O'DAY 322

Pegasus
YACHT'S NAME

Cleveland OH.
HOME PORT Port of Documentation

SAIL NUMBER

XD[illegible]G01491788
HULL IDENTIFICATION NUMBER

KEY NUMBERS

2GM20F 19667
ENGINE SERIAL NUMBER

10-2-87

O'day Owners Association

Dear O'Day Owner:

Congratulations on your purchase of a brand new O'DAY sailboat. We hope it will bring you years of carefree enjoyment.

Please take time to review all the contents of this owner's packet. There is much useful and valuable information included.

Perhaps the most important item is your warranty card. Please be sure to fill it out and return it TODAY...no postage is necessary. In return, ONE free O'Day Tee-Shirt will be sent to you. If your Warranty Card has been removed from the owner's packet or been lost, please contact O'Day Sailboats at 848 Airport Road, Fall River, MA, 02720, 617-678-5291, and we will send you a replacement. We wish to impress upon you, the owner, the importance of the Warranty Card.

1. It registers your boat under your name in our files. This will allow us to contact you directly, if any factory retrofits or repairs are necessary - this could be VERY IMPORTANT to you.

2. The U. S. Coast Guard requires us to keep a file, so that we may notify owners in case of a major recall. This file can only be accurate if we have your address. Otherwise, we must attempt to contact you through your dealer.

3. It automatically enrolls you in the O'DAY Owners Association, which includes all owners of O'Day sailboats from 12 to 40 feet in length. A free newsletter, which includes tales of adventure, race results, photos, tuning maintenance tips, plus announcements of new products is published quarterly. This is your newsletter, and we welcome your ideas and suggestions at any time. The Association also conducts rendezvous where owners can get together for social activities, casual racing, and good times.

Fair winds and smooth sailing,

8-12-87

IMPORTANT SAFETY INFORMATION

Sailing is wonderful recreation, but it is important that you take certain simple safety precautions.

The following are some of the more important boating safety precautions. We discuss most more fully later on in this booklet, but put them here for your quick review.

1. LEARN TO BE A GOOD SAILOR. It takes time and, often, thorough instruction to learn to be both a safe and effective sailor. Unless you have already received instruction, you should attend the classes in your area or take a home study "Skipper's Course." Write your nearest Coast Guard or local U.S. Power Squadron office for further information.

2. DANGER OF LIGHTNING AND ELECTRICAL POWER LINES. If your boat is struck by lightning or if the mast or rigging makes contact with an electrical power line, you may be seriously burned or killed. Even though your O'DAY boat has a lightning ground system which complies with industry standards, this still MAY NOT protect you if lightning should strike the boat and WILL NOT protect you if the mast hits an overhead power line. To best protect yourselves from these hazards:

(a) Check the weather forecast before going sailing; if thunderstorms or lightning is predicted, do not go out.

(b) If you are out and find that lightning is present in your area, stay as far away as possible from the mast, boom, standing rigging, and all other metallic objects. These are all electrical conductors, which will carry electric current and cause severe shock, injury or death. Seek shelter as soon as possible.

(c) When launching your boat, stepping the mast, and when sailing, be very careful not to allow the mast or rigging to touch any overhead wire. BEWARE OF ALL OVERHEAD WIRES; high-voltage power transmission lines are usually not insulated and frequently look very similar to overhead telephone lines, yet they carry lethal currents. Consult nautical charts for the areas where you are sailing to make sure that there are no electrical lines which are hanging low enough that they might touch your mast or rigging. Know how the top of your mast stands from the water so that you will know whether you will pass safely beneath electrical power lines.

3. SAFETY ACCESSORIES. Never use your boat without carrying all of the required safety accessories, such as fire extinguisher, distress signaling equipment, and personal flotation devices.

9-2-87
O'DAY

4. FLOAT PLAN; WEATHER. Leave a float plan (giving details on where you are going, with whom, and when you plan to be back) so that you can be located and so that someone will know if you are overdue and be able to start a search for you. Carefully check the weather before you go out and periodically during your sail. No matter how well designed any boat is, there are weather conditions which it cannot withstand. While your boat has been designed to be self-righting under most circumstances, this does NOT mean that your boat will always right itself if capsized. Wet sails or rough weather conditions might even prevent this. Furthermore, exposure to cold water for even a few minutes or to warm water for a longer period of time can cause hypothermia (a decrease in the body's temperature) and be fatal. Make sure you know what weather conditions you are going to encounter and that you are well trained in bad-weather seamanship, in case the weather changes unexpectedly.

5. REFUELING. Exercise extreme care when refueling your boat. (See Fueling Procedure.) You could cause an explosion or fire, which could badly burn or kill you. Be sure to exhaust all fuel vapors and personally sniff to make sure there is no odor or fuel in bilge and engine areas before starting your engine. Never take a lighted match or work with an open flame (for example, a blow torch) in or around the fuel storage compartment, because even a low level of vapors may be present and catch on fire or explode. Clean up all fuel spills immediately.

6. 110-VOLT SHORE POWER.* If you hook up to shore power, make sure the polarity-warning light and buzzer are not signaling. If they do, disconnect power immediately! This indicates that the polarity of the power cord is reversed and you could get an electrical shock that would burn or kill you.

*NOTE: 110-VOLT SHORE POWER DOES NOT APPLY TO THE O'DAY 272, BUT ONLY TO THE O'DAY 272LE. SEE APPENDIX.

7. IMPAIRED CAPACITY. Do not operate your boat while under the influence of alcohol or drugs. Check with your physician with regard to prescription medicines.

O'day

LIMITED 1-YEAR WARRANTY

Limited 30-Day Warranty For Commercial Use

O'Day Sailboats warrants each new O'Day boat manufactured by it to be free from defects in material and workmanship, under normal noncommercial use and service, for a period of 1 year after commissioning by the original retail customer, but in no event later than two years from the date of shipment by O'Day Sailboats, subject to the terms and conditions stated below.

1) **WARRANTOR.** This warranty is granted by O'Day Sailboats, 848 Airport Road, Fall River, Massachusetts 02720-4793.

2) **PARTIES TO WHOM WARRANTY IS EXTENDED.** This warranty shall extend to any buyer (other than for purposes of resale or use in the ordinary course of the buyer's business), and any noncommercial transferee to whom such product is transferred during the warranty period and who normally uses it for personal, family or household purposes. For O'Day boats used commercially, this warranty also extends but it expires thirty (30) days after commissioning by the original purchaser.

3) **PARTS COVERED.** All parts manufactured by O'Day Sailboats, including the hull, deck, and cabinetry are covered by this warranty; the installation work performed by O'Day Sailboats on components not manufactured by it, is also covered by this warranty.

4) **PARTS NOT COVERED.** The following parts are not covered by this warranty:
a) masts, plywood, teak, external finishes (which include paint and gelcoat), and upholstery; and
b) engines, toilets, stoves, refrigerators, batteries, ignition systems, lighting devices, blowers, propellers, and other parts and equipment manufactured by others.
O'Day Sailboats will forward the owner warranties, if any, extended by other manufacturers.

5) **REMEDY.** If within the applicable warranty period any part or installation work covered by this warranty proves to be defective in material or workmanship, then O'Day Sailboats shall, at its sole option, repair or replace the defective part. Parts and labor shall be at the expense of O'Day Sailboats, but not transportation costs.

6) **PROCEDURE FOR OBTAINING PERFORMANCE UNDER THIS WARRANTY.** In order to obtain performance of the obligations under this warranty, the owner must promptly (within thirty days of discovery of the defect) notify O'Day Sailboats or an authorized O'Day service center of the defect, and at O'Day Sailboats' or the authorized O'Day service center's direction, return the defective part or product to be repaired or replaced under this warranty to an authorized O'Day service center. If repair or replacement by an authorized O'Day service center is determined by O'Day Sailboats to be impractical, the owner shall return the defective part or product to O'Day Sailboats. All transportation costs to and from the authorized O'Day service center or O'Day Sailboats, and all haulout, launching and rigging costs, will be at the expense of the owner.

7) **DESIGN CHANGES.** O'Day Sailboats reserves the right to make changes in the design or material of its products without incurring any obligation to incorporate such changes in any product previously manufactured or advertised.

8) **ENTIRE WARRANTY.** This warranty may be altered only in writing signed by an officer of O'Day Sailboats. It may not be altered or extended orally or in writing by any other person.

9) **EXCLUSIONS AND IMPLIED WARRANTIES.** This warranty does not extend to any defect due to the negligence of others, failure to operate or maintain the product in accordance with the operation and maintenance instructions furnished with each new product, unreasonable use, accidents, alterations, or ordinary wear and tear. **IMPLIED WARRANTIES, INCLUDING THOSE OF MERCHANTABILITY, AND FITNESS, ARISING UNDER STATE LAW, ARE LIMITED IN DURATION TO THE DURATION OF THIS EXPRESS WARRANTY, WHERE SUCH LIMITATION IS PERMITTED. O'DAY SAILBOATS SHALL NOT BE RESPONSIBLE FOR LOSS OF USE OF ANY PRODUCTS, LOSS OF TIME, INCONVENIENCE, OR OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES WITH RESPECT TO BUSINESS OR PROPERTY, WHETHER AS A RESULT OF BREACH OF WARRANTY, NEGLIGENCE OR OTHERWISE.** Some states do not allow (a) limitations on how long an implied warranty lasts or (b) the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not be applicable. This warranty gives the owner specific legal rights, and there may also be other rights which vary from state to state.

BACKGROUND INFORMATION

The O'DAY 322 represents one of the best values in today's sailboat market. The design and construction of this yacht reflect over twenty years of experience and knowledge gained in the building of over 60,000 boats.

Drawing on this experience and information gathered from sailors around the country, C. Raymond Hunt Associates has designed a strong, attractive and comfortable yacht, which will provide many years of sailing pleasure. Hunt Associates is a well-known design firm whose credits include custom and production power boats, the original Boston Whalers, IOR racing yachts, police, and pilot boats, as well as a string of successful production sailboats for O'Day and Cal.

The O'Day Corporation chooses to utilize an outside design firm, even though it would be more economical to use an in-house naval architect. Due to a lack of outside influences, an in-house designer often tends to stagnate and will sometimes produce the same design over and over. An independent naval architect has to produce new, innovative designs in order to attract new business. The wealth of experience and willingness to innovate that is typical of C. Raymond Hunt Associates, is an expense that many other manufacturers are unwilling to bear. The O'Day Corporation feels that it is well worth the added expense.

This manual is designed to thoroughly familiarize you with the O'DAY 322, while providing a wealth of information on this design in particular and on sailing in general. In the General section, you will find all the boat dimensions and features listed in detail. The Operation section provides further particulars on every aspect of the O'DAY 322, including construction details, operation instructions, and general information. The remaining sections - Commissioning, Maintenance, and Manuals - all contain important information about those aspects of boat ownership.

The O'Day Corporation reserves the right to change specifications without notice, and this manual may not reflect all such changes. Since we are always striving to improve our product, modifications and improvements are constantly in process and, therefore, it is possible that a particular boat may contain features different from those enumerated in this manual. It is impractical to revise this manual for each such modification. It is our policy to make improvements whenever it is appropriate without waiting for corresponding updates in our manual.

Full information on optional equipment may not be contained herein. Contact the option manufacturer or your O'DAY boat dealer for more information.

THE O'DAY CORPORATION

DESIGN COMMENT
O'DAY 322

The new O'DAY 322 is the seventeenth in a series of C. Raymond Hunt Associates' designs for O'Day Yachts. The relationship between Hunt Associates and O'Day, which began with the design of the O'Day 23 in 1970, has been one of the most successful designer-builder collaborations in the sailboat industry.

The O'DAY 322 is the first of a new series of O'Day cruising sailboats. The accommodation plan, with two private cabins, follows a modern format, though all the interior spaces are more generous than those found on comparable sized sailboats. Berths, galley stowage, headroom, tank capacities, etc., are all sized to suit American requirements. In addition, the O'DAY 322 is the first boat to have O'Day's new interior decor and detail.

A winged keel with 4'2" draft is fitted as standard on the O'DAY 322. O'Day's trials indicate that performance in light to moderate conditions is equal to that of a conventional fin-keeled boat having one foot greater draft; in heavier air the boat fitted with the winged keel actually proved superior to her fin-keeled sister. The sailplan of the O'DAY 322 is sized to balance good performance in light air against the need to reef early when the breeze comes up. The distribution of sail area favors the mainsail, both to keep the headsails manageable and to provide good power under main alone. Roller furling for the genoa is standard equipment.

Exterior styling is aggressive and exciting. The deck moulding is beautifully tooled and meticulously detailed. A swimming/boarding platform is recessed into the transom. The toerail and guard are aluminum extrusions similar to those used on the larger O'Day 40.

Hunt Associates' designs for O'Day are aimed at the broad center of the sailboat market; the O'DAY 322 is a sailboat for the cruising family. The concept of the O'DAY 322 may be conventional; the execution is not.

9-2-87
O'Day 322

WHY THE HYDROKEEL (TM) WORKS BETTER
(A QUASI-TECHNICAL EXPLANATION)
BY REIJO SALMINEN (HYDROKEEL DESIGNER)

GREATER RIGHTING MOMENT:

First, sails provide a sailboat with a driving force which is focused in the center of effort of the sail plan. Second, there is the hull which provides buoyancy. The third element is the keel and rudder which provide stability and control. These three forces need to be in balance for proper handling and performance. The force in the sail plan is a capsizing force, and the force on the vertical section of the keel is another capsizing force. This is where the major difference is in using the HYDROKEEL. There is a capsizing force on the vertical section of the HYDROKEEL, but it is substantially less than on a conventional fin keel because our chord length is typically 2/3 less, and we have developed a new force that is perpendicular to the wing, which is pulling the wing down (anti-capsizing) into the water. We call our keel the HYDRO-KEEL, because it is opposite from a hydrofoil which provides upward lift. When the boat heels, the downward force through the center line of the boat is always on the high side of the center of buoyancy, and it is an uprighting force. For the boat traveling through the water, the smaller vertical part of our keel develops less capsizing force because part of the side force is developed with the wing, which has the downward (anti-capsizing) force. The difference from a conventional fin keel, which develops its uprighting moment purely from gravity, is substantial.

BETTER WATER FLOW AND LESS DRAG:

With a conventional keel, the water-flow pattern over the keel is rarely in a horizontal line. If the forward edge of the keel is raked backwards, the water flow starts upwards towards the hull over the first portion of the keel and over the middle to latter portion of the keel curves downwards, even when the boat goes straight forward through the water. When the water heels, the curvature of the water flow over the keel is accentuated, and, at the bottom of the keel, the flow is almost vertical, and that is where vortex drag is created. With the HYDROKEEL, the vertical section still has the water flow starting upwards from the leading edge and curving a little bit down, but because of the wing at the bottom, the flow will never go past, or across the wing; therefore, all the water leaving the top of the wing will actually be focused up under the stern. So, now, instead of wasting the water flow going down and creating a vortex and drag, we are directing the flow in a helpful pattern up under the stern of the boat where otherwise the hull would have to suck water from the side to fill the space where the boat has been, thereby reducing stern wave formation. This reduces drag from the entire hull.

9-2-87
O'Day

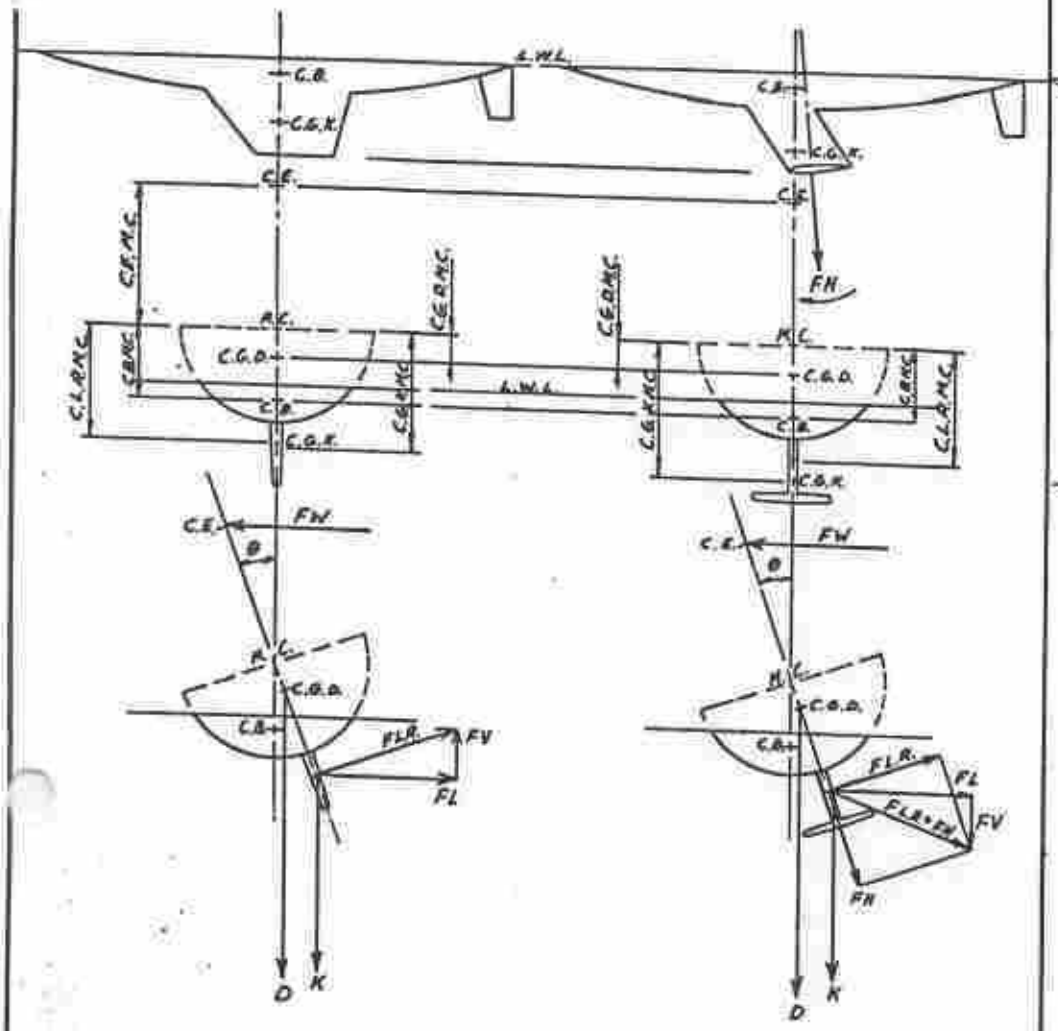
BETTER WATER FLOW AND LESS DRAG: - Continued

With a conventional keel, all the keel force has to be developed by leeway of the boat, which typically is from 6 to 9 degrees. Since with the HYDROKEEL, part of that force is developed with the wing, the vertical portion needs to do less work and leeway is typically only 2/3 that of a conventional keel to produce the same lift. Now the hull does not move 6 to 9 degrees sideways, but rather only 4 to 6 degrees; therefore, the induced drag (that increases exponentially with greater amounts of leeway) is reduced dramatically - as much as 50%.

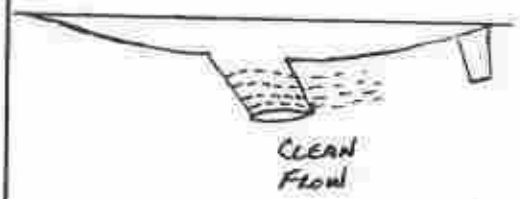
9-2-87
O'Day

CONVENTIONAL KEEL

HYDROKEEL tm



Waterflow



UNITED STATES PATENT NO. 4,193,366

Dec. 11, 89 Ralph Salmon

KEY TO ABBREVIATIONS:

D	BOAT WEIGHT LESS KEEL WEIGHT
K	KEEL WEIGHT
F	FORCE
L	LATERAL
V	VERTICAL
W	WIND
H	HYDRO

C.G.	CENTER OF GRAVITY
C.B.	CENTER OF BUOYANCY
C.E.	CENTER OF EFFORT
C.L.R.	CENTER OF LATERAL RESISTANCE
L.R.	LATERAL RESISTANCE
M.C.	METACENTRE
θ	HEEL ANGLE

CONVENTIONAL KEEL

CAPSIZING MOMENTS:
FWx(C.E.M.C.xCOSθ+C.B.M.C.)
FLx(C.L.R.M.C.xCOSθ-C.B.M.C.)
FVxC.L.R.M.C.xSINθ

UPRIGHTING MOMENTS:
DxC.G.D.M.C.xSINθ
KxC.G.K.M.C.xSINθ
*****

NOTE: FW=FL
FL=FL.R.xCOSθ
FV=FL.R.xSINθ=FLxTANθ

CANADIAN PATENT NO. 1,172,915

HYDROKEEL tm

CAPSIZING MOMENTS:
DITTO
DITTO
*****

UPRIGHTING MOMENTS:
DITTO
DITTO
FVxC.L.R.M.C.xSINθ

NOTE: FW=FL
FL=FHxSINθ+FL.R.xCOSθ
FV=FHxCOSθ-FL.R.xSINθ

AUSTRALIAN PATENT NO. 533,353

CONTENTS

O'DAY 322

IV OPERATION - Continued
Construction Details And General Information - Continued

H. Steering
- Steering Compass

I. Operation Of The Jib Furling System
- Hoisting the Sail
- To Furl The Sail
- Reefing The Sail
- Unfurling The Sail

J. Mainsail Reefing
- To Rig The Single Line Reef
- To Reef
- O'Day 322 Running Rigging Diagram

K. Interior

L. Plumbing
- Water System Drawing

M. Holding Tank/Waste System
- Standard Head System Drawing

N. Holding Tank/Waste System - Optional
- Optional Head System Drawing

O. Electrical System
- DC - 12 Volt System
- DC Electrical Schematic
- Circuit Breakers
- 110-115 Volt AC Power
- AC Electrical System Drawing
- Ground Fault Interrupter
- Electrical Fixtures Drawing
- Preventive Maintenance

P. Navigational Lights

Q. Bonding System

R. Engine Operating Instruction
- Alignment of Engine to Shaft
- Stuffing Box

S. Flooding of Engine with Water
- Sea Flooding
- Operator Error

T. Fueling Procedure
- Fuel System Drawing

U. Propane Stove

V MAINTENANCE
Maintenance

A. Sail Care

B. Interior Maintenance
- Curtains
- Headliner
- Cushions
- Ports and Hatches
- Icebox
- Sinks
- High-Pressure Laminate
- Heads/Holding Tanks
- Stove
- Teak
- Bilge
- General

V MAINTENANCE - Continued

C. Exterior Maintenance

- o Gelcoat
- o Mast and Boom
- o Running and Standing Rigging
- o Winches, Blocks, Tackles, Etc.
- o Lifelines, Stanchions, Bow and Stern Pulpits
- o Teak

Basic Rules for Battery Care and Maintenance
Gaskets
Winterizing Your Boat
Periodic Maintenance
Periodic Maintenance Schedule

VI MANUALS

Suppliers
Foss Foam, Inc.//Polyurethane Foam
Marinco
Aqua Signal
Edson Pedestal Maintenance Guide
O'Day Sportswear

GENERAL

O'day 322

OD - 322

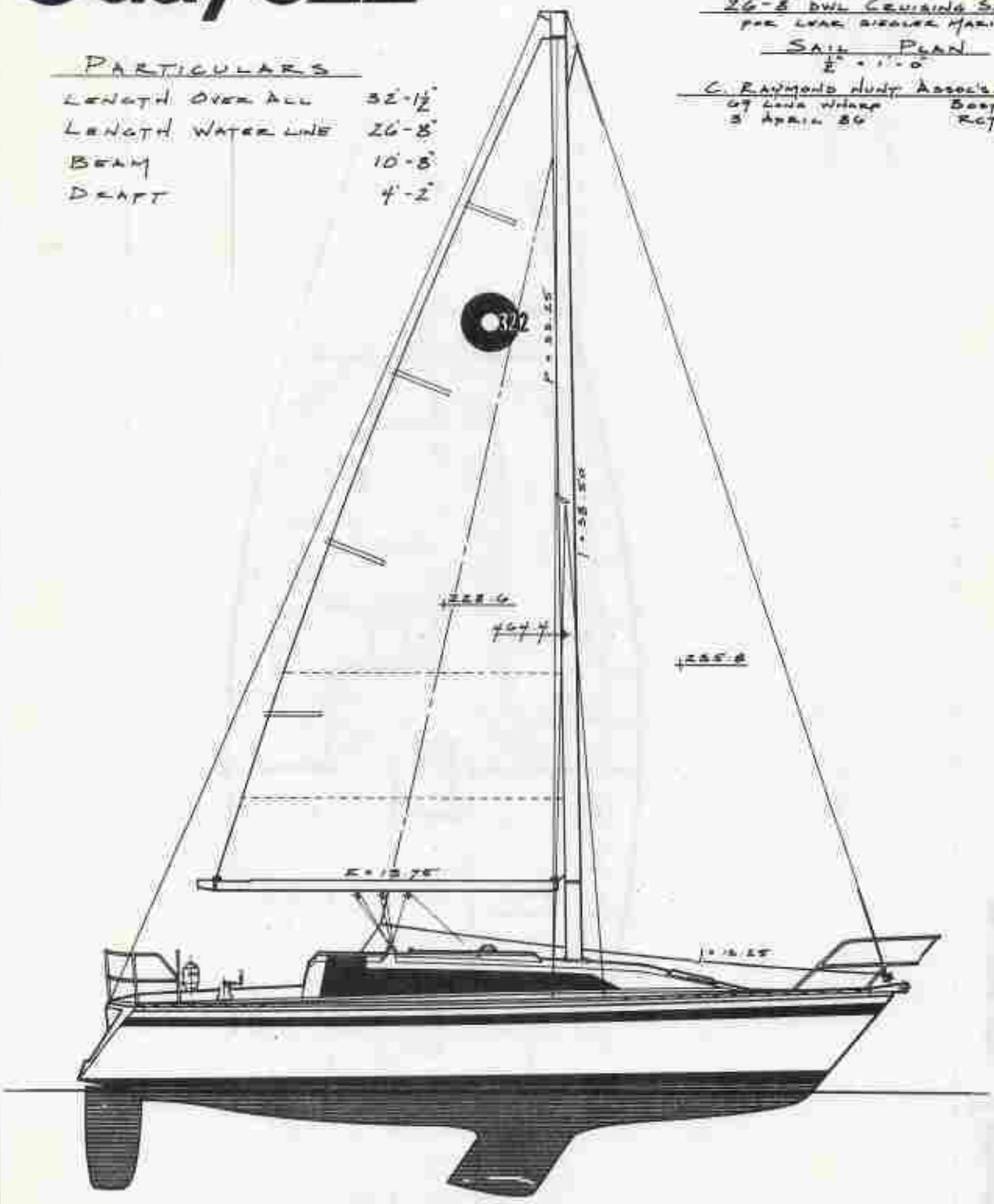
26'-8" DWL CRUISING SLOOP
FOR LYLE DIEDLER MARINE

SAIL PLAN
½" = 1'-0"

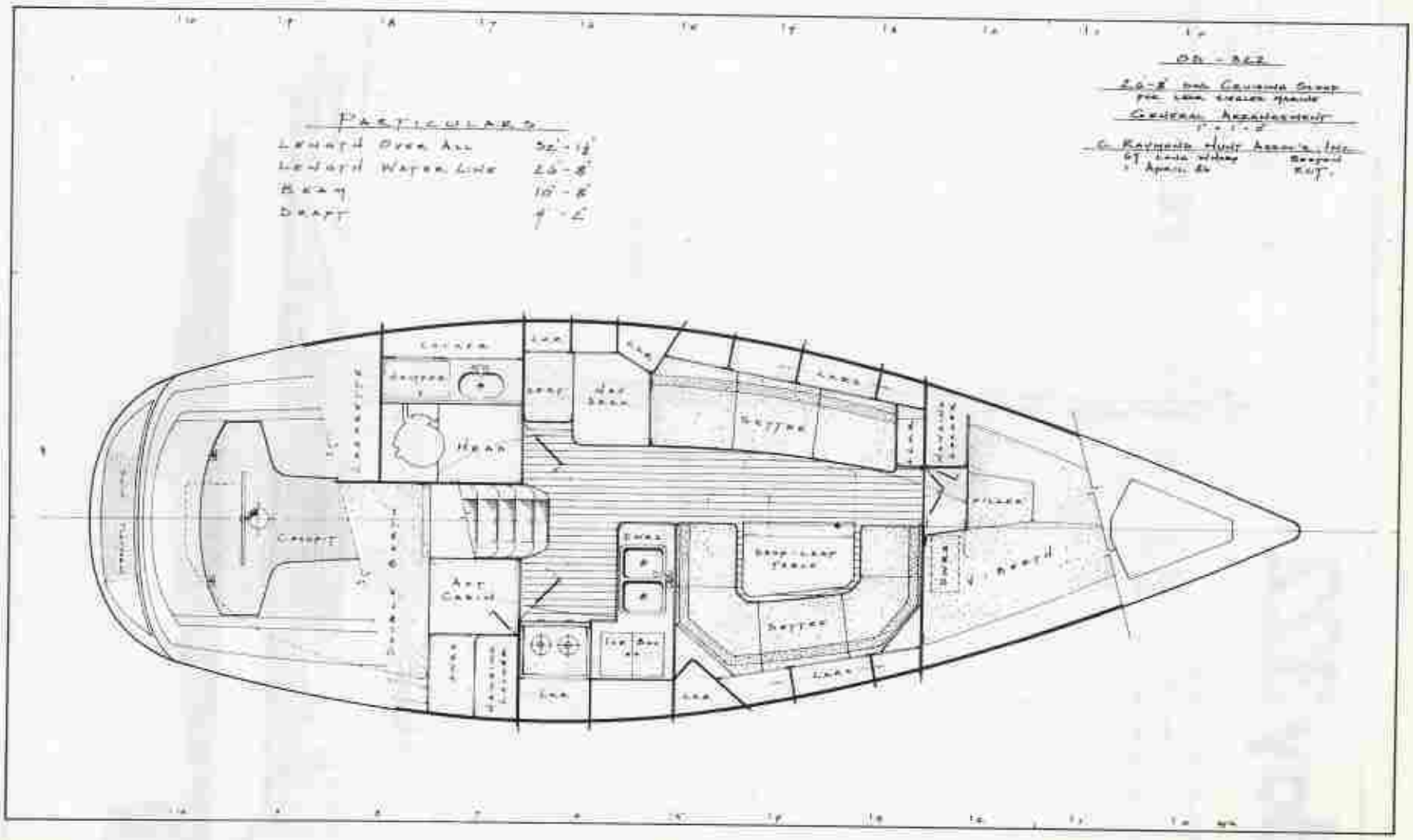
C. RAYMOND HUNT ASSOC'S., INC
69 LONG WHARF BOSTON
3 APRIL 86 RCT

PARTICULARS

LENGTH OVER ALL	32'-1½"
LENGTH WATER LINE	26'-8"
BEAM	10'-8"
DRAFT	4'-2"



O'day 322


PARTICULARS
Length Over All 32'-1½"
Length Water Line 25'-8"
Beam 10'-8"
Draft 4'-6"
O'DAY - 322
GENERAL ARRANGEMENT
C. RAYMOND HUNT ASSOC'S, INC.
Head
Cockpit
Galley
Settee
Berth

O'DAY 322
SPECIFICATIONS

HULL DIMENSIONS

LOA	-	32' 2"	
DWL	-	26' 8"	
BEAM	-	10' 8"	
DRAFT	-	4' 2"	
DISPLACEMENT	-	10,250	Lbs.
BALLAST	-	3,850	Lbs.

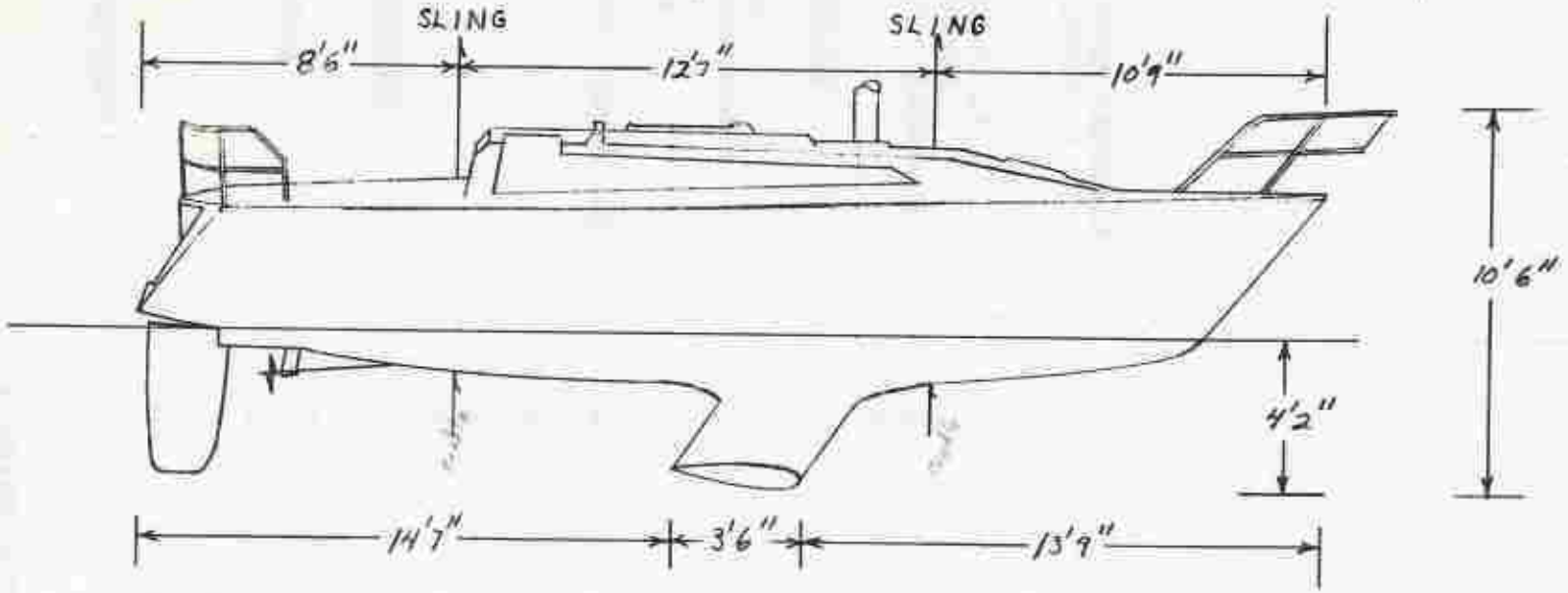
RIG DIMENSIONS

I	-	38' 6"	
J	-	12' 3"	
P	-	33' 3"	
E	-	13' 9"	
Mast Height Above DWL	-	42'10"	
Sail Area			
Main	-	228.6	Sq. Ft.
Foretriangle	-	235.8	Sq. Ft.
Total	-	464.4	Sq. Ft.

MISCELLANEOUS

Berths	-	6	
Fresh Water Capacity	-	60	Gallons
Fuel Capacity	-	19	Gallons
Icebox Capacity	-	5	Cubic Feet
Engine	-	Yanmar 2GMF, 2 cylinder, fresh water cooled, 18HP	
Propane Capacity	-	4.5	Lb. — changed to 26 lb. tanks Apr. 1993
Holding Tank Capacity	-	16	Gallons

9-2-87



O DAY 322
Docking Plan
7/17/86 JPF

DEALER'S RESPONSIBILITIES

Your O'DAY dealer is a professional. He can provide you with the service and expertise that will help you to enjoy your O'DAY. Rely on him for assistance in selecting any additional equipment you may need and in seeing that it is properly installed.

The dealer will inspect the boat upon arrival at his yard. When the boat is commissioned, he will check all the systems and equipment and correct any problems that may arise. Should there be any defects covered by the O'DAY warranty, the dealer will correct them as soon as possible and file any warranty claims with The O'Day Corporation. All warranty matters must be handled by an authorized O'DAY dealer.

Should you need any parts for your O'DAY product, contact your local dealer, or by calling 617-678-5291, and asking for our Parts Department. The dealer can obtain quick delivery from O'DAY. By utilizing his assistance, you can be assured of receiving the proper parts and of proper installation as well.

The O'Day Corporation assumes no liability for damage incurred in transit.

O'Day

9-2-87

OWNER'S RESPONSIBILITIES

Every O'DAY is covered by our 1-year Limited Warranty (See Limited 1-Year Warranty sheet for further information) for one year after commissioning by the original retail customer, but in no event later than two years from the date of shipment by The O'Day Corporation. Always refer to our Limited Warranty for complete warranty information. Within 30 days of taking delivery of your boat, fill out the warranty registration card and return it to The O'Day Corporation. The U. S. Coast Guard requires that all manufacturers keep records of people who have purchased their products. This is necessary in case a defect notification or product recall is needed. The only way The O'Day Corporation can maintain these files is to have you send in the completed card. If you have any questions or comments, please include these with the card. We will get back to you.

When you sell your O'DAY, please drop us a note with the hull number, your name, and the name and address of the new owner.

It is important that you contact your dealer as soon as possible when problems are noted. This will assure prompt service and prevent the problem from worsening.

9-2-87 O'DAY

FOR SAFE BOATING

(Reprinted by Permission of U.S. Coast Guard)

BE PREPARED

Take a Safe Boating Course from the Coast Guard. You can call 800-336-BOAT for information on courses in your area.

Carry all safety equipment required by Federal and State law. Federal requirements are discussed in "Federal Requirements for Recreational Boats" which can be acquired from U.S. Coast Guard Office of Boating, Public, and Consumer Affairs, Washington, D.C., 20593. State requirements will come from your local State Boating Administration. The Coast Guard also recommends: a first-aid kit, a pump or bailer, a transistor or weather radio, extra fuel, a paddle, anchor and line, and extra drinking water, also, if not a requirement, flares.

Get a Coast Guard Auxiliary Courtesy Examination. This is a free, confidential, safety inspection. Call your local Coast Guard Auxiliary for details.

Be familiar with the use of distress signals and PFD's.

AVOID FIRES

Handle fuels carefully.

Read the engine owner's manual for proper fuel-system maintenance.

Inspect your engine's fuel system periodically.

Heed fire extinguisher regulations and keep them in good condition.

While refueling:

a. Fill portable tanks on the dock.

b. Tie the boat securely.

c. Extinguish cigarettes and all flames on the boat. Turn off all engines and electrical equipment.

d. Keep the hose nozzle in contact with the fuel can or fill.

e. Wipe up all fuel spillage.

f. Ventilate the engine and fuel compartment.

g. Check boat for fumes.

4-3-86 C/O

FOR SAFE BOATING - Continued

BEFORE GETTING UNDERWAY

Leave a float plan: An example of a float plan follows:

Check the weather: Do not venture out, if the weather threatens.

WHILE UNDERWAY

PFD's should be worn by children and non-swimmers AT ALL TIMES. EVERYONE SHOULD WEAR THEM, IF CONDITIONS BECOME HAZARDOUS.

Do not operate a boat, if INTOXICATED, FATIGUED, or STRESSED. These human factors cause 50% of all boating accidents.

Keep a good lookout: This is especially true of sailboats. Keep a watch to leeward UNDER the headsail.

Keep away from swimmers, divers, and skiers.

Obey State and Federal laws. Know your local laws and "rules of the road".

Respect Bad Weather: Try to get to shore, if the weather turns bad. Get and carry a radio with a NOAA "weather band" on FM 162.40-162.55MHZ.

IF TROUBLE OCCURS

Radio for help. Use the emergency VHF Channel; i.e., 156.8MHZ.

Put on PFD's immediately.

Stay with the boat. In cold water, huddle together to prevent hypothermia.

FLOAT PLAN (See next page.)

Make copies of this page and use one before each trip. Fill it out and leave it with a reliable person, who will notify the Coast Guard or other rescue organization, if you fail to return on time. DO NOT FORGET TO CANCEL THE FLOAT PLAN UPON YOUR RETURN.

4-3-86

O/C

FLOAT PLAN

1. Name of person reporting and telephone number.

_____

2. Description of Boat: Type _____ Hull Color _____
Deck Color _____ Stripe Color _____ Registration # _____
Length _____ Name _____
Make _____ Other Distinguishing Marks _____

_____

3. Persons Aboard Number _____
Name _____ Age __ Address & Phone _____

_____

Name _____ Age __ Address & Phone _____

_____

Name _____ Age __ Address & Phone _____

_____

4. Engine Type _____ H.P. _____ Fuel Capacity _____
5. Safety Equipment: PFD's _____ Flares _____ Mirror _____
Flashlight _____ Food _____ Water _____ EPIRB _____
Raft or Dinghy _____
6. Radio _____ Type _____ Frequencies _____
7. Trip Expectations: Leave at _____ From _____
Going to _____. Expect to return by _____
and in no event later than _____
8. Automobile License No. _____ State _____
Color and Make of Car _____ Parked at _____

_____

9. If not returned by _____, call the Coast Guard or

_____

Phone Numbers _____

_____

_____

4-3-86

C/O

COMING ABOARD

Here's a check list approach for your crew: (Not necessarily in order of importance.)

_____ Check bilge for excessive water.
_____ **CHECK WEATHER CONDITIONS AND TIDES.**
_____ Check food supply.
_____ Foul weather gear.
_____ Linen, sleeping bags.
_____ Fuel.
_____ Water.
_____ Sun screens and sunglasses.
_____ Tools.
_____ Docking and anchor gear.
_____ Check radio operations.
_____ Navigation charts and instruments.
_____ **FLOAT PLANS TO A FRIEND OR COAST GUARD.**
_____ Fuel for stove.
_____ Cooking and eating utensils.
_____ Check battery water level.
_____ Oil level, tight V-belts.
_____ Check for loose electrical connections in engine room.
_____ Secure tools or any loose equipment in engine room so as not to get fouled in engine.
_____ AC systems off; electrical cord stowed.
_____ Doors and drawers secured.
_____ Check steering lock to lock.
_____ Check mast for rigging irregularities and tightness.
_____ Halyards and sheets are clear and ready to run.
_____ No lines or other obstructions near the propeller or bow.
_____ Anchor ready to run.
_____ Check lifelines for tightness.
_____ Turn on fuel and water lines.
_____ Stow all loose gear.
_____ Open engine cooling water intake thru hull valve.

9-30-86
C/O

GOING ASHORE

_____ Sails dry and stowed.

_____ Fuel lines and water lines turned off.

_____ Bilge pumped dry.

_____ Wallet, jewelry, and other valuables are not left onboard.

_____ Battery switch off. (optional inboard engine only.)

_____ Charger on (if applicable).

_____ Hatches and ports locked.

_____ Topsides clean.

_____ Appropriate thru-hull valves closed.

_____ Clean interior of food and rubbish.

_____ Fenders in place.

_____ Halyard secured away from mast.

_____ Dock lines secured.

_____ Loose gear stowed.

_____ Sails furled and covered.

_____ All covers in place.

_____ Main companionway locked.

_____ CHECK IN WITH WHOMEVER KEPT YOUR FLOAT PLAN.

4-9-87 ALL

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 - Tackle 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 some shoal-draft boats.

CENTERBOARD PENDANT - Line used to raise and lower centerboard.

CHAINPLATES - Strips of metal fastenned to the boat's hull or deck designed 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

FURLING GEAR - A mechanical device which allows the jib or mainsail to be rolled up on its stay or spar for stowing.

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.

9-22-86

C/O

GLOSSARY - Continued

HEAD - The upper corner of a sail.

HEADBOARD - The fitting at the head of a sail with a hole in it to receive the main halyard.

HEADSTAY - The foremost stay on a sailboat. A jib is set on a headstay.

HULL - Main body of a boat.

JIB - A triangular sail set forward of the mast.

JIB SNAPS - Small fittings that are attached to the luff of a jib, which secure the jib to the headstay

JIBE - The action of the mainsail when shifting from one side of the boat to the other, when heading down wind.

JIFFY REEFING - (See Reefing.) A quick method of reefing the mainsail, sometimes with one line.

LAZY JACKS - Light lines running from the mast to the boom. Their purpose is to contain the mainsail when it is lowered and to support the boom.

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 main mast.

MAINSHEET - The line used to trim a mainsail.

MAST - An aluminum tube designed to stand on end so as to support a boom, plus one or more sails.

MASTHEAD - The top of the mast.

MASTHEAD FITTING - The fitting at the top of the mast.

MAST STEP - A metal fitting that holds the base of the mast in position.

OUTHAUL - A line used to haul the clew of a sail out to the end of the boom.

PINTLES - Pins on the forward side of a boat's rudder, designed to rest in and pivot on the gudgeons secured to the transom.

PORT - The left side of a vessel facing forward.

REEFING - To reduce a sail by rolling or folding up part of it.

RIGGING - The wire supporting the spars is called standing rigging (stays or shrouds) and the ropes used in setting and trimming sails are known as running rigging (halyards and sheets).

12-31-86 C/O

GLOSSARY - Continued

ROLLER FURLING - A means of reducing sail on a main or jib by rolling the sail around a rod or wire.

RUDDER - A vertical plate attached to the stern of a boat, used in steering it.

SELF-RESCUING - A feature which enables the crew to right and sail away a boat which has capsized.

SHACKLE - A U-shaped piece of metal with a pin across the open ends.

SHEET - A rope used to trim a sail.

SHROUD - Same as a stay.

SLACK - The opposite of taut. Slack away or off - to pay out.

SLOOP - A one-masted vessel with two or more sails.

SPAR - A mast, a boom, etc.

SPREADERS - Aluminum tubes that project from a mast in a traverse direction in order to keep a stay at proper tension and to help hold the mast erect.

STARBOARD - The right side of a boat, facing forward.

STAY - A length of wire used to support a spar.

STEMHEAD FITTING - The fitting nearest the bow on the deck where the headstay attaches.

STEP - To step a mast is to set it in position.

STERN - The after part of a boat.

TABERNACLE - A fitting designed so that the mast can be lowered when passing under obstructions; also facilitates stepping and unstepping the mast.

TACK - The lower forward corner of a sail.

TILLER - A piece of wood connected with the rudder head. By this the rudder is moved as desired.

TOPPING LIFT - A wire and/or rope 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.

12-31-86

C/O

COMMISSIONING

COMMISSIONING

Your **O'DAY** dealer will supervise the commissioning and testing of your new boat. His knowledge and experience will insure that all systems and components will function properly when the boat is delivered to you. Please be sure to go over all systems with him, so that you understand their operations and safety features.

We have included some guidelines and instructions in this section to aid you and your dealer.

3-30-87

O'Day

- oiled rag in exaust pipe + air cleaner
- seacock's closed + taped
- prop shaft coupling loose
- engine oil overfilled

[illegible] open [illegible]

PRE-LAUNCH CHECK LIST

1. All thru-hull valves operational, closed and tightened. ____
2. Accessory thru-hulls installed and tightened. ____
3. Propeller in place; 2 nuts and cotter pin installed. ____
4. Sacrificial Zinc installed on shaft. ____
5. Batteries secured, filled, and charged. ____
6. Rigging installed on spar; cotter pins spread and taped. ____
7. Masthead sheaves free to rotate; lubricated. ____
8. Mast lights working. ____
9. All required safety equipment on board. ____

NOTE: THIS IS A BASIC PRE-LAUNCH CHECK LIST. THERE ARE MANY OTHER ITEMS WHICH CAN BE AND SHOULD BE CHECKED BY THE COMMISSIONING PERSONNEL.

9-2-87
C/O

POST-LAUNCH CHECK LIST

1. All thru-hull valves open and water tight. _____
2. Shaft aligned to .003" tolerance. (See Alignment Section under Engine Operation Instructions.) _____
3. Engine shaft packing nut tightened. (See Stuffing Box under Engine Operation Instructions.) _____
4. Engine and gear box oil levels checked. (Refer to Engine Manual.) _____
5. Fuel tank filled and system checked for leaks. _____
6. Engine operates and passes water thru exhaust. _____
7. Engine controls operate correctly and checked for tight nuts, bolts, and spread cotter pins. _____
8. Table installed prior to mast being stepped. _____
9. Mast stepped and mast collar installed. Mast ground wire connected. _____
10. Chainplate tie rods tight. _____
11. Turnbuckles attached; cotter pins spread and taped. _____
12. Boom and running rigging installed. _____
13. Water tank filled. _____
14. Faucets work and lines checked for leaks. _____
15. Stove fuel tank filled; system checked for leaks. _____
16. Electrical equipment operational. (See Commissioning Note No. 1.) _____
17. Steering gear operational. _____
18. Rudder shaft greased. _____
19. Bilge pump operational. _____
20. Toilets operational; hoses secure. _____
21. Deck hardware checked for leaks. _____
22. Check all lifeline turnbuckles, pelican hooks, and end fittings for tightness. _____
23. Recheck all thru hulls and hose clamps. _____
24. Warranty and manuals delivered to owner. _____
25. Warranty card sent to The O'Day Corporation. _____

9-2-87 C/O

COMMISSIONING NOTES

NOTE NO. 1

If your O'DAY yacht is supplied with a 110V AC shore-power system, it will have a control panel with a main breaker (30 amp) and separate breaker switches for the outlets and water heater. In addition, there are both audible (buzzer) and visual (light on panel) reverse polarity indicators. With all switches off, attach the power cable to the power inlet on the boat. Next, connect the power cable to the dockside outlet. WARNING: IF THE POLARITY INDICATORS LIGHT AND/OR SOUND, DISCONNECT THE CORD IMMEDIATELY. THIS INDICATES A REVERSE POLARITY SITUATION WHICH IS DANGEROUS. SEVERE INJURY OR DEATH MAY RESULT. DIAGNOSE AND CORRECT THE PROBLEM BEFORE PROCEEDING.

It is strongly recommended that any appliances used on board be wired with three-wire grounded plug.

NOTE NO. 2

Your O'DAY yacht is equipped with a 110V AC water heater and it is installed to operate off both the ENGINE cooling system and the 110V AC electric system. Before switching the 110V system on, be sure the hot-water tank is filled. Open the valve in the inlet-water line, and be sure the check valve is installed with the arrow pointed toward the water heater. Operate the pressure-water system until you get a steady stream through the hot-water faucets.

WARNING: FAILURE TO FILL THE WATER HEATER BEFORE SWITCHING ON THE 110V CIRCUIT WILL RESULT IN DAMAGE TO THE HEATING ELEMENT.

9-2-87
O'Day

LIFELINES AND STANCHIONS

Your lifelines and stanchions contribute to the safety of your boat. Care should be taken to be sure all pins and fittings are secure and that any cotter rings are taped, so that they do not snag sails or other equipment. A monthly check of the turnbuckles, pelican hooks, and connector loops should be made to assure that there is adequate thread on the screw fittings.

The stanchions have two screws which hold the stanchion tube to the base. The screws should be checked once a month for tightness.

5-5-87 All

RIGGING DIMENSIONS

The following table shows the critical dimensions and materials used for the standing and running rigging on your O'DAY. In the event you should need to replace any of the rigging, you can order the materials through your O'DAY dealer. If this is not convenient, this table will allow you or a local rigger to obtain the proper materials. We would strongly recommend actually measuring any standing rigging before replacing, to assure 100% accuracy.

The halyards on your O'DAY are low stretch Yacht Braid. This material was chosen for its handling ease and durability. Because of the way it is manufactured, it will not stretch as much as normal rope does.

All running rigging should be checked periodically for chafe or damage and replaced when necessary. If excessive wear is noted on running rigging, check all blocks and sheaves to be sure they are free to rotate and are properly aligned.

All standing rigging should be inspected for cracks in the swages, proper installation of cotter pins, and wear on clevis pins. Replace any damaged or suspect rigging IMMEDIATELY.

As you may have noticed on some sailboats, the swaged ends of the shrouds will ooze rust and in severe cases the swage will split. One way to prevent this problem is to lightly heat up the swaged section and place a bar of beeswax against the 1 x 19 stainless steel wire. As it melts, the beeswax will run into the swaged section, sealing it from the elements.

Your jib furling gear is manufactured by an outside supplier and furnished to O'DAY. Please call the manufacturer for any parts and refer to your manual or consult your dealer with any questions.

9-3-87
O'Day

STANDING RIGGING
O'DAY 322
Z Spar

TITLE	SIZE/ CONST	PCL Was 39'5¼"	FITTING A	FITTING B	EXTRA
Headstay	1/4"	~~39'11½"~~ 38'11½" Now "PCL"	5262-008 551-½-E	7854-8-12-12	ATM 80U not in PCL
Backstay	1/4"	42'3½"	Stem NG II 2" cup	7854-8-12-12	
F Lower	1/4"	19'8"	SA 104-8	7854-8-12-12	
A Lower	1/4"	19'9¼"	SA 104-8	7854-8-12-12	
Cap	1/4"	39'0¼"	SA 104-8	7854-8-12-12	19'7⅛" TO Center of stops Stops 1 3/4" apart

Dimensions to end of stud

Headstay	5262-008	5850-5132
Backstay	Stem NG II	5850-5132
F Lower	SA104-8	5850-5132
A Lower	SA104-8	5850-5132
Cap	SA104-8	5850-5132

Mast Measurements: From BUTT to CL spreader bases 18'2 1/8"
From BUTT to top of extrusion 37'5¼"
OK

With Hull No. 81
5-21-87

RUNNING RIGGING

O'DAY 322

TITLE	SIZE	TYPE	LENGTH	A END	B END	EXTRA INFO
Main Halyard	3/8	XLS-Red	88'	580R	Whip	
Main Sheet	7/16	TRO-Red	60'	Eye	Whip	
Genoa Sheet	7/16	TRO-Blue	42'	Whip	Whip	Two
T Lift	3/8	XLS-White	80'	93-31 Eye	Whip	

With Hull No. 11

11-21-86

WIRE RIGGING

Damage to wire rigging, even imperceptible nicks, can substantially reduce the strength of the wire. Such damage can lead to sudden and unpredictable rigging failure, loss of the mast and possible injury to occupants.

Accordingly, it is good practice to have your rigging regularly inspected by a professional rigger. In addition, you should carefully inspect the full run of all stays at least twice each year. Special attention should be given to the swage areas and any area that is subject to wear or damage, such as the headstay where the spinnaker pole may hit, or the spreader tip area.

If there is any damage or deterioration, such as broken strands or nicks, or if there is any question as to the condition of a piece of rigging, replace the rigging immediately.

9-2-87
C/O

RIGGING AND TUNING THE MAST

1. RIGGING THE MAST

Installation of the standing and running rigging should be performed by your O'DAY dealer or his agent, as they are most knowledgeable of the way your O'DAY mast is rigged. Elsewhere in this booklet are rigging lengths and dimensions to help in any replacement that may be needed. We also STRONGLY RECOMMEND that you measure any rigging before replacing it, to assure accuracy.

All sheaves should be checked for free movement and all tangs for correct lead angle before the mast is stepped. Tape any sharp edges.

TO RIG THE MAST

The running rigging, i.e., halyard, topping lift, etc., can be run through the mast, with the messengers provided by the mast manufacturer. The main halyard is led out the starboard side of the mast so that it can be led aft to the sheet stopper on the starboard cabin top. There are extra exits provided on the mast for additional halyards.

Standing rigging, i.e., the shrouds and stays hold up the mast, and the attachment and installation should be done by an experienced rigger. The upper shroud runs through the spreader end. See that it is secured inside the loop in the spreader end and that the spreader end is taped to prevent sail chafe.

Check your owner's information for instructions on your jib furling system. See elsewhere in this manual for information on rigging care and tuning.

2. STEPPING THE MAST

Stepping the mast on a boat of this size is not a job for amateurs and should only be done by professionals with the correct equipment. Your O'DAY dealer can perform this service or recommend a competent professional.

Be sure to check all cotter pins, clevis pins, and the spreader base and end fittings to be sure that they are secure. Be sure the upper shrouds are wired where they pass over the spreader tip. Be sure to tape the spreader ends before stepping the mast or installing spreader boots. Be sure to slip the mast boot over the mast.

NOTE: CHECK ALL MAST LIGHTS FOR FUNCTION PRIOR TO STEPPING THE MAST. BE SURE ALL TURNBUCKLES ARE FULLY OPEN.

Step the spar on the deck and onto the mast step. Be careful not to pinch the wires during the stepping. ALWAYS KEEP ANY PART OF YOUR BODY OUT FROM UNDER THE MAST DURING STEPPING.

2. STEPPING THE MAST - Continued

All stays and shrouds should then be attached. Now, tighten the headstay, backstay, and upper shrouds to a hand-tight condition. For now, leave the lower shrouds slightly slack. Adjust the headstay and backstay to achieve a straight spar. This can be checked by sighting up the mast track on the aft side of the spar. Next, tighten the upper shrouds to get the mast straight athwartships. To check athwartships' straightness, measure, with the main halyard, the distance from the masthead to the aft lower shroud chainplate. If the distances on each side are within one inch, the mast is satisfactorily straight. Finally, tighten the fore and aft lower shrouds. Once again, check constantly to be sure that the mast stays straight both fore and aft and athwart- ships while tightening.

Final tuning must be accomplished while sailing. In a 6-8 knot breeze, adjust the shrouds to achieve a straight spar on either tack. Care should be taken not to overtighten the rigging. Some slack in the leeward shrouds is normal, when sailing in 6-8 knot winds.

Care should be taken not to overtighten the rigging. Some slack in the leeward shrouds is normal, when sailing in 8-10 knot winds.

The rigging will need adjustment after a few sails to compensate for any wire stretch. Be sure to install cotter pins in all the clevis pins and turnbuckles, and bend them over and tape them.

O'Day Sailboats has no specific rig tension recommendations. Such tensions are applicable only in extreme racing situations. This procedure will provide excellent mast tune in 95% of all sailing conditions.

NOTE: FINAL TUNING FOR BEST PERFORMANCE WILL DEPEND ON LOCAL SEA AND WIND CONDITIONS AND THE CUT AND SET OF YOUR SAILS. CONSULT YOUR DEALER OR YOUR SAILMAKER FOR ADVICE.

WARNING: WHEN HAULING, LAUNCHING, AND SAILING, BE SURE TO WATCH FOR LOW OVERHEAD POWER WIRES. CARE MUST BE TAKEN THAT THE MAST DOES NOT COME IN CONTACT WITH SUCH WIRES. CONTACT BETWEEN THE MAST OR RIGGING AND POWER WIRES COULD CAUSE THE MAST AND/OR RIGGING TO CONDUCT ELECTRICITY AND CAUSE INJURY OR DEATH.

CHAINPLATE RODS

The chainplate rod system used on the shrouds of your boat is designed to carry rigging loads to the structural floor pan. IT IS IMPORTANT THAT THE INSTALLATION BE CHECKED FOR PROPER ROD TENSION. The system is designed to carry rigging loads to the pan, rather than the deck.

After the boat is launched and the spars installed, but before the rigging is tightened, the rods should be taut. Pulling on the rod, at mid-height from pan to deck, you should notice a very slight deflection. If the rod is loose, it should be tightened. After final rigging and a few early sailings, recheck the rod tension. If the deck is deflecting at the chainplates, the rod needs further adjustment.

To tighten the rod, remove the cap on the pan at the base of the rod and get a wrench on the nut. Above the pan is a flat spot on the rod. Use another wrench or locking pliers to turn the rod. DO NOT OVERTIGHTEN. If the rods are too tight, with the rigging slack, the deck could be pulled down, creating a depression on deck and damage to the gelcoat surface.

The U-bolt, to which the turnbuckle attaches, is bolted through the deck to an aluminum plate that holds the top of the rod. Annually, the U-bolt should be disassembled and rebedded. When reinstalling, tighten the U-bolt nuts to a snug condition. Again, do not overtighten, or you will damage the deck finish. After reinstalling the U-bolt, be sure to check the chainplate rod tension.

10-2-87
O'Day 322/35

Z-SPAR

BOOM RIGGING INSTRUCTIONS

The Z-Spar boom on your O'DAY yacht is set up for two internal reefs and one internal outhaul. The boom topping lift consists of a rope run to the masthead and inside the mast to a cleat on the starboard side of the mast.

The O'DAY 322 is rigged with a single-line reef, which allows reefing the mainsail without leaving the cockpit. To set up the reef, see "J.2. TO REEF" and the diagram in the Operation section. To rig the aft (leech) end of the reef, run the line from the aft end of the boom up through the first reef leech grommet and back down to the boom. Tie the end off by using a tight bowline around the boom and through the sail foot grommet directly under the first reef leech grommet, or it can be tied to one of the loose bails under the boom. This bail must be fastened to the boom directly under the leech reef grommet. These are left loose in order to accommodate different reef positions. Slide these bails to the proper position and fasten with rivets or stainless steel sheet metal screws. Next, take the same color line that emerges from the gooseneck, run it down to the double block mounted on the mast below the gooseneck, then up through the block on the "D" ring at the luff reef position. Now run the line down through the guide to the single block at the mast collar and aft on port side to the sheet stopper on the port aft cabin top. Repeat with the other reef line for the second reef.

10-2-87
O'Day 322

BOTTOM COATINGS

Since the beginning of the fiberglass boat building industry manufacturers have been plagued with the problem of occasional blistering on underwater surfaces. These blisters are caused by osmotic pressure of a solvent (water), which can pass through a membrane (the gelcoat) to reach a salt (a material which will dissolve in the solvent). This can occur at ANY time through ANY gelcoat finish. Much has been written in the past few years in trade journals, chemical journals, and in the general literature discussing this problem and suggesting possible solutions. Thus far there has been no universally accepted reason as to why this occurs in some boats and not others, nor is there a totally accepted preventive cure or fix once blisters occur.

Although gelcoat surfaces ARE NOT covered under O'Day Sailboats' 1-Year Warranty, we feel that as a manufacturer we would like to assist our customers in finding a solution to this problem. The best available information seems to indicate that coating the boat's underwater surfaces with an impermeable epoxy coating will assist in the prevention of gelcoat blisters. This epoxy should be a type that is recommended by the manufacturer for underwater use and should be done when the boat is new, if at all possible. A boat that has been in the water may also benefit from having this epoxy put on, but it is best to be done before the boat is first launched.

O'Day Sailboats strongly recommends the use of chemical washes to prepare the boat's surface for bottom painting. Sanding will remove some of the protective gelcoat surface and could, therefore, increase the chances of blistering. If you do decide to sand, be sure to use fine sandpaper, and just dull the finish to avoid taking off any of the thin gelcoat protective layer.

O'Day Sailboats uses the finest available materials and the best technique in the manufacture of their product. Gelcoat blistering is a recognized fact of life in the marine fiberglass industry, the chances of which MAY BE reduced by the use of an impermeable barrier coat on the bottom at the time of initial commissioning. Application of epoxy bottom coating, as discussed above, does not alter the fact that external gelcoat finishes are not covered by O'Day Sailboats' Limited 1-Year Warranty.

4-9-87 O'Day

Bare hull
2 coats Interlux 2000
1 coat Ablative Antifouling
Removed Antifouling Fall 88
Lightly sanded
Applied Spring 1989
5 coats Interlux Epoxy 2000
2 coats VC 17m

BOAT STORAGE

Whenever a boat is pulled from the water, for work or storage, care must be taken to provide adequate and proper support of the hull. This is especially true of fin-keel sailboats. With wing-keeled boats, it is especially important that the boat be level and that pressure is not placed on one or the other wing "TIP." Pressure on the tip may cause distortion or damage to the keel or hull. We do recommend the use of an O'Day Corporation cradle.

It is NOT recommended that the weight of the boat be rested solely on the keel. Because of the small area of the keel bottom, the localized loads on the hull in the area of the keel would be severe and could result in permanent damage to the shape or structure of the boat.

If poppets are used for support, they should be located so that the pads are under bulkheads, berth fronts or pan stringers, so that the load is dispersed (see Docking Plan). Failure to properly position the poppets could result in hull depression. Be sure to use an adequate number of supports, and locate them to prevent the boat from tipping fore or aft. A storage cradle designed for this boat is available through your dealer.

When hauling any boats with a propeller shaft, be sure to disconnect the coupling before lifting the boat. This will prevent bending of the shaft, as the boat changes shape when lifted.

Do not careen (lean the boat over on its side) a fin-keel sailboat. The hull, keel, and rudder should survive any accidental groundings. However, care must be taken to keep the boat as balanced and upright as possible to prevent excessive loads.

DANGER: WHEN YOU ARE HAULING, LAUNCHING, AND SAILING NEAR LOW OVERHEAD WIRE, YOU MUST BE VERY CAREFUL THAT THE MAST NOT TOUCH THE WIRES. THE MAST COULD CONDUCT HIGH VOLTAGE ELECTRICITY TO THE PEOPLE ON BOARD AND CAUSE SEVERE BURNS OR DEATH. THE BOAT'S LIGHTNING GROUND SYSTEM WILL NOT PROTECT YOU FROM THE HIGH VOLTAGE POWER FROM POWER LINES.

9-3-87
O'Day 302/322

OPERATION

CONSTRUCTION DETAILS AND GENERAL INFORMATION

A. HULL

The hull of the O'DAY 322 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. Now, layers of multidirectional glass fiber are laid into the mold to prevent pattern transfer from the successive layers of laminate. Finally, more layers of multidirectional fiber and bidirectional roving are applied until the correct layup thickness is attained. The thickness will vary, depending on loads applied and will 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.

There are special fiberglass bosses molded into the pan - port and starboard - to act as attachment points for the chainplate rods. These rods transfer the rigging loads to the hull, reducing strain on the deck and reducing the need for load carrying bulkheads.

B. 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 322 by allowing some discharge lines to exit above the waterline. Since there are 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. The shut-off valves are of bronze, stainless steel and teflon and operate with a 1/4 turn on or off.

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.

B. THRU HULLS & SHUT-OFF VALVES - Continued

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. BE SURE TO RE-OPEN THE ENGINE THRU HULL BEFORE STARTING THE ENGINE.

C. DECK

The deck is hand laid up using glass strand fibers, woven roving, and bidirectional 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.

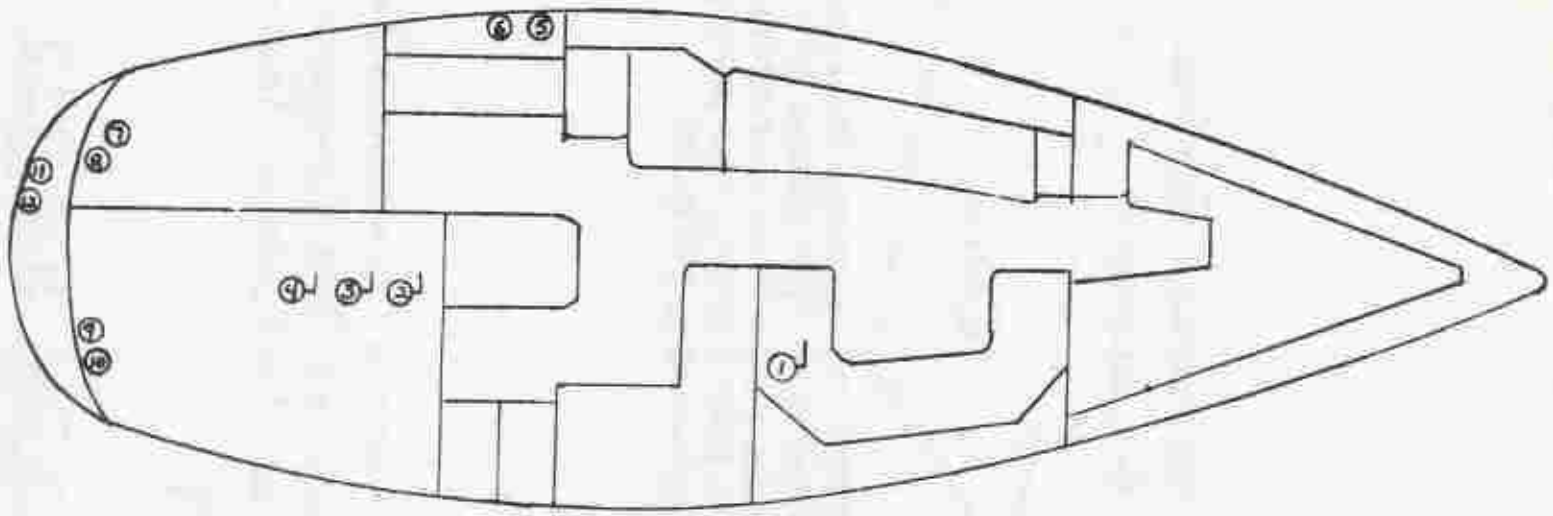
D. HULL-TO-DECK JOINT

The O'DAY 322 hull/deck joint is one of the strongest in the industry. It is formed by setting the deck, with an external, downward turned flange down over the upper hull edge. The area in between the two surfaces is filled with a polyurethane bonding/sealant which remains flexible. The joint is then bolted horizontally approximately every 6" with 1/4" stainless steel machine screws (bolts). The aluminum slotted toerail is bolted thru the deck and the aluminum rubrail/cover strip is screwed on over the hull/deck joint bolt heads.

This hull/deck joint is an excellent one for several reasons. First, the doubling of this area adds rigidity to the perimeter of the boat. Secondly, since the flange does not stick out beyond the edge of the boat, it is much less vunerable to damage than other joints with fully external bolted "LIPS." Finally the use of mechanical fasteners and a slightly flexible chemical bond allows a very slight movement, which would otherwise crack a fiberglass joint.

E. KEEL

The keel is an external, bolted on, lead casting. The keel is bolted to an external stub with stainless steel bolts. Additionally, between the hull and keel casting is a combination sealant and 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 than either external iron or internal ballast of any type. Finally,



1. Sink Drain
2. Engine Intake
3. Head Intake
4. Head Discharge (opt)
5. Shower Sump Discharge
6. Sink Drain
7. Propane Vent
8. Cockpit Drain
9. Cockpit Drain
10. Propane Vent
11. Engine Exhaust
12. Electric Bilge Discharge

Valved Thru Hull

Above waterline Thru Hull

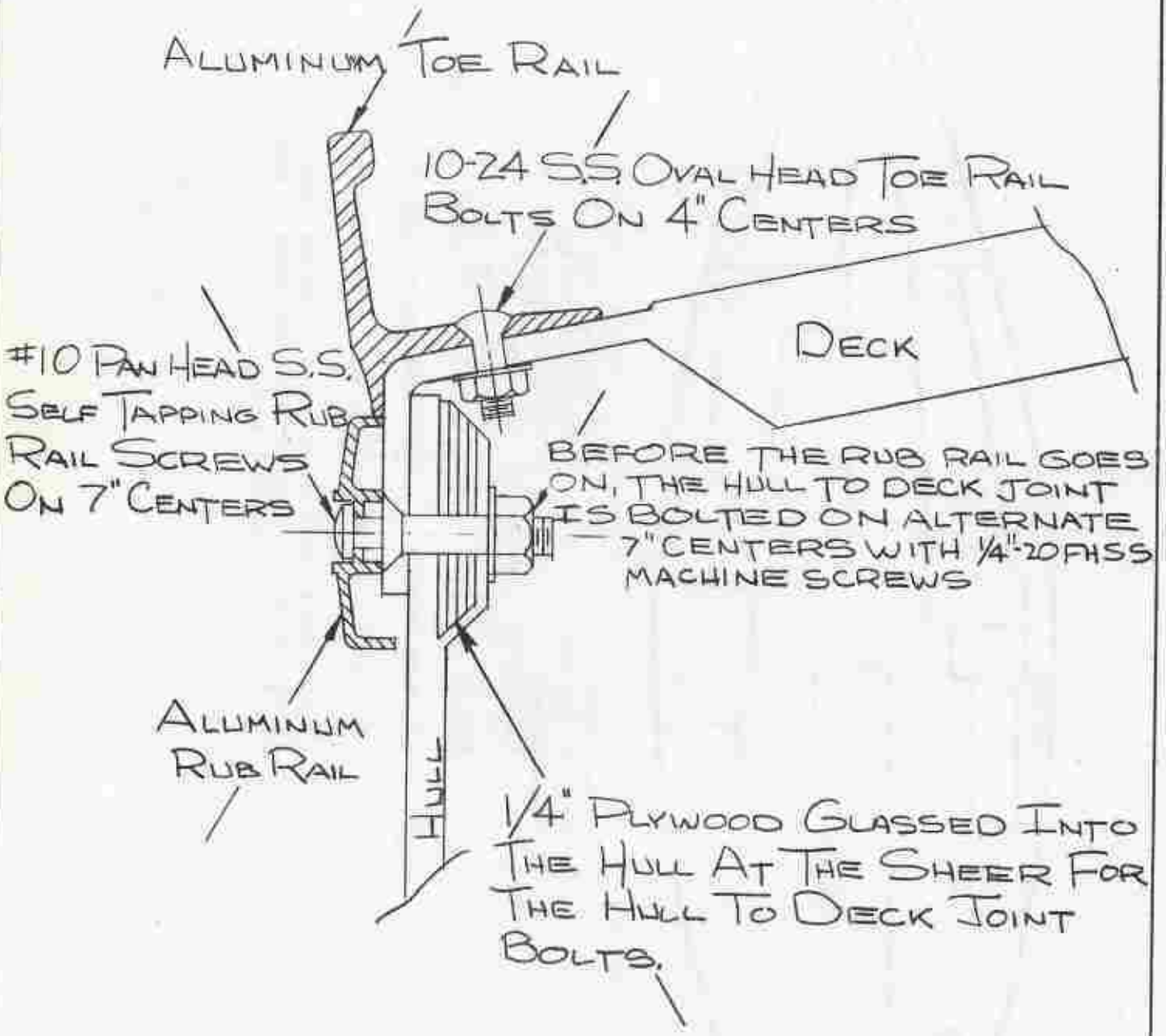
Always close seacocks when boat is left unattended.

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

O DAY 322
Thru Hull Locations
7/16/86 JPF

NOTES

1. THE HULL TO DECK JOINT, TOE RAIL, & RUB RAIL ARE ALL BEDDED IN A POLYURATHANE ADHESIVE

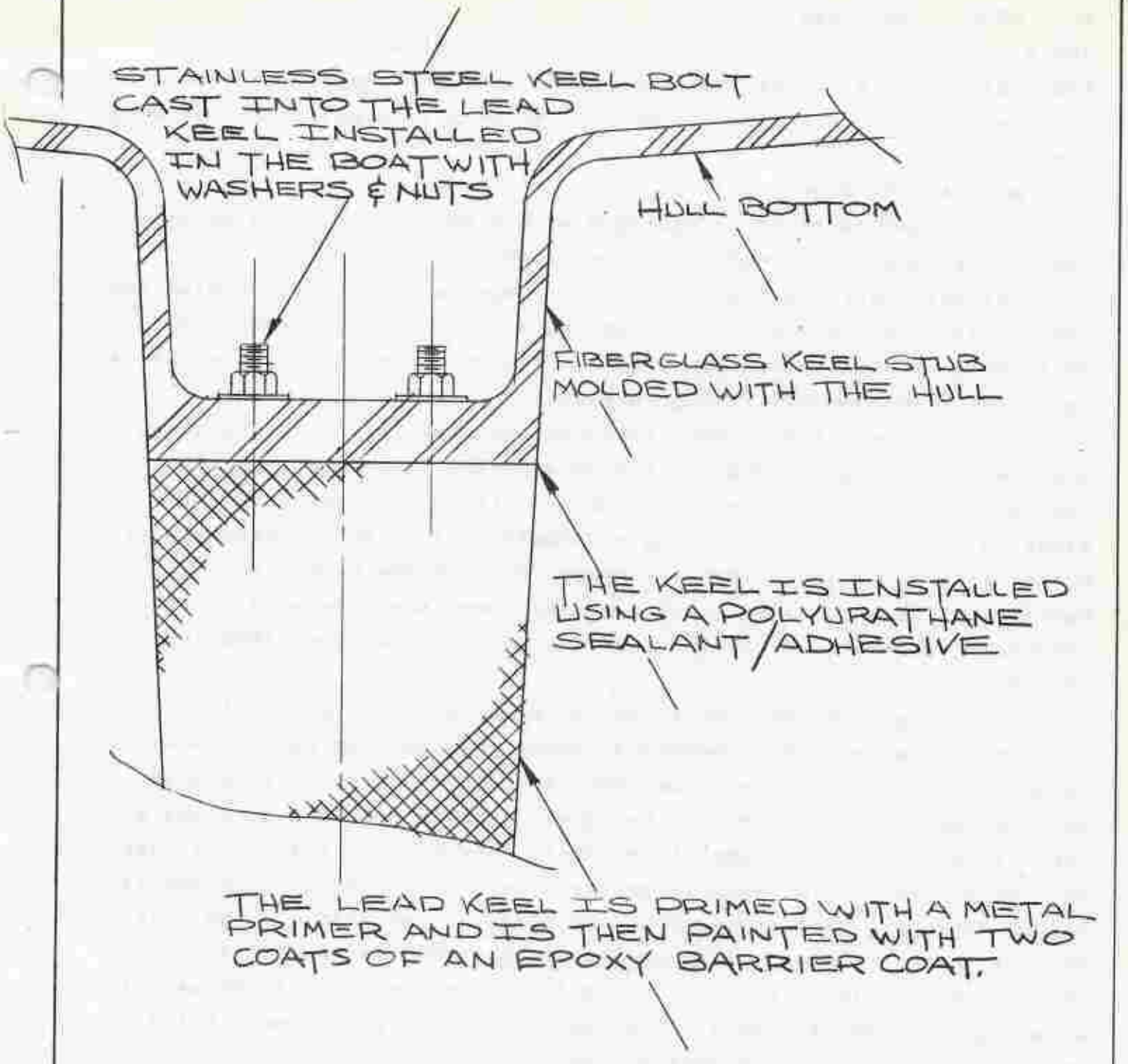


O-DAY 302, 322

HULL TO DECK JOINT

24 NOV 86 DFM

SCALE: FULL SIZE



O-DAY 302 & 322

KEEL/HULL JOINT

8 JAN 87 DFM

E. KEEL - Continued

there are less restrictions to keel shape design with an external keel, as the internal ballast keel shape is restricted by molding considerations. (See front of manual for more information on the wing keel.)

F. MAST AND RIGGING

Your O'DAY sailboat is equipped with a mast and rigging system that is designed to withstand extreme loads.

The mast and boom are extrusions of special marine-grade aluminum that is anodized to protect it from the elements. This anodizing, while more expensive than painting, is a much better coating, as it is less likely to come off through abrasion.

The standing rigging that supports the mast is 1 x 19 stainless steel wire. The upper ends of the shrouds and stays are connected inside the mast. This provides cleaner airflow and less chance of snagging a sail, while providing a "toggle" action which reduces wear on the wire. The lower ends are swaged onto chrome bronze turn-buckles, which also have a toggle at the lower end. Swaging is a process by which the turnbuckle part is actually squeezed INTO the strands of wire.

Since the standing rigging actually holds up the mast, Starcraft Sailboat Products is not tempted to undersize the rigging. We would rather use the next larger size than use rigging that is "adequate" for the job. In addition, all our boats 30' and over use fore and aft lower shrouds to fully support the mast. The wide spread of the lower shrouds provides firm support for the middle of the mast and prevents "pump" where the mast flexes back and forth on the middle. The fore and aft lowers eliminate the need for a babystay, which clutters up the foredeck, catches the jib during tacks and complicates the use of a spinnaker or whisker pole. Fore and aft lowers are a small extra feature that many other products lack.

The running rigging, i.e., sheets, reeflines, halyards, etc., are all color coded for ease of identification and are constructed of low-stretch dacron braid. This braid is long wearing and easy to handle, while providing good tension to the sail. The O'DAY 322 also has all running rigging, with the exception of outhaul and topping lift, led aft to the cockpit, which enhances ease of sailing and makes

F. MAST AND RIGGING - Continued

sailing safer since no one has to go forward to hoist sail, reef, or trim sails.

Further information on the mast and rigging can be found on the commissioning and maintenance sections.

G. RUDDER

The rudder of the O'DAY 322 is composed of a 2 3/4" diameter, stainless steel tube, which forms the rudder stock. Stainless steel webs are welded to the aft side of the tube to provide support to the back of the rudder. This assembly then has a rigid, closed cell polyurethane foam cast around it, which is coated with fiberglass and gelcoat. The polyurethane foam makes for a lightweight rudder of nearly neutral buoyancy and great strength.

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

H. STEERING

The pedestal steering gear on your boat has been selected and installed to give you smooth and reliable steering action. The system was designed for the O'DAY 322 by the manufacturer in consultation with our engineering staff. The unit should give you excellent service with minimal maintenance. A maintenance sheet from the manufacturer has been supplied in your owner's packet. Please follow the schedule carefully. Access to the cables and quadrant is from the cockpit locker and the foot of the quarter berth.

It is imperative that the steering system be inspected and lubricated at regular intervals. All sheaves in the system should be inspected for wear and alignment. A grease fitting is provided in the rudder tube for lubrication of the rudder shaft. This lubrication should be done at least once a year. The steering cable adjustment is accomplished from the quadrant. Cable tension should be tight, but without causing excess friction. If in doubt, have a competent mechanic inspect and adjust the system. Cable tension should be checked at least once a month for the first six months, as the cable will stretch.

The O'DAY 322 is supplied with an emergency tiller in the remote chance should any problem occur with the steering system. **WE STRONGLY RECOMMEND PRACTICE INSTALLING THE EMERGENCY TILLER AND STEERING WITH**

H. STEERING - Continued

THE EMERGENCY TILLER in calm waters before any emergency occurs. The emergency tiller can be installed by removing the cover plate in the middle of the helmsman's seat and installing the tiller on the top of the rudder post. The emergency tiller should be stored in an immediately accessible place. The steering wheel should be removed to gain full throw on the emergency tiller.

STEERING COMPASS - The steering compass on your **O'DAY 322** is mounted on the pedestal for ease of viewing. It has a red light for effective use at night. **NOTICE: THIS COMPASS MUST BE COMPENSATED FOR YOUR BOAT AND AREA BEFORE USING YOUR BOAT.**

I. OPERATION OF THE JIB FURLING SYSTEM

The jib furling system on your **O'DAY 322** is made by one of the finest sail furling system manufacturers in the world. This unit is designed to allow quick furling of the jib and some reefing of the jib. The 140% genoa is a radial cut and has heavier leech and foot panels, which allows it to be reefed. Treated fabric provides UV protection when the genoa is furled. Always be sure to furl the sail with the U/V cover on the outside.

HOISTING THE SAIL

To hoist the 140% genoa, attach the head of the sail to the shackle of the jib halyard, that is internal, in the furling unit. While one person feeds the sail into the luff groove, pull the halyard down by the halyard traveller until the traveller reaches the holes through the bottom foil below the feed slots and above the throat assembly. (See enclosed information sheet.) Pin the traveller through the lowest hole you can, with the provided pin. Next, tension the luff of the sail with the downhaul line attached to the jib tack. Pass the line through the jib tack and furler tack hole several times to achieve a multi-part system. Cleat the line. **NOTE: DO NOT FORCE** the sail while hoisting. If the sail jams, check the feed slot. Also, for the first few hoists the sail may be tight; but, as long as it is feeding freely, it will be okay.

TO FURL THE SAIL

To furl the sail, uncleat the furling line and make sure the sheets are clear and free to run. Pull on the furling line, while

TO FURL THE SAIL - Continued

keeping light tension on the sheets. This light tension on the sheets will insure that the sail wraps tightly. Keep rolling the sail up until the sail is fully wrapped around the furling foil. Take one or two extra turns to wrap the sheets around the sail. This will keep the sail tight. Cleat the furling line. Lightly tension and cleat the sheets. **NOTE: IF ANY TENSION OR RESISTANCE** to rolling up the jib is felt, **STOP IMMEDIATELY AND CHECK THE SYSTEM**, furling line, sheets, and aloft. The sail should roll easily at all times. You should not have to winch the sail in!

When rolling up the jib at sea, never try to roll the jib up downwind. Come into the wind, keeping the front one half of the sail luffing. Roll up the sail as above.

Be sure to always furl the jib in the proper direction so the white acrylic cover strip is on the outside.

REEFING THE SAIL

To reef the sail, proceed as above "furling the sail" except only roll in as much sail as you wish. Then cleat the furling line tightly, re-adjust the sheet lead blocks, and proceed. The sail is marked at 120% and 100% areas for your convenience.

NOTE: THE REEFING ABILITY OF THE 140% GENOA IS A CONVENIENCE, BUT NOT A SUBSTITUTE FOR A PROPER HEAVY WEATHER JIB OR STORM SAIL IN SEVERE CONDITIONS.

NOTE: THE GENOA WILL NOT EFFECTIVELY REEF BELOW A 100% JIB.

UNFURLING THE SAIL

To unfurl the 140% genoa, release both genoa sheets and make sure they are clear to run. Uncleat the furling line and make sure it is clear to run. Come slightly off head to wind. Pull on the leeward sheet until the sail has come out the desired amount. Re-cleat the furling line. **NOTE: YOU SHOULD NOT HAVE TO WINCH THE SAIL OUT. IF ANY RESISTANCE IS MET, STOP AND INSPECT THE SYSTEM.**

NOTE: THE ONE ITEM THAT CAUSES THE MOST TROUBLE WITH FURLING SYSTEMS IS EXTRA HALYARDS. HALYARDS LED TO THE PULPIT, LIFELINES, ETC., WILL OFTEN BECOME CAUGHT UP IN THE HEAD SWIVEL AS THE SAIL IS FURLED OR UNFURLED. KEEP ALL HALYARDS AS TIGHT AGAINST THE MAST AS POSSIBLE. SPINNAKER HALYARDS SHOULD BE LED OUTSIDE AND BEHIND THE UPPER SHROUDS AND KEPT TIGHT.

UNFURLING THE SAIL - Continued

Check the manual from the furling gear manufacturer for further tips and maintenance information.

J. MAINSAIL REEFING

1. To Rig The Single Line Reef

The O'DAY 322 is rigged with a single-line reef, which allows reefing the mainsail without leaving the cockpit. To set up the reef, see below and the attached diagram.

To rig the aft (leech) end of the reef, run the line from the aft end of the boom up through the first reef leech grommet and back down to the boom. Tie the end off by using a tight bowline around the boom and through the sail foot grommet directly under the first reef leech grommet. Next, take the same color line that emerges from the gooseneck, run it down to the double block mounted on the mast below the gooseneck, then up through the block on the "D" ring at the luff reef position. Now run the line down through the guide to the single block at the mast collar and aft on port side to the sheet stopper on the port aft cabin top. Repeat with the other reef line for the second reef. On the bottom of the boom are unattached bails which must be fastened to the boom directly under the leech reef grommet. These are left loose in order to accommodate different reef positions. Slide these bails to the proper position and fasten with rivets or stainless steel sheet metal screws.

2. TO REEF

A. Tighten up the topping lift so that the boom will not drop into the cockpit.

B. Ease the main sheet until the mainsail starts to luff.

C. Ease the main halyard until the reef grommets are at boom level.

D. Tighten the reef line.

E. Re-tension the main halyard.

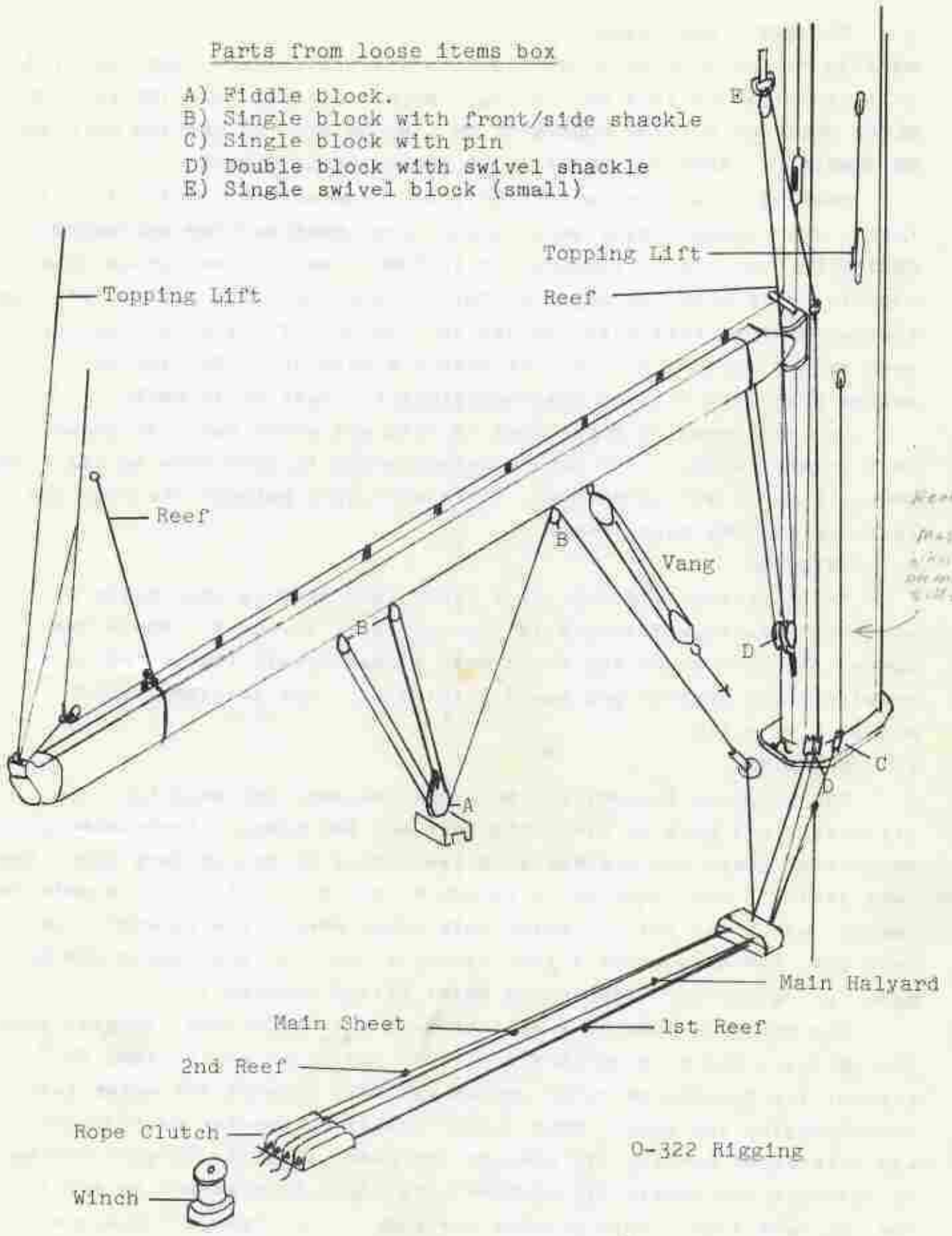
F. If long-reefed passages are anticipated, tie the loose mainsail up through the grommets provided.

G. Resume sailing.

This reefing procedure should be practiced at the dock, in calm weather, several times until the procedure becomes second nature. Jiffy reefing, once mastered, can be done in two minutes or less.

Parts from loose items box

A) Fiddle block.
B) Single block with front/side shackle
C) Single block with pin
D) Double block with swivel shackle
E) Single swivel block (small)



O-322 Rigging

2. TO REEF - Continued

Marking the main halyard, to indicate the appropriate reef positions will increase the ease of reefing. **NOTE: BE SURE THAT THE LUFF REEF BLOCK DOES NOT HIT THE GOOSENECK OR LINE GUIDES, OR REEFING WILL NOT BE COMPLETE. KEEP THE BLOCK AT OR ABOVE THE GOOSENECK.**

Reefing is a personal proposition. There is no "best" time to reef. You should reduce sail on your boat **WHENEVER YOU ARE UNCOMFORTABLE.** Sailing is supposed to be **FUN!** There is no reason to be uncomfortable with the angle of heel of your boat and not to reef just because another boat near you has not reefed. You are sailing for your own enjoyment, not for the people around you. Extreme heel angles also lead to poor boat performance. Reefing is **SMART.**

You will need to experiment to find out which sail you should reef in what winds. You should normally try to have some mainsail and some jib up in all conditions. This will help balance the boat and keep you sailing more freely.

K. **INTERIOR**

The interior headliner is a fiberglass molding that gives a smooth, finished appearance to the inside of the boat. Above the bunks, the hull sides are lined with a foam-backed fabric, which provides both thermal and sound insulation. The interior teak woodwork is oiled.

L. **PLUMBING**

The plumbing systems in the **O'DAY 322** were designed for efficiency and ease of use. The boat has two plastic tanks standard; 25 gallons under the starboard settee, and a 35 gallon tank under the port settee. Each tank has a separate deck fill. There is a selector switch, under the galley, which determines which tank is used. In this way, one knows when a tank is empty, so that provisions can be made for refilling. (See Fresh Water System Diagram.)

The pressure pump is a self-priming diaphragm pump, located under the galley. There is an in-line filter installed on the pump to prevent any foreign material, which may have entered the water tank, from damaging the pump. This filter should be checked periodically and cleaned as needed. To operate the pump, turn the 12-volt system on and move the electrical-control panel "pressure-water" switch to the "on" position. When priming the pump, first open all faucets.

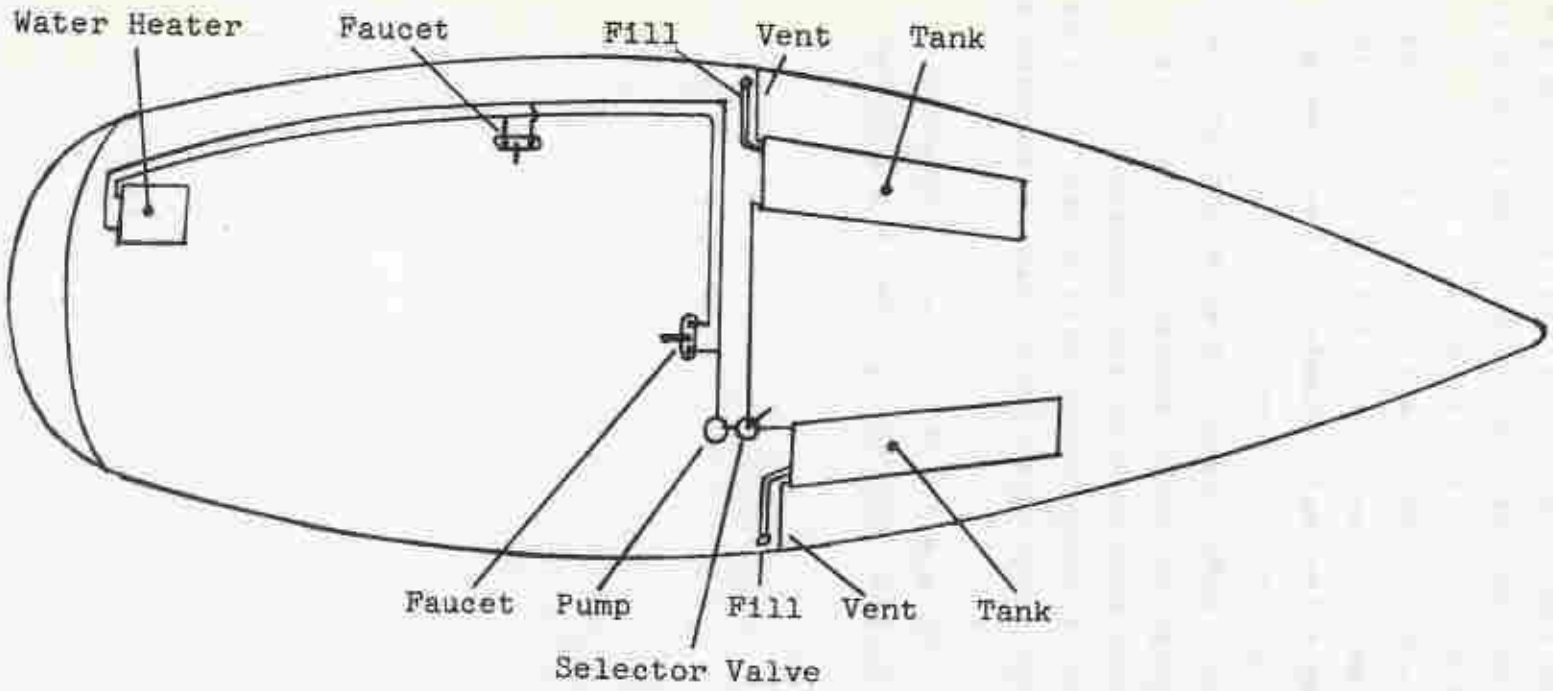
L. **PLUMBING** - Continued

The pump will go on and build up pressure in the system. When all faucets are delivering a steady stream of water, close them. The pump will go off automatically. Whenever you open a faucet, the pump will cycle on and off to maintain pressure in the system.

Your yacht is equipped with a hot-water heater. It is located in the cockpit locker. Be sure the water line feed valve is open with the check-valve arrow pointed toward the water heater. The pump will fill the tank and pressurize the hot-water system.

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.)** It is recommended that a spare kit be carried for the pressure pump. 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 and 110V AC systems are covered elsewhere in this manual.



O DAY 322
Water System
7/16/86 JPF

M. HOLDING TANK/WASTE SYSTEM

The O'DAY 322 has a waste system that, when properly used, meets most federal, state, and local standards. As The O'Day Corporation cannot be aware of all local rules for localities, we recommend that you check local rules and codes.

The O'DAY 322 system (see Diagram) is fairly simple. In its standard form, it consists of an inlet thru-hull valve to allow flushing water into the w/c, a holding tank to contain the effluent, and a deck discharge fitting to allow removal of the waste from the holding tank at an approved discharge system. There is one holding tank with a capacity of 16 gallons. We recommend that the holding tank be pumped at every opportunity and that waste not be left in the tank for more than 48 hours. After each emptying, be sure to use one of the many holding tank chemicals that are available. These chemicals aid in the breakdown of solids and prevent gas buildup in the tank. Certain of the chemicals may contain harmful substances. Be sure to read the directions.

The standard head discharge system on your O'DAY yacht 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: SOME CHEMICALS CONTAIN FORMALDEHYDE, WHICH MAY CAUSE IRRITATION.
NOTE: CHECK CONDITION OF HOLDING TANK FREQUENTLY; OVERFILLING CAN BURST THE TANK.
NOTE: CHECK VENT LINES FREQUENTLY TO BE SURE THEY ARE OPEN.
NOTE: SEE MAINTENANCE SECTION FOR INFORMATION ON THE VENTED LOOP.

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.

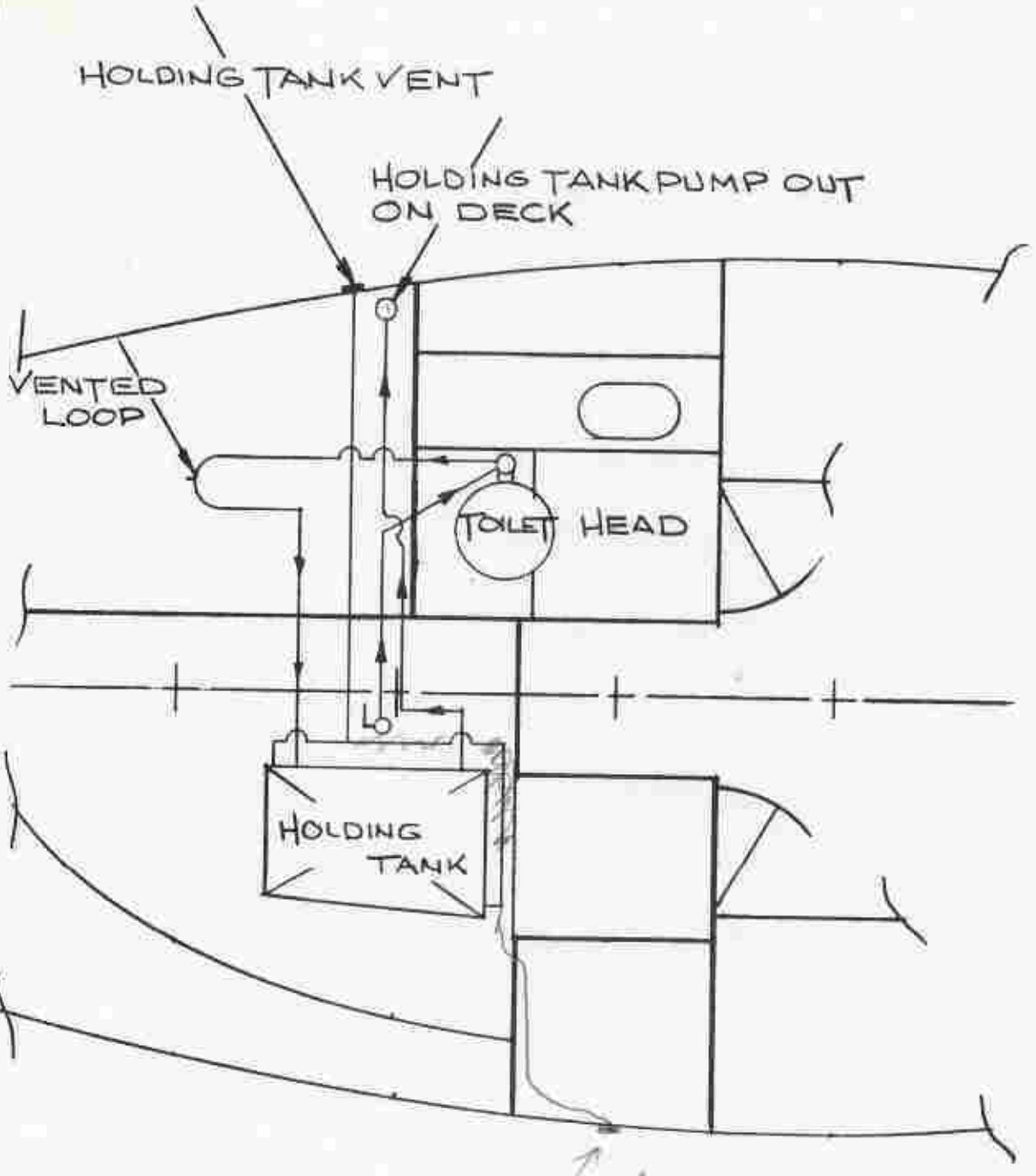
added extra holding tank vent June 93
Newhead Aug 1997 PHII Raritan
w/ Newhead hose 8-9-93.

M. HOLDING TANK/WASTE SYSTEM - Continued

TO EMPTY THE HOLDING TANK - Continued

4. Remove pump-out hose.
5. Re-cap "WASTE" deck fitting.
   NOTE: ADD HOLDING TANK CHEMICAL, WHENEVER THE TANK IS EMPTIED.

Be sure to close the head inlet valve after each use, to eliminate any possibility of flooding.



O-DAY 322

STANDARD HEAD SYSTEM

26 NOV 86 DFM

N. HOLDING TANK/WASTE SYSTEM - OPTIONAL

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.)

This system operates as follows:

A. To discharge directly overboard from the head.

NOTE: DIRECT OVERBOARD DISCHARGE IS ONLY LEGAL IN UN-RESTRICTED 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 TOWARD 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 pump 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.
   NOTE: ALWAYS USE A HOLDING TANK CHEMICAL FREQUENTLY.
   NOTE: CHECK CONDITION OF HOLDING TANK FREQUENTLY; OVER-FILLING CAN BURST THE TANK.
   NOTE: SEE MAINTENANCE SECTION FOR INFORMATION ON THE VENTED LOOP.

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.

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

1. Open the deck fitting marked "WASTE."
2. Connect shore station pump-out hose.
3. Operate shore station pump until tank is empty.
   NOTE: A CLOGGED HOLDING TANK VENT LINE COULD RESULT IN A COLLAPSE OF THE HOLDING TANK.
4. Remove pump-out hose.
5. Re-cap "WASTE" deck fitting.

N. HOLDING TANK/WASTE SYSTEM - OPTIONAL - Continued

NOTE: ADD HOLDING TANK CHEMICAL, WHENEVER THE TANK IS EMPTIED.

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, located behind the head, until the tank is as empty as possible. There will still be 1" to 2" of liquid left in the tank.
4. Close the discharge thru hull.
5. Put a holding tank chemical into the holding tank.

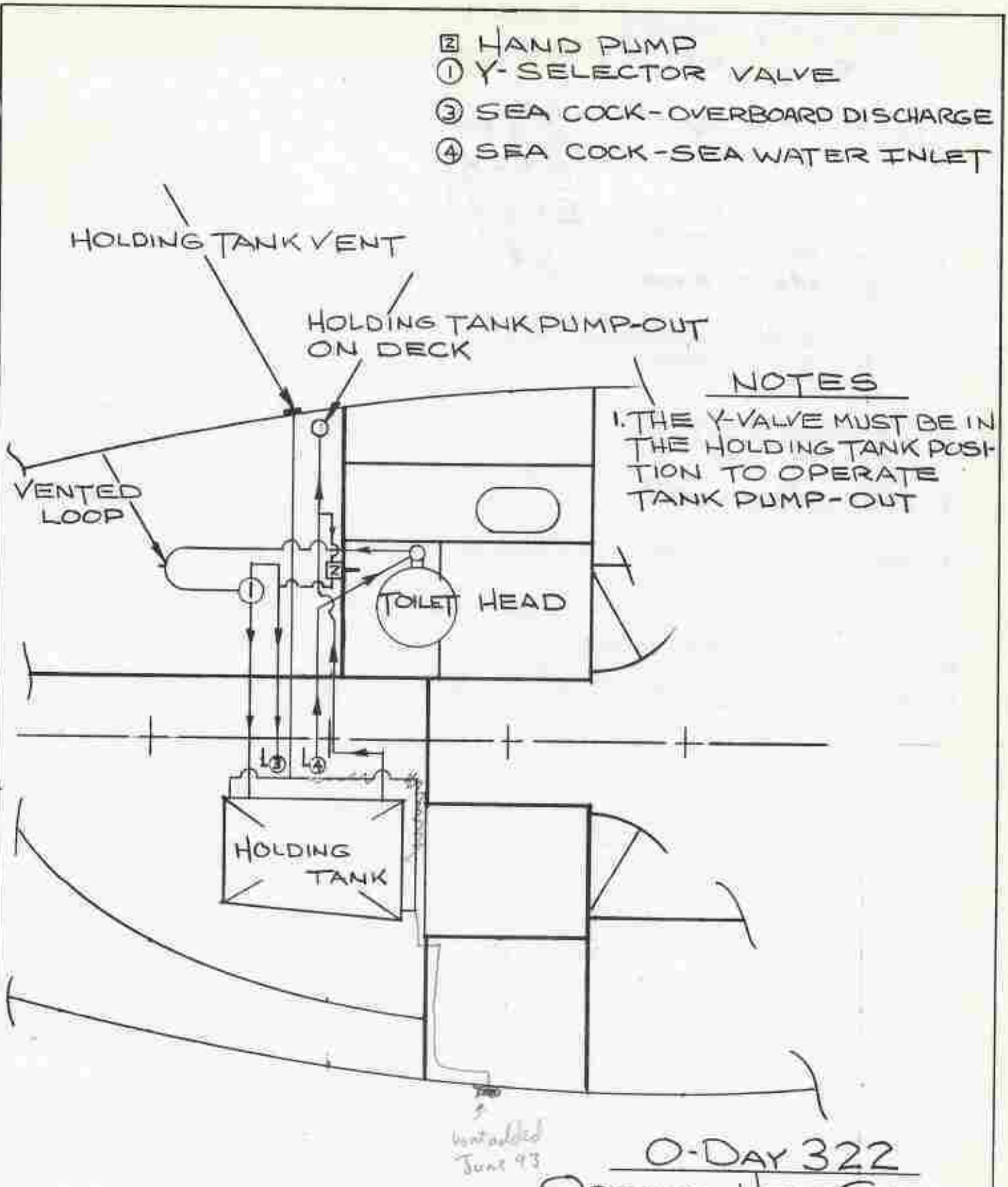
   NOTE: IF THE DECK PUMP OUT FITTING IS NOT CLOSED TIGHTLY, THE PUMP MAY NOT WORK EFFECTIVELY.

The overboard discharge option enables the holding tank to be emptied directly overboard in areas where this is legal.

NOTE: THE DISCHARGE VALVE (SEE DIAGRAM) SHOULD BE CLOSED AND THE HANDLE REMOVED IN NO-DISCHARGE AREAS, IN ORDER TO PREVENT ACCIDENTAL DISCHARGE OF WASTE.

In areas of legal overboard discharge, the holding tank can be emptied by simply opening the discharge valve and working the hand pump until the tank is empty. After the tank has been emptied, the discharge valve should be shut and a holding tank chemical added to the head system.

9-3-87
C/O



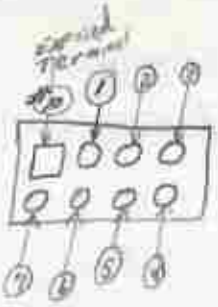
O-DAY 322

OPTIONAL HEAD SYSTEM

OVERBOARD DISCHARGE

26 NOV 86 DFM

Mast plug Changed 4-2-92
to 8 gang plug
on mast step



		Plug wire colors
10 — Exposed terminal all Grounds		Black
1 — Running lights (winter)		purple 2 wires purple
2 - Foredeck light	gray	
3 Steaming light	white	
4 - Anchor light	pink	
5 — not used		
6 - not used	7	Hot Hailer
7 - not used	8	Common Hailer

O. ELECTRICAL SYSTEM

The O'DAY 322 is equipped with both a 12 volt DC and 110-115 volt 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 two 95 amp hour batteries located under the starboard settee and controlled by a four-position battery switch located on the panel above the chart table. This switch acts as a master battery disconnect, as well as a selector for the batteries.

Batteries are charged by the engine alternator, which will charge both batteries, regardless of switch position. However, THE BATTERY SWITCH SHOULD NEVER BE TURNED OFF WHILE THE ENGINE IS RUNNING - SERIOUS DAMAGE TO THE ALTERNATOR MAY RESULT.

The level of charge of the batteries can be checked with the battery condition meter located on the DC panel. The test switch on the panel will directly connect the meter to the batteries and so indicate battery level. False readings will result, if the battery switch is in the "both" position when the battery condition is checked.

The condition of the batteries should be checked frequently and kept as fully charged as possible, to insure long life. The batteries should not be allowed to run down or "deep cycle" for prolonged periods - 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.)

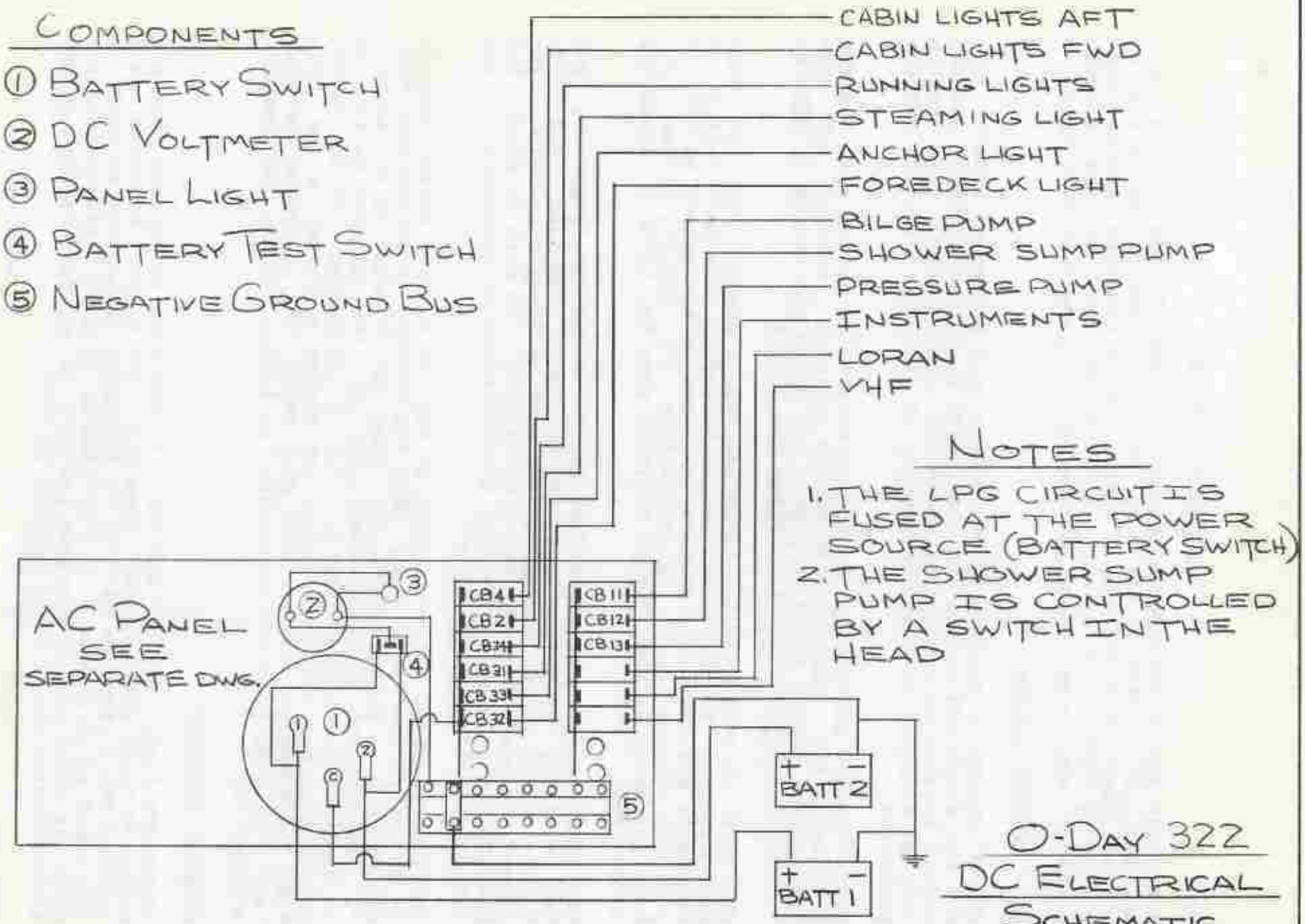
The four position battery switch is used to control which battery is in use by the 12V system. When the battery is on battery "1", battery one is being discharged; when the selector is on battery "2", battery two is being discharged; when the selector switch is on "both", then both batteries will be discharged. It is recommended that one battery be used for engine starting and one battery for domestic supply. That way, there will always be one battery available to start the engine, no matter how low the domestic battery is.

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 repositioning the circuit breaker to "ON".

COMPONENTS

① BATTERY SWITCH
② DC VOLTMETER
③ PANEL LIGHT
④ BATTERY TEST SWITCH
⑤ NEGATIVE GROUND BUS



NOTES

1. THE LPG CIRCUIT IS FUSED AT THE POWER SOURCE (BATTERY SWITCH)
2. THE SHOWER SUMP PUMP IS CONTROLLED BY A SWITCH IN THE HEAD

O-DAY 322
DC ELECTRICAL
SCHEMATIC
20 NOV 86 DFM

O. ELECTRICAL SYSTEM - Continued

CIRCUIT BREAKERS - Continued

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.

BE SURE TO DISCONNECT ALL BATTERIES AND UNPLUG THE SHORE POWER CORD BEFORE OPENING THE PANEL, OR SEVERE INJURY MAY RESULT.

110-115 VOLT AC POWER

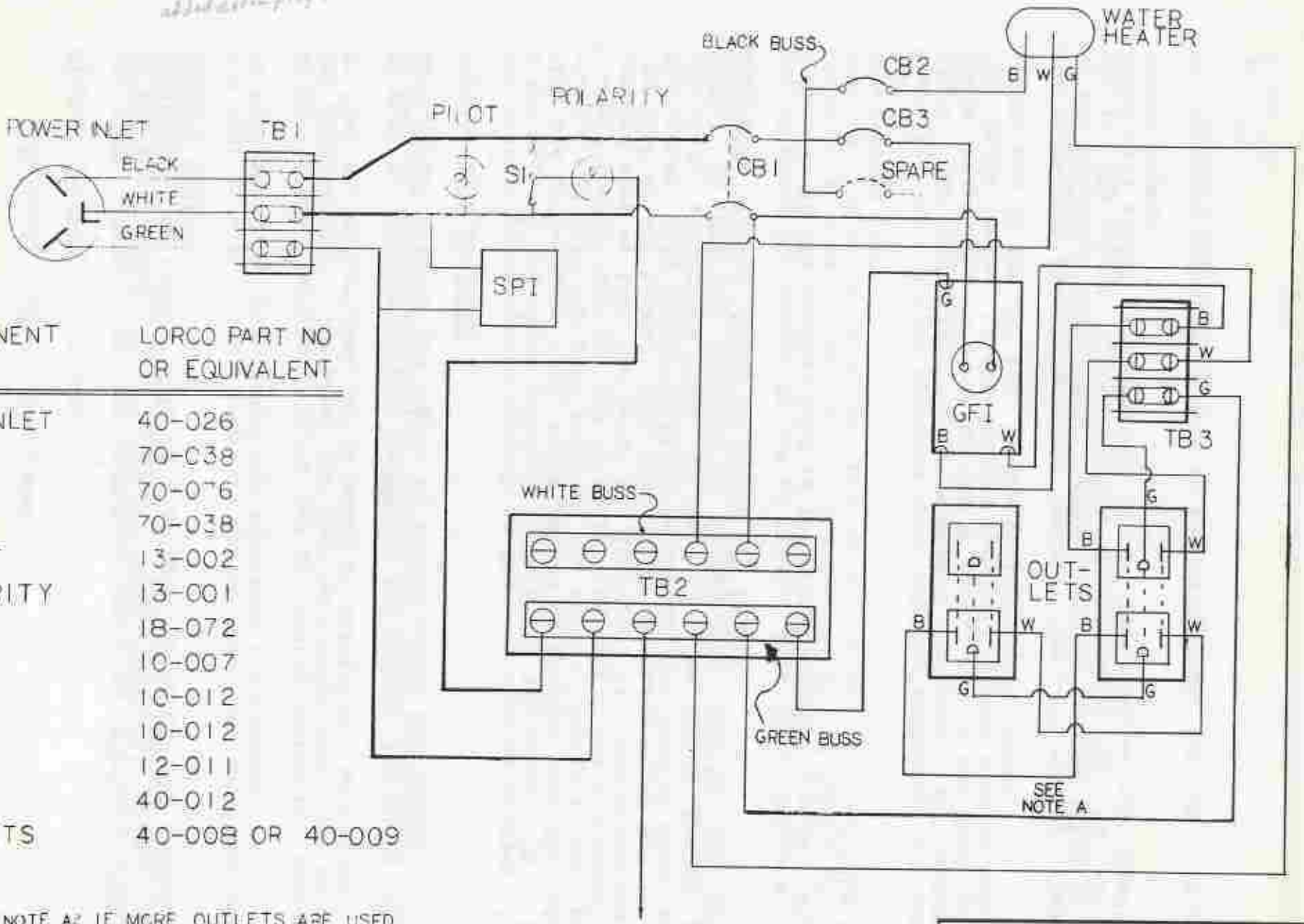
The 110V AC power system depends on the boat's being plugged into a 110 volt-30 amp shore station. The O'DAY 322 comes with a 50' 110V-30A shore-power cord, which should be plugged into the shore station and into the 110V inlet on the boat - located in the port cockpit locker outboard and up under the deck. The 110 inlet is located here so that the owner can leave the 110 cord connected to the boat at all times; just coil it up and hang it or set it on the locker. CARE SHOULD BE TAKEN to support the cord at both ends and allow sufficient slack to avoid pulling (DON'T FORGET THE TIDE!) DO NOT USE ADAPTERS TO CHANGE YOUR CORD TO ANY OTHER AMPERAGE. SEVERE INJURY OR DAMAGE MAY RESULT.

The AC panel is located by the DC panel. This panel controls the 110V AC. At the bottom front is the master-circuit breaker, which controls AC flow in the boat. This breaker should ALWAYS BE OFF when no 110V AC is in use or when connecting and disconnecting the shore-power cord.

There are two circuit breakers that control individual AC functions. The "OUTLETS" breaker controls the four 110V outlets. These outlets are located on the AC panel and in the head under the alcove locker, on the forward face of the port V-berth hanging locker and on the aft side of the galley alcove locker.

The "HOT-WATER HEATER" breaker controls the 110V heating element in the hot-water tank. NOTE: ALWAYS TEST TO BE SURE THERE IS WATER IN THE SYSTEM BEFORE TURNING THIS BREAKER ON. Failure to check will result in a burnout of the water heater and possible severe damage.

The "BATTERY CHARGER" breaker is for an optional battery charger.



COMPONENT	LORCO PART NO OR EQUIVALENT
PWR INLET	40-026
TB1	70-038
TB2	70-076
TB3	70-038
PILOT	13-002
POLARITY	13-001
SPI	18-072
CB1	10-007
CB2	10-012
CB3	10-012
SI	12-011
GFI	40-012
OUTLETS	40-008 OR 40-009

NOTE A: IF MORE OUTLETS ARE USED THEN SHOWN, WIRING IS TYP FOR ALL.

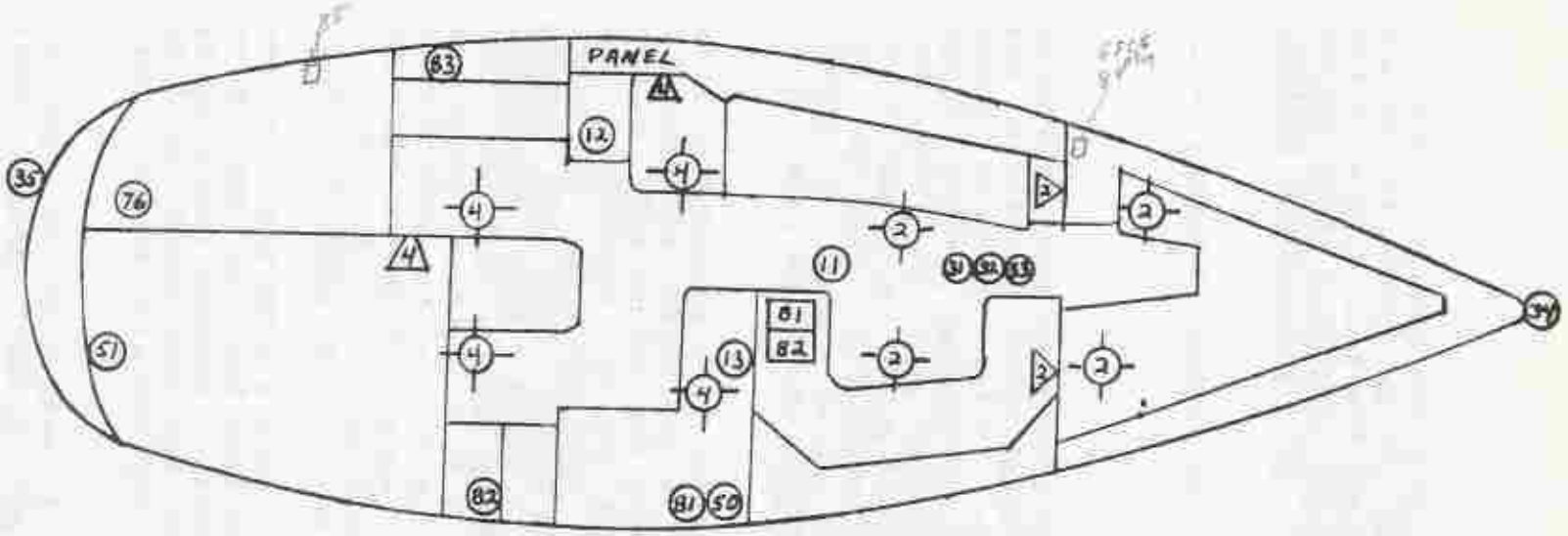
TO ENGINE BLOCK / BOAT BONDING SYSTEM

(O'DAY)

NONE		E. DRAUS
4-12-84		

AC ELECTRICAL SYSTEM

LORCO MARINE INC 6010-02-6



2&4. Cabin Lights
11. Bilge Pump
12. Shower Sump Pump
13. Water Pressure
31. Steaming Light
32. Sreader Light
33. Anchor Light
34. Running Lights
35. Stern Light
50&51. LPG Switch & Solinoid
76. Water Heater
81,82&83. 110 V Outlets

Dome Lights Swivel lights Other B1,B2- Batteries

O DAY 322
Electrical Fixtures
7/16/86 JPF

O. ELECTRICAL SYSTEM - Continued

110-115 VOLT AC POWER - Continued

In addition, there are both audible (buzzer) and visual (light on panel) reverse polarity indicators. With all switches off, attach the power cable to the inlet. Next, attach the power cable to the dockside outlet. WARNING: IF THE POLARITY INDICATOR LIGHT AND/OR SOUNDS, DISCONNECT THE CORD IMMEDIATELY! THIS INDICATES A REVERSE POLARITY SITUATION, WHICH IS DANGEROUS!

It is recommended that all appliances or lights be wired with three-prong grounded plugs.

GROUND FAULT INTERRUPTER

For your safety, the 110V AC outlets in this yacht are protected by an INTERRUPTER ground fault circuit interrupter receptacle and are so indicated by appropriate labels. In the event of power failure, which has not affected the fuse or breaker serving these particular outlets, unplug all cord-connected appliances from the INTERRUPTER protected outlets, and restore power by pressing in the red RESET button on the INTERRUPTER receptacle. Push the RESET back in and reconnect the appliances one at a time. A defective appliance, which trips the INTERRUPTER, should be repaired at once.

If the RESET button will not stay in after all appliances have been disconnected from the circuit, call a qualified electrician. If the RESET button does not pop out when the yellow TEST button is pressed, PROTECTION IS LOST. Do not use any outlets on the circuit. Call a qualified electrician. TEST REMINDER: FOR MAXIMUM PROTECTION AGAINST ELECTRICAL SHOCK HAZARD, TEST YOUR GROUND FAULT CIRCUIT INTERRUPTER AT LEAST ONCE A MONTH. TEST PROCEDURE: 1. Push yellow TEST button. The red RESET button will pop out, exposing the word TRIP. Power is now off at all outlets protected by the INTERRUPTER, indicating that the device is functioning propperly. 2. If TRIP does not appear when testing, do not use any outlets on this circuit. Protection is lost. Call a qualified electrician. 3. To restore power, push RESET button.

The INTERRUPTER is designed to protect people from the line-to-ground shock hazards, which could occur from tools or appliances operating from this device, or from down-line outlets protected by it. It does not prevent electric shock, but does limit the time of exposure to a period considered safe for normally healthy persons.

It does not protect persons against line-to-line or line-to-neutral faults. The INTERRUPTER does not protect against short circuits or overloads. This is the function of the fuse or circuit breaker.

O. ELECTRICAL SYSTEM - Continued

GROUND FAULT INTERRUPTER - Continued

CAUTION: Persons with heart problems, or other conditions which make them susceptible to electric shock, may still be injured by ground faults on circuits protected by the INTERRUPTER. No safety devices have ever been designed which will protect against carelessly handled or misused electrical equipment or wiring.

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.

WARNING: DO NOT USE THE 110 VOLT SYSTEM WHILE THE BOAT IS HAULED OUT OF THE WATER. A GROUND WIRE MUST BE RUN FROM THE BOAT'S GROUND SYSTEM TO THE SOURCE OF POWER'S GROUND (CASE GROUND). ASK YARD FOR ADVICE AND ASSISTANCE IN THIS MATTER.

P.

NAVIGATIONAL 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 yacht 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. A combination bow (steaming) light/foredeck light mounted on the front of the mast above the lower spreaders.

D. White 32 point anchor light on the top of the mast.

A & B are wired to the "RUNNING LIGHTS" switch on the DC panel.

C is wired to the "BOW LIGHT" switch and "FOREDECK LIGHT" switches.

D is wired to the "ANCHOR LIGHT" switch.

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, the masthead light must be on.

Q. BONDING SYSTEM

DANGER: WHILE THE GROUNDING SYSTEM SPECIFIED IN THE AMERICAN BOAT AND YACHT COUNCIL PROJECT 3-4 IS THE MOST WIDELY USED LIGHTNING PROTECTION SYSTEM KNOWN TO US, WE URGE YOU TO AVOID EXPOSING YOURSELF TO LIGHTNING, SINCE NO SYSTEM WILL PROVIDE COMPLETE PROTECTION TO BOAT OR OCCUPANTS IN ALL CIRCUMSTANCES.

In the O'DAY 322, all metal thru hulls, shrouds, stays, engine, mast step, and strut are bonded together and to the keel with 8 AWG 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 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 calibration has occurred.

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.

10-6-87
O'DAY 302/322

R.

ENGINE OPERATING INSTRUCTION

The engine installed in your yacht 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.

On yachts with propeller shafts, please use the following procedures:

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 are 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 perfectly 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.

10-6-87
C/O

R. ENGINE OPERATING INSTRUCTION - Continued

ALIGNMENT OF ENGINE TO SHAFT - Continued

In making the final check for alignment, the engine half coupling 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 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 as not to provide a path for water to leak through.

R. ENGINE OPERATING INSTRUCTION - Continued

STUFFING BOX - Continued

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.

S. FLOODING OF ENGINE WITH WATER

Your yacht 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 yacht 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.

T. FUELING PROCEDURE

DANGER: FAILURE TO FOLLOW THESE FUELING DIRECTIONS COULD CAUSE A FIRE OR EXPLOSION WHICH COULD RESULT IN SERIOUS BURNS OR DEATH.

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% of capacity to allow for expansion.

G. Clean any spills AFTER replacing and tightening fuel-fill cap.

H. Before operating the engine or turning 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, periodically 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.

10-6-87
O'DAY 302/322

WINTERIZING YOUR BOAT

If you keep your boat in a colder climate, you will probably haul it out. At this time the boat should be "winterized." Winterization comprises a multitude of items (See Periodic Maintenance Schedule) that you can do to your boat to make it easier to re-commission it in the Spring. Obviously, this is an "ideal" list, but there are items here that must be done.

A. EXTERIOR

1. Remove all slime and growth when the boat comes out of the water.

2. Wax the hull.

3. Remove the mast, remove spreaders and rigging. Messenger all halyards. Take all halyards, sheets, etc., home and wash them. Wax the mast and spreaders. Remember to label everything - it's amazing how your memory will fade by Spring.

B. INTERIOR

1. If possible, remove EVERYTHING loose. Take it home, eat the food, clean the cushions, sort out all the stuff, and throw away all the junk. Clean everything up.

2. Prop up the bunk tops to allow air to circulate. Open all drawers, doors, etc., a crack to allow air in.

3. If possible, put a light bulb or two in the boat. Drop lights work fine. Use a low wattage 25 or 40 watt bulb. This will keep the interior slightly warm and promote air circulation. Be sure to tie off the light so it does not tip over or hit anything.

4. Empty the bilge and swab it clean and dry. Do not forget the engine bilge.

C. WATER SYSTEM

1. Empty the water tanks as much as possible. (There will always be a small amount of water left.)

2. Add a potable water antifreeze, sold in marine and RV stores (do not use ordinary antifreeze, it is poisonous), to your water tank and a small amount of water. Pump this water antifreeze mixture thru the water lines to all faucets. Don't forget to pump some from both tanks, if your boat has two.

3. Close the sink drain thru hulls, or plug the sink, if the thru hull is above the waterline.

WINTERIZING YOUR BOAT - Continued

D. HEAD SYSTEM

1. Empty the holding tank, and flush it out with fresh water several times. Add a holding tank chemical.

2. Pump all the water out of the head.

3. Shut off the head intake thru hull.

4. Remove the head intake line from the thru hull. Put it in a can of potable water antifreeze mixed properly with water, and pump it thru the head.

5. Re-connect the intake line to the thru hull.

6. Shut the discharge thru hull (if applicable).

E. ELECTRICAL SYSTEM

1. Remove all electronics.

2. Remove all batteries. Take them home and occasionally trickle charge them over the winter. (See Basic Rules For Battery Care.) Do not set them on a concrete floor.

3. Clean all connections and spray with CRC.

F. OPTIONAL INBOARD ENGINE (See also the engine owner's manual.)

1. Fill fuel tank. This will keep water from condensing. Add a fuel stabilizer (consult your marine store or mechanic).

2. Run the engine until warm.

3. Change the oil and filter.

4. Change the fuel filter.

5. Clean the raw water strainer.

6. Check the fresh water cooling system for the proper antifreeze/water mixture.

7. Shut off the engine intake thru hull.

8. Remove the engine water intake line and put it in a pail with a 50/50 antifreeze water mixture.

9. Start the engine and run the antifreeze/water mixture thru the engine until the pail is empty or the anti-

F. OPTIONAL INBOARD ENGINE - Continued

9. freeze mixture comes out the exhaust. Do not run the engine dry! Shut down the engine and re-connect the water intake line.

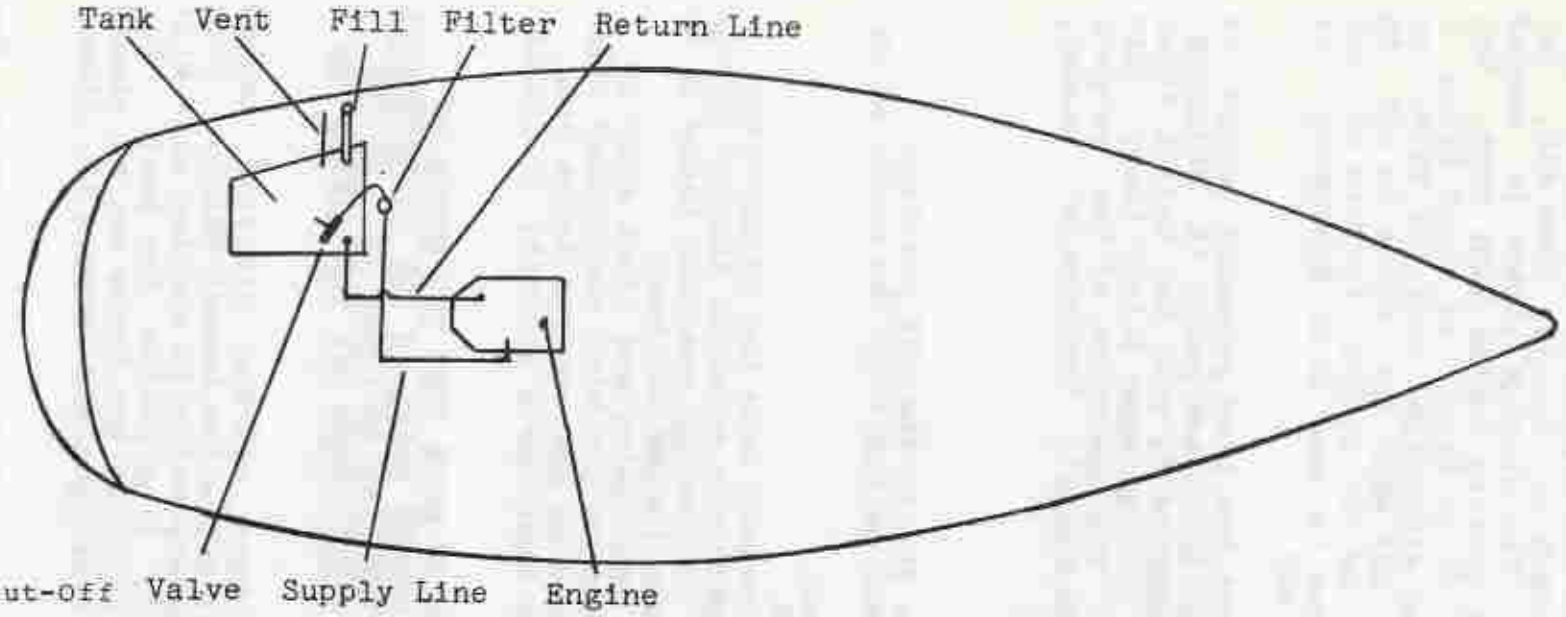
10. Put a rag sprayed with CRC or WD40 loosely into the exhaust pipe on the transom. This will keep moisture out of the engine.

G. OUTBOARD ENGINE

1. Take it home and store it in a safe place. Be VERY CAREFUL storing the gas tank, as the gasoline is very flammable.

Finally, cover with a good winter cover and visit once or twice a month to check.

4-14-87 All



O DAY 322
Fuel System
7/16/86 JPF

Built Larger Propane locker to accom. date 2 6# propane tanks April 93

U. PROPANE STOVE

The Propane stove operates on pressurized LPG (Liquified Petroleum Gas) that is stored in a cylinder in the starboard lazarette locker. Propane is an explosive gas that is heavier than air, and great care should be taken with it. The storage locker is vented overboard to prevent any leaks from getting inside your boat. You should check the drain to be sure it is tight at least twice a year. There is a mechanical and an electrical shut-off valve on the tank, and both should be shut off when the stove is not in use. The solenoid valve (located on the locker forward of the stove) is a remote shut off that can be used in an emergency, as well as any time the stove is shut off.

The propane stove in your O'DAY yacht has been pressure tested at every joint with a special fluid at the plant prior to shipping, but we recommend that you have it checked by your own dealer after it has been launched, as boats go through some fairly heavy jars during overland travel. Details on the operation of the propane stove will be found in the manufacturer's instruction manual, which should be carefully reviewed.

TO OPERATE

1. Be sure the burner valves are in the OFF position.
2. Be sure the electric safety switch over the stove is in the OFF position.
3. Turn on the battery switch.
4. Turn the valve on at tank.
5. Move the electric safety switch into the ON position.
   a. This switch controls a solenoid mounted on the propane tank. In the OFF position there is no pressure anywhere inside the boat.
6. Turn on the burner valve you desire and light with a match. The oven burner can be lit with the pizieo electric button. If the system is new, or the tanks have just been replaced, there could be a quantity of air in the supply line.

   WARNING: YOU MAY GO THROUGH MORE THAN ONE MATCH OR SPARK, BUT DO NOT LEAVE BURNER VALVE ON FOR AN EXCESSIVE LENGTH OF TIME, WHILE ATTEMPTING TO LIGHT IT. IF THE BURNER DOES NOT LIGHT QUICKLY, SHUT OFF THE SYSTEM AND CHECK ALL CONNECTIONS.

When cooking has been completed, turn off the electric safety switch; after the burner goes out, close the burner valve. This will indicate that the electric safety valve is working and will also remove pressure from the feed line inside the boat. For added safety, the manual shut-off valve at the tanks may be closed when boat is left unattended or overnight and should be closed when the stove is not being used.

The entire system should be checked out at least once a year. Pay particular attention to corroded or cracked fittings and supply lines.

MAINTENANCE

MAINTENANCE

Occassionally deck fitting leaks may occur due to flexing of the hull and deck, movement or stress on the fitting, or deterioration of the sealant or gasket. 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.

8-21-87
C/O

A.

SAIL CARE

No matter which sailmaker you have or what sails you add, there are certain things you can do prolong their life.

Most 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 are available through your local 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.

When the jib is furled, be sure to furl it with the acrylic sun cover to the outside. Be sure to wind it tightly so that the cover completely covers the sail. Also, ease the jib halyard when leaving the boat for a week or more to ease tension on the luff.

10-7-87
O'DAY 322

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. NOTE: "ACCORDIAN" TYPE CURTAINS SHOULD BE CLEANED BY HAND, NOT IN A WASHING MACHINE.

2. HEADLINER

The headliner of your yacht 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 fiberglass headliner can be cleaned with soap and water.

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 BECKSON PORTS—LEWMAR 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.

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 odors.

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. A coat of good automotive wax will help maintain the luster of fiberglass sinks and shower surfaces.

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/HOLDING TANKS

The shower areas should be wiped down with a sponge after each use and monthly with soap and water. If you have a shower curtain, be sure to wash the shower curtain periodically as well, to prevent mildew buildup.

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. Also, one should carefully maintain the rubber valve on the vented loop in the head discharge line. The vented loop is the black plastic device located in the sail locker. This valve should be removed, cleaned, and lightly greased to ensure proper function.

NOTE: IF YOU PUMP INTO A FULL HOLDING TANK OR AGAINST A CLOSED "Y" VALVE OR OVERBOARD DISCHARGE VALVE, YOU COULD BUILD UP ENOUGH PRESSURE TO BLOW WASTE THROUGH THE VALVE AND CLOG IT.

A rebuild kit should be purchased for your head, and the head should be disassembled and rebuilt at least once a year. When the head is apart, lightly grease all seals and mating surfaces with petroleum jelly.

B. INTERIOR MAINTENANCE - Continued

8. HEADS/HOLDING TANKS - Continued

Any time there is any problem with the head, be sure and correct it immediately.

The holding tank should be flushed once or twice a year with fresh water then emptied. All hoses, clamps, vents, etc., should be checked frequently for leaks, deterioration, etc.

Also, due to the length of hose, the vented loop will have standing liquid in it. If the head is not pumped thoroughly, flushing clear water through it, waste may stand in this line. If the "joker" valve in the head is clogged or defective, this waste may flow back into the bowl. Be sure to pump your head thoroughly and keep it in top condition.

9. STOVE (Also see Section U, Propane Stove)

If your stove is a two-burner propane type with oven, the stove owner's manual will explains its use fully. BE SURE TO READ THE MANUAL BEFORE USING THE STOVE.

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 from its gimbals and the surrounding area cleaned. Grease buildup in this area can be considerable and can be a fire hazard.

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

1. Always close all stove and fuel valves, when the stove is not in use.
2. Never leave a lit stove unattended.
3. Never leave pots on a hot stove.
4. Use extreme caution, when lighting the stove.

10. TEAK

Your interior teak was varnished at the factory. The vertical bulkheads, drawer fronts, handrails, trim, etc., were done with teak oil. The teak and holly sole was varnished. Oil and varnish 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. Wear areas should be oiled or varnished quickly. Follow the manufacturer's recommendations.

B. INTERIOR MAINTENANCE - Continued

10. TEAK - Continued

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. Don't forget to clean the separate bilge area under the engine. Sponge the bilge dry.

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.

9-24-87
O'DAY

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 (avoid the 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. Gelcoat patch kits are available from The O'Day Corporation. Contact the Parts Department or your dealer.

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 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.

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.

C. EXTERIOR MAINTENANCE - Continued

3. RUNNING AND STANDING RIGGING - Continued

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 impurites 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.

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 pel-

C. EXTERIOR MAINTENANCE - Continued

5. LIFELINES, STANCHIONS, BOW AND STERN PULPITS - Continued

ican 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. This "rusting" is due to impurities from the dies that form the stanchions and should disappear after a couple of polishings. A couple of polishings should eliminate all problems. Never use steel wood 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.

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.

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.

BASIC RULES FOR BATTERY CARE AND MAINTENANCE - Continued

6. Continued

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.

GASKETS

In our constant effort to upgrade and eliminate potential problems, we have started to use a gasket under the deck hardware 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 hardware. 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.

8-21-87
All

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.

4-14-87 All

PERIODIC MAINTENANCE SCHEDULE

	End of First Week	Monthly	Winterizing	Remarks
Deck Fittings	5		1, 4, 5	
Rudder Blade		1	1	
Rudder Post	6	1, 6	1, 4, 5, 6	
Propeller Shaft	1	1	1, 4	
Stuffing Box	1, 2, 5	1, 2	1, 4	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			4, 7	
Cockpit Drain cockpit	2	2, 5	2, 4, 5, 7	Some Hoses-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 and water solution
Water Filter		1, 2, 4	1, 4, 7	
Fuel Filter	1, 5	1, 5	1, 4, 5	4=Outside Only
Air Filter	1	1, 5	1, 5	

8-21-87
C/O

Interlux Bottom Barrier Coat 2 coats applied June 1988 KL990 Bottom Paint 2 coats
Interlux Bottom Barrier Coat
2000/2001 8 coats applied April 1987 VC17 Bottom paint 2 coats

PERIODIC MAINTENANCE SCHEDULE - Continued

	End of First Week	Monthly	Winterizing	Remarks
Exhaust System	1, 2, 5	1, 2, 5	1, 4, 5, 7	
Engine Mounts	1, 5	1, 5	1, 3, 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	Disconnect coupling before hauling
Hose Clamps	5	1, 5	1, 3, 4, 5	Do not overtighten
Chainplates	1, 2, 5	1, 2, 4, 5	1, 2, 4, 5	Rebed at least twice a year
Stoves	1, 5		1, 4, 5	Check supply hoses for deterioration every spring. If hose cracking is evident, replace.
Bilges	Check daily - more often, if the boat is leaking.			

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.

8-24-87
C/O

Commissioned 6-26-1988 Pegasus (owner Robert Fuller)
at Tower Marine Saugatuck Michigan

MANUALS

CAL/O'DAY SUPPLIERS

I MAST SUPPLIES AND PARTS (including lights):

DAMCO SPARS:
Dwyer Aluminum Mast
3 Jefferson Road
P. O. Box 201
Branford, CT 06405
203-481-0122

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

Sparcraft/Z-spar
1031 Amble Drive
Charlotte NC 28206
#704-596-9449

ISOMAT SPARS:

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

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

ISOMAT SPARS:

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

Yacht Riggers
4448 27th Avenue West
Seattle, WA 90199
206-282-7737

II PUMPS:

BILGE PUMPS

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

ELECTRIC BILGE PUMPS/SHOWER SUMP PUMP

Rule Industries
Cape Ann Industrial Park
Gloucester, MA 01930
617-281-0440

HOLDING TANK PUMPS

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

HOLDING TANK PUMPS

Jabsco Products ITT
1485 Dale Way
Costa Mesa, CA 92626
714-545-8251

III ENGINES:

UNIVERSAL DIESELS:

Universal Medalist Ind.
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 & Parts Co.
2365 Route 22
Union, NJ 07083
201-964-0700

8-21-87
C/O

Aug. 93

Raritan PHII
Raritan Engineering Co. Inc
520 Orange St.
P. O. Box 1287 Millville NJ 08332
609-825-4900

CAL/O'DAY SUPPLIERS - CONTINUED

IV WINCHES

Barient/Barlow/IMI
New Whitfield St.
Guilford, Ct 06437
203-453-4374

V HEADS

SEALAND TECHNOLOGY
Div. of N. A. Taylor Co.
4th St., P. O. Box 38
Big Prairie, OH 44611
800-321-9886

VI LIGHTS:
RUNNING LIGHTS:

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

MAST LIGHTS - See Mast Supplier

VII CIRCUIT BREAKERS AND PANELS

Lorco
17 Tinker Avenue
Londonderry, NH 03053
603-669-6270

VIII SAILS
Neil Pryde Sails
Distributed by:

Gurley Trading Co., Inc.
P. O. Box 156
10801 Dale St., Suite E-1
Stanton, CA 90680
714-527-3165

SAILS

Gurley Trading Co., Inc.
303 Bridgeport Avenue
Milford, CT 06460
203-874-1847

9-11-87
C/O Michigan Wheel 616-452-6941
1501 Buchanan Ave., S.W. Grand Rapids MI 49507

Prop 14X14 1" RH

Michigan Sailer

Cutlass Bearing 1"IDX1 3/8"ODX4"long
TRELLEX Morse 191 Bloater

1/8"X1" cotter pin

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

MARINCO®
MARINE INDUSTRIES COMPANY

92 HAMILTON DRIVE
IGNACIO, CALIFORNIA 94947
(415) 883-3347

INSTRUCTION SHEET

SHORE POWER CABLE SET

USE

1. Turn off the boat's shore connection switch before connecting or disconnecting shore power cable.
2. Connect shore power cable at the boat first.
3. If polarity warning indicator is activated, immediately disconnect cable and have the fault corrected by qualified electrician.
4. Disconnect shore power cable at shore outlet/receptacle first.

STORAGE

Your MARINCO shore power cable set is intended for use outdoors. To prolong the life of the set, store indoors when not in use.

MAINTENANCE

(Always disconnect from power source before performing maintenance.)

General:

The metallic parts of your MARINCO cable set are made to resist corrosion. In salt water environment, life of the product can be increased by periodically wiping the exposed parts with fresh water, drying and spraying with a moisture repellent.

A soiled cable can be cleaned with grease cutting household detergent. A periodic application of vinyl protector will help both ends and cable maintain their original appearance.

In case of Salt Water Immersion:

Rinse plug end and/or connector end thoroughly in fresh water, shake or blow out excess water and allow to dry. Spray with a moisture repellent before re-use.

REPAIR

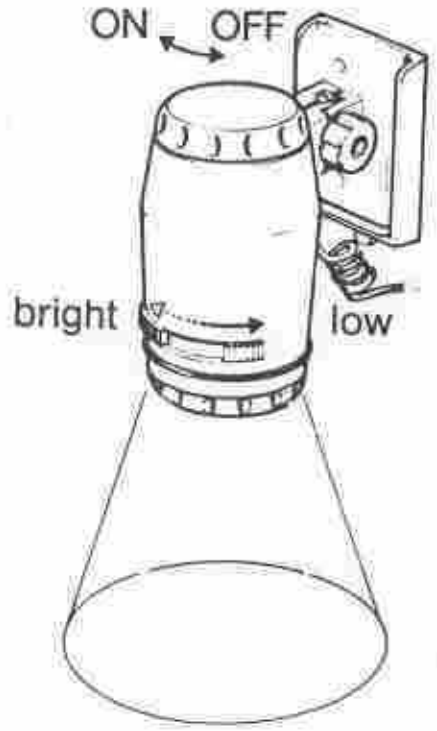
If either plug or connector end requires replacement (component or molded type), it can be replaced with the following MARINCO devices:

CABLE RATING	PLUG	COVER	CONNECTOR	COVER
30A-125V 2 pole, 3 wire	305CRP	102	305CRC	103R
50A-125V 2 pole, 3 wire	6361CR	7717	6360CR	7715CR
50A-125/250V 3 pole, 4 wire	6365CR	7717	6364CR	7715CR

MARINCO recommends that this Instruction Sheet be made a part of your Boat Service Manual.

12/86

The **AQUA-SIGNAL** chart table light uses a revolutionary new dimming system of Polaroid screens (pat. pend.) which gives no magnetic interference. It is delivered with a bright 12V 5 watt halogen bulb (standard 12V or 24V incandescent bulbs may also be used.



904-00282 12V 5W Bright Halogen

904-00283 12V 5W Incandescent
904-00247 24V 5W Incandescent

THEORY OF VISION

The retina at the back of the eye is composed of 'cones' and 'rods'. The cones distinguish color and are mainly concentrated in the center, the reason your eyes are 'scanning' these lines in order to read. Rods are distributed across the retina, they cannot distinguish color.

An iris at the front of the eye acts as a variable disphram, small for bright light, wide open in low light. The cones are used and can respond within minutes to changes in light intensity down to the equivalent of moonlight. With the iris fully open and illumination below that of a full moon, the rods are used. Their response is slow, their initial sensitivity improves 1,000 times after ten minutes and one million times for full dark adaption/night vision after thirty or forty minutes. This dark adaption can be maintained by illuminating control panels and cabin interiors by low level 'red' light, as the cones are less sensitive to red light and have a quick recovery time and the rods are not sensitive to red and therebye keep their dark adaption. For chart table use where red is impractical (some chart color detail cannot be seen) Federal Aviation testing has shown that a greatly dimmed white light will also maintain night vision.

EDSON PEDESTAL MAINTENANCE GUIDE

This guide has been prepared to assist you in the proper maintenance of your Edson Steering System. To properly maintain the moving parts in the top of the pedestal, it is necessary to remove the compass and its cylinder. For proper alignmment when re-installing the compass, we recommend placing 3 or 4 lengths of tape on the pedestal and compass as shown below. Slit the tap when removing compass, align the strips of tape when re-installing the compass for visual compass re-alignment. Your compass MUST then be check for accuracy.

Lubrication of needle bearings should be done by squeezing Edson Fig. #827 Teflon Lubricant into the holes located on top of the bearing housings inside the pedestal bowl. Spin the wheel when squeezing the lubricant in to make sure the entire bearing is serviced. Winch grease or water pump grease can be used as an alternative, but don't let the bearings run dry. Do not over grease as it will run onto the brake pads. Oil the chain with #30 weight motor oil. Do not grease chain as it does not penetrate the links.

Inspect the condition of the wire, tension of the wire and lightly oil. Edson recommends placing about 5 layers of "Kleenex" on the palm of your hand, squirt oil on the tissues and lightly oil the wire. This will lubricate the strands but will also "flag" a broken or hooked strand by tearing off a small section of tissue. If you do have a wire break, replace the wire immediately. See Edson Fig. 775 wire and chain replacement kits. (Caution: Wire splinters can cause painful cuts.) Replace the wire after 5 years. If still good, keep the old wire on board as a spare.

To check for proper wire tension, lock the wheel in position by using the pedestal brake, or by tying off the wheel. Cable tension is best when you cannot move the quadrant or drive wheel by hand with the wheel locked in place. Over tightening will greatly reduce the sensitivity of the system.

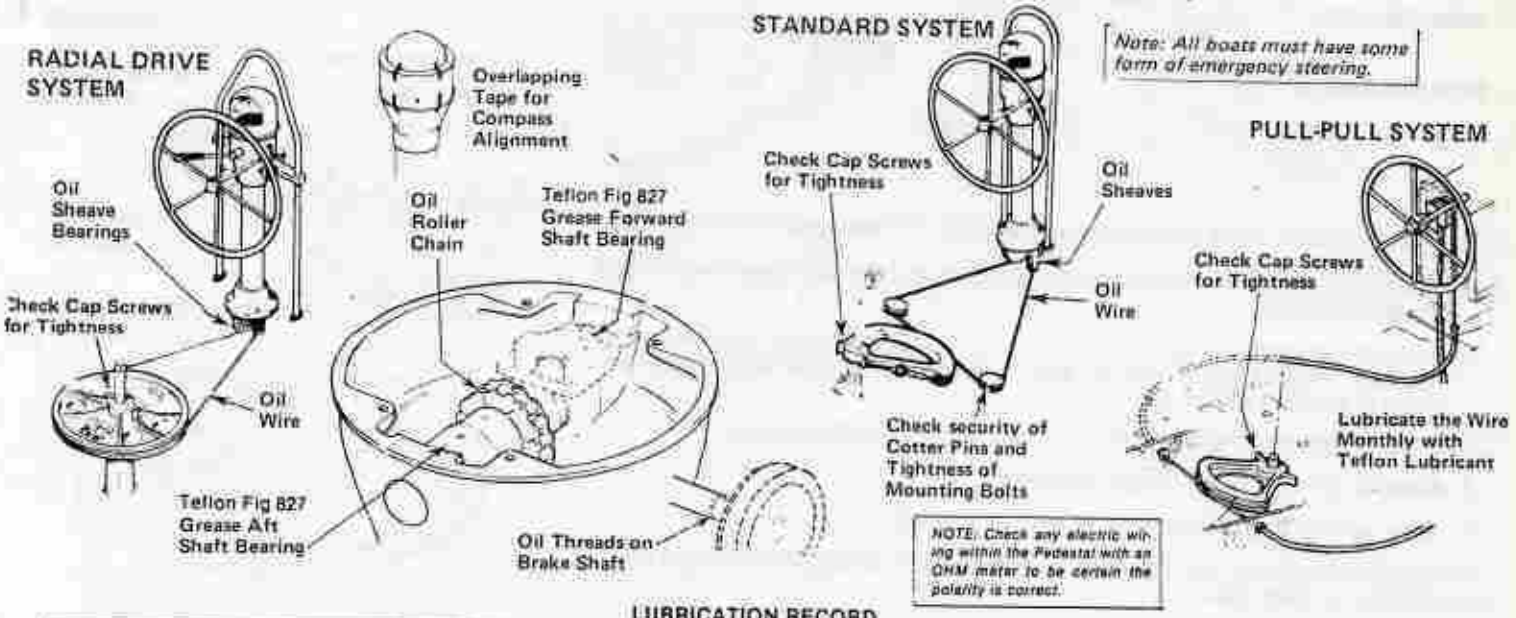
It must be emphasized that all on board must be familiar with the care and operation of the Steering System and engine controls. One person must be assigned the job of maintenance and must be thoroughly familiar with the operation and intent of all the equipment. If at any time your Steering System makes strange noises or reacts differently than it has previously, you must find the causes immediately and correct the problem.

Screws, nuts, bolts as well as clevis and cotter pins that are part of the steering system, engine controls, or pedestal accessories must be check regularly for tightness and wear. Failure to inspect all steering parts, engine controls and pedestal accessories may cause loss of control or failure of the engine or steering system. *All boats must have an emergency tiller or its equivalent and all on board must be familiar with its location and operation. An emergency tiller drill is just as important as a man-overboard drill and must be regularly conducted.*

On a new boat and at least once a year, inspect the system when under a strong load. On a calm day and under power, go away from the other boats and with the person who is assigned the maintenance watching from below, put the wheel hard over at full throttle. The maintenance man should watch carefully for all parts of the system bending, distorting, creaking, or giving any indication of failing if placed under a heavy load for a period of time. If for any reason, something did fail or needs adjusting the day is early and you will have plenty of time.

When leaving your boat at her mooring or slip, make sure that your wheel is properly tied off. DO NOT LEAVE THE STEERING SYSTEM TO FREE WHEEL.

The pedestal exterior should be cleaned with detergent and water, do not use acetone or/and any other strong solvents as they may damage the finish. Edson will be pleased to assist you. Call us or write us if we can help.



LUBRICATION RECORD

component	lubricant	schedule	first year 19__	second year 19__	third year 19__	fourth year 19__	fifth year 19__
sheave bearings	#30 oil*	check and oil monthly					
pull-pull cables	Teflon Fig 827	check and grease monthly					
wire rope	#30 oil*	check and oil annually					
roller chain	#30 oil*	check and oil annually					
pedestal shaft bearings	Teflon Fig 827	check and grease annually					

*Any light oil is suitable. We recommend #30 weight motor oil since most boat owners have it aboard

Caution: 1.) On extended voyages your steering system should be inspected each day and lubricated weekly. Carefully inspect your steering system at least one week before a vacation cruise to avoid last minute maintenance.
2.) When the boat is unattended secure the wheel with the brake or a line. In rough weather the rudder can swing violently from stop to stop causing damage.

For complete maintenance information please contact

Edson International

The Edson Corporation
480 Industrial Park Road
New Bedford, Mass. 02745

Telephone (617) 995-9711
Telex 95-1337

CUSTOMER SERVICE

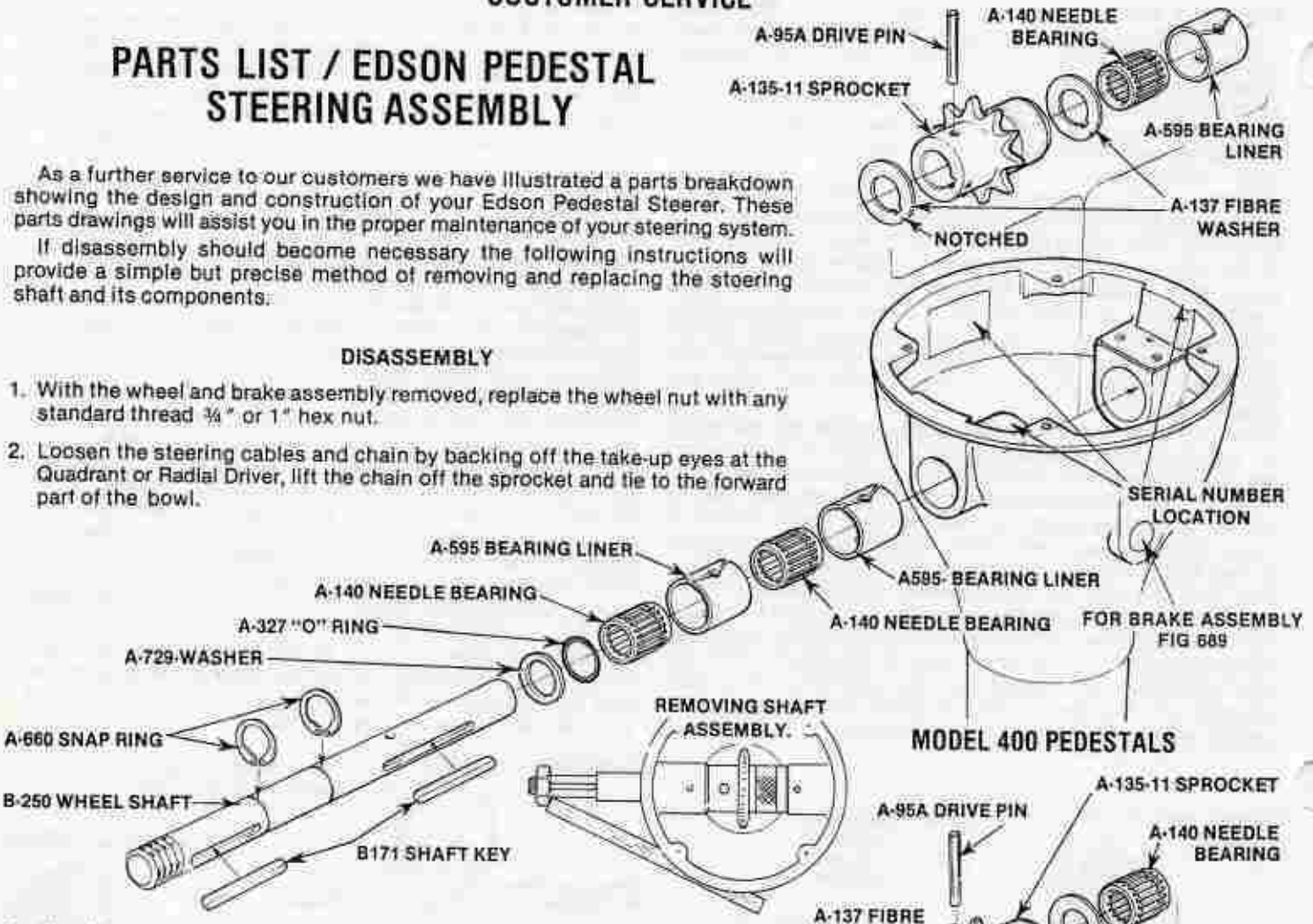
PARTS LIST / EDSON PEDESTAL STEERING ASSEMBLY

As a further service to our customers we have illustrated a parts breakdown showing the design and construction of your Edson Pedestal Steerer. These parts drawings will assist you in the proper maintenance of your steering system.

If disassembly should become necessary the following instructions will provide a simple but precise method of removing and replacing the steering shaft and its components.

DISASSEMBLY

1. With the wheel and brake assembly removed, replace the wheel nut with any standard thread ¾" or 1" hex nut.
2. Loosen the steering cables and chain by backing off the take-up eyes at the Quadrant or Radial Driver, lift the chain off the sprocket and tie to the forward part of the bowl.

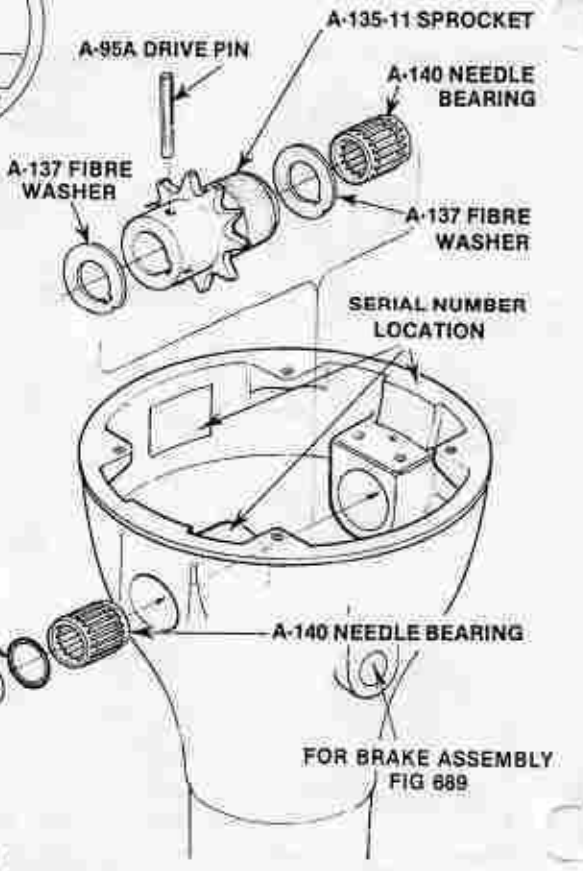


MODEL 400 PEDESTALS

3. Align the notch in the aft fibre washer with the "V" stamped on the sprocket.
4. Carefully drive the pin out of the sprocket (drive from the round end toward the grooved end).
5. With a piece of wood against the ¾" or 1" hex nut, gently tap the wheel shaft from the housing, see illustration above, be careful not to drop the shaft components into the pedestal.
6. Remove sprocket, two fibre washers and forward needle bearing.
7. Remove aft needle bearing and washers.
8. Wipe out any dirt or old grease before reassembly.

To reassemble reverse the above procedure, do not grease the bearings until reassembly is completed.

NOTE: Check your compass for possible readjustment.



MODEL 334 & 335 PEDESTALS

ORDERING INSTRUCTIONS

When ordering spare parts give the pedestal serial number, part number, part name, and quantity. Your order will be filled promptly.

If you have any question don't hesitate to call the Edson factory. We will be pleased to assist you.

The Edson Corporation
460 Industrial Park Road
New Bedford, Mass. 02745

Telephone (617) 995-9711
Telex 95-1337

Edson

Dear Edson Owner,

Welcome to the World of Edson! So that we may properly register your new Edson Steering System, please fill out and return the attached Steerer Registration card to the Edson Corporation. We want to know what your steerer is by number so that if you ever have any questions, Edson's world wide sales network will be ready to be of assistance. If you ever have any questions pertaining to your steering system, please be sure to contact Edson immediately. We are standing by ready to help you.

Upon receipt of the Edson Registration Card, we will not only register your Pedestal Serial number, but we will also send you the latest 60 page Edson catalog/handbook, showing Edson's complete line of accessories which can be purchased through your dealer.

Thank you,

Customer Service Dept.
THE EDSON CORPORATION

EDSON REGISTRATION CARD

In order to properly register Edson's steerer, please fill out and return the Edson Registration Card below. By return mail Edson will send the latest catalog/handbook.

THE EDSON CORPORATION, 460 INDUSTRIAL PARK ROAD, NEW BEDFORD, MASSACHUSETTS 02745 • 617 995 9711 – TELEX 95-1337

RECORD YOUR SERIAL NO. BELOW FOR YOUR RECORDS

_____

PLEASE PRINT CLEARLY

OWNER'S NAME _____

STREET _____

CITY _____ STATE _____ ZIP _____

BOAT DEALER _____

DEALER ADDRESS _____

BOAT BUILDER _____ LENGTH _____

CLASS _____ YEAR BUILT _____

HULL # _____ EDSON SERIAL # _____

EDSON SERIAL NO. LOCATED ON INSIDE OF PEDESTAL BOWL BENEATH COMPASS.

CHECK IF YOU ALREADY HAVE OUR K-16 CATALOG.

THE EDSON CORP. 460 INDUSTRIAL PK. RD. NEW BEDFORD, MA 02745

Printed in U.S.A.

DEALER/OWNER CHECK LIST

For the best performance of your new steering system, engine control, or Edson accessories, Edson recommends that the owner and dealer carefully check over the steerer installation before the boat leaves the dock.

Our experience has shown that fastenings tend to be vibrated loose in delivery especially those boats delivered by truck, and we advise that the items on the check list be inspected. After the initial inspeciton, this check list should be followed on a regular basis.

FASTENERS	USE AND LOCATION
Screws	☐ Quadrant-at rudder post ☐ Radial Drive-at rudder post ☐ Engine Controls at handles and cable holder
Nuts	☐ Wheel ☐ Pedestal Bolts ☐ Idler Sheaves ☐ Wire Take Up Eyes on Quadrant or Radial Drive
Bolts	☐ Outer radius joint of Radial Drive ☐ Sheave housings ☐ Rudder stop on Radial Drive
Cotter Pins	☐ Chain ends ☐ Sheave Pins ☐ Engine Control Clevis Pins

For the best performance of the steering system, the roller chain, bearings, and sheave pins and bushings must be properly lubricated. Also check for proper wire tension. Please refer to the maintenance guide for the complete instructions.

Be sure that all crew members are familiar with the care and operation of the steering system as well as the location and use of the emergency tiller. This guide, the maintenance guide, and the catalog, should be kept on the boat for reference purposes.

PLACE
STAMP
HERE

Edson International
460 INDUSTRIAL PARK RD.
NEW BEDFORD MASS 02745

ATT: CUSTOMER SERVICE DEPT.

O'day
848 Airport Road, Fall River, Massachusetts 02720
(617) 678-5291

O'DAY SPORTSWEAR

DESCRIPTION

DUFFLE BAG O'Day sea bag made from heavy duty 100% nylon with extra long web straps, so you can sling it over your shoulder, and tough zippers for many seasons' use. Blue with white straps and screened O'Day insignia in white. $15.90 Suggested Retail

SWEATER V-neck sweater, navy blue, 100% acrylic classic sweater with mitered v-neck, swiss embroidered O'Day insignia. Traditionally neat, it looks great alone or under your favorite blazer. Available in adult sizes: small. $23.75 Suggested Retail

T-SHIRT (SAIL, SAIL, SAIL) 100% cotton, navy blue t-shirt with yellow, white, and red letters and O'Day insignia. Features set-in sleeves and is available in adult size small.
$ 7.50 Suggested Retail

T-SHIRT White, 100% cotton, Hanes Beefy T-Shirt, with 3 light green sailboats on back, O'Day logo on front, higher, wider crew collar ribbed for excellent recovery. Available in adult sizes extra small, small, medium, large, extra large.
$13.00 Suggested Retail

POLO SHIRT A classic in white with navy blue swiss embroidered O'Day insignia, this shirt offers long-wearing comfort, thanks to the 50% cotton/50% polyester fabric. Available in adult sizes small.
$18.00 Suggested Retail

WINDBREAKER JACKET A warm way to get out of the wind without leaving the deck. As rugged as it is good looking, this navy blue, 100% nylon jacket with O'Day insignia is water repellent and features a pile-lined body and sleeve lining, concealed hood, snap buttons and slash pockets. Washable. Available in adult sizes, extra small, small, and medium. $37.75 Suggested Retail

All prices are F.O.B. Fall River, Massachusetts, and are subject to change without notice. Fabrics, styles, and colors are subject to change without notice.

ORDERS MUST BE PREPAID BY MONEY ORDER, CASHIERS CHECK, MASTERCARD, OR VISA. FREIGHT IS NOT INCLUDED IN PRICE. MINIMUM ORDER ACCEPTED IS $20.00.

PMR
10-7-87

YANMAR BULLETIN YANMAR

MACK BORING & PARTS COMPANY

New Jersey • 2365 Rt. 22, Union, NJ 07083 - Telex 138104 ..... (201) 964-0700
New York • 1575 Lakeland Ave., Bohemia, LI, NY 11716 ..... (516) 563-3600
Massachusetts • 587 Granite Street, Braintree, Mass. 02184 ..... (617) 848-9300

June 9, 1987

TO: ALL CAL/O'DAY DEALERS

SUBJECT: **YANMAR DIESEL I.D. PLATES**

All Yanmar Diesels come complete with a Engine Indentification Plate showing the Engine Model, Serial Number and the **Maximum and/or Continuous** HP rating of each engine.

Below is an outline of each model:

MODEL	MAXIMUM HP	CONTINUOUS HP
*1GM10	9 at 3600 RPM	7 at 3400 RPM
*2GM20(F)	18 at 3600 RPM	16 at3400 RPM
*3GM30(F)	27 at 3600 RPM	24 at 3400 RPM
*3HM35(F)	34 at 3400 RPM	30 at 3200 RPM
**4JH-E	44 at 3600 RPM	40 at 3500 RPM
4JH-TE	55 at 3600 RPM	50 at 3500 RPM
4JH-HTE	66 at 3600 RPM	60 at 3500 RPM
4JH-DTE	77 at 3600 RPM	70 at 3500 RPM

* Shows Continuous rating only.
** Shows Both Maximum & Continuous Rating.