches on the panel, one marked Anchor and one marked Bow light, then the following procedure should be followed:

- a. When the Steaming/Bow light is needed, the switch labeled Bow light or Steaming light should be turned on.
- b. When the Anchor light is needed, both the Anchor-light switch and the Bow/Steaming light switch should be turned on.

2. If your O'DAY 272 has one, three-position switch marked Anchor-Off-Steam/Bow, the following procedure should be followed:

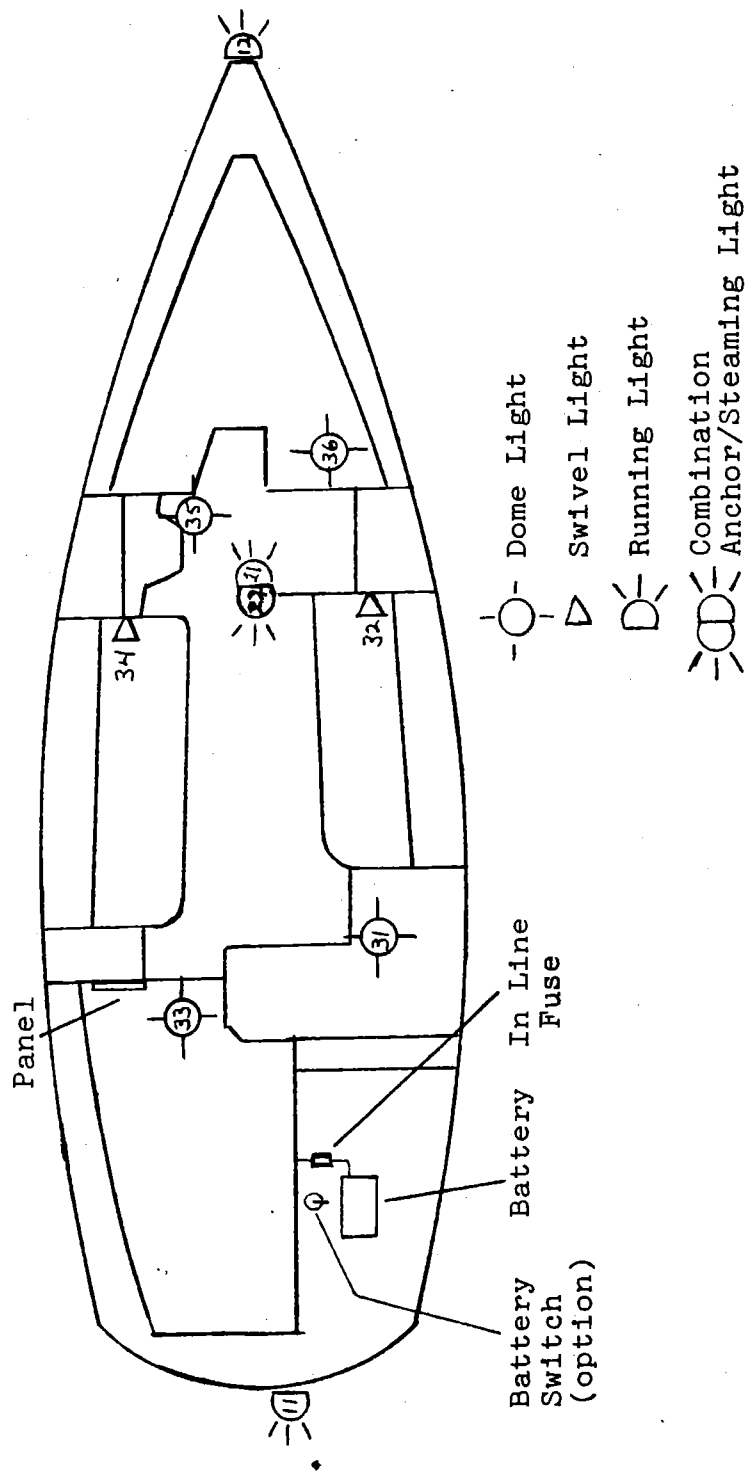
- a. When the Bow/Steaming light is needed, the switch should be turned to the Bow/Steaming light position.
- b. When the Anchor light is needed, the switch should be turned to the Anchor light position.

We recommend:

- 1. Underway by sail, the running lights (side lights and stern light) must be on.
- 2. Underway by power, the running lights and bow light must be on.
- 3. At anchor, both the "bow Light" and "anchor light" switches be on.

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O'Day 272



ODAY 272
Electrical System
5/15/86 JPF

G.

OPTIONAL ENGINE OPERATING INSTRUCTION

The engine installed in your 272 has already been run and all systems tested before it left the plant.

Study your owner's manual and get to know your engine. The knowledge could be of great assistance to you. Also, some manufacturers have clinics aimed at the customer; contact them for details.

It is advisable that you follow the engine manufacturer's procedures and recommendations on run-in and maintenance.

ALIGNMENT OF ENGINE TO SHAFT

The engine must be properly and exactly aligned with the propeller shaft. No matter what material is used to build a boat, it will be found to be somewhat flexible; and when launched, the boat hull will change its shape to a greater extent than is usually realized. It is, therefore, very important to check the engine alignment at frequent intervals and to correct any errors when they appear.

Misalignment between the engine and the propeller shaft is the source of trouble which is often blamed on other causes. It will create excessive bearing wear, rapid shaft wear, or leakage of transmission oil through the rear seal. A bent propeller shaft will have exactly the same effect, and it is, therefore, necessary that the propeller shaft itself be straight.

The engine should be moved around on the bed and supported on the screw mounts until the two halves of the couplings can be brought together without using force and so that the flanges meet evenly all around.

Never attempt a final alignment with the boat on land. The boat should be in the water and have had an opportunity to assume its final water form. It is best to do the alignment with the fuel and water tank about half full and all the usual equipment on board and after the main mast has been stepped and final rigging has been accomplished. Take plenty of time in making this alignment, and do not be satisfied with anything less than perfect results.

The alignment is correct when the shaft can be slipped backward and forward into the counterbore very easily, and when a feeler gauge indicates that the flanges come exactly together at all points. The two halves of the propeller coupling should be parallel within 0.003 inches.

In making the final check for alignment, the engine half coupling

ALIGNMENT OF ENGINE TO SHAFT - Continued

should be held in one position, and the alignment with the propeller coupling checked in each of four positions, rotated 90 degrees between each position. This test will also check whether the propeller half coupling is in exact alignment on its shaft. Then, keeping the propeller coupling in one position, the alignment should be checked, rotating the engine coupling as described above.

The engine alignment should be rechecked after the boat has been in service for one to three weeks and, if necessary, the alignment remade. It will usually be found that the engine is no longer in alignment. This is not because the work was improperly done at first, but because the boat has taken some time to take its final shape. It may even be necessary to realign at a further period.

The coupling should always be opened up and the bolts removed, whenever the boat is hauled out or moved from the land to the water and during storage in a cradle. The flexibility of the boat often puts a very severe strain on the shaft or the coupling or both, when it is being moved.

During the alignment procedure, check the set screws which hold the propeller half coupling to the shaft. These must be tight, in firm contact with the shaft, and safety wired.

STUFFING BOX

The stuffing box provides a seal for the propeller shaft at the inner end of the shaft log. It is connected to the shaft log with heavy wall hose, double clamped at each end. This flex hose allows the stuffing box to maintain alignment with the prop shaft without creating excess wear of the packing, due to misalignment or vibration. Be sure to check the hose clamps on the hose once a month for tightness. The packing used is wax impregnated 3/16" x 3/16" square flax.

When the shaft is turning, it is normal to have a slight leakage at the seal, about one drop per 30 seconds. This acts as a coolant, as well as a lubricant, to protect the seal and shaft surface. Should excessive leakage be apparent, release the lock nut and tighten the packing nut slightly and retighten the lock nut. Restart engine and check again with shaft turning.

When it becomes necessary to replace the packing (boat should be hauled), loosen the lock nut, back off the packing gland nut, and slide it forward on the shaft. Remove all the old packing and replace it with three rings of new packing. Stagger the ends of each ring so

STUFFING BOX - Continued

as not to provide a path for water to leak through. **DO NOT** wind one continuous strip spirally around prop shaft to make a seal.

Slide the packing gland back and tighten enough to create a heavy drag on the shaft. This will seat and form the packing. Back off the packing nut until the shaft feels free and reset the lock nut. Recheck for proper leakage when boat is returned to the water. **BE SURE THE LOCK NUT IS SECURE**, as operating the boat in reverse could cause the packing gland to screw off the stuffing box, allowing water into the boat.

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FLOODING OF ENGINE WITH WATER

Your O'Day is supplied with a water-lift (wave suppressor) type of muffler that under normal conditions, when the engine is not running, provides wave suppression and water storage to help keep water from flooding the engine.

NOTE: There is a direct path from the overboard exhaust port via the water-lift muffler to the engine and from the water pump to the muffler. Accidental conditions (sea) and operator error (prolong starting attempts), can thus cause an excessive volume of water to fill the muffler and flood the engine.

UNDER SUCH ACCIDENTAL SEA AND/OR MISUSE CONDITIONS, ENGINE FLOODING MAY BE UNAVOIDABLE.

In the final analysis, there is no way to stop the flooding under accidental sea and/or misuse conditions.

SEA FLOODING

Your O'Day exhaust system is designed and installed to the highest standards and, as stated above, could still flood under certain heavy-sea conditions. The only added safety precaution you could add would be to install a rubber flap to the overboard exhaust port. This would dramatically slow the surge effect of waves hitting the port.

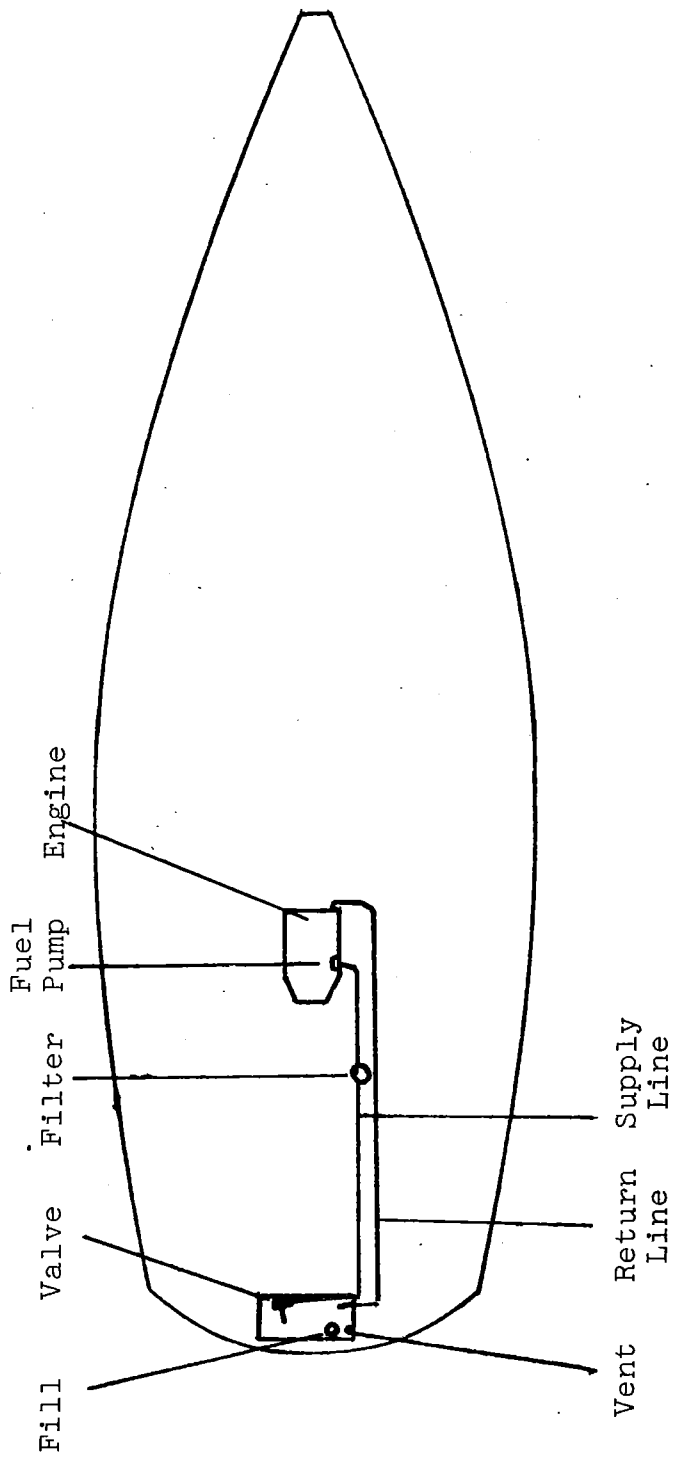
OPERATOR ERROR

This is a nagging source of water in the engine and occurs when an operator repeatedly attempts to start an engine; i.e., he "grinds" the starter - not 2 or 3 times - but continually.

The amount of cranking time varies from engine-to-engine, factors being the amount of each piston's displacement, the water pump's capacity, and whether the battery is cranking a full R.P.M.

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O'Day



ODAY 272
Fuel System
5/2/86 JPF

FUELING PROCEDURE

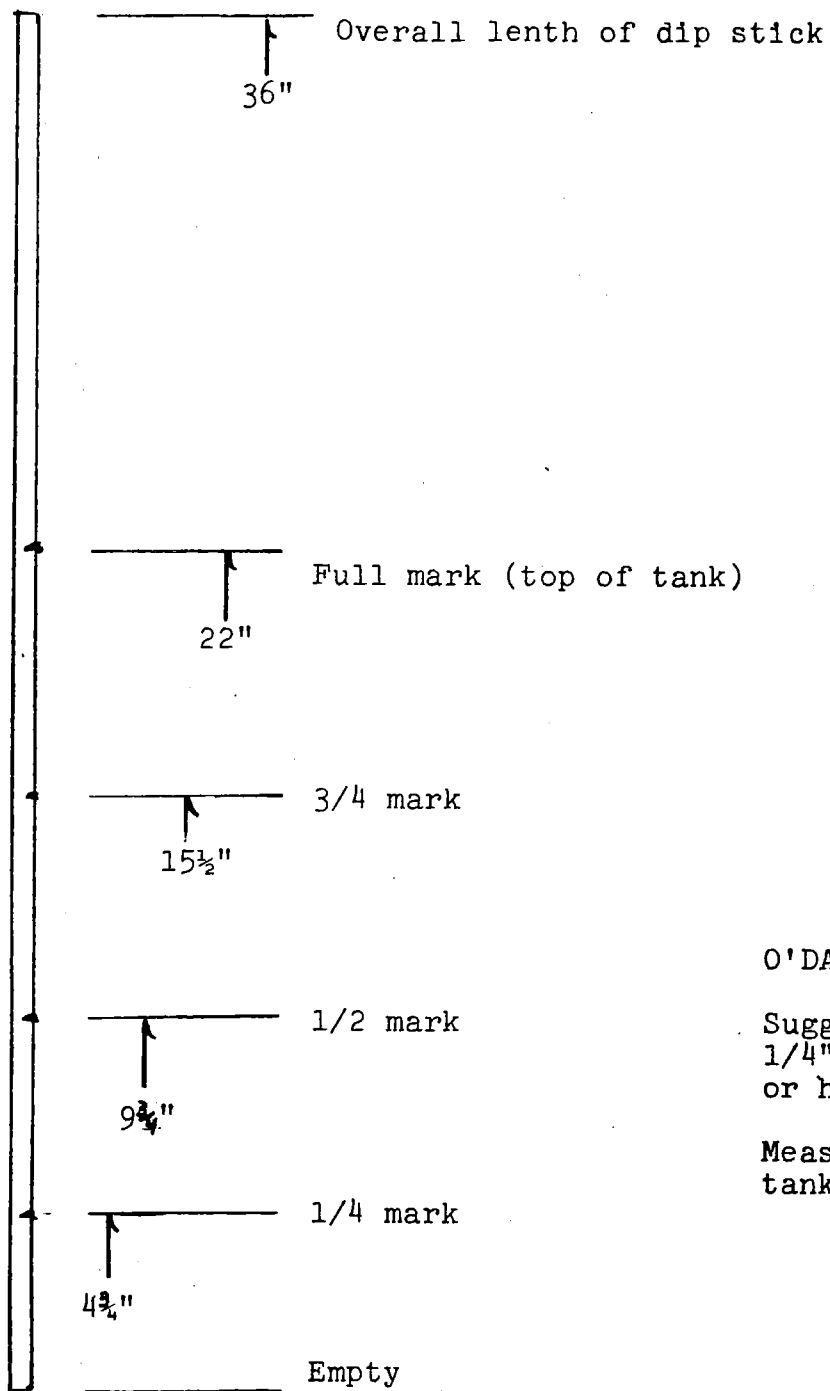
When preparing to fuel your boat, the following procedures should be followed to assure safety:

- A. Properly secure the boat to the dock.
- B. Turn off the engine, stove, heater, radio, lights, etc.
- C. Turn all battery switches to OFF.
- D. Close all hatches, ports, etc., to prevent entry of fumes.
- E. Maintain continuous contact between the nozzle and deck plate to prevent a static charge.
- F. Fill tank to a maximum 95% capacity to allow for expansion.
- G. Clean any spills after replacing and tightening fuel-fill cap.
- H. Before operating the engine or turning the battery switch to ON, open all hatches and check for fuel leaks. Open engine room, check for fumes and allow the engine room to ventilate for 5 minutes before starting the engine.

Always be sure the fuel-fill cap is tight, to prevent water and dirt from getting into the fuel tank. Due to the disparity of fuel sources, you should check the fuel filter and water separator soon after each fueling, to check for fuel contamination. Those should be drained and cleaned, as needed. The filter elements should be replaced annually.

4-4-86

O/272



O'DAY 272 Fuel Dip Stick

Suggested materials:
 1/4" or 3/8" brass rod
 or hardwood dowel.

Measurements allow for
 tank shape difference.

H.

HOLDING TANK/WASTE SYSTEM - OPTIONAL

OVERBOARD DISCHARGE TYPE

The optional head overboard discharge system will allow the user to either discharge waste directly overboard from the head (in areas where this discharge is permitted) or to pump the waste into a holding tank where the waste can be stored. The holding tank can be emptied in two ways: It can either be pumped out by a shore station, or pumped directly overboard (in areas where this discharge is permitted).

Operation of the optional system is as follows:

A. To discharge directly overboard from the head.

NOTE: Direct overboard discharge is only legal in unrestricted waters. Check with the Coast Guard or local regulations.

1. Open head intake thru hull.
2. Open head discharge thru hull.
3. Turn Y valve to open a line directly from the head to the head discharge thru hull (**NOTE:** The Y valve handle points towards the line that is **CLOSED.**)
4. Turn handle on head pump to "FLUSH".
5. Pump head pump 12-15 times.
6. Turn handle on head pump to "PUMP DRY".
7. Pump head until bowl is dry.
8. Shut all thru hulls.

NOTE: Be sure to leave the handle on the head pump in the "PUMP DRY" position.

B. To discharge into the holding tank.

1. Open head intake thru hull.
2. Turn Y valve to open a line to the holding tank. (**NOTE:** The Y valve handle points toward the line that is **CLOSED.**)
3. Turn handle on head pump to "FLUSH".
4. Pump head pump 12-15 times.
5. Turn handle on head pump to "PUMP DRY".
6. Pump head until bowl is dry.
7. Shut intake thru hull. **NOTE:** Be sure to have fresh holding tank chemical in the tank.

HOLDING TANK/WASTE SYSTEM - OPTIONAL - continued

C. To discharge the holding tank thru the deck fitting.

1. Open deck "WASTE" fitting.
2. Connect pump station hose.
3. Extract waste.
4. Close deck "WASTE" fitting. **NOTE:** A clogged holding tank vent line could result in a collapse of the holding tank.
5. Put a holding tank chemical in the tank.

D. To discharge holding tank overboard. NOTE: Discharge of the holding tank overboard is only legal in unrestricted waters. Check with the Coast Guard or local regulations.

1. Open discharge thru hull.
2. Make sure the Y valve is turned so that the line to the holding tank is open and that the line to the discharge thru hull is closed. **NOTE:** If the valve is turned so that the line to the discharge thru hull is open, waste may be pumped back into the head.
3. Pump the manual holding tank pump until the tank is as empty as possible. There will still be 1"-2" of liquid left in the tank.
4. Close the discharge thru hull.
5. Put a holding tank chemical into the holding tank.
NOTE: If the deck pump out fitting is not closed tightly, the pump may not work effectively.

Be sure to check the vent system frequently, as a clogged vent may cause holding tank failure.

Be sure to check the holding tank frequently. Over filling will cause a rupture due to excess pressure. Empty the tank at each opportunity and use a good holding tank chemical.

4-4-86

O'Day

OPTIONAL HEAD DISCHARGE SYSTEM

HOLDING TANK ONLY

The standard head discharge system on your O'Day 272 is very simple. All waste is pumped into a holding tank and retained there until it is pumped out, through the deck fitting, at a shore station.

This system operates as follows:

1. Open head intake thru hull.
2. Turn valve on head pump to "FLUSH".
3. Pump head pump 12-15 times.
4. Turn valve on head pump to "PUMP DRY".
5. Pump head pump until bowl is dry.
6. Close head intake thru hull.

NOTE: Always leave the head pump valve in the "PUMP DRY" location.

NOTE: Always use a holding tank chemical frequently.

NOTE: Check condition of holding tank frequently; overfilling can burst the tank.

To empty the holding tank.

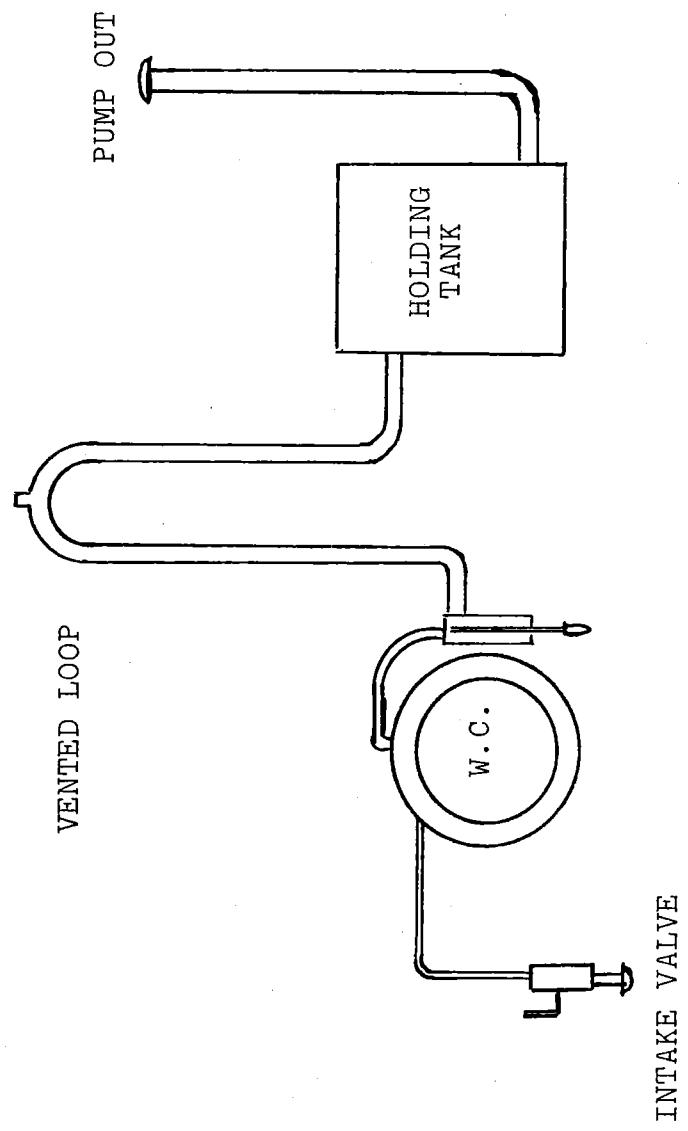
1. Open the deck fitting marked "WASTE".
2. Attach shore station pump-out hose.
3. Operate shore station pump until tank is empty.

NOTE: If the tank vent is clogged, the pump may collapse the tank.

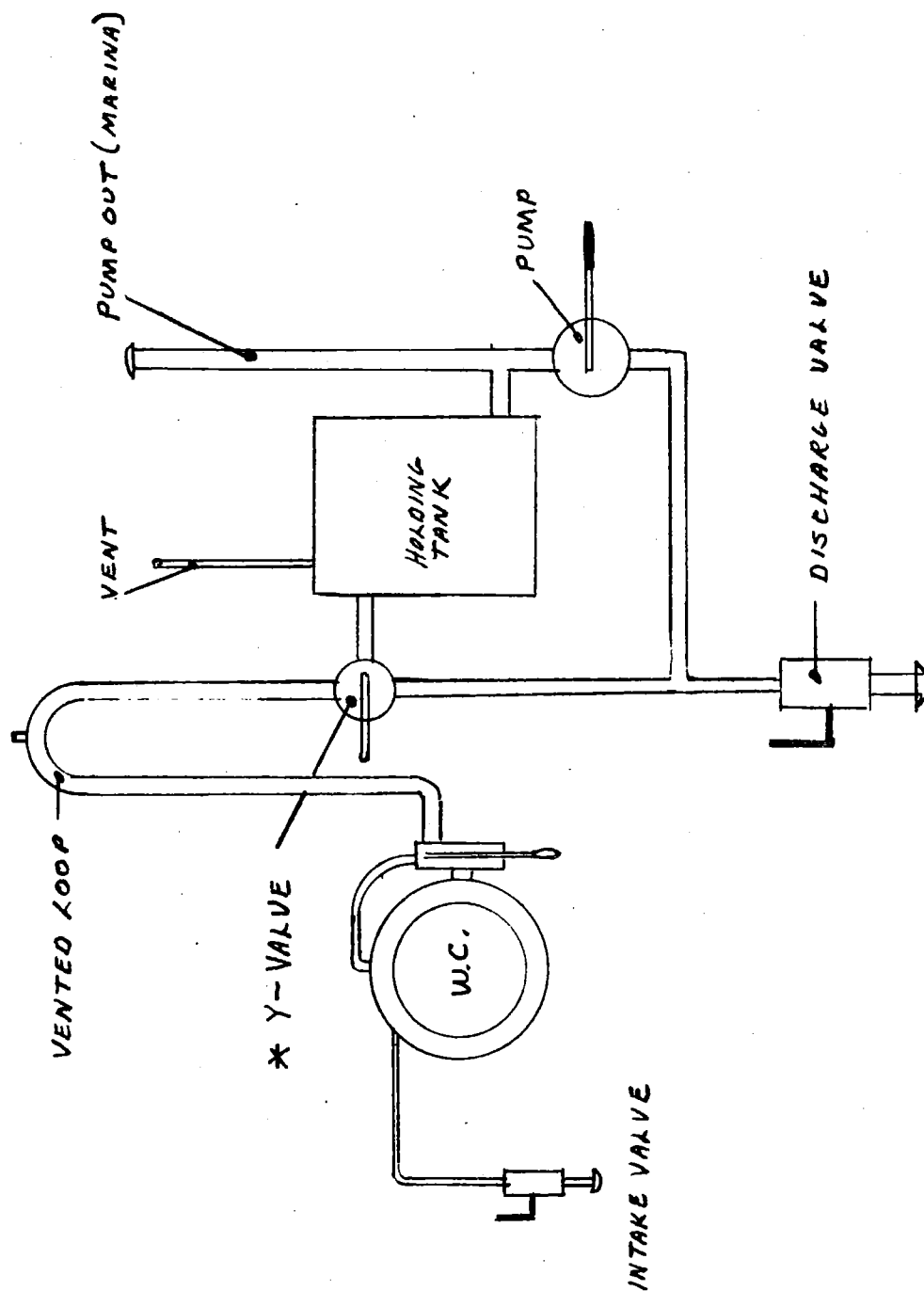
4. Remove pump-out hose.
5. Re-cap "WASTE" deck fitting.

NOTE: Add holding tank chemical, whenever the tank is emptied.

ODAY YACHTS
STANDARD HEAD SYSTEM
1/29/86 JPF



ODAY YACHTS
 OPTIONAL HEAD SYSTEM
 9/19/85 JPF



* - Y-VALVE ALLOWS DIRECT DISCHARGE OF HEAD. DO NOT LEAVE IN DIRECT OVER BOARD POSITION IN PROTECTED WATERS. Y-VALVE MUST BE IN THE HOLDING TANK POSITION TO OPERATE TANK PUMP OUT, THIS PREVENTS BACK FLOW TO THE HEAD

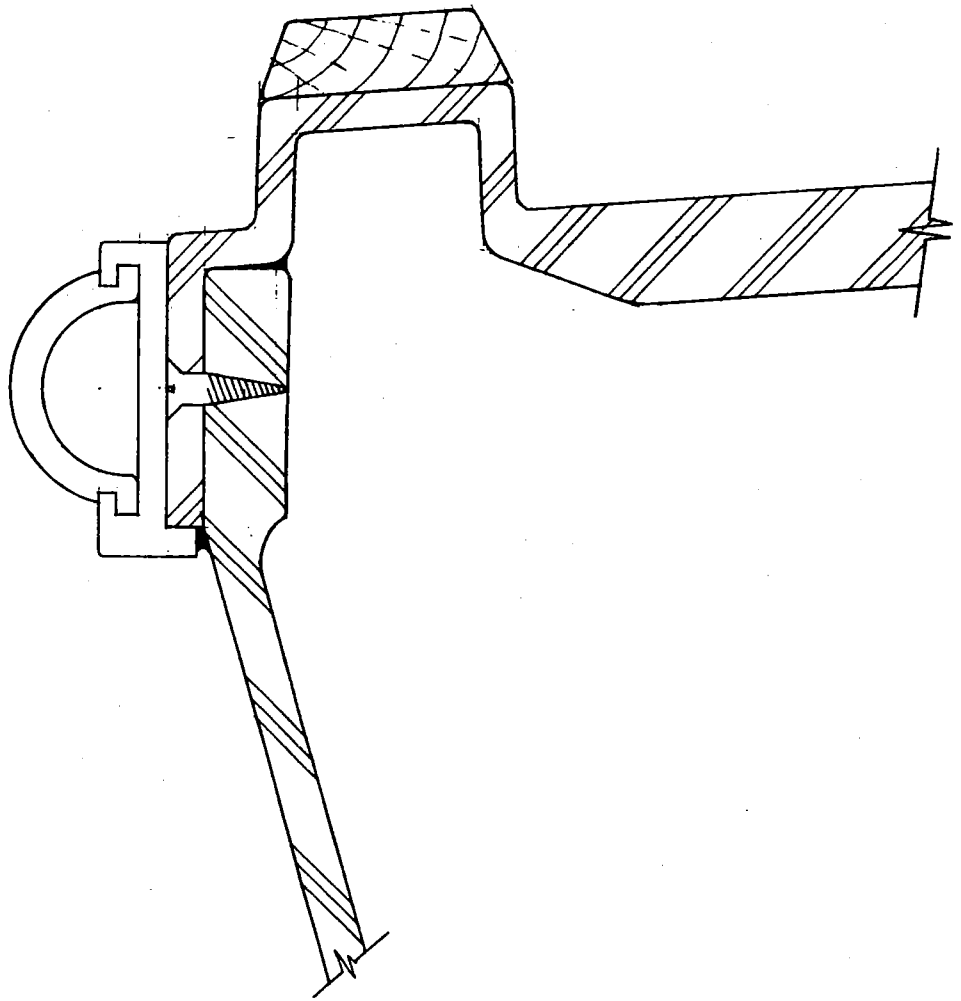
HULL-TO-DECK JOINT

The O'Day 272 hull/deck joint is one of the strongest in the industry. It is formed by setting a flanged deck down over the hull edge. (See diagram.) The deck is brought down on the hull and carefully mounted. The deck is then lifted and the two mating surfaces are coated with the bonding material. The bonding material used has unique properties in that it is a slightly flexible bonding/sealant. The joint is then fastened every 6" with #10 stainless steel self-tapping screws. An aluminum rub rail is then screwed on with #10 SS screws, alternating with the hull/deck joint screws. This gives a mechanical fastener approximately every three inches as well as the chemical bond on the sealant. The aluminum rub rail then has a flexible plastic insert added to absorb minor bumps.

The use of mechanical fasteners and a slightly flexible chemical bond allows a very slight movement here, which might otherwise crack a fiberglassed joint.

4-7-86

272



CAL 22

0'Day 272

HULL-DECK CONNECTION

The steering gear on your O'Day 272 has been designed for maximum reliability and ease of operation. There is a separate sheet in the owner's packet from the rudder manufacturer that details care of the rudder. Care should be taken before each sail that all gudgeon, pintle, and tiller bolts are tight and that the rudder retaining pin is through the hole in the upper pintle.

The tiller should be disassembled yearly, sanded and varnished. The varnish protects the tiller from weather deterioration. Carefully inspect the tiller for any cracks or other weaknesses that could result in failure. **DO NOT HESITATE TO REPLACE** the tiller, if you feel there is any question about it.

Due to the shoal draft of your O'Day 272 and our desire to provide you as large a rudder as possible (for good control), there could be certain loading conditions where the rudder is lower than the keel. If these conditions occur, be especially careful sailing in shoal waters, as the keel will not protect the rudder from impact with the bottom. The rudder can break, if impacted, leaving you with minimal steering control.

4-7-86

272

K.

THRU HULLS & SHUT-OFF VALVES

In any boat it is necessary to have some holes below the waterline for the intake and discharge of fluids. These have been kept to a minimum in the O'Day 272 by allowing some discharge lines to exit above the waterline. Since there may be openings below the waterline, there must also be a reliable method of closing them in the event of failure of a hose or fitting. These shut-off valves are a vital part of your boat's watertight integrity, and careful attention must be paid to them.

Before launching and periodically throughout the season, the thru hull fittings and their valves should be thoroughly checked. The thru-hull nuts should be checked for tightness, the hose clamps checked for tightness, the hose checked for defects, and the valve should be checked for proper operation.

Whenever the boat is left unattended, and whenever the connected unit is not being used, the thru-hull valve should be closed! This will prevent flooding in case of a hose or fitting failure on the unit. The only exception to this is the cockpit drain thru-hull valves, which must be left open. The cockpit drain thru-hull valves, hoses, etc., should be checked frequently. **BE SURE TO RE-OPEN THE ENGINE THRU HULL BEFORE STARTING THE ENGINE.**

4-7-86

272

ALCOHOL STOVES

Please refer to manufacturer's manual. They cover the operation of these stoves in detail.

WARNING

1. THE FLAME DURING AN ALCOHOL FIRE IS QUITE OFTEN INVISIBLE.
2. DO NOT MOUNT THE FIRE EXTINGUISHER NEAR THE STOVE. DURING A FIRE, YOU MAY NOT BE ABLE TO GET TO IT.
3. WATER IS ONE OF THE BEST EXTINGUISHERS FOR ALCOHOL FIRES.

4-7-86

C/O

REEFING THE MAINSAIL AND FURLING THE JIB

The mainsail on your O'Day 272 is designed to be easy to reef in order to reduce sail. To rig the single-line reef, see rigging instructions. In order to reef the sail:

1. Make sure the boom topping lift is firm enough to support the boom and keep it from falling when the main halyard is lowered.
2. Ease the main halyard and at the same time, take in on the reef line until the sail is fully reefed.
3. Tension main halyard.

NOTE: This process will be easier, if you mark the main halyard where the reef occurs; i.e., if you put a mark on the halyard where it rests in the stopper when reefed, you can lower the halyard right to this mark, then tension the reef line.

The 130% genoa can be effectively furled down to a 100% jib. Furling beyond this point will not be effective, as the sail shape will not be correct, and the center of effort on the sail will move up.

4-10-86

272

MAINTENANCE

MAINTENANCE

Occasionally deck fitting leaks may occur due to flexing of the hull and deck, movement or stress on the fitting, or deterioration of the sealant. The flexing of hull and deck is normal and may occur during racing, sailing in very heavy winds, or upon hauling or launching. These deck leaks can be easily cured by removing the leaking fittings, cleaning the fitting base and deck area thoroughly, rebedding the fitting with a good marine sealant.

4-7-86

C/O

A.

SAIL CARE

No matter which sailmaker you or your dealer choose, there are certain things you can do to prolong the life of your sails.

Sails are cloth and should be protected from rubbing and chafe. This chafe most frequently occurs on spreaders, shrouds, and lifelines. These areas should have padding on them, or your sailmaker can attach chafe patches on the sails themselves. The sails should be checked frequently for small rips or any stitching that appears loose. Sail tape, thread, and sailmakers' needles could prevent a major expense.

Ultraviolet light can break down or degrade the sailcloth. Whenever possible, the sail should be bagged or covered by sailcovers. Sailcovers should be available through your local O'Day dealer. After use, your sails should be furled or folded. This will ensure that your sails maintain their shape for as long as possible. When the mainsail is furled, the outhaul should be slacked. Also, before furling or folding, the sails should have any salt water hosed off, and they should be dried to prevent mildew formation. Additionally, the battens should be removed when the mainsail is furled.

Excessive "flogging" of the mainsail or jib is the greatest cause of sail damage. Avoid "flogging" the sails whenever possible. The roller furling jib has a protective strip to prevent ultraviolet degradation of the sail while it is furled. Be sure to always furl the sail with this strip on the outside. Also, the jib halyard should be slacked slightly, when the jib is furled.

4-30-86

O'Day 272

B.**INTERIOR MAINTENANCE**

While your O'DAY sailboat is designed to be as maintenance free as possible, there are certain chores which must be performed periodically in order to keep the boat clean. Much of this work can be done in fairly short order, and should be done on a bright, sunny day in order to ventilate the boat and air cushions, curtains, etc.

1. CURTAINS

The curtains should be washed once or twice a year in order to prevent dirt and grease buildup, which encourages mildew. The curtains can be easily removed.

2. HEADLINER FABRIC

The headliner of your boat will collect cooking grease, smoke film, etc. It should be cleaned at least once a month with warm, soapy water. Strong cleansers are not recommended for the fabric or the hull sides, but may be tested on an area of the fabric that cannot be seen, before general use. The fabric has a protective film, but "Scotchguarding" the fabric over cooking areas cannot hurt.

3. CUSHIONS

The interior cushions are made from several different fabrics and materials. Generally, any upholstery shampoo should be safe for cleaning, but as with the headliner, one should test an area on the cushion back before going ahead with the full cushion. **DO NOT DRY CLEAN OR WASH.** "Scotchguard" or other fabric protector is strongly recommended when the cushions are new and after each cleaning.

4. PORTS AND HATCHES

The ports and hatches in your O'DAY have plastic frames and acrylic plastic inserts. The frames should be protected with a good polish and the acrylic "window" should be cleaned with warm, soapy water frequently. **DO NOT** use abrasive cleaners or solvents. A plastic polish will help protect the ports. Severe scratching can sometimes be reduced with a light duty automotive rubbing compound and polish.

Once a month the opening port or hatch gasket and gasket contact area should be cleaned thoroughly with soapy water and coated with a light coat of petroleum jelly or silicone spray. Oil the hinge and dog pins.

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B. INTERIOR MAINTENANCE - Continued

5. ICEBOX

Clean the icebox after each use with a bleach and water mixture to prevent mildew. Also, leave the icebox lid open when the icebox is not in use to enable air to circulate.

DO NOT leave standing water in the icebox, as it will promote mildew and accelerate smells.

6. SINKS

Stainless steel sinks can be cleaned with any good stainless steel cleaner or with any nonabrasive cleaner. **DO NOT** use steel wool or bronze wool. A stainless polish will help prevent stains. Molded fiberglass sinks should be cleaned with a nonabrasive cleaner made for fiberglass tubs.

7. HIGH-PRESSURE LAMINATE

The high-pressure laminate in the galley, head areas, and countertops can be cleaned with a good nonabrasive cleaner and a soft cloth. Be careful of adjacent teak surfaces. **DO NOT** set hot pots, plates, etc., directly on the countertop - use a hot pad. Wipe up spills promptly.

8. HEADS

The plastic seat of the w/c and its china bowl should be cleaned once a week with hot water and soap. **BEWARE** of using high-strength cleaners in the head, as they may damage the seals in the pump system. Be sure to clean around the w/c carefully after each cruise to prevent odors.

9. STOVE (Optional)

The stove supplied by O'DAY is a two-burner alcohol stove. The stove owner's manual explains its use fully. **BE SURE TO READ THE MANUAL BEFORE FILLING OR USING THE STOVE.** Let it cool down first.

The stove surface should be cleaned after each use to prevent grease buildup - be sure to let it cool down first. At least once a month, the stove should be removed and the surrounding area cleaned. Grease buildup in this area can be considerable and can be a fire hazard.

The proper fire extinguisher should be kept within handy reach of the stove. Be sure you understand the fire extinguisher's operation.

B. INTERIOR MAINTENANCE - Continued

STOVE - Continued

and be sure the extinguisher is recharged at the recommended intervals.

The following precautions refer to ALL types of stoves. Refer to your owner's manual for the specific instructions for your stove.

A. Always close all stove and fuel valves, when the stove is not in use.

B. Never leave a lit stove unattended.

C. Never leave pots on a hot stove.

D. Use extreme caution, when lighting the stove.

10. TEAK

Your interior teak was oiled at the factory. Different areas have different types of finish. The vertical bulkheads, drawer fronts, handrails, trim, etc., were done with teak oil. The sole was also oiled. Oil manufacturers change periodically, so no one manufacturer can be recommended. Most oils are compatible, but, again, we recommend that you test for compatibility in an inconspicuous area.

BE SURE TO HAVE ADEQUATE VENTILATION WHEN USING ANY CLEANERS, OILS, PAINTS, VARNISHES, ETC.

11. BILGE

Dirt from sweeping, crumbs, etc., should not be swept into the bilge, as it may clog or jam the bilge pump strainers. At least twice a season, the bilge should be cleaned using one of the commercially available bilge cleaners and a scrub brush. Empty the bilge after you clean it, using the manual bilge pump as it will pass particles which may be stirred up easier than the electric pump.

12. GENERAL

When leaving the boat for any period of time, be sure to raise the covers of lockers, prop up cushions, leave doors open and generally make all of the areas of the boat accessible to a smooth air flow. This will help prevent mildew and "musty" odors in a boat that is closed up for a long period.

4-30-86

O'Day 272

C.

EXTERIOR MAINTENANCE

1. GELCOAT

The best thing that can be done for gelcoat is to regularly wash it with detergent and water. Do not use an abrasive cleaner on gelcoat smooth surfaces, as they will scratch and dull them and may scratch them enough to allow water under which could cause a blister. Secondly, the hull and all smooth surfaces (nonskid or places where you might step) should be thoroughly waxed at least twice a year with a good fiberglass wax. Please note that if you use a silicone wax, it may make it very difficult to do good fiberglass gelcoat repairs or to paint the boat, as the silicone gets into the gelcoat and prevents adhesion of paints and gelcoat.

Gelcoat repair can be easily done by an owner, but good gelcoat repair requires an expert. We recommend that, unless you are very experienced in gelcoat repair, you leave these repairs to an expert. Your O'Day dealer should be able to assist you in this. Remember, keep your boat clean and wax it twice a year, and you will prolong the life of your gelcoat.

2. MAST AND BOOM

Your mast and boom are made of a special marine aluminum that has been anodized for corrosion protection. Halyards, lines, etc., should be kept from chafing on the mast or boom for long periods, as it could remove the anodizing. Once a year the mast and boom should be waxed with a good paste wax for added protection.

Ideally, the spar should be removed from the boat once a year, so that close examination can be made of all fittings, tangs, sheaves, pins, etc. At this time, the spar should be waxed and all moving parts lubricated. Check carefully for worn parts.

3. RUNNING AND STANDING RIGGING

Your running rigging is made of either low-stretch dacron line or stainless steel wire or both. The sheets, reef lines, and halyards are dacron. All this running rigging should be thoroughly inspected for chafe at least twice a year. This inspection is especially important on a jib halyard that is used for roller furling, as the halyard sits in the same place constantly while the sail is hoisted.

C. EXTERIOR MAINTENANCE - Continued

3. RUNNING AND STANDING RIGGING - Continued

All sheets and halyards should be washed once a year to prolong their life by removing dirt and salt from the fibers. The sheets and reef lines should be coiled tightly and can be washed in a heavy duty washing machine with mild soap. The halyards can be messengered (tie thin string to one end) and removed from the mast, coiled, and placed in a cloth bag and washed as the sheets.

The standing rigging should be inspected once a month. All swage fittings should be inspected for cracks, and the wires should be checked for broken strands. All cotter pins, clevis pins, and turnbuckles should be checked also. **REMEMBER, THE STANDING RIGGING SUPPORTS THE MAST AND SHOULD BE GIVEN CAREFUL ATTENTION.**

Turnbuckles should be checked to see that they have sufficient threads exposed and that cotter pins are in place. The cotter pins in the turnbuckles should be taped to prevent snagging. Additionally, the threads should be cleaned and lubricated once a year.

The spreaders should be checked to be certain that they both have the same angle. The inboard spreader fastenings should be checked and taped. The spreader tip should be securely seized to the shroud with stainless steel seizing wire and well protected with spreader boots or tape.

Occasionally, new rigging may develop a thin layer of rust near the swages. This is caused by impurities in the dies that form the wire adhering to the wire after the manufacturing process is completed. This oxidation will stop forming after two or three cleanings with a good stainless polish. One way to prevent rust around the swage fitting and to prolong the life of the swage fittings is to lightly heat up the swage fitting and to place a bar of beeswax on the wire just above the fitting. As it melts, the beeswax will run into the swage and seal it.

Remember, **ANY** defect in standing or running rigging is cause for **IMMEDIATE REPLACEMENT** of that part.

4. WINCHES, BLOCKS, TACKLES, ETC.

Winches should have a teardown and regreasing at least every six months. Follow the manufacturer's instructions, and only use a high-density winch grease. Check all winch bolts for tightness at least once a month. Hose off the winch with fresh water after each sail.

C. EXTERIOR MAINTENANCE - Continued

4. WINCHES, BLOCKS, TACKLES, ETC. - Continued

Blocks and tackles should be rinsed weekly with fresh water and have a light spray with a silicone lubricant twice a year. Be sure to check bolt tightness on all blocks, especially turning blocks.

5. LIFELINES, STANCHIONS, BOW AND STERN PULPITS

Do not neglect the turnbuckles, clevis pins, cotter pins, and pelican hooks on the lifelines - check them weekly. Be sure the turnbuckles and pelican hooks have enough thread and that the pelican hooks are secure. Tape or seize the pelican hooks to prevent accidental opening. It is not recommended that one hang fenders from the lifelines. A roll under a dock could put a severe enough strain on the fender to bend the stanchion.

Clean the stanchions and pulpits with soap and water periodically, and polish with a good stainless polish. Occasionally, stainless hardware will show some rusting. (See Section N 3.) A couple of polishings should eliminate all problems. Never use steel wool on stainless, as it will leave small pieces of steel, which may cause rusting.

Clean the lifeline with a good soap and water solution to maintain a white look. Be sure to tape any cotter pins at the bow pulpit of the lifelines to prevent tearing of sails.

Check all pulpits and stanchions for security. Tighten bolts, as necessary, for security and to prevent leaks.

6. TEAK

We do not recommend letting your teak "go natural," as this may lead to cracking of the wood. When your teak starts to get gray and dirty, it is the time to clean and re-oil. Be sure to wipe up any spilled or excess oil, as it may stain your gelcoat. **BE SURE TO HAVE ADEQUATE VENTILATION, WHEN USING ANY CLEANERS, OILS, PAINTS, VARNISHES, ETC.**

1-24-86 O/C

BASIC RULES FOR BATTERY CARE AND MAINTENANCE

1. Check liquid level in all cells once every week or two. Add water as required. Bring liquid level to 3/8 inch above top of separators. It is much better to add water in small amounts frequently than to put too much in and flood out the electrolyte, thus causing damage to adjacent wiring and equipment, plus loss of acid.

Generally, the local drinking water in the United States is safe for use in batteries; but to be sure, check with your battery supplier.

Add water only. Add no battery dopes, special liquid, or powders. These are harmful or useless.

2. Before adding water, take a hydrometer reading of one cell. (Don't use same cell each time; change around.) If above 1.225 Specific Gravity, battery is sufficiently charged. If below 1.225 Specific Gravity, remove battery for bench charge. If level is too low to read, add water and take hydrometer reading the next day.

3. After adding water, examine hold-downs. Make certain battery is secure. Hold-downs should make a snug fit, but not necessarily the tightest fit, or the container may be forced out of shape.

Examine cables and terminals for tightness, corrosion, and wear. Corrosion occurs from the spilled electrolyte getting on metal, other than lead. Lead does not corrode. To remove corrosion, scrape or brush it off. Then immerse the part in an alkaline solution, such as baking soda, in the proportions of one pound soda to a gallon of water. One can tell when all the electrolyte is neutralized by observing when the bubbling stops. Wash with water, dry, and apply a prepared grease available from battery dealers.

4. Examine battery for broken or cracked covers, case, and cracks in sealing compound. If any of the above defects are present, remove battery at once and have repaired. Acid loss from any of the above defects will shorten battery life. Acid escaping through cracked covers or sealing compound will cause corrosion of terminals, cables, carrier, and adjacent parts.

5. Batteries should be recharged, if hydrometer reading is below 1.225.

BASIC RULES FOR BATTERY CARE AND MAINTENANCE - Continued

6. DO NOT LEAVE A BATTERY ON CHARGE FOR MORE THAN 48 HOURS. STOP CHARGE when two hydrometer readings recorded two hours apart show no increase, or when terminal voltage readings recorded two hours apart show no increase.

If there is no rise in voltage or specific gravity in a period of two hours, further charging is USELESS and MAY DAMAGE BATTERY BEYOND REPAIR. Have your supplier check battery for possible acid adjustment or repair.

7. On this bench recharge, the specific gravity is expected to read certain values before considered serviceable for continued use. The hydrometer reading should be above 1.260. The full charge gravity when new was 1.270 - 1.290. If battery does not register as above, have your battery supplier inspect it. He may be able to adjust acid or make repairs.

8. In cold weather, do not fill cells with water and let stand without running motor long enough to allow water to mix with acid, as freezing might occur.

9. Spare batteries should be recharged at least every 4 or 5 weeks, in order that the Specific Gravity may be maintained at 1.240 or above.

10. Use a battery with sufficient ability to carry the connected load.

11. Wash dirt and corrosion off top of battery to eliminate intercell discharge.

12. Neutralize corrosion in battery box by washing with solution of baking soda as recommended in No. 3; rinse with water.

13. The amount of water which is needed by the different cells will be a clue to other problems. For example, if each week the water, which was put in the previous week has been used, it is reasonable to expect that too much charging current has passed through the battery; hence, the voltage regulator should be checked.

All cells in the battery should take the same amount of water. If one cell should take more than the others and does this each week, it would be expected that the container is leaking. Whether the leakage is through the bottom of the container, or from the sides of the container, can be determined by examination.

STANCHION GASKETS

In our constant effort to upgrade and eliminate potential problems, we have started to use a gasket under the stanchion bases to reduce leaking problems. These gaskets do not require large fastener pressures to do their job. If leaking occurs, try just a small (1/2 turn) to the fasteners. Under no circumstances should the fasteners be tightened until the gaskets "ooze" out from under the stanchions. At the factory we have also bedded the gasket in silicone sealant.

If there are any questions relative to the above, please do not hesitate to contact us.

11-5-85

PERIODIC MAINTENANCE

The following list of items and their accompanying numbers is in no way intended to be all that should be done to your sailboat. This is only a suggested general list and is not intended to override the individual manufacturer's manual. It also is not arranged in any special order. The numbers are in numerical order and not in priority order. Some numbers and their meanings may also seem redundant, but we feel it is better to be redundant than lax.

ALWAYS FOLLOW THE OWNER'S MANUAL THAT COMES WITH THE ENGINES, HEADS, ETC.

11-5-85

PERIODIC MAINTENANCE SCHEDULE

	End of First Week	Monthly	Winterizing	Remarks
Deck Fittings	5		1, 4, 5	
Rudder Blade		1	1	
Rudder Connections	6	1, 6	1, 4, 5, 6	
Propeller Shaft	1	1	1, 4	Opt. 1/B Eng.
Stuffing Box	1, 2, 5	1, 2	1, 4	Opt. 1/B Eng. Any excess bilge water may indicate time to tighten or repack
Zinc Anode		1	1	Replace at least once a year
Propeller		1	1, 4, 5	
Bilges	1	1	1, 4, 7	
Cockpit Drain Hoses	2	2, 5	2, 4, 5, 7	7 Some cockpit hoses have low points that hold water
Thru Hull Valves	1, 2, 3	2	1, 4, 6	
Pumps	1	1, 2, 5	1, 4, 5, 7, 8	
Water Tanks	2	2	1, 4, 7	
Piping, Fresh Water	2	2	1, 4, 7	
Lighting			1, 3, 4	3=WD-40 or CRC
Battery	1	1, 4	1, 4, 8	4=Clean with baking soda & water solution
Water Filter		1, 2, 4	1, 4, 7	Opt. 1/B Eng.
Fuel Filter	1, 5	1, 5	1, 4, 5	4=Outside Only Opt. 1/B Eng.

PERIODIC MAINTENANCE SCHEDULE - Continued

	End of First Week	Monthly	Winterizing	Remarks
Air Filter	1	1,5	1,5	Opt. 1/B Eng.
Exhaust System	1,2,5	1,2,5	1,4,5,7	Opt. 1/B Eng.
Engine Mounts	1,5	1,5	1,3,5	Opt. 1/B Eng.
O/B Eng. Clamps	5	5		
Mast, Boom	1,3	1,3,4,5	1,3,4,5,6	
Standing Rigging	1,5	1,4	1,3,4,5,6	
Running Rigging	1	1,3,4	1,3,4,5,6	
Winches	1,5	1,3,4,5	1,3,4,5	
Engine Alignment	1,2	1,4,5	1,4,5	Opt. 1/B Eng. Disconnect coupling be- fore hauling
Hose Clamps	5	1,5	1,3,4,5	Do not over- tighten
Chainplates	1,2,5	1,2,4,5	1,2,4,5	Rebed at least twice a year
Bilges	Check daily - more often, if the boat is leaking			
Stoves	1,5		1,4,5	Optional

1. Check condition
2. Check watertightness
3. Lubricate
4. Clean with fresh water
5. Check tightness
6. Grease
7. Drain and/or anti-freeze
8. Disconnect (See note)

NOTE: OBVIOUSLY DISCONNECTION OF SOME ITEMS SHOULD ONLY BE DONE IF THE BOAT IS STORED OUT OF THE WATER.

MANUALS

LEAR SIEGLER MARINE SUPPLIERS

I MAST SUPPLIES AND PARTS (including lights):

DWYER-DAMCO SPARS:

Dwyer Damco
3 Jefferson Road
P. O. Box 201
Branford, CT 06405
203-481-0122

KENYON SPARS:

Kenyon Marine
New Whitfield Road
Guilford, CT 06347
203-453-4374

Z SPARS:

Z Diffusion
500 Wood Street
P. O. Box 437
Bristol, RI 02809
401-253-1515

ISOMAT SPARS:

Bay Sailing Equipment
986 Cherry Street
Fall River, MA 02720
617-678-4419

Engineer Marine Systems, Inc.
80 NW 73rd Street
Miami, FL 33150
305-751-6071

Sparcraft
2501 Alton Avenue
Irvine, CA 92714
214-957-3222

Yacht Riggers
4448 27th Avenue West
Seattle, WA 98199
206-282-7737

II PUMPS:

BILGE PUMPS:

IMTRA Corp.
151 Mystic Avenue
Medford, MA 02155
617-391-5660

HOLDING TANK PUMPS:

Guzzler

The Bosworth Company
195 Anthony Street
Providence, RI 02914
401-438-8411

HOLDING TANK PUMPS:

IMTRA Corp.
151 Mystic Avenue
Medford, MA 02155
617-391-5660

III ENGINES:

UNIVERSAL DIESELS:

Universal Medalist Industries
123 Jackson Street
Oshkosh, WI 54901
414-231-4100

WESTERBEKE DIESELS:

Westerbeke
Avon Industrial Park
Avon, MA 02322
617-588-7700

YANMAR DIESELS:

Mack Boring
Engine City, Route 22
Union, NJ 07083
201-964-0700

LEAR SIEGLER MARINE SUPPLIERS - Continued

IV SAILS

Neil Pryde Sails
P. O. Box 156
8300 Cerritos Avenue
Stanton, CA 90680
714-537-8200

V HEADS:

GROCO
Gross Mechanical Lab
7240 Standard Drive
Hanover, MD 21076
301-796-5242

HEADS:

Mansfield Sanitary, Inc.
Big Prairie
Ohio 44611
216-496-2301

VI WINCHES:

Barlow/Barient
26 Burnside Street
Bristol, RI 02809
401-253-7443

VII LIGHTS:

RUNNING LIGHTS:

Lucas
High Seas
4861 24th Avenue
Port Huron, MI 48060
313-385-4411

MAST LIGHTS: (See Mast Supplier)

VIII CIRCUIT BREAKERS AND PANELS:

LORCO
715 Perimeter Road
Manchester, NH 03103
603-669-6270

4-10-86

O/C

FOSS FOAM, INC. // POLYURETHANE FOAM

YOUR FOSS FIBERGLASS & URETHANE RUDDER

The Foss Company has been producing sailboat rudders for over 20 years for most major boat companies. The fiberglass blade with its rigid urethane core makes an extremely strong, dependable rudder.

The near neutral buoyancy of your rudder helps the performance of your boat by reducing total weight, as well as reducing the moment of inertia in the stern. Near neutral buoyancy also is helpful, should the rudder ever need to be removed for steering system repairs. The boat does not need to be hauled out of the water to remove the rudder.

Tough fiberglass and urethane plastic used in the construction of your rudder is nearly indestructable. The urethane core is composed of a strong rigid closed cell urethane. Water, diesel solvents, or marine borers will not damage your rudder blade.

When you paint your rudder the first time, particular attention should be paid to the paint manufacturer's instructions for preparing the surface. Solvent washing is not enough. The rudder must be sanded heavily to remove a heavy coating of mold release. We recommend white paints be used. White is a popular color, as it is easy to see weeds and other debris which can catch on your rudder.

Surface repairs may be performed by cleaning, drying, and roughing up the damaged area and applying bondo or any similar filler with a putty knife. Should a small blister appear, it may be filled with resin or cut away and repaired. Once the patch has dried, it may be sanded smooth and painted directly with bottom paint or any coating you desire.

We do not recommend the use of dark colors on your rudder, as they generate heat when the boat is out of the water in the sun. Since the rudder is made of cellular material, this heat can cause dimensional changes and cosmetic damage. If the rudder is painted with a dark color, it should be shielded from the sun with a white wrapping when the boat is out of the water. The rudder warranty excludes damage caused by heat.

You should make periodic inspections of your rudder and look for possible damage from grounding or electrolysis.

REPRINTED FROM FOSS FOAM BULLETIN

Foss Foam, Inc.
4480 - 126th Ave. N.
Clearwater, FL 33520