

the Pearson 323

*Owners Guide and
Protection Plan*



PEARSON 323
specifications:

HULL: One piece molded fiberglass laminate (hand lay-up) with integrally bonded bulkheads. Standard hull color, white (other colors optional). Boot top and bottom paint: standard colors.

DECK & COCKPIT: One-piece molded reinforced fiberglass laminate with balsa core for stiffness and insulation. Deck colors, beige or light gray with slate gray accent stripe in cabin trunk side. Non-skid on all walking surfaces. Self bailing cockpit. Cockpit sail lockers (P&S). Cockpit seats and seatbacks angled for seating comfort. Fiberglass sliding companionway hatch. Teak drop slide. Fiberglass coamings and winch islands with teak trimmed storage alcoves under. Teak handrails. Anchor locker in foredeck. Deck unit mechanically fastened and glassed to hull for complete watertight integrity. Deck scuppers (P&S). Teak toe rail caps.

MACHINERY: 30 H.P. 4-cylinder gas engine with 2:1 reduction gear in V-drive. 35 amp alternator. 1½" bronze shaft, strut, and bronze gland stuffing box. Stainless steel water box muffler with steamhose exhaust line. Individual throttle and clutch controls mounted on steering pedestal. Instruments in cockpit include oil pressure, water temperature, fuel gauge, ammeter, waterproof start button and choke control. 30 gallon Monel gas tank with deck plate fill and overboard vent. Automatic fuel shut-off valve fuel filter and flexible fuel line.

TANKS & PLUMBING: Two water tanks located under port and starboard berths. Total capacity of 38 gallons. Additional tankage optional. Separate deck fills, vents and supply lines with shut-off valves. Holding tank toilet system. Intake lines fitted with bronze seacock.

ELECTRICAL: Circuit breaker switch panel. Master power switch. Two 12 volt 90 AH batteries. International navigation lights. Interior cabin lights. Stranded copper wiring with impervious covering, color coded for circuit identification and located high above bilge area. Designed to minimize voltage drops.

HARDWARE & DECK FITTINGS: Chrome plated brass or bronze stainless steel and special marine alloys, including custom designed stemhead fitting with anchor roller, stainless steel backstay and shroud chain-plates. Bow chocks, bow cleats and stern cleats, port and starboard. Four large fixed ports (main cabin), three small fixed ports, and one small opening port. All ports have tinted glass or smoked Lexan. Dorade box with cowl vent over toilet room on starboard cabin top. Transparent aluminum frame overhead hatch in main and forward cabin. ALUM-T genoa tracks through bolted (P&S). Genoa blocks with track slides. Stainless steel bow pulpit. Stern rail. Stainless steel stanchions with vinyl covered stainless steel lifelines. Edson

Prices and specifications subject to change without notice.

steerer with 5" E.S. Ritchie compass. Emergency tiller. Two No. 40 Lewmar sheet winches (chrome), recessed main sheet traveller on bridge deck.

SPARS: Mast of 6061-T6 alloy with a protective coating of black awlgrip. Internal track section. Mast stepped on keel. Aluminum spreaders. Custom masthead fittings with stainless steel tangs. Halyard cleats. Two No. 8 Lewmar halyard winches (chrome). Boom of aluminum 6061-T6 alloy with internal sail track groove. Fixed gooseneck. External clew outhaul. Topping lift. Mainsheet and blocks.

RIGGING: Standing—stainless steel 1 x 19 wire with truloc swaged end fittings. Stainless steel turnbuckles.

Running—main and jib halyards of 7 x 19 stainless steel with spliced Dacron* tails. Dacron* main and genoa sheets.

INTERIOR: Sleeping accommodations for five. V-berth in forward cabin with trap stowage under. V-berth filler lowers for use as a seat. Alcove stowage to starboard, drawer and locker stowage to port. Forepeak locker for anchor rode stowage. Transparent hatch overhead forward. Enclosed toilet room with hinged and sliding door privacy. Swing out vanity unit to starboard. Hanging locker to port. Shelf stowage (P&S). Chart table/navigation area aft to starboard with seat. Stowage behind and under. Galley to port of companionway. Deep stainless steel sink with fresh water foot pump. Top loading ice box with foam insulation. 2-burner gimbaled alcohol stove (range with oven optional). Sliding door lockers outboard of galley countertop. Shelf stowage over. Cutlery stowage under companionway, dish lockers recessed under bridge deck to port. Storage locker/engine access under galley counter. Stowage behind backrests (P&S). Bin stowage under dinette seats. Teak bulkheads, trim, ceiling, and joiner work throughout. Black aluminum handrails (P&S). Carpeting standard, teak sole optional. Access panel for instruments over galley counter. Countertops and table covered with high pressure laminates. Berth mattresses are 4" foam, fabric covered throughout, choice of interior decor colors.

SAFETY EQUIPMENT: Bonding system incorporates common grounding of chain plates, seacocks, engine and fuel tanks. Seacocks on thru-hulls. Deck and cockpit areas have molded-in non-skid surfaces. Self bailing cockpit. Natural and forced ventilation of engine compartment in accordance with U.S.C.G. regulations. Manual bilge pump. Life lines. Bow pulpit and stern rail. Teak handrails on cabin top. Interior handrails. Automatic fuel shut-off valve. Gate valves on engine intake.

OPTIONAL EQUIPMENT: A wide selection of factory installed equipment is available for this boat. See price sheet for complete details.

**DuPont Registered Trademark*

PEARSON YACHTS
OWNER'S GUIDE AND PROTECTION PLAN
PEARSON-323

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Welcome aboard your new Pearson-323! We are proud to have you join the thousands of other Pearson owners, and hope you will find this manual helpful and informative.

Your decision is a source of great satisfaction to us, and we are confident your new boat will provide the same for you. By selecting a Pearson, you have expressed a confidence in us. You can rest assured that we have made and will make every effort to support your trust.

Every Pearson Yacht is manufactured by dedicated professionals and craftsmen of the finest materials available. It asks only that you treat it as one of the family, and it will return all you can ask of it and more. This booklet is intended to guide you through your first few days of ownership. Individual instruction manuals from the manufacturers of installed equipment are also included where more detailed information is required.

Before getting underway, please take a few moments to familiarize yourself with the operations and functions of the various systems designed into the 323 to insure proper operation. In the event that additional information is needed, we suggest you consult with your dealer or call our Customer Services Department.

Please accept our congratulations. Have fun and smooth sailing!
SINCERELY,

PEARSON YACHTS

PEARSON YACHTS
 OWNER'S GUIDE AND PROTECTION PLAN
 PEARSON 323, SECTION II

NAME OF BOAT

REGISTRATION NO.

PORT OF CALL

OWNER ' S NAME AND ADDRESS

RADIO TELEPHONE CALL NO.

FEDERAL HULLIDENTIFICATION NUMBER

HULL NUMBER

<u>32' 3"</u>	
LENGTH OVERALL	SAIL NUMBER
<u>10' 2 3/4"</u>	<u>27' 6"</u>
BEAM	LENGTH WATERLINE
<u>12,800 lbs.</u>	<u>4' 5"</u>
DISPLACEMENT	DRAFT
<u>37' 1"</u>	<u>4,500 lbs.</u>
MAST HEIGHT ABOVE DWL	BALLAST
Universal Atomic 4, Model 5103-UJVD w/Aqua-Pak V-Drive, 2:1 Reduction	<u>15x8RH Style E, 1 1/8" bore</u>
STD. ENGINE MAKE & MODEL	3 BLADE PROPELLER
Volvo MD 11C, 23HP Diesel 1.91:1 Reduction	<u>17x12 LH Style E, 1 1/8" bore</u>
OPT. ENGINE MAKE & MODEL	3 BLADE ROPELLER
<u>30 Gallons (U.S.)</u>	<u>11' 3"</u>
FUEL CAPACITY	HEIGHT ON CRADLE
	<u>38 Gallons (U. S.)</u>
	WATER CAPACITY

THE ABOVE DATA IS APPROXIMATE AND MAY VARY FROM ONE BOAT TO ANOTHER.

PRE-LAUNCHING CHECK LIST

1. Engine Oil Level-(Check Engine Manual Before Adding Oil)
2. Transmission Oil Level-(Check Engine Manual Before Adding Oil)
3. V-Drive Oil Level-(Check Engine Manual Before Adding Oil)
4. Engine Seacocks or Gate Valve Closed
5. Batteries Filled and Connected
6. Speedometer Through-Hull in Place
7. All Seacocks Closed
8. Check Propeller Nuts (2) and Cotter Pins
9. Check Bilge for Water

POST-LAUNCHING CHECK LIST

1. Recheck Bilge for Water
2. Fire Extinguishers Charged and Mounted (See Section. XIII).
3. All Seacocks Open/Watertight
4. Check Prop Shaft Log for Watertightness
5. Toilet Operable
6. Engine Operates and Passes Water Through Exhaust
(See Engine Manual)
7. Check Shaft Alignment
8. Check V-Drive for Alignment
9. Accessory Items: (Operational)
 - A. Speedometer
 - B. Depth Sounder
 - C. Apparent Wind Indicator (AWI)
 - D. Radio Telephone
 - E. Fresh Water Systems
 - F. Navigation Lights
 - G. Bow Light
 - H. Masthead Light
 - I. Spreader Lights
 - J. Cabin Lights
 - K. Stereo System
 - L. Other Accessory Items
10. Standing Rigging in Place
 - A. Turnbuckles Operable and Cotter Pins in Place & Taped
11. Running Rigging in Place
12. Blocks and Winch Handles on Board
13. Bilge Pump Operable

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SECTION III: WARRANTY

PEARSON YACHTS are carefully inspected and tested prior to shipment from our factory.

Because of this attention to quality control, our warranty is one of the most effective in the industry.

More important, however, is the knowledge and cooperation you as the owner, and we as the manufacturer, receive from the PEARSON Dealer Organization.

Your warranty is included in your file of ship's papers. Be sure to follow the instructions on filling out and forwarding. You can rest assured that our policy towards your warranty will result in your satisfaction.

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SECTION IV: THE RESPONSIBILITY OF YOUR PEARSON DEALER

The Pearson dealer from whom You bought your boat is an expert at his profession. He knows boats, understands your needs and wants to serve you. His reputation is on the line every time he offers a boat for sale and one of the prime reasons he is a Pearson dealer is his awareness that Pearson respects this fact and produces yachts of performance, decor and quality of which he and his customers can be proud.

Before shipment from the factory, your boat was carefully inspected and thoroughly checked out in the Pearson test pool and rain forest.

In addition, your Pearson dealer **re-inspects** the boat upon arrival, water tests and insures that your boat is in first class operating condition prior to delivery. To help assure you that your boat has been properly checked over, your dealer will complete and initial each item on the enclosed check off list at the time of commissioning.

Should you receive delivery at any location other than the dealer's place of business, your dealer is still responsible for inspection and any required warranty service. Further, it is his responsibility to insure that all equipment agrees with the inspection report which is included in the rigging box of every boat.

Your dealer is responsible for processing claims against the transportation company for any loss or damage during shipment. Should you notice any loss or damage of this sort, please notify your dealer immediately, because neither the carrier nor the factory can accept responsibility for reports later than thirty days after delivery.

It is also the responsibility of your dealer to assist you in obtaining service and to process claims under the warranty for the period of the warranty.

He invites you to ask his assistance in all matters pertaining to your new Pearson Yacht.

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SECTION V: THE RESPONSIBILITY OF THE OWNER

1. Your prompt return of the warranty will help us insure continued satisfaction. Your dealer will provide you with the required information and will co-sign the warranty. Please return the manufacturer's copy within thirty (30) days after taking delivery of your new boat.
2. Thoroughly check your Ship's Papers file to insure that all instructions furnished with accessories are included.
3. Your Pearson dealer will competently handle any service problems that may arise. It is essential that you contact him for all warranty matters.
4. When it is necessary to contact Pearson, please address your letters as follows:

PEARSON YACHTS DIVISION
GRUMMAN ALLIED INDUSTRIES
WEST SHORE ROAD
PORTSMOUTH, RHODE ISLAND 02871
ATTENTION: CUSTOMER SERVICES DEPARTMENT

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SECTION VI: LAUNCHING & RIGGING

Your Pearson dealer is best equipped to launch and rig your boat. His knowledge and experience will insure that everything will be as it should prior to delivery. .

Notes on Launching: Seacocks - Before launching, close all seacocks on both intake and discharge lines. After launching, open all seacocks and check for watertight integrity.

Shaft Alignment - Check for proper engine and V-drive shaft alignment after the boat has been rigged, tuned and equipped. A boat is liable to "settle" slightly after she is in her natural element.

To adjust the standing rigging, simply remove the cotter pins from the turnbuckles and turn the barrels clockwise to tighten, counterclockwise to loosen. Be sure that only the barrel turns, not the barrel and the shroud. Sometimes it may be necessary to grip the shroud to prevent this occurrence.

Normal adjustment calls for a taut headstay, backstay and upper shrouds. The lower shrouds should be sufficiently taut to prevent movement of the mast at the spreaders when sailing.

Final adjustment may vary according to the cut of your sails and prevailing wind conditions in your area.

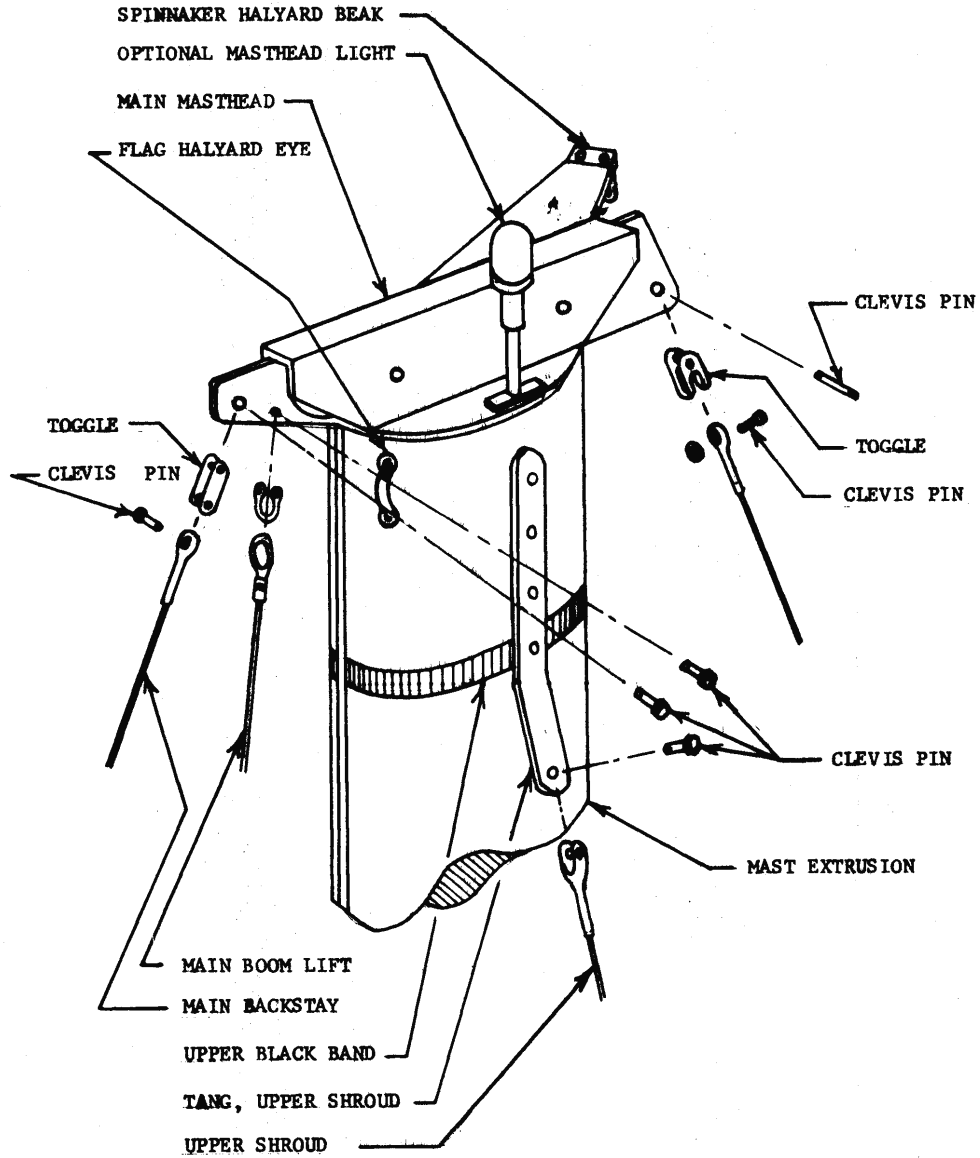
Anchor Roller Fitting: The primary function of the anchor roller is to provide anchor stowage and ease of handling when raising or lowering the anchor.

CAUTION: Never use the anchor roller when breaking the anchor out. For this purpose, lead the anchor rode directly from one of the bow chocks to a bow cleat. Once the anchor is free, it can be hoisted *using* the anchor roller.

When anchored in heavy weather, the anchor rode should lead through a bow chock, not the anchor roller.

When stowing the anchor on the sprit, lash it securely in place at the shank. If heavy seas are expected, remove the anchor from the sprit and stow it in the foredeck recessed anchor well.

PEARSON-323
MAIN MASTHEAD



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TP-77, SHEET 1

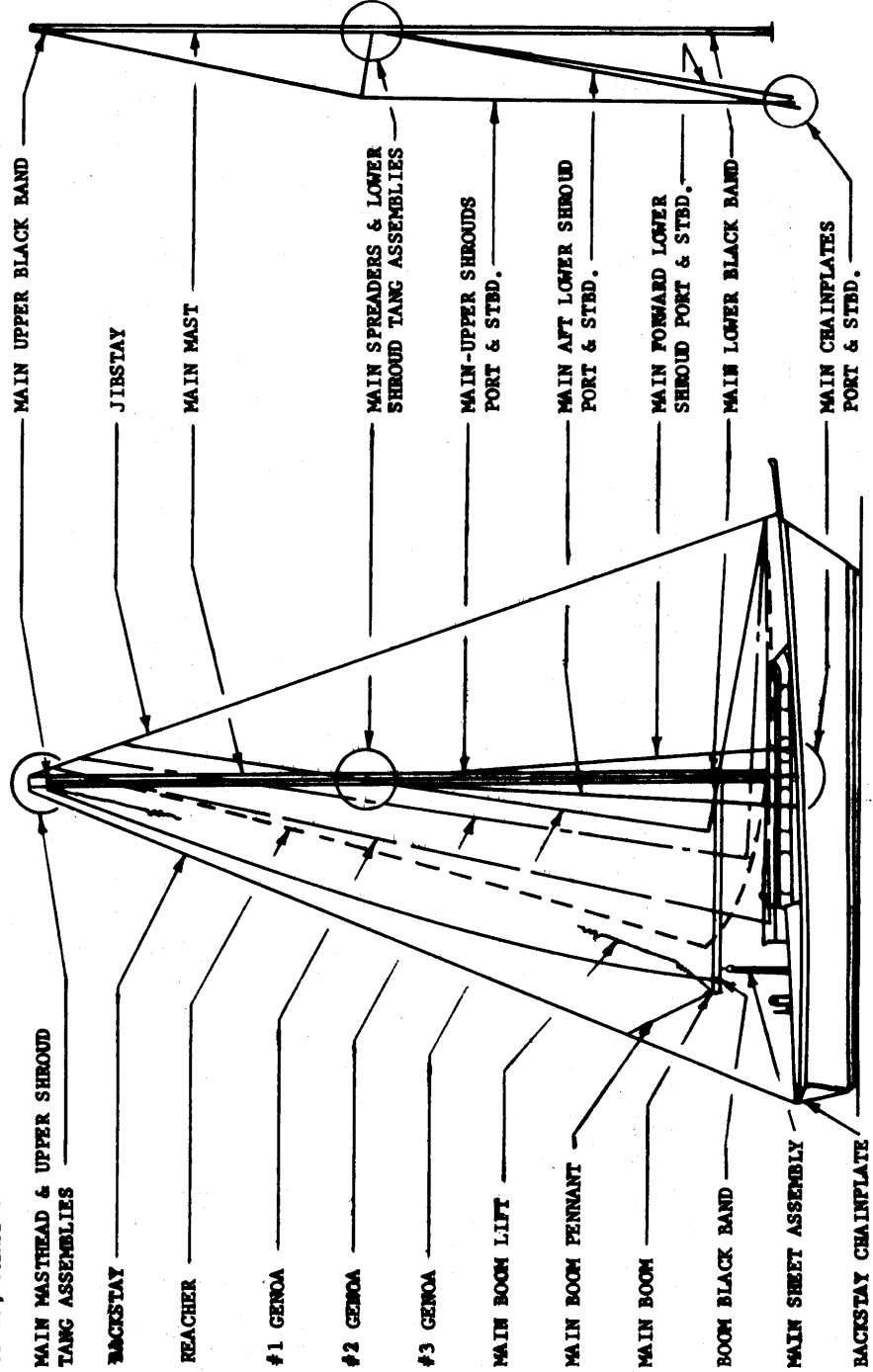
November 10, 1976

PEARSON-323

KEY DIAGRAM FOR RIGGING SCHEMATICS

November 9, 1976

TP-69, SHEET 1



MAIN MASTHEAD & UPPER SHROUD TANG ASSEMBLIES
 BACKSTAY
 REACHER
 #1 GENOA
 #2 GENOA
 #3 GENOA
 MAIN BOOM LIFT
 MAIN BOOM PENNANT
 MAIN BOOM
 BOOM BLACK BAND
 MAIN SHEET ASSEMBLY
 BACKSTAY CHAINPLATE
 MAIN UPPER BLACK BAND
 JIBSTAY
 MAIN MAST
 MAIN SPREADERS & LOWER SHROUD TANG ASSEMBLIES
 MAIN-UPPER SHROUDS PORT & STBD.
 MAIN AFT LOWER SHROUD PORT & STBD.
 MAIN FORWARD LOWER SHROUD PORT & STBD.
 MAIN LOWER BLACK BAND
 MAIN CHAINPLATES PORT & STBD.

— PROFILE —

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SECTION III: FUELING

When preparing to take on fuel, the following safety precautions should be followed at all times:

1. Approach the fueling dock at a reasonable speed to eliminate waves and insure control of your boat. Have consideration for others who may be taking on fuel and provisions.
2. Properly secure boat to dock using bow, stern and-spring lines.
3. Close all hatches and ports.
4. DO NOT SMOKE.
5. SHUT OFF ALL EQUIPMENT ... ENGINE, GENERATOR, STOVE, CABIN HEATER, RADIOS, LIGHTS, ETC.
6. If practicable, all personnel not involved in fueling should leave the boat.
7. Keep fire extinguisher handy.
8. Remove fill plate using spanner wrench provided, and dip the tank to determine fuel requirements. DO NOT USE HAMMER AND SCREWDRIVER TO REMOVE PLATE, IT MAY CAUSE A SPARK AND GOUGE THE PLATE.
9. Place the nozzle of the fuel hose 'in the fill pipe. Keep it in contact with the deck plate rim to avoid a static electric charge.
10. Fill slowly. DO NOT OVERFILL. Marine fuel expands with an increase in temperature. Therefore, fill only to approximately 95% capacity.
11. If you cannot see the fuel pump, ask the attendant or a crew member to call out the gallonage.
12. After fueling, replace fill plate and wash up any spillage. Go below deck and check for fumes or leakage. Check bilge. IF EITHER FUMES OR LIQUID FUEL, GASOLINE OR DIESEL OIL ARE PRESENT, CORRECT SITUATION BEFORE PROCEEDING.
13. Open all hatches and ports to facilitate ventilation.
14. Run blower for at least five minutes and check blower exhaust for presence of fumes.
15. Only after you are totally satisfied that no potentially dangerous condition exists, leave the fuel dock. Be considerate of your fellow yachtsmen.
16. In the event of serious spillage, STOP FUELING IMMEDIATELY. Replace fill plate, notify attendant so he may warn others and wash down thoroughly until all traces of fumes or fuel have disappeared.
17. Do not fuel during electrical storms.

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SECTION VIII: ENGINE OPERATING INSTRUCTIONS

SECTION VIII. A: ENGINE SERVICE ACCESS The engine, V-drive, and stuffing box (back under the engine) are accessible for routine Checking by removing the companionway ladder and the removable access panel behind it or through the locker door in the galley face under the sink. Also, the pegboard in the port and starboard sail lockers can be removed for access to the sides and aft end of the engine, and the fuel tank, engine controls, etc.

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OWNER'S GUIDE AND PROTECTION PLAN

SECTION VIII. B: PRE-START

For more complete operating instructions, maintenance procedure, etc., refer to engine manual provided by engine manufacturer.

1. Read the procedures as outlined in the engine operating manual and be sure to follow the engine manufacturer's recommended operating RPM's.
2. Check your fuel supply. Know the cruising radius your supply will allow.
3. Run blower for at least five minutes and check blower exhaust for presence of fumes.
4. Open the fuel valve.
5. Open the seawater intake valve which is located in the bilge on the port side of the keel between the two cabin sole hatches.
6. Check hoses and connections running from sea water intake valve to internal strainer, to V-Drive and from V-Drive to main engine. Check the bilge area below the V drive for oil and water. If You find oil, do not pump overboard, but remove using a hand pump and take ashore for proper disposal. Determine where oil is coming from before operating engine. If bilge has clean water, you may want to pump. Note: Bilge water in this area will normally come from:
 - A. Ice box drain
 - B. Condensation
 - C. Stuffing box for propeller shaft. Note: Stuffing box should have a slow drip to insure proper water lubrication
7. Check main engine oil level. Access to dipstick is gained through removable access panel located behind companionway ladder.
8. Check oil level in V-drive unit. Dipstick is on port side of V-drive housing.

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SECTION VIII. C: STANDARD GASOLINE

Starting:

1. CHECK FOR BILGE FUMES. THE BEST GAUGE IS YOUR NOSE. IF GASOLINE FUMES OR LIQUID GASOLINE ARE PRESENT IN ANY FORM, DO NOT START ENGINE, SMOKE, USE ELECTRICAL APPLIANCES OR LIGHT THE STOVE. CORRECT THE SITUATION AND THEN PROCEED.
2. Turn the battery disconnect switch. With the two-battery system, turn the battery disconnect switch to the 1, 2, or BOTH position. This switch will select the battery of your choice, or, if necessary, both batteries.
3. RUN THE BILGE BLOWER FOR AT LEAST FIVE (5) MINUTES.
4. Turn the engine ignition key located near the electrical panel on the aft bulkhead under the main companionway ladder, to the "on" position.
5. Pull out the choke located in the aft end of the sail locker opening in the cockpit.
6. Place throttle lever at 1/4 open position.
7. Make sure clutch lever is in neutral.
8. Press starter button located on instrument panel in cockpit.
9. As soon as engine starts,, push choke all the way in.
10. With engine at idle, check oil pressure and battery charge.
11. Check exhaust outlet to be sure that cooling water is being discharged steadily.
12. When the boat has a pressure system a tag will be mounted on the headliner just under the main companionway sill giving instructions on the operation of the valve on the engine near the thermostat which controls the water circulation through the engine. This should be set so that the engine water temperature is approximately 150 degrees.
13. Leave bilge blower on until underway.

Stopping:

1. Idle down.
2. Turn ignition switch to "Off".
3. If leaving the boat, close the engine cooling water valve and fuel valve.

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OWNER'S GUIDE AND PROTECTION PLAN

SECTION VIII. D: OPTIONAL DIESEL

To Start Engine:

1. Turn on exhaust blower letting it run for at least 5 minutes before starting, the engine. Check for fumes by sniffing the air stream discharged from blower.
2. If there are no fumes present, place clutch in neutral and turn on ignition key located near the electrical panel on the aft bulkhead under the main companionway ladder.
3. With key on, the alarm bell for high water temperature or low oil pressure will sound.
4. Open Port/Starboard sail locker hatch and depress START button. Engine should start after a few revolutions. If it doesn't start find problem.
5. With engine running,, the alarm bell should stop ringing. If not, stop engine immediately by pulling out black knob located below START button. Determine the cause for the alarm sounding before starting the engine.
6. Let engine idle for a few moments allowing the oil pressure to build up and the water temperature to rise to normal operating temperatures.
7. Leave bilge blower on until underway.

To Stop the Engine:

1. Shift into neutral and reduce engine R.P.M. to idle.
2. Open port/starboard sail locker hatch, pull out black knob. This shuts off fuel supply to engine causing it to stop. Note:After engine has stopped, always push knob in so that engine can be started again.
3. When engine stops, alarm system will ring as oil pressure drops. Turn off ignition key.

NOTE: If engine has been in operation for a long period, let it idle for a few moments before shutting down. To reduce heat buildup in engine compartment, open sail locker hatch and turn on blower for a few moments.

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SECTION VIII-E: OPTIONAL DIESEL ENGINES

There are two grades of diesel engine fuels currently in use today. The first is Grade #1 and the second is Grade #2. The more common of these is the latter. The National Fire Prevention Association and the United States Military both agree that the flash point of Grade #1 diesel fuel is 100 degree Fahrenheit. The flash point of Grade #2 diesel fuel is 125 degrees Fahrenheit. We all know that gasoline installations in boats must be properly ventilated. This is in accordance with numerous regulations including those of the United States Coast Guard. Even the National Fire Prevention Association is concerned enough about the flammability of diesel fuel to require that it be treated with the same respect as gasoline.

Diesel engines used in the marine industry today operate with very high exhaust temperatures. The result is that any defect in the cooling water to the exhaust line can cause excessive buildup of heat, which in turn could create a fire. The volume of cooling water can easily be restricted by a blockage of the flow of water anywhere within the system, thereby creating a potential fire hazard.

After a diesel engine has been stopped it continues to emit a tremendous quantity of heat. This is rather normal considering the temperatures that the engines must operate at in order to combust the fuels. If this heat emission elevates the temperature in the engine compartment above the flash point of the diesel fuel, then there is an extreme potential fire hazard. (Certain makes of diesel engines operate at low temperatures, thereby greatly reducing the above described hazard.)

Because there are numerous switches and electrical connections adjacent to and in the engine compartments of most yachts, any spark and short-circuit from this wiring combined with the heat factor and the presence of diesel fumes may cause a potentially disastrous fire.

In summary, we highly urge that you exercise the same degree of caution with your diesel powered yacht as you would if it were gasoline powered.

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SECTION VIII. F: OPERATION UNDER POWER

Refer to engine manual for proper operation during break-in period.

During the first few days of operation under power, is an excellent time to learn the handling characteristics of the 323. Choose an area of open water putting the boat through the following maneuvers:

1. Turns both underway and from a stopped condition.
2. Backing.
3. How long it takes to stop.

Remember successful boat handling only comes from personal experience with your own boat. At all times carry out these maneuvers, docking and undocking with moderate power and controlled speeds.

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SECTION IX: FUEL SYSTEM

The fill pipe to the fuel tank is located in the cockpit floor. The deck plate is a flush-mounted screw type and is clearly labeled gas or diesel depending on the engine. When removing the deck plate, ALWAYS USE THE SPANNER WRENCH PROVIDED.

The fuel valve is located on the starboard side with access gained through the removable panel behind the companionway ladder. To open, place the valve handle parallel to the fuel line; to close, turn the handle such that it forms a right angle with the fuel line (90°).

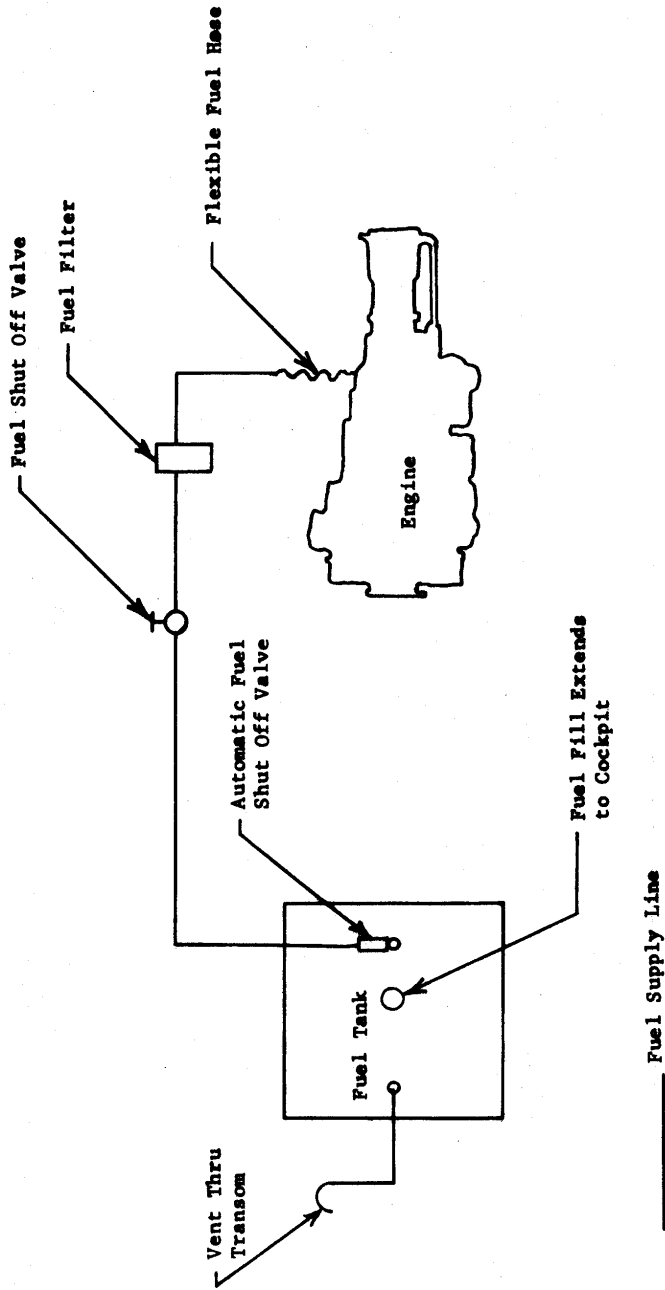
The fuel tank ventilates through a copper tube that extends from the rear top of the tank to a small clamshell vent in the transom. The fuel supply line is a copper tube that runs from the tank through the electric and manual shut off valves to the filter and emerges from the filter as a flexible hose connecting with the engine fuel pump.

When leaving the boat for an extended period, when cleaning the fuel filter, or when making repairs or adjustments, it is recommended that the fuel valve be shut off.

With the diesel engine installation, in addition to the fuel filter installed in the fuel supply line, there is an additional filter integral with the engine.

(DIAGRAM OF FUEL SYSTEM FOLLOWS)

PEARSON-323
FUEL SCHEMATIC
 FOR
UNIVERSAL GAS AND VOLVO DIESEL ENGINES



PEARSON YACHTS DIVISION OF GRUMMAN ALLIED INDUSTRIES, INC.
 TP-75, SHEET 1
 November 10, 1976

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SECTION X: ENGINE COOLING SYSTEM

Please refer to your engine operating manual found among the ship's papers, for a complete description of the cooling system. The engine cooling water intake and valve are located in the bilge on the port side of the keel between the two cabin sole hatches. The in line strainer (diesel only, not gas) is located in the bilge just aft of the intake and valve with access through the aft cabin sole hatch. Cooling water flows through the cooling circuit of the engine and is then discharged into the exhaust elbow located under the galley sink with access through the locker door on the galley face. Water and exhaust is then led aft through the rubber exhaust hose to the transom outlet. There is a scoop strainer facing aft on the outside of the hull (port side) that insures adequate water flow. The in line strainer on the diesel installation should be cleaned frequently - it collects material and hence reduces the water flow to the engine. It is located in the bilge with access through the aft cabin hatch. Always close the raw water intake before servicing the strainer.

NOTE: It is recommended that the intake valve be closed when the boat is to be left unattended for an extended period.

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SECTION XI. A: STANDARD FRESH WATER SYSTEM

There are two (2) standard 19 gallon water tanks located port and starboard under the main cabin berths. Total standard capacity 38 gallons.

In addition an optional 40 gallon water tank is offered which is located forward under the V-berth.

As standard a foot pump is supplied at the galley sink and a hand pump at the vanity sink.

With the optional hot and cold pressure system the vanity hand pump is deleted. Access to the tank connections is through traps under the berth cushions.

FILLING TANKS

Tank fills are located on deck (marked water) located as follows: A. Port and starboard tanks outboard near main mast. B Optional forward tank on fore deck.

A clear plastic inspection plate is located on the top of each tank, making it possible to determine the amount of water in the tank and to facilitate cleaning.

CAUTION: Do not overflow tanks. Filling above the level of the tank tops will subject the tanks to excessive hydrostatic pressure resulting in possible damage to the tanks.

Your boat is supplied with deck mounted fresh water fills. The tanks are fitted with inspection plates. Excessive pressure can be placed on the tanks by leaving water in the fill pipes. Use caution when filling the water tanks. Do not fill above the tank. Be sure to check the water level at the inspection plate in order to preclude overfilling.

Tank Selection: Each tank has its own selector valve located under the galley sink (see diagram). Only one valve should be open at a time. To open the valve, turn it counter-clockwise until it stops, then close it about 1/4 turn.

Tank Usage: For extended cruising, you will probably want to fill all of your water tanks. To help maintain proper trim, we suggest water be drawn from the tanks in the following sequence. 1. Optional bow tank. 2. Port tank. 3. Starboard tank.

Optional Foot Pump Operation: Open the foot pump selector valve located under galley sink (see diagram). Depress foot pump pedal located on face of galley counter under stove for galley sink.

(Diagram of Fresh Water System Follows)

PEARSON YACHTS

OWNER'S GUIDE AND PROTECTION PLAN

SECTION XI. B: OPTIONAL HOT AND COLD PRESSURE WATER SYSTEM

Hot and cold pressure water is supplied to the galley sink, wash basin, and shower.

Pressure System Operation:

Close foot pump selector valve. Turn pressure system switch on distribution panel to ON position. Depress pressure pump priming button located on galley bulkhead near sink. This will start pressure pump. With button depressed, open one faucet until a steady stream of water appears, then closed the faucet and repeat the procedure with the other faucet. With both faucets closed, keep the button depressed until pump stops automatically.

NOTE: If pump continues to run and a steady stream does not take place, tank may be nearly empty. Select another tank and repeat priming procedures.

Hot Water Heater:

This unit is located at the forward end of the starboard sail locker (see separate literature for operation and maintenance).

Hot water is produced in two ways:

- A. By running the main engine, part of its cooling water passes through a coil in the heater tank, heating the water in the tank.
- B. If the boat is wired for dick side electricity, an electrical heating element in the tank will heat the water.

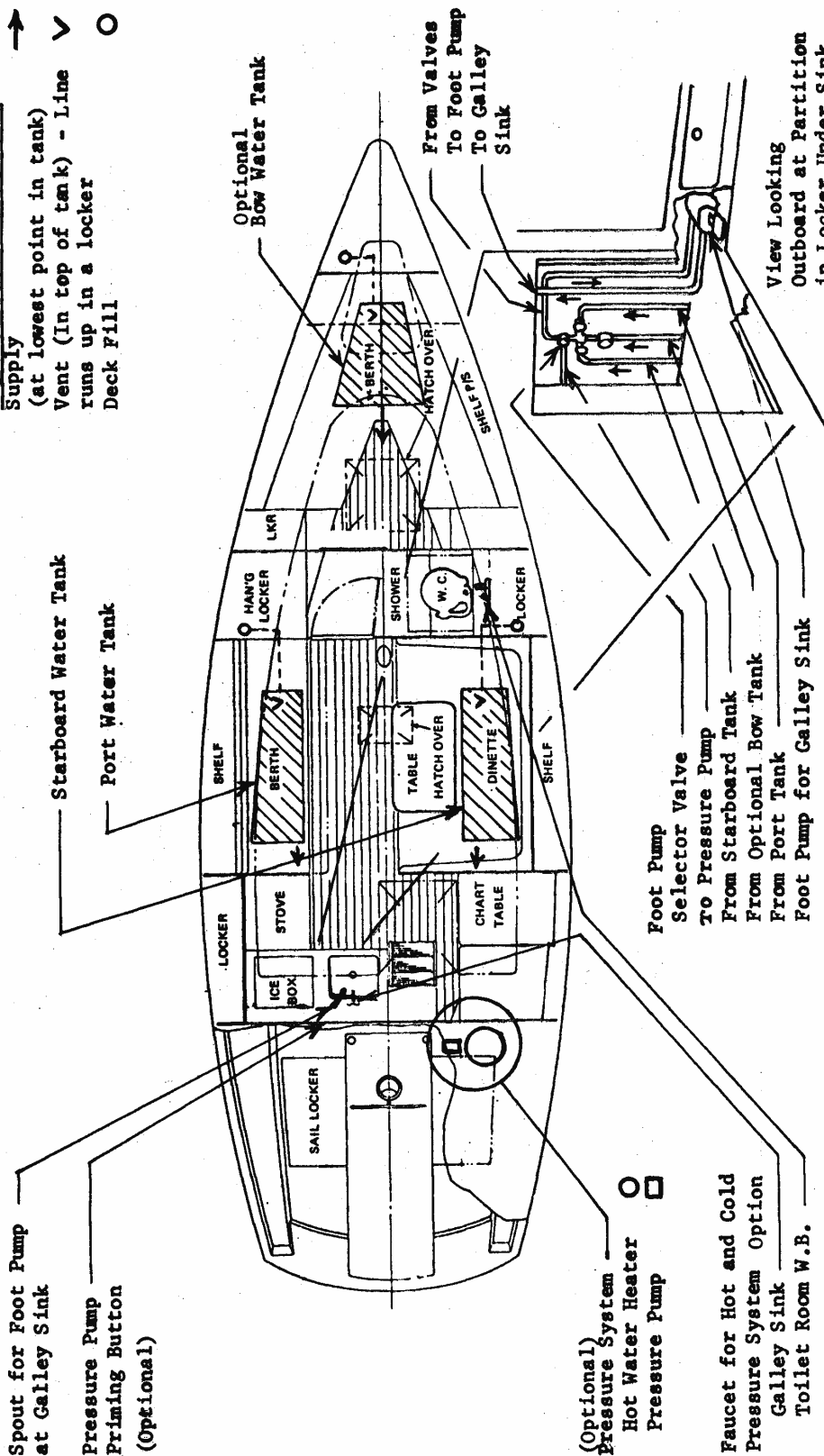
Pressure Pump:

This pump is located at the forward end of the starboard sail locker.

(See separate literature for operation and maintenance).

**PEARSON-323
FRESH WATER SYSTEM
SCHEMATIC**

Key to Water Tank Symbols
 Supply →
 (at lowest point in tank)
 Vent (In top of tank) - Line √
 runs up in a locker
 Deck Fill ○



PEARSON YACHTS DIVISION OF GRUMMAN ALLIED INDUSTRIES, INC.
 November 10, 1976

Applies to Hull #49 and Up

PEARSON YACHTS

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SECTION XII: BILGE SYSTEM

The low point of the bilge is located aft of the ballast keel. Access to this area is through the aft cabin sole hatch next to the stove.

Bilge suction hose with strainer is located in the bilge sump area. The bilge pump is located in the port aft end of the cockpit. Bilge pump discharge is in the transom, port side with the standard gas engine and starboard side with the optional diesel engine.

Periodically lift the suction hose and clear the strainer of any foreign material.

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OWNER'S GUIDE AND PROTECTION PLAN

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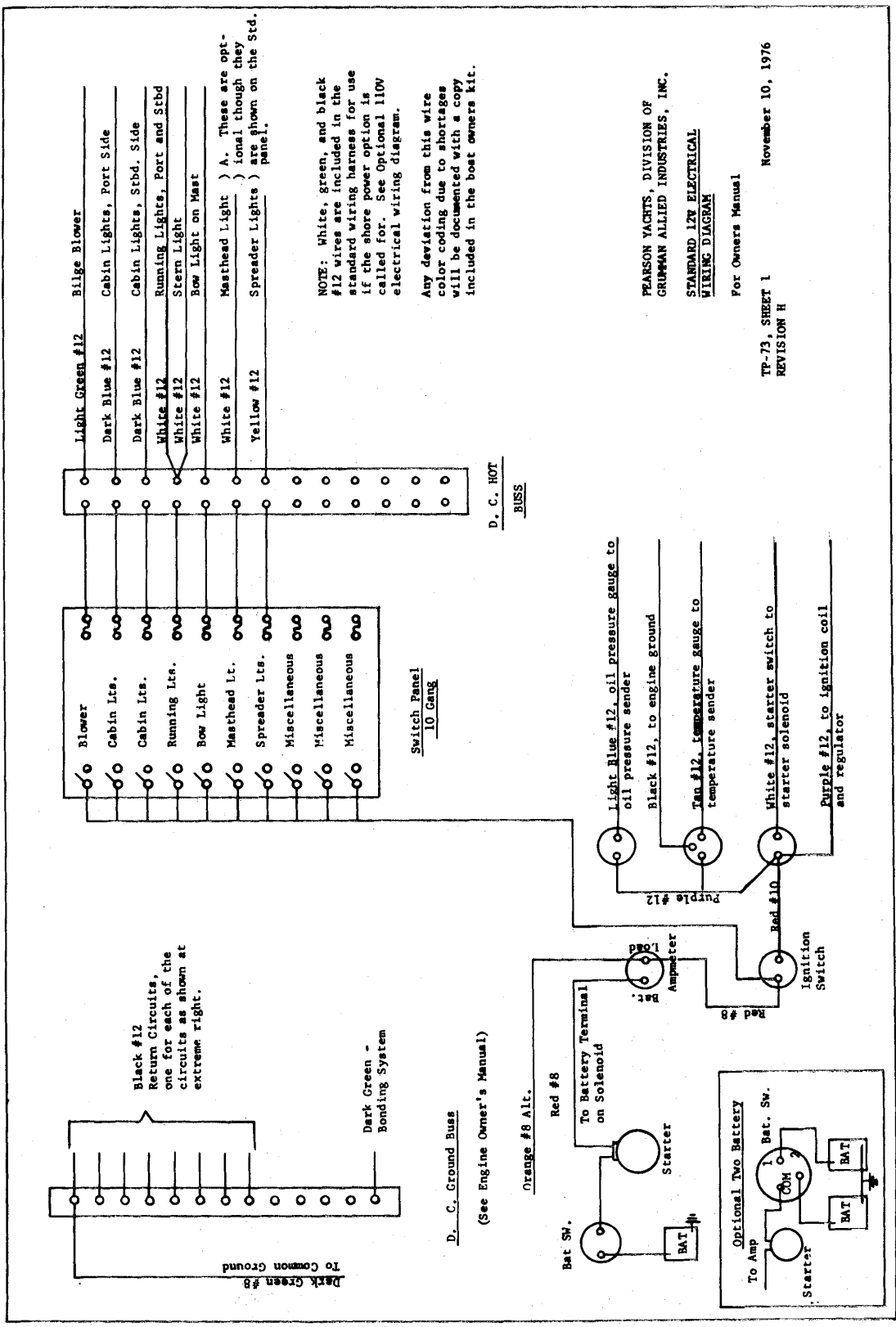
SECTION XIII: ELECTRICAL SYSTEM

To provide electrical power to the various circuits, turn on the master switch located on the aft bulkhead under the main companionway. Place the switch in position 1, 2, or ALL. In position 1 or 2, electrical power will be drawn from battery 1 or 2, and with the engine running, battery 1 or 2 will be charged by the engine alternator. In position ALL, both batteries will provide power and will be charged simultaneously.

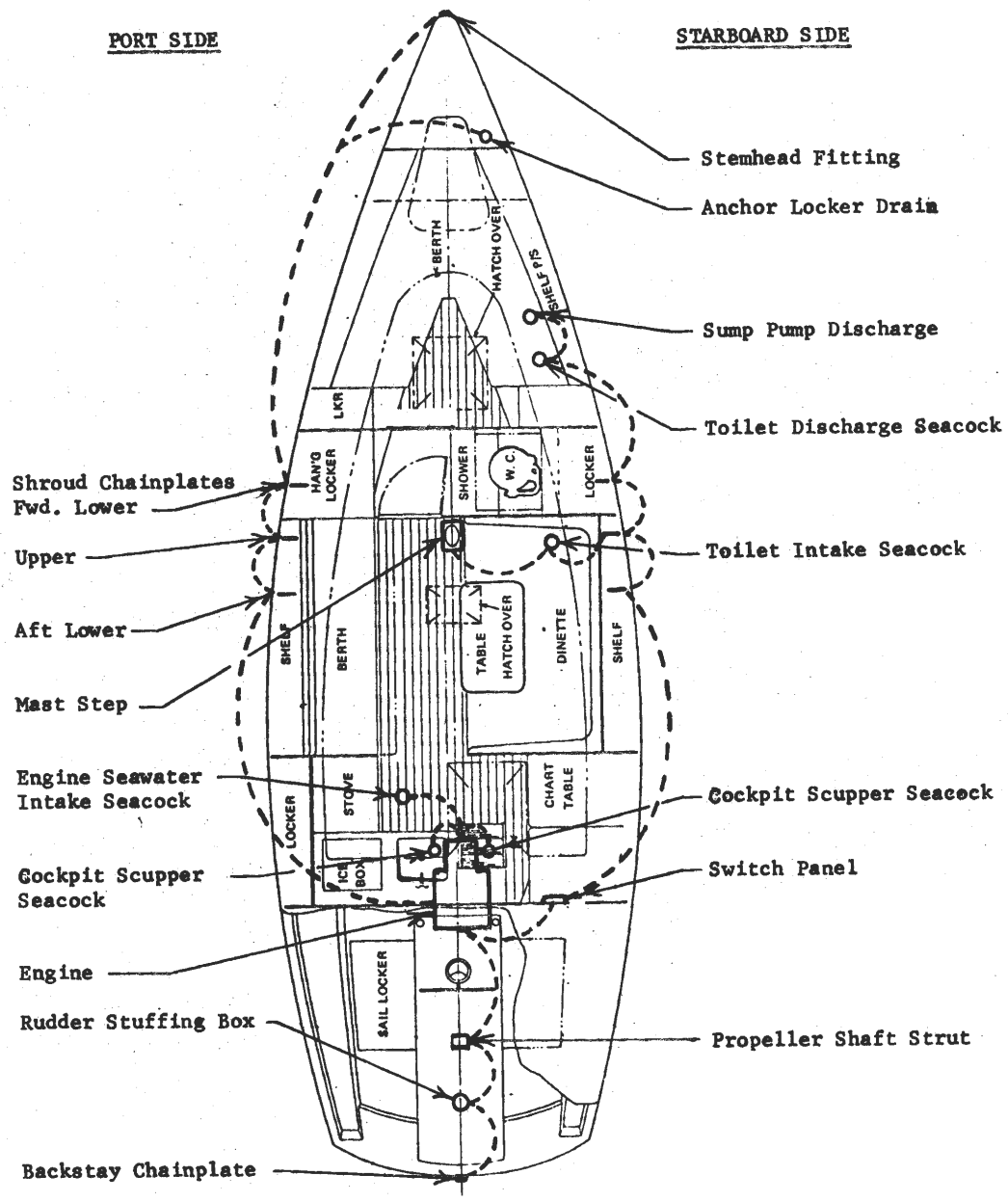
NOTE: Do not change position of battery switch while engine is running. To do so may burn out the diodes on the alternator.

A good procedure to follow is to charge both batteries (ALL position) while running under power; then when the engine is shut down, turn to position 1 or 2. As a simple reminder, use the date, even days, position 2; odd days, position 1.

With the master switch on, turning the toggle switches on the adjacent distribution panel to the ON position will energize the various circuits such as cabin lights, instruments, etc. When leaving the boat for extended periods of time, turn off the master switch and the toggle switches on the distribution panel.

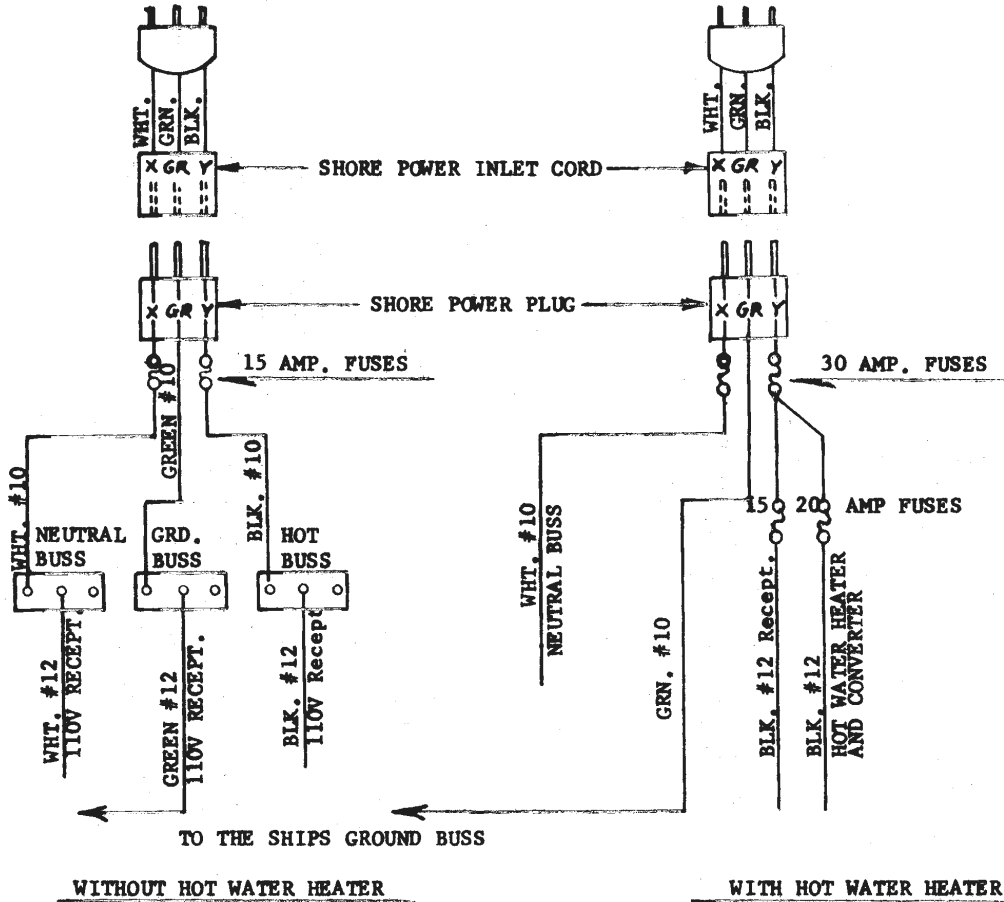


**PEARSON-323
BONDING SYSTEM SCHEMATIC**



PEARSON YACHTS DIVISION OF
GRUMMAN ALLIED INDUSTRIES, INC.

OPTIONAL 110V ELECTRICAL
WIRING DIAGRAM
FOR OWNERS MANUAL



NOTE:

- 1 - The white, green, and black wires for the 110V system are included as part of the standard wiring harness.
- 2 - Any deviation from this wire color coding due to shortages will be documented with a copy included in the boat owners kit.

November 10, 1976
TP-72, SHEET 1
Revision D

PEARSON YACHTS

OWNER'S GUIDE AND PROTECTION PLAN

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SECTION XIV: WATER CLOSET, SINK, COCKPIT AND DECK SCUPPERS

Intake seacock is located to starboard under the outboard portion of the forward dinette seat. Discharge seacock is located to starboard under the aft portion of the V-berth. To reach the valves, lift the appropriate seat cushions and access traps.

NOTE: Seacocks are open when valve handles are in line with hose coming from valve.

The seacocks should be **greased periodically** to insure free operation and water tightness.

Close both valves when leaving the boat for any period of time.

Galley Sink Drain:

The sink discharges into the port cockpit scupper.

Cockpit Scuppers:

Both scuppers are fitted with seacocks which are located in the engine room on each side of the engine. Access to these valves is through the removable engine access panel behind the companionway ladder.

Deck Scuppers:

There are two deck scuppers; port and starboard that discharge at the boot top.

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OWNER'S GUIDE AND PROTECTION PLAN

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SECTION XV: SUMP PUMP

The vanity wash basin and the pan for the optional shower both drain directly into a sump box which is drained by an electric pump. To turn the sump on, place pressure system switch on distribution panel to ON position. A second switch located near the wash basin controls the pump operation.

When draining the wash **basin, turn the** switch on until all water has been pumped overboard.

When using the shower, turn the pump on and let it run until you have finished showering.

The sump pump is located under the cabin sole near the main mast and discharges through a gate valve located in the forward cabin, on the starboard side, under the aft portion of the V-berth.

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SECTION XVI: ALCOHOL STOVE

Please refer to manufacturer's literature before operating. All stoves are alcohol fueled for your safety.

(WATER WILL EXTINGUISH AN ALCOHOL FIRE.)

The alcohol tank is located against the aft bulkhead on the starboard side between the chart table seat and the galley. The tank is located away from **the stove as** a safety precaution. Should you experience a dangerous flare-up, shut off the alcohol supply quickly by turning the valve on top of the tank. We suggest that when the stove is not in use, you release the pressure in the alcohol tank. While this is somewhat inconvenient, it will extend the useful life of the burner tips.

PEARSON YACHTS

OWNER'S GUIDE AND PROTECTION PLAN

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SECTION XVII: OPTIONAL EQUIPMENT

1. FATHOMETER: Please refer to manufacturer literature provided.
2. SPEEDOMETER: Please refer to manufacturer's literature provided.
3. APPARENT WIND INDICATOR: Please refer to manufacturer's literature provided.
4. MASTHEAD & SPREADER LIGHTS: On/Off switches on switch panel.
5. ELECTRICAL REFRIGERATION: Refer to manufacturer's literature for complete operational details.
6. PROPANE (LPG.) STOVE: Please refer to manufacturer's literature before operating. Never use flame to check for leaks.

CAUTION

- A. Keep container valve closed when boat is unattended. Close it immediately in any emergency.
- B. Be sure all appliance valves are closed before opening container valve.
- C. Always apply lit match or other flame to burner before opening burner valve.
- D. Close master valve at appliance whenever appliance is not in use.
- E. Test system for leakage at least twice a month and after any emergency in accordance with the following procedures.

Procedure 1: With appliance valves closed, the master shutoff valve on the appliance open, and with container valve open, note pressure on the gauge. Close container valve. If the pressure drops, locate leakage by application of liquid detergent or soapy water solution at all connections.

Procedure 2: As shown in diagram a leak detector is provided in the line at the container compartment. See Manufacturer's instructions. To locate leak proceed as indicated above.

(DIAGRAM OF PROPANE SYSTEM FOLLOWS) 7. SHORE POWER CONVERTER: Refer to manufacturer's literature.

CAUTION: With the shore power **connected turn the** battery switch on before any electrical equipment.

Optional Shore Power:

Two 110 volt AC outlets are provided one in the galley, the other in the toilet room.

The shore power receptacle is located in the cockpit. (POWER CORD TO BE PROVIDED BY OWNER.)

The shore power circuit utilizes the normal AC. three-wire system.

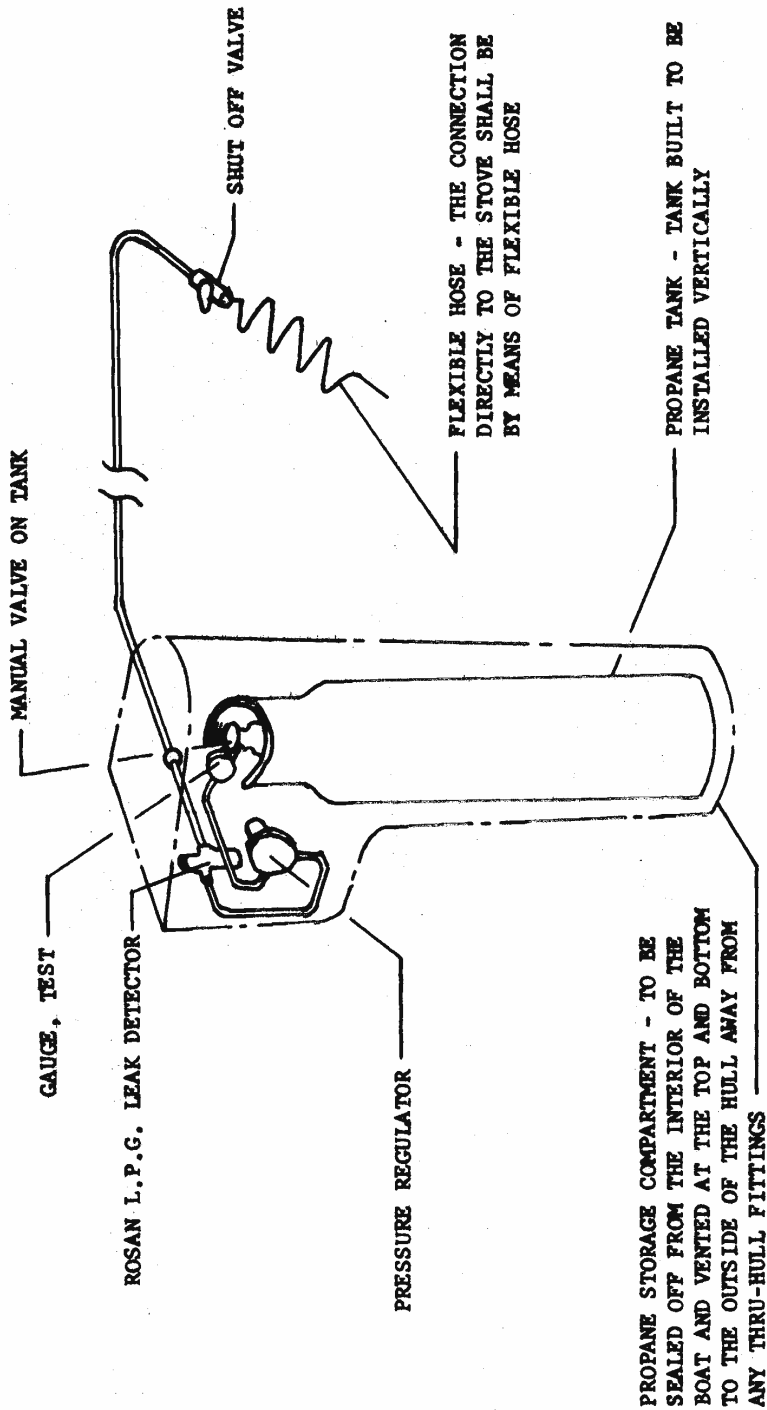
The circuit is protected by two 30-amp fuses located on the electrical control center on the main engine room bulkhead, accessible through port sail locker.

(DIAGRAMS OF STANDARD AND OPTIONAL ELECTRICAL SYSTEMS FOLLOWS)

PROPANE OR L.P.G. SYSTEM
INSTALLATION SCHEMATIC

TP-71 Sheet 1

November 9, 1976



PEARSON YACHTS DIVISION OF GRUMMAN ALLIED INDUSTRIES, INC.

PEARSON YACHTS

OWNER'S GUIDE AND PROTECTION PLAN

PEARSON-323

SECTION XVIII: FIRE EXTINGUISHERS

Fire extinguishers are to be provided by the owner. Fire on board a boat is a very real and serious hazard. Fire extinguishers of the size and type recommended by the United States Coast Guard should be installed immediately.

Even more important than the number of extinguishers is the location of the units. They should be located near the areas where fire are most likely to occur (engine and tank and galley). The extinguishers should be readily accessible in an emergency and not cut off from reach by the fire itself.

As a general guide we recommend locating fire extinguishers in the following areas:

- 1 in forward cabin
- 1 near galley
- 1 in cockpit locker accessible from outside the cabin.

COAST GUARD REGULATIONS

CONSULT YOUR LOCAL COAST GUARD AND COAST GUARD AUXILIARY FOR THE REQUIRED SAFETY EQUIPMENT AND PERTINENT SAFE BOATING REGULATIONS.

PEARSON YACHTS

OWNER'S GUIDE AND PROTECTION PLAN

SECTION XIX: CARE & MAINTENANCE

Regular preventive maintenance is required to keep any boat in "as new" condition. It starts with the day after delivery and continues throughout the year. The heaviest time commitment is, of course, in the spring but one should always be observant of the condition of such areas as running rigging, finishes, the engine, head,, and other moving parts of gear and tackle. The following comments are intended to serve as an initial guideline. You will no doubt want to develop a check list of your own.

FIBERGLASS SURFACES

The glossy outer surface of your laminated fiberglass boat is known as "gelcoat", a polyester resin into which coloring pigments have been incorporated. It should be hosed with fresh water after every outing and routinely washed with a good detergent. Use a sponge on the smooth surfaces, while a stiff deck brush will be helpful on the non-skid surfaces, followed by more fresh water to avoid streaking the topsides. Do not use abrasive cleaners, as they will rapidly dull the gelcoat surface.

At least once a year the smooth gelcoat surfaces should be waxed and polished with a good automotive wax or boat wax that is especially formulated for fiberglass surfaces. A power buffer will make work on the large areas, like the hull, easier, but care must be taken not to cut through the gelcoat surface, particularly at corners and edges. Color in gelcoat, as in any material exposed to direct sunlight, tends to fade, dull,, or chalk, and will require heavier buffing to bring back the original luster. For power cleaning, use a LIGHT abrasive cleaner, while a heavier rubbing compound may be used when polishing by hand. After buffing, wax and polish all surfaces EXCEPT THE NON-SKID AREAS.

Regardless of the amount of care lavished on your boat occasional scratches, cracks, small gouges, along with a badly crushed section or even a large hole, are bound to appear. It is best to discuss the proper course of action with your local dealer or a professional who is SKILLED IN THE REPAIR OF FIBERGLASS SAILBOATS.

We have included a copy of Fiberglass Boat Care and Repair Manual by Owens-Corning Fiberglas Corporation that gives some very good basic information for your perusal. Minor gelcoat touch-up and patching is not difficult. It takes a little study, practice, and, if possible, help from a knowledgeable person.

WOODWORK

The exterior and interior trim is teak, one of the most durable and decorative of all hardwoods - but it must be maintained to keep it from splitting and discoloring.

To help teak maintain its natural color and life longer, treat it regularly with a preparation such as Boatlife's "Teak Brite" or Woolsey's "Teak Dressing".

CAUTION: Never use steel wool instead of bronze wool or sandpaper. Small filaments of steel break off and cause rust spots that are very difficult to remove.

CUSHION CARE

The fabric used on all Pearson yachts has been treated with Scotchgard for your protection. When cleaning is required, we recommend that a mild detergent be used. Lather up the cushion with a damp sponge. Rinse with fresh water.

CAUTION: Do not remove covers from foam.