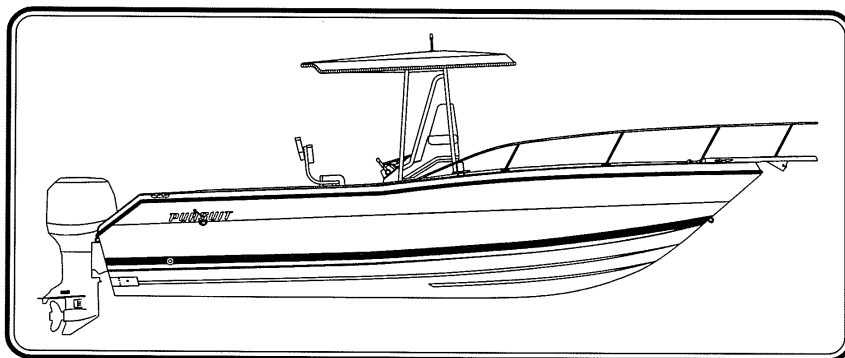


# ***PURSUIT***®

## **2470 CENTER CONSOLE OWNER'S MANUAL**



**PURSUIT. FISHING BOATS**  
3901 St. Lucie Blvd.  
Ft. Pierce, Florida 34946

**PURSUIT. 2470 CENTER CONSOLE**

Print Date 9/95





*Dear Pursuit 2470 Center Console Owner:*

*All of us at Pursuit are pleased that you have selected one of our products as your boat. As I'm sure you've discovered during the selection and decision process, your Pursuit has been designed, engineered and built with care and precision.*

*Please allow me to note my personal philosophy. When I started this company, my goal was to provide you, our customer, with the finest quality boat available. Everything we have achieved since that time has been with the same goal in mind.*

*The information in this owner's manual has been assembled to assist you with obtaining maximum enjoyment with your Pursuit. Please read this manual completely and always operate your boat safely and courteously.*

*Thank you for selecting a Pursuit Fishing Boat. We all wish you many years of boating fun and safety.*

*Sincerely,*

*Leon R. Slikkers  
Chief Executive Officer*

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**PURSUIT®** 2470 CENTER CONSOLE

## **IMPORTANT INFORMATION**

Your **PURSUIT**® 2470 Center Console Owner's Manual has been written to include a number of safety instructions to assure the safe operation and maintenance of your boat. These instructions are in the form of **WARNING**, **CAUTION** and **DANGER** statements. The following definitions apply:



**IMMEDIATE HAZARDS WHICH WILL RESULT IN SEVERE PERSONAL INJURY OR DEATH.**



**HAZARDS OR UNSAFE PRACTICES WHICH COULD RESULT IN SEVERE PERSONAL INJURY OR DEATH.**



**HAZARDS OR UNSAFE PRACTICES WHICH COULD RESULT IN MINOR PERSONAL INJURY OR PRODUCT AND PROPERTY DAMAGE.**

All instructions given in this book are as seen from the stern looking toward the bow, with starboard being to your right, and port to your left. A glossary of boating terms is included.

**IMPORTANT NOTE:** Your boat uses internal combustion engines and flammable fuel. Every precaution has been taken by Pursuit Fishing Boats to reduce the risks associated with possible injury and damage from fire or explosion, but your own precaution and good maintenance procedures are necessary in order to enjoy safe operation of your boat.

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***PURSUIT***® 2470 CENTER CONSOLE

## **SERVICE INFORMATION**

Please fill out the following information section and leave it in your 2470 Center Console Owner's Manual. This information will be important for you and Pursuit service personnel to know, if and when you may need to call Pursuit for technical assistance or service.

CUSTOMER'S NAME	
ADDRESS	
CITY	STATE ZIP
PHONE	
HOME:	OFFICE:
DEALER	
ADDRESS	
CITY	STATE ZIP
PHONE	
PURCHASE DATE	ENGINE MAKE
DELIVERY DATE	ENGINE NUMBER
HULL NUMBER	

Pursuit Fishing Boats reserves the right to make changes and improvements in equipment, design and vendored equipment items, at any time without notification.

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***PURSUIT***® 2470 CENTER CONSOLE

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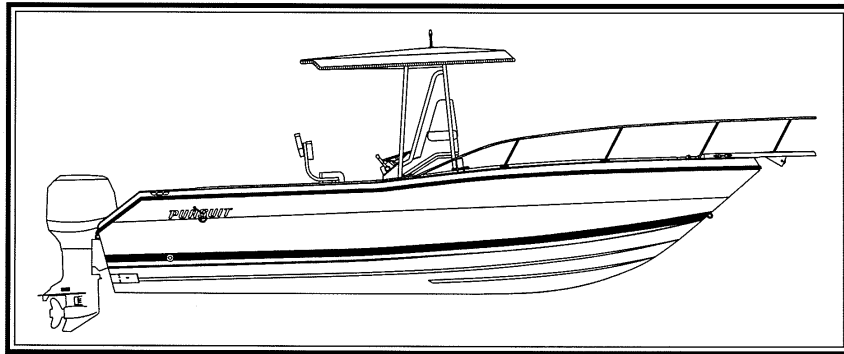
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## *Chapter 1:* **PROPULSION SYSTEM**



### **1.1 General**

The Pursuit 2470 Center Console is designed to be powered with either a single outboard engine or twin outboard engines. Outboard motors use an oil injection system. Oil is automatically injected in the engine(s) and mixed at the proper ratio from oil tank(s) located in the stern of the boat.

**Note:** Always monitor the oil level in the tank and only use the type of oil specified by the engine manufacturer.

Each manufacturer of the various outboard motors provides an owner's information manual with its product. It is important that you read the manual(s) very carefully and become familiar with the proper care and operation of the engine and drive system. A warranty registration card has been furnished with each new engine and can be located in the engine owner's manual. All information requested on this card should be filled out completely by the dealer and purchaser and then returned to the respective engine manufacturer as soon as possible.



**DO NOT ATTEMPT TO SERVICE ANY ENGINE OR DRIVE COMPONENT WITHOUT BEING TOTALLY FAMILIAR WITH THE SAFE AND PROPER SERVICE PROCEDURES. CERTAIN MOVING PARTS ARE EXPOSED AND CAN BE DANGEROUS TO SOMEONE UNFAMILIAR WITH THE OPERATION AND FUNCTION OF THE EQUIPMENT.**



**DO NOT INHALE EXHAUST FUMES! EXHAUST CONTAINS CARBON MONOXIDE THAT IS COLORLESS AND ODORLESS. CARBON MONOXIDE IS A DANGEROUS GAS THAT IS POTENTIALLY LETHAL.**

## 1.2 Drive Systems

Each outboard motor is a complete drive system with the gear case being just forward of the propeller and connected to the power head with a vertical drive shaft. Other than the routine maintenance outlined in the engine owner's manual, there is little to be concerned with unless the boat is to be kept in saltwater for extended periods of time. Then, the main concerns are marine growth and electrolysis.

Marine growth occurs when components are left in the water for extended periods and can cause poor performance or permanent damage to the exposed components. The type of growth and how quickly it occurs is relative to the water conditions in your boating area. Water temperature, pollution, current, etc. can have an effect on marine growth.

Electrolysis is the corrosion process occurring when different metals are submerged in an electrolyte. Sea water is an electrolyte and submerged engine components must be properly protected. Outboard motors are equipped with sacrificial zinc anodes to prevent electrolysis problems. The zinc anodes must be monitored and replaced as necessary. For locations and maintenance, please refer to the engine owner's manual.

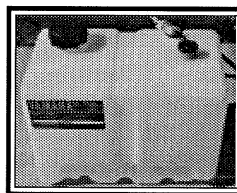
When leaving the boat in the water, tilt the motor as high as possible. This will decrease the risk of marine growth around the cooling inlets, propeller and exhaust ports and damage from electrolysis.



**DO NOT PAINT THE OUTBOARD MOTORS WITH ANTIFOULING PAINTS DESIGNED FOR BOAT HULLS. MANY OF THESE PAINTS CAN CAUSE SEVERE DAMAGE TO THE ENGINES. CONTACT YOUR PURSUIT DEALER OR ENGINE MANUFACTURER FOR INFORMATION ON THE PROPER PAINTING PROCEDURES.**

## 1.3 Engine Lubrication

Your outboard motor is lubricated by a variable ratio oil injection system. The oil tank(s) are mounted in the stern of the boat. Always monitor the oil level before each cruise by checking the gauge in the helm or visually checking the oil level using the reference marks on the tank. When additional oil is needed, use only the type of oil specified by the engine manufacturer. Refer to the engine owner's manual for oil specifications and additional information on the oil injection system.



*Oil Tank*

## 1.4 Engine Cooling System

Outboard engines are raw water (sea water) cooled. Water is pumped through the water inlets, circulated through the engine block, and relinquished with the exhaust gases through the propeller hub. The water pump uses a small impeller made of synthetic rubber. The impeller and water pump cannot run dry for more than a few seconds. In most outboard motors, some cooling water is diverted through small ports below the engine cowling. This allows the operator to visually check the operation of the cooling system. When the engine is started, always check for a steady stream of water coming out of those ports.



**NEVER RUN AN OUTBOARD MOTOR WITHOUT WATER FLOWING TO THE WATER PUMP. SERIOUS DAMAGE TO THE WATER IMPELLER OR ENGINE COULD RESULT.**

**Note:** If the boat is used in salt or badly polluted water, the engine(s) should be flushed after each use. Refer to the engine owner's manual for the proper engine flushing procedure.

## 1.5 Propellers

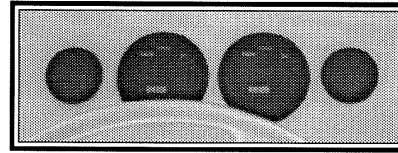
The propellers convert the engine's power into thrust. They come in a variety of styles, diameters and pitches. The one that will best suit the needs of your Pursuit will depend somewhat on your application and expected average load. Propeller sizes are identified by two numbers stamped on the prop in sequence. The 1st number in the sequence (example 14 x 21) is the diameter of the propeller and the 2nd number is the pitch. Pitch is the theoretical distance traveled by the propeller in each revolution. Always repair or replace a propeller immediately if it has been damaged. A damaged and therefore out of balance propeller can cause vibration that can be felt in the boat and could damage the engine gear assembly. Refer to the engine owner's manual for information on propeller removal and installation.



**RUNNING AGROUND OR STRIKING AN UNDERWATER OBSTRUCTION CAN RESULT IN SERIOUS INJURY AND DAMAGE TO THE MOTOR OR BOAT. IF YOUR BOAT RUNS AGROUND, EVALUATE THE DAMAGE, THEN PROCEED AT LOW SPEED TO THE NEAREST SERVICE FACILITY AND HAVE AN IMMEDIATE INSPECTION MADE BEFORE FURTHER USE OF THE CRAFT. A DAMAGED BOAT CAN TAKE ON WATER. KEEP ALL LIFE SAVING DEVICES CLOSE AT HAND WHILE DRIVING TO A DOCK AREA. IF THE BOAT CANNOT BE IMMEDIATELY REMOVED FROM THE WATER, THOROUGHLY INSPECT THE BILGE AREA FOR LEAKS SO THAT THE BOAT DOES NOT SINK WHILE MOORED.**

## 1.6 Engine Instrumentation

The helm station is equipped with a set of engine instruments and/or alarms. These instruments allow the pilot to monitor the engine's operational conditions. Close observation of these instruments allows the pilot to operate the engine(s) at the most efficient level and could save the engine(s) from serious costly damage. The instrumentation is unique to the type of outboard motors installed on your Pursuit. Some or all of the following gauges may be present.



*Instrument Panel*

### **Tachometer**

The tachometer displays the speed of the engine(s) in revolutions per minute (RPM). This speed is not the boat speed nor necessarily the speed of the propeller. The tachometer may not register zero with the key in the "OFF" position.



**NEVER EXCEED THE MAXIMUM RECOMMENDED OPERATION RPM OF THE ENGINE. MAINTAINING MAXIMUM, OR CLOSE TO MAXIMUM RPM FOR EXTENDED PERIODS CAN REDUCE THE LIFE OF THE ENGINE.**

### **Speedometer**

The speedometer indicates the speed of the boat in miles per hour.

### **Temperature Gauge**

The temperature gauge shows the temperature of the engine cooling system. A sudden increase in the temperature could indicate an obstructed water inlet or an impeller failure.



**CONTINUED OPERATION OF AN OVERHEATED ENGINE CAN RESULT IN ENGINE SEIZURE. IF AN UNUSUALLY HIGH TEMPERATURE READING OCCURS, SHUT THE ENGINE OFF IMMEDIATELY. THEN INVESTIGATE AND CORRECT THE PROBLEM.**

### **Water Pressure Gauge**

The water pressure gauge monitors the water pressure in the engine cooling system. Refer to the engine manufacturer owner's manual for more information on the cooling system water pressure requirements for your engine.



DO NOT OPERATE THE ENGINE IF LOW WATER PRESSURE IS INDICATED. THIS COULD BE AN INDICATION OF A COOLING SYSTEM BLOCKAGE OR AN IMPELLER FAILURE. IF LOW WATER PRESSURE IS INDICATED, SHUT THE ENGINE OFF TO INVESTIGATE AND CORRECT THE PROBLEM.

**Oil Level Gauge**

The oil level gauge indicates the amount of oil in the engine oil tank(s).

**Fuel Gauge**

The fuel gauge indicates the amount of fuel in the fuel tank.

**Voltmeter**

The voltmeter displays the voltage for the battery and the charging system. The normal voltage is 11 to 12-volts with the engine off, and 13 to 14.5 volts with the engine(s) running.

**Hour Meter**

The hour meter keeps a record of the operating time for the engine.

**Engine Alarms**

Most outboards are equipped with an audible alarm system mounted in the helm area that monitors selected critical engine systems. The alarm will sound if one of these systems begins to fail. Refer to the engine owner's manual for information on the alarms installed with your engines.



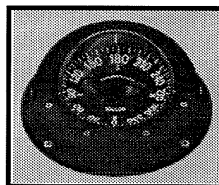
IF THE ENGINE ALARM SOUNDS, IMMEDIATELY SHUT OFF THE ENGINE UNTIL THE PROBLEM IS FOUND AND CORRECTED.

**Fuel Management Gauge**

Fuel management systems are optional equipment with some outboard engines. On Yamaha® engines, the fuel management gauge is a multi-function gauge used to monitor the gallons per hour, miles per gallon, and engine synchronization. If you have a fuel management system installed on your boat, please refer to the engine or fuel management manual for information on that system.

**Compass**

The compass is on top of the console. To adjust the compass for your area, read the instructions on "Compass Compensation" given to you in the literature packet.



*Compass*

**Instrument Maintenance**

Electrical protection for instruments and ignition circuitry is provided by a set of circuit breakers located near the main battery switch. The ignition switches should be sprayed periodically with a contact cleaner/lubricant. The ignition switches and all instruments, controls, etc. should be protected from the weather when not in use. Excessive exposure can lead to gauge and ignition switch difficulties.

## *Chapter 2:* **HELM CONTROL SYSTEMS**

### **2.1 General**

The helm controls consist of three systems: the engine throttle and shift controls, the steering system, and the trim tab control switches. These systems provide the operator with the ability to control the direction and attitude of the boat from the helm station.

Each manufacturer of the control components provides an owner's manual with its product. It is important that you read the manuals and become familiar with the proper care and operation of the control systems.

### **2.2 Engine Throttle and Shift Controls**

The shift and throttle controls on your boat may vary depending on the engines used. The following control description is typical of most outboard remote controls. Refer to the engine or control manual for specific information on the controls installed on your Pursuit.

The engine throttle and shift control system consists of three major components: the control handles, the throttle cable, and the shift cable. The cables are the push-pull type. Two cables are required. One connects the remote throttle control to the carburetor and the other connects the remote shift control to the engine shift rod linkage.



*Controls*

The helm on your Pursuit is designed for a binnacle style control with a single lever for each engine that operates as a gear shift and a throttle. General operation will include a position for neutral (straight up and down), a forward position (the 1st detente forward of neutral), and a reverse position (the 1st detente aft of neutral). Advancing the control lever beyond the shift range advances the throttle in forward or reverse. Each control is equipped with a means of permitting the engine to be operated at a higher than idle RPM while in neutral for cold starting and warm-up purposes. See your engine owner's manual for details of this operation.

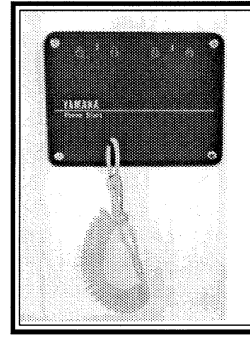
### **2.3 Neutral Safety Switch**

Every control system has a neutral safety switch. This device prohibits the engine(s) from being started while the shift lever is in any position other than the neutral position. If the engine will not

start, slight movement of the shift lever may be necessary to locate the neutral position and disengage the safety cutout switch. Control or cable adjustments may be required to correct this condition, should it persist. See your Pursuit dealer for necessary control and cable adjustments.

## 2.4 Kill Switch

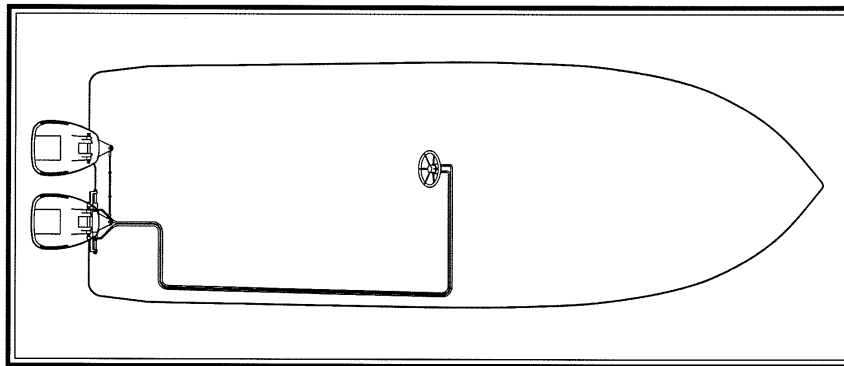
All Pursuit boats rigged with outboard motors are equipped with a kill switch and lanyard. When the lanyard is pulled it will engage the switch and shut off the engine(s). We strongly recommend that the lanyard be attached to the driver whenever the engines are running. If the engine(s) will not start, it could be because the lanyard is not properly inserted into the kill switch. Always make sure the lanyard is properly attached to the kill switch before attempting to start the engine(s).



*Kill Switch*

## 2.5 Steering System

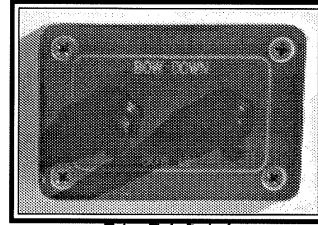
The steering system is hydraulic and made of two main components: the helm assembly and the hydraulic cylinder. The helm unit acts as both a fluid reservoir and pump. Turning of the helm, or steering wheel, pumps the fluid in the hydraulic hoses and activates the hydraulic cylinder causing the motors to turn. A slight clicking sound may be heard as the wheel is turned. This sound is the opening and closing of valves in the helm unit and is normal. Refer to the manufacturer's manual for specific information on the steering system.



*Steering System*  
(For detailed schematic, see Chapter 14)

## 2.6 Trim Tabs

Pursuit uses a dual toggle switch to control the trim tabs. The switch is labeled and controls bow up and down movements. It also controls starboard and port up and down movements. Bow up and bow down will control the hull planing attitude while port and starboard up and down provides control for the hull listing.



*Trim Tab Switch*

Before leaving the dock, make sure that the tabs are in the full “UP” position by holding the control in the bow up position for ten (10) seconds.

Always establish the intended heading and cruise speed before attempting to adjust the hull attitude with the trim tabs. After stabilizing speed and direction, move the trim tabs to achieve a level side to side running attitude, being careful not to over trim. After depressing a trim tab switch, always wait a few seconds for the change in trim plane to take effect. **Avoid depressing the switch while awaiting the trim plane reaction.** By the time the effect is noticeable, the trim plane will have moved too far and thus the boat will be in an overcompensated position.

When running at a speed that will result in the boat falling off plane, lowering the tabs slightly, bow down, will improve the running angle and operating efficiency. Too much bow down can reduce operating efficiency and cause substantial steering and handling difficulties.

Be extremely careful when operating in a following sea. The effect of trim tabs is amplified under such conditions. Steering and handling difficulties can result from improper trim tab usage, particularly in a following sea. Always raise the tabs to the full bow up position in these conditions. **When running at high speeds be sure that the tabs are in the full “UP” position.** Only enough trim plane action should be used to compensate for any listing. Trim tabs are extremely sensitive at high speeds. Adjust for this and be prepared to slow down if difficulties arise.

When running into a chop, a slight bow down attitude will improve the ride. Be careful not to over trim. Handling difficulties may result.

## 2.7 Control Systems Maintenance

### **Control Maintenance**

Periodic inspection of the control systems and all connections should be made. Signs of rust, corrosion, wear, or other deterioration should immediately be serviced. Generally, periodic lubrication of all moving parts and connections with a light waterproof grease is in order.

Lubrication should be performed as often as necessary to keep the system operating smoothly.

Control system adjustments may become necessary. If adjustment becomes necessary, see your Pursuit dealer.



**DO NOT ATTEMPT CONTROL SYSTEM ADJUSTMENTS UNLESS YOU ARE FAMILIAR WITH CONTROL SYSTEM SERVICING PROCEDURES. MISADJUSTMENT CAN CAUSE LOSS OF CONTROL AND SEVERE ENGINE OR LOWER UNIT DAMAGE.**

### **Steering System Maintenance**

A periodic inspection of all steering cables, hoses, linkage and helm assemblies should be made. Signs of corrosion, cracking, loosening of fastenings, excessive wear, or deterioration should be immediately corrected. Generally, periodic lubrication of all moving parts and connections with a light waterproof grease is in order. Failure to do so could lead to steering system failure that would result in loss of control.

When new, or after repairs, hydraulic steering systems may need to have all air purged from the system. Review the information provided by the steering manufacturer for proper specifications and details on system service and maintenance.

### **Trim Tab Maintenance**

Marine growth can interfere with the proper operation of the trim tab planes and actuators. Periodically inspect and clean marine growth from the actuators and planes.

The trim tab fluid should be checked often. Keep the fluid level between the marks on the trim tab pump reservoir.

If your Pursuit will be left in saltwater for extended periods, it may be necessary to install zinc anodes on the trim tab planes to prevent galvanic corrosion. Refer to the trim tab owner's manual for additional maintenance information and fluid specifications.

## *Chapter 3:* **FUEL SYSTEM**

### **3.1 General**

The gasoline fuel system used in Pursuit boats is designed to meet or exceed the requirements of the U.S. Coast Guard, the Boating Industry Association, and The American Boat and Yacht Council in effect at the time of manufacture.

All gasoline fuel systems have been factory inspected and pressure tested in accordance with regulations in effect at the time of manufacture. This inspection assures that the system is air tight, leak proof and safe. It is the responsibility of the purchaser to maintain it in that condition. Make frequent inspections to assure that no deterioration or loosening of connections is resulting from vibration.



**DO NOT LET THE ODOR OF GASOLINE GO UNCHECKED. ANY ODOR OF GASOLINE MUST BE IMMEDIATELY INVESTIGATED AND STEPS TAKEN TO PROTECT THE BOAT AND ITS OCCUPANTS UNTIL THE PROBLEM IS CORRECTED. IF THE ODOR OF GASOLINE IS NOTED, SHUT OFF ALL ENGINES AND ELECTRICAL EQUIPMENT TO INVESTIGATE AND CORRECT THE SITUATION IMMEDIATELY. HAVE ALL PASSENGERS PUT ON PERSONAL FLOTATION DEVICES AND KEEP THE FIRE EXTINGUISHER READY UNTIL THE SITUATION IS RESOLVED.**

#### **Fuel Withdrawal Tubes**

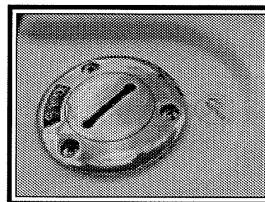
The fuel withdrawal tubes are positioned in the fuel tank to achieve optimum fuel usage, fuel line routing, etc. At certain speeds and hull trim angles, the fuel supply at the withdrawal tank location can increase or decrease accordingly. Be extremely careful when attempting to operate the boat when low on fuel. Though some fuel may be in the tank, the relative trim angle of the boat may cause the fuel to flow away from the withdrawal.

#### **Fuel Gauge**

This indicates the amount of fuel in the tank. Due to the mechanical nature of the fuel sender, variations in readings during various speeds of operation may occur. This system is merely a relative indication of the available fuel supply and not a calibrated instrument.

### **Fuel Fill**

The fuel fill deck plate is located on the deck, and is marked "GAS." Be sure to use the proper type and grade fuel. Refer to the engine owner's manual for additional information.



*Fuel Fill*

### **Fuel Vent**

The fuel vent is located on the side of the hull. While the tank is being filled, the air displaced by the fuel escapes through the vent. When the tank is full, fuel will be ejected from the fuel vent.

After fueling, replace the fill cap and wash the areas around the fuel fill deck plate and below the fuel vent. Residual fuel left on the deck and hull sides can be dangerous and will yellow the fiberglass or damage the striping.

## **3.2 Outboard Fuel System**

The fuel system on the Pursuit 2470 Center Console has one fuel tank. The fuel tank is mounted in the center of the bilge and has one or two withdrawal lines equipped with anti-syphon valves where the fuel lines attach to the fuel tank. This valve prevents gasoline from syphoning out of the fuel tank should a line rupture.



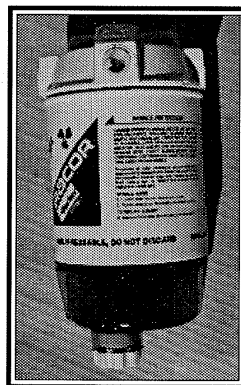
**DO NOT REMOVE THE ANTI-SYPHON VALVE(S) FROM THE SYSTEM. SHOULD THE VALVE(S) BECOME CLOGGED, CLEAN AND RE-INSTALL OR REPLACE.**

### **Twin Engine Fuel System**

Twin engine 2470 Center Consoles use both fuel withdrawal lines, one for each engine. A fuel filter for each engine is installed in the transom area of the boat. The filters are the water separator type and have a sediment bowl that should be checked for water frequently to assure an adequate supply of clean, dry fuel to the engines. It is recommended that the filters be inspected periodically and the element changed as needed.

### **Single Engine Fuel System**

Single engine 2470 Center Consoles use one fuel withdrawal line. A fuel filter for the engine is installed in the transom area of the boat. It is the same filter as those used on the twin engine boats.



*Fuel Filter*

### 3.3 Fueling Instructions



FUEL IS VERY FLAMMABLE. BE CAREFUL WHEN FILLING THE FUEL TANK. NO SMOKING. NEVER FILL THE TANK WHILE THE ENGINE IS RUNNING. FILL THE FUEL TANK IN AN OPEN AREA. DO NOT FILL THE TANK NEAR OPEN FLAMES.



TO PREVENT DAMAGE TO THE FUEL SYSTEM, USE ONLY A GOOD GRADE OF GASOLINE FOR GASOLINE ENGINES. DO NOT USE A FUEL THAT CONTAINS HARSH ADDITIVES OR IS AN ALCOHOL BLEND. ANY DAMAGE DONE TO THE FUEL SYSTEM THAT IS THE RESULT OF USE OF AN ALCOHOL BLEND, IS NOT COVERED BY THE PURSUIT WARRANTY. REFER TO THE ENGINE MANUFACTURER OWNER'S MANUAL REGARDING FUEL REQUIREMENTS FOR YOUR ENGINE(S).

#### To fill the fuel tank at a marina, follow this procedure:

1. Make sure all switches are in the "OFF" position.
2. Make sure the boat is securely moored.
3. Make sure all passengers leave the boat.
4. Estimate how much fuel is needed.

**Note:** When the fuel tank is full, fuel will come out through the fuel vent. The fuel vent is located on the port side of the boat.

5. A special key to open the fuel cap is supplied.
6. Turn the key counterclockwise to open the cap.
7. Remove the cap.
8. Put the nozzle in the fuel opening.



TO PREVENT STATIC SPARKS WHEN FILLING THE TANK, MAKE SURE THE NOZZLE IS IN CONTACT WITH THE FUEL OPENING.

MAKE SURE YOU DO NOT SPILL ANY FUEL. IF FUEL IS SPILLED, USE A CLOTH TO REMOVE THE FUEL.

9. Fill the fuel tank.
10. Remove the nozzle.
11. Install the fuel cap.
12. Check the fuel compartment and below the deck for fuel odors. If you smell fuel, do not start the engine.



**TO REDUCE THE RISK OF A FIRE AND/OR EXPLOSION, DO NOT START THE ENGINE(S) WHEN FUEL FUMES ARE PRESENT. FUEL FUMES ARE DANGEROUS AND HARMFUL TO YOUR HEALTH.**



**MAKE SURE ALL GASOLINE ODORS ARE INVESTIGATED IMMEDIATELY.**

### **3.4 Fuel System Maintenance**

Periodically inspect all connections, clamps and hoses for leakage and damage or deterioration. Replace as necessary. Spray the valves, fuel gauges and ground connections with a metal protector.

Periodically, remove the covers from the fuel vents and clean the vent of any debris. Be sure the covers are replaced securely after cleaning. The covers help prevent water and other foreign matter from contaminating the fuel and fuel system. If a vent cover is damaged or lost it should be replaced as soon as possible.

Contaminated fuel may cause serious damage to your engines. The filters must be checked for water and other contamination frequently. The filter elements must be changed at least once a season or more frequently depending on the type of engine and the quality of the fuel. Please refer to the engine or fuel filter manufacturer's instructions for information on servicing and replacing the fuel filter elements.



**DO NOT DRAIN ANY FUEL INTO THE BILGE. THIS COULD LEAD TO A FIRE OR EXPLOSION.**



**AFTER THE FILTER ELEMENT HAS BEEN CHANGED, PRIME THE FUEL SYSTEM AND CHECK ALL FITTINGS FOR LEAKS BEFORE AND AFTER STARTING THE ENGINE.**

## *Chapter 4:* **ELECTRICAL SYSTEM**

### **4.1 General**

Your Pursuit is equipped with a 12-volt D.C. electrical system that draws current from on-board batteries.

The 12-volt batteries in your boat are usually the lead-acid type. They will require maintenance similar to those found in automobiles. The batteries are located in the stern bilge. The starboard battery is located near the battery switches and the port battery is below the removable stern tackle locker. To access the port battery, remove the top tackle locker drawer and remove the quick release pin, then slide the locker out of the frame.

There are electrical schematics included in this manual to aid in following an individual circuit of the boat.

### **4.2 12-Volt System**

The 12-volt system is a fairly standard system. There are two batteries controlled by one battery switch (single engine) or two battery switches (twin engines). The batteries are charged by the engine(s). All 12-volt power is distributed to the 12-volt accessories through individual circuit breakers located in the 12-volt switch panels. A main in-line circuit breaker located near the battery switch protects the system from an overload. Another circuit breaker near the switch protects the circuit for the automatic float switch for the bilge pump. Most 12-volt accessories are operated directly by switches in the helm and accessory switch panels.

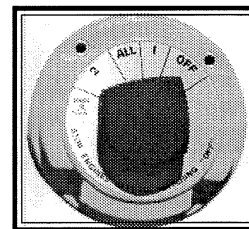


**PROPER FUSE OR BREAKER PROTECTION MUST BE PROVIDED FOR ALL 12-VOLT EQUIPMENT ADDED. DO NOT OVERLOAD THE ACCESSORY CIRCUIT BREAKERS OR OTHER CIRCUITRY THROUGH ADDITIONAL 12-VOLT EQUIPMENT.**

#### **Single Engine Battery System**

The battery selector switch is located in the transom area of the boat. The switch feeds the engine and the 12-volt accessory panel. 12-volt power can be supplied by either battery # 1 or battery # 2 separately or by both batteries simultaneously. The selector switch also directs the charging current when the engines are operating.

For example: When the switch is on battery # 1, the engine and the



*Battery Switch*

12-volt system will be supplied power by battery # 1. Battery # 2 will be isolated and in reserve. Battery # 1 will be charged by the alternator. When the selector switch is on battery # 2, the engine and the 12-volt system will be supplied power by battery # 2. Battery # 1 will be isolated and in reserve. Battery # 2 will then be charged by the alternator.

When the selector switch is on “ALL,” the batteries are connected in parallel so the engine and the 12-volt system will be supplied power by both batteries. Both batteries will be charged by the alternator. The “ALL” position should only be used when starting the engine, as this requires extra electrical power, or when both batteries are low and need charging. Otherwise, it is recommended that the selector switch be set on battery # 1 or battery # 2 when the engine is operating. While in port, or at anchor, the battery selector switch should be on either the battery # 1 or the battery # 2 position. This will keep one battery in reserve for starting the engine. The battery switch should be turned to the “OFF” position when leaving the boat unattended.

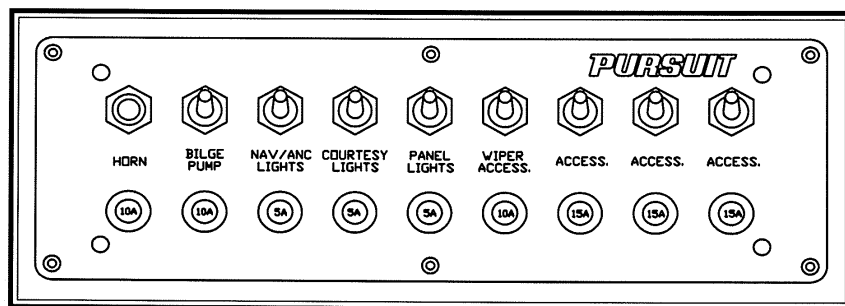
#### **Twin Engine Battery System**

There are two (2) batteries controlled by two (2) battery selector switches located in the transom area of the boat. The batteries can be charged by either engine separately, or both engines simultaneously. One battery switch feeds the starboard engine and the 12-volt accessory panel. The other battery switch feeds the port engine. Twelve volt power can be supplied by either battery # 1 or battery # 2 separately or by both batteries simultaneously. The selector switches also direct the charging current when the engines are operating.

For example: When both selector switches are on battery # 1, both engines and the 12-volt panel will be powered by battery # 1. Battery # 2 will be isolated and in reserve. Battery # 1 will be charged by both alternators. When both selector switches are on battery # 2, both engines and the 12-volt panel will be operated by battery # 2. Battery # 1 will now be isolated and in reserve. Battery # 2 will then be charged by both alternators.

When both selector switches are on “ALL,” the batteries are connected in parallel. Thus, both engines and all 12-volt equipment are powered by both batteries. Battery #1 and battery # 2 will then be charged by both alternators. The “ALL” position should only be used when starting the engines, as this requires extra electrical power, or in case of a charging system malfunction on one engine. Otherwise, it is recommended that one selector switch be set on battery # 1 and the other switch be on battery # 2 when the engines are operating.

When in port, or at anchor, the switch that supplies the port engine should be “OFF” and the switch that supplies the starboard engine and the 12-volt accessories should be on either the battery # 1 or the battery # 2 position. This will keep one battery in reserve for starting the engines. Both battery switches should be turned to the “OFF” position when leaving the boat unattended.



*12-volt Accessory Switch Panel*

### **12-Volt Accessory Switch Panels**

The main accessory switch panel is located at the helm. The circuit breakers that protect the accessories are located directly under the switches.

The following is a description of the accessories controlled by the main accessory switch panel:

**Horn** Activates the boat horn. It is protected by a 10-amp breaker.

**Bilge Pump** The bilge pump is installed in the rear center of the bilge. The pump moves water out through the thru-hull fittings in the transom. To start the pump manually, put the switch in the "ON" position. It is protected by a 10-amp breaker.

**Note:** The bilge pump will start automatically when there is sufficient water in the bilge to activate the float switch. The float switch is protected by a 10-amp circuit breaker located near the battery selector switch and is always supplied current when the batteries are connected.

**Anchor-Nav Lights** The switch is a three-position switch. The middle position is "OFF". Moving the switch in one direction will activate the navigation lights. Moving the switch in the opposite direction activates the anchor light. It is protected by a 5-amp breaker.

**Courtesy Lights** Activates the lights that illuminate the cockpit area. It is protected by a 5-amp breaker.

**Panel Lights** Activates the engine gauge and compass lights. It is protected by a 5-amp breaker.

**Windshield Wiper** Activates the windshield wiper if this option is installed on your boat. If no wiper is installed, this switch is reserved for additional accessories. It is protected by a 10-amp breaker.

**Accessory Switches (3)** These switches are supplied to activate additional equipment that may have been installed by Pursuit or your Pursuit dealer. If no accessories are activated by these switches, they remain wired in the panel in reserve. They are protected by 15-amp breakers.

**Additional Switch Panels**

Additional switch panels may be located in various locations in the cockpit and helm area of the boat. Most of these panels are equipped with one switch and one circuit breaker. The following is a description of additional panels that may be on your Pursuit and the accessories they control:

**Baitwell Switch** This switch activates the baitwell circulating pump that supplies water to the baitwell. It is protected by a 15-amp breaker.

**Washdown Pump** This switch activates the raw water washdown pump. The pump is the pressure demand type and is protected by a 15-amp breaker.

**Note:** Please refer to Chapter 6 for more information on the baitwell and washdown systems.

**Trim Tab Switch** Located in the helm. This switch controls the trim tab planes located on the transom of the boat. It is protected by a 15-amp breaker located behind the helm at the back of the accessory switch. Please refer to Chapter 2 for detailed information on the operation of the trim tab controls.

**Windlass Switch** Located in the helm. This switch controls the optional windlass which is mounted to the deck directly above the rope locker. It is protected by a circuit breaker of the type and rating recommended by the windlass manufacturer.

**Windlass Breaker** The windlass breaker is located on the helm next to the windlass switch. Push the in to activate the windlass control switch and push it again to return the breaker to "OFF" whenever the windlass is not in use. This breaker is provided to reduce the possibility of accidentally activating the windlass and provides 25 amp protection.

## 4.3 Electrical System Maintenance

### D.C. Electrical System Maintenance

At least once a year, spray all exposed electrical components behind the helm and in the plugs, with a protector. Exterior light fixture bulbs should be removed and the metal contact areas coated with a non-water soluble lubricant like petroleum jelly. The sockets should be sprayed with a protector. Care must be taken not to get any oil or petroleum jelly on the glass portion of the bulbs as this will cause the bulb to overheat and burn out.



**WHEN REPLACING LIGHT BULBS IN MARINE LIGHT FIXTURES, ALWAYS USE A BULB WITH THE SAME RATING AS THE ORIGINAL. USING A DIFFERENT BULB COULD CAUSE THE FIXTURE TO OVERHEAT AND MELT OR SHORT CIRCUIT.**

Inspect all wiring for proper support, sound insulation, and tight terminals, paying particular attention to portable appliance cords and plugs.

Check all below deck wiring to be sure it is properly supported, that the insulation is sound, and that there are no loose or corroded terminals. Corroded terminals should be thoroughly cleaned with sandpaper, or replaced, tightened securely and sprayed with a metal and electrical protector. Inspect all engine wiring.

Check the electrolyte level in the batteries regularly and add distilled water as necessary. If the batteries are frequently charged by the automatic battery charger, the electrolyte level will have to be checked more often. Keep the battery tops clean and dry. Dirt and water can conduct electricity from one post to the other causing the battery to discharge. The battery posts should be kept free of corrosion. Remove the cables and clean the posts and cable clamps with a battery post cleaner or sandpaper as required. Coating the battery posts and cable clamps with petroleum jelly will protect them and reduce corrosion. Battery cables, both hot and ground, must be replaced when they show signs of corrosion or fraying. Deteriorated cables cause a considerable voltage loss when high currents are drawn, as for starting the engine.

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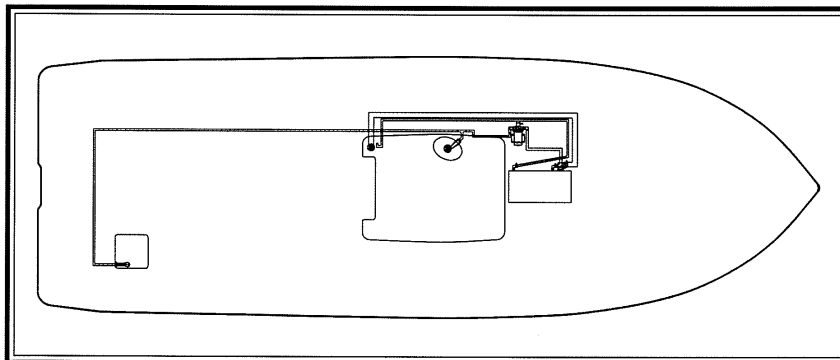
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## Chapter 5:

# FRESHWATER SYSTEM



*Freshwater System*  
(For expanded drawing, see Chapter 14)

### 5.1 General

The Freshwater System consists of a potable water tank, distribution lines and a distribution pump. The tank is filled through a labeled deck plate located on the side of the center console.



DO NOT FILL SYSTEM WITH ANYTHING OTHER THAN WATER. SHOULD THE SYSTEM BECOME CONTAMINATED WITH FUEL OR OTHER TOXIC FLUIDS, COMPONENT REPLACEMENT MAY BE NECESSARY.

### 5.2 Freshwater System Operation

Fill the water supply tank slowly through the labeled deck plate.

After filling the water tank, partially open all faucets. The freshwater switch on the 12-Volt panel should be on. Allow the pump to run until all of the air is purged from the system and a steady stream of water is flowing from each outlet. Next, turn off the faucets one by one. As the pressure builds the pump will automatically shut off.

When properly primed and activated the water system will operate much like the water system in a home. An automatic pressure sensor keeps the system pressurized. If the system has been recently filled or has not been used for an extended period, air bubbles may accumulate at the pump and the system may have to be reprimed. Whenever the boat is left unattended, the freshwater pump switch should be placed in the "OFF" position.



**DO NOT ALLOW THE FRESHWATER PUMP TO RUN DRY. THIS CAN RESULT IN DAMAGE TO THE PUMP.**

### **5.3 Freshwater System Maintenance**

Information supplied with water system components, by the equipment manufacturers, is included with this manual. Refer to this information for additional operation and service data.

The following items should be done routinely to maintain your Freshwater System:

Periodically, remove the cover from the water tank vent and clean the vent of any debris. Be sure the covers are replaced securely after cleaning. The covers help prevent water and other foreign matter from contaminating the water system. If a vent cover is damaged or lost it should be replaced as soon as possible.

Remove the filter screens from the faucet spouts and eliminate any accumulation of debris. A build up of debris can cause the pump to cycle excessively.

Periodically spray the pumps and metal components with a metal protector.

The batteries must be properly maintained and charged. Operating the pressure pump from a battery with a low charge could lead to pump failure.

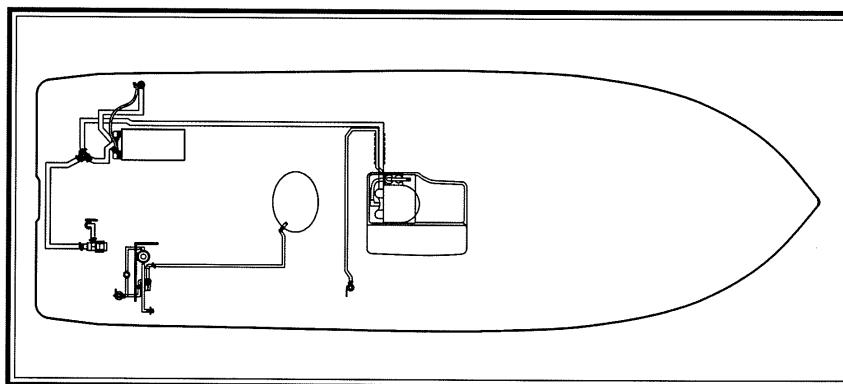
Add a commercially available potable water conditioner to the water tank(s) to keep them fresh.



**THE BATTERIES MUST BE PROPERLY CHARGED. OPERATING THE FRESHWATER PUMP FROM A BATTERY WITH A LOW CHARGE MAY LEAD TO A PUMP FAILURE.**

## Chapter 6:

# RAW WATER SYSTEM



*Raw Water System*  
(For detailed schematic, see Chapter 14)

### 6.1 General

In the raw or sea water systems, all water pumps are supplied by a hose connected to a ball valve located in the bilge compartment. Always make sure the ball valves are open before attempting to operate any component of the raw water system.

12-volt pumps supply sea water to the various accessories.

#### Priming the System

Make sure the ball valves are open. Open the hose connector for the raw water washdown and activate the pressure pump by turning the washdown pump switch to the "ON" position. Run the pump until all of the air is purged from the system and then turn the switch off. Open the valve in the livewell and turn the livewell switch to the "ON" position. Run the pump until all of the air is purged from the system and then turn the switch to the "OFF" position. Closing the thru hull ball valves before the boat is hauled from the water will help to eliminate air locks in raw water systems.

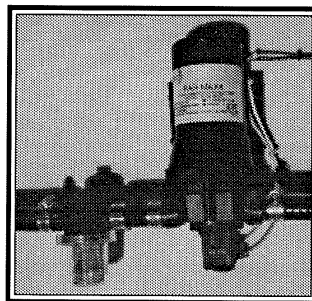
**Note:** It may be necessary to reprime the raw water system if the system is not used for an extended period and at the time of launching.

## 6.2 High Pressure Washdown

A saltwater high pressure pump, controlled by a pressure sensor, supplies the raw water hose connector located in the cockpit. The pump is activated by the washdown switch located in the helm or the rear of the cockpit. This switch should be turned to the “ON” position just before using the washdown and be turned to the “OFF” position when the washdown is not in use.

When activated, the pressure switch will automatically control the pump. As the pressure builds in the washdown hose, the pump will shut off. When the washdown hose is in use and the pressure drops, the pump will turn on.

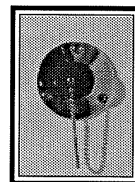
The raw water washdown system is equipped with a sea strainer located on the intake side of the pump. This should be checked frequently and cleaned as necessary.



*Washdown Pump*

### **The Washdown Pump Connection**

The washdown pump hose connection is located in the cockpit and uses a standard garden hose connection.



*Washdown Hose Connector*



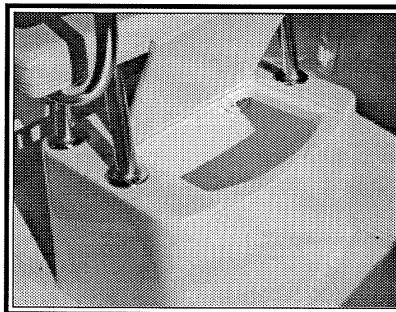
ALWAYS TURN THE RAW WATER PUMP SWITCH TO THE “OFF” POSITION WHEN LEAVING THE BOAT UNATTENDED.



DO NOT RUN THE HIGH PRESSURE PUMP DRY FOR EXTENDED PERIODS AS DAMAGE TO THE PUMP WILL RESULT.

### 6.3 Livewell

Sea water is provided to the livewell by a 12-volt circulation pump. This pump is designed to carry a constant flow of water to the livewell. The pump is not equipped with a pressure sensor and is activated by the baitwell switch in the 12-volt panel or a separate switch in the cockpit. The flow of water can be regulated by the valve in the livewell. Care must be taken not to close the valve to the point that it severely restricts the water flow. A severely restricted water flow can put too much load on the pump which could cause overheating and damage. An overflow built into the livewell automatically controls the water level in the livewell. Always turn the pump "OFF" at the switch panel when the livewell is not in use.



*Livewell*

To fill the livewell, insert the plug into the drain fitting at the bottom of the livewell. Make sure the valves in the livewell and at the intake thru hull fitting are open and activate the baitwell switch. When the water level reaches the overflow, the livewell valve can be adjusted to regulate the circulation.

To drain the livewell, turn off the livewell pump and pull out the plug in the drain fitting at the bottom of the livewell. When the livewell has completely drained, use the washdown hose to flush the livewell and drain of debris.

The livewell supply thru hull valve should be closed whenever the livewell is not in use. This will prevent water from entering the livewell while the boat is cruising.

The livewell system is equipped with a sea strainer on the intake side of the pump located in the bilge behind the stern access hatch. This should be checked frequently and cleaned as necessary.

**Note:** Do not use the livewells as a dry storage area when they are not in use. Sea water could accidentally be delivered to the livewell from the thru hull scoop and damage equipment stored there.

## 6.4 Raw Water System Maintenance

The following items should be done routinely to help maintain your raw water system.

- Check hoses, particularly the sea water supply line, for signs of deterioration.
- Remove and clean the sea water strainer.
- Spray pumps with a protective oil periodically.
- The fishboxes and livewells should be drained and cleaned after each use.



SHOULD A HOSE RUPTURE, TURN THE PUMP OFF IMMEDIATELY. ALWAYS CLOSE THE THRU HULL VALVE WHEN PERFORMING MAINTENANCE ON A SEA WATER PUMP.

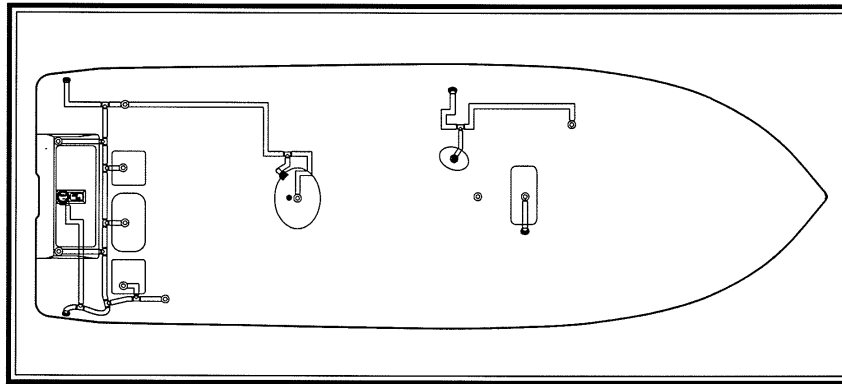


THE BATTERIES MUST BE PROPERLY CHARGED. OPERATING ANY PUMPS FROM A BATTERY WITH A LOW CHARGE MAY LEAD TO A PUMP FAILURE.



THE RAW WATER SYSTEM MUST BE PROPERLY WINTERIZED PRIOR TO WINTER LAY-UP. SEE SECTION ON WINTERIZING.

## Chapter 7: DRAINAGE SYSTEMS



*Drainage System*  
(For detailed schematic, see Chapter 14)

### 7.1 Cockpit Drainage

Your Pursuit has two scupper drains located on each side of the hull, near the waterline, to provide drainage for the cockpit. Water is channeled away from all opening hatches by a gutter or drain rail system. The water then drains overboard through the scuppers.

### 7.2 Leaning Post and T-Top Drainage

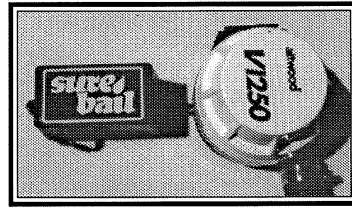
There is a hole drilled in one of the leg bases to prevent water from being trapped within the leg and provide a wire chase for accessories. A small hole is drilled in the tubing at the base of legs that are not drilled for a wire chase, to allow water to drain.



ALWAYS MAKE SURE THE LEG DRAIN HOLES ARE CLEAR WHEN THE BOAT IS LAID UP FOR THE WINTER. WATER TRAPPED INSIDE THE T-TOP OR LEANING POST LEGS COULD FREEZE AND CAUSE THE LEGS TO SPLIT.

### 7.3 Bilge Drainage

The bilge pump is activated both manually, by a switch in the helm station, and automatically by a float switch located next to the pump in the bilge. The automatic float switch remains activated when the battery switch is in the “OFF” position. All bilge pumps pump water out of thru hulls located above the waterline in the hull.



*Bilge Pump with Auto Float Switch*

**Note:** See Electrical Systems for additional information on bilge pump operation.

**IMPORTANT:** Any oil spilled in the bilge must be thoroughly removed and properly disposed of before operating the bilge pumps. The discharge of oil from the bilge is illegal and subject to a fine.



THE FEDERAL WATER POLLUTION CONTROL ACT PROHIBITS THE DISCHARGE OF OIL OR OILY WASTE INTO OR UPON THE NAVIGABLE WATERS OF THE UNITED STATES OR THE WATERS OF THE CONTIGUOUS ZONE IF SUCH DISCHARGE CAUSES A FILM OR SHEEN UPON, OR A DISCOLORATION OF THE SURFACE OF THE WATER, OR CAUSES A SLUDGE OR EMULSION BENEATH THE SURFACE OF THE WATER. VIOLATORS ARE SUBJECT TO A PENALTY OF \$5,000.



CERTAIN BULKHEAD AREAS ARE SEALED IN ACCORDANCE WITH U.S. COAST GUARD REGULATIONS THAT WERE IN EFFECT AT THE DATE OF MANUFACTURE OF THE BOAT. ANY MODIFICATIONS TO THESE BULKHEADS SHOULD BE IN ACCORDANCE WITH THE U.S. COAST GUARD REGULATIONS.

### 7.4 Fishbox and Storage Compartment Drainage

The fishbox and storage compartment located in the bow are drained by gravity. The fishbox drains overboard out of a thru hull fitting located in the hull side above the waterline and the bow storage box drains into the bilge.

## 7.5 Sink and Livewell Drains

All sinks and livewells, provided with fresh or raw water, drain by gravity to overboard thru hulls located in the hull sides just above the waterline. The overflows in the livewells drain into the overboard drains.

## 7.6 Console Cooler Drain

The console cooler is drained by gravity. Water is channeled from the cooler to the cockpit sole and then overboard through the scuppers. The cooler should be flushed out and cleaned after each use.

## 7.7 Maintenance

It is essential that the following items be done periodically to maintain proper drainage of your boat:

- Clean the cockpit drain rails with a hose to remove debris that can block water drainage.
- Clean the bilge pump strainers of debris and check the bilge for foreign material that can cause the automatic switches to malfunction.
- Flush all gravity drains with fresh water to keep them clean and free flowing.
- Clean and flush the fishboxes and livewells with soap and fresh water or a bilge cleaner after each use to keep them clean and fresh.



**ALL DRAINS AND PUMPS MUST BE PROPERLY WINTERIZED BEFORE WINTER LAY-UP.**



**NEVER USE HARSH CHEMICAL DRAIN CLEANERS IN MARINE DRAIN SYSTEMS. PERMANENT DAMAGE TO THE HOSES AND FITTINGS MAY RESULT.**



## *Chapter 8:* **SAFETY EQUIPMENT**

### **8.1 Engine Alarms**

Most outboards are equipped with an audible alarm system mounted in the helm area that monitors selected critical engine systems. The alarm will sound if one of these systems begins to fail. Refer to the engine owner's manual for information on the alarms installed with your engine.

#### **If the alarm sounds:**

- Immediately throttle the engine(s) back to idle.
- Shift the transmission to neutral.
- Monitor the engine gauges to determine the cause of the problem.
- If necessary, shut off the engine and investigate until the cause of the problem is found.

### **8.2 Neutral Safety Switch**

Every control system has a neutral safety switch incorporated into it. This device prohibits the engine(s) from being started while the shift lever is in any position other than the neutral position. If the engine(s) will not start, slight movement of the shift lever may be necessary to locate the neutral position and disengage the safety cutout switch. Control or cable adjustments may be required to correct this condition should it persist. See your Pursuit dealer for necessary control and cable adjustments.

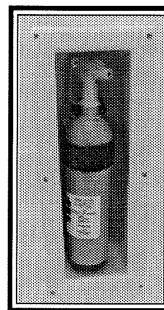
### **8.3 Kill Switch**

All Pursuit boats rigged with outboard motors are equipped with a kill switch and lanyard. When the lanyard is pulled it will engage the switch and shut off the engine(s). We strongly recommend that the lanyard be attached to the driver whenever the engine(s) is running. If the engine(s) will not start, it could be because the lanyard is not properly inserted into the kill switch. Always make sure the lanyard is properly attached to the kill switch before attempting to start the engine(s).

## 8.4 Fire Extinguisher

At least one fire extinguisher is required on all Pursuit boats. Contact the U.S. Coast Guard Boating Safety Hotline, 1-800-368-5647 or 1-202-267-1070, for information on the type and size fire extinguisher required for your boat. Fire extinguishers require regular inspections to ensure they are charged and ready for use.

Please refer to the information provided by the fire extinguisher manufacturer for instructions on the proper maintenance and use of your fire extinguisher.



## 8.5 Required Safety Equipment

Besides the equipment installed on your boat by Pursuit, certain other equipment is required to help ensure passenger safety. Items like a sea anchor, working anchor, extra dock lines, flare pistol, life vests, a line permanently secured to your ring buoy, etc. could at some time save your passengers' lives, or save your boat from damage. A book titled "You and Your Boat" has been included with this manual to provide additional information regarding boating safety and required safety equipment. This should be read thoroughly and kept handy for future reference. If you did not receive a copy of this book with your literature, please contact the Pursuit Customer Relations Department and we will send you a copy at no charge.

You can contact the U.S. Coast Guard Boating Safety Hotline, 1-800-368-5647 or 800-336-2628 and 800-245-2628 in Virginia, for information on boat safety courses and brochures listing the Federal equipment requirements. Also, check your local and state regulations.

The Coast Guard Auxiliary offers a "Courtesy Examination." This inspection will help ensure that your boat is equipped with all of the necessary safety equipment.

## 8.6 Maximum Capacity Rating

Your 2470 Pursuit is equipped with a "Maximum Capacities" plate, which is permanently attached to the cockpit near the helm. The plate indicates the maximum horsepower and load capacity for your boat. Never exceed the limits dictated by the information provided on the capacity plate.



**IT IS EXTREMELY DANGEROUS TO OVER-LOAD OR OVER-POWER YOUR BOAT. BOATS THAT ARE OVER-LOADED OR OVER-POWERED CAN BECOME UNSTABLE OR DIFFICULT TO CONTROL. ALWAYS MAKE SURE THAT YOUR BOAT IS LOADED AND POWERED WITHIN THE LIMITS SHOWN ON YOUR BOAT'S CAPACITY PLATE.**

## 8.7 Additional Safety Equipment

Besides meeting the legal requirements, prudent boaters carry additional safety equipment. This is particularly important if you operate your boat offshore. You should consider the following items, depending on how you use your boat.

### **Satellite EPIRBs**

EPIRBs (Emergency Position Indicating Radio Beacon) operate as part of a worldwide distress system. When activated, EPIRBs will send distress code homing beacons that allow Coast Guard aircraft to identify and find them quickly. The satellites that receive and relay EPIRB signals are operated by the National Atmospheric and Oceanic Administration (NOAA) in the United States. The EPIRB should be mounted and registered according to the instructions provided with the beacon, so that the beacon's unique distress code can be used to quickly identify the boat and owner.

### **Additional Equipment to Consider:**

VHF Radio	Visual Distress Signals	Spare Anchor
Heaving Line	Fenders	First Aid Kit
Flashlight	Mirror	Searchlight
Sunburn Lotion	Tool Kit	Ring Buoy
Whistle or Horn	Anchor	Chart and Compass
Boat Hook	Spare Propeller	Mooring Lines
Food & Water	Binoculars	Sunglasses
Marine Hardware	Extra Clothing	Spare Parts

## *Chapter 9:* **OPERATION**

### **9.1 General**

Before you start the engine(s) on your Pursuit, have you become familiar with various component systems and their operation? Do you have the necessary safety equipment on board? Do you know and understand the “Rules of the Road?” Has an experienced operator briefed you on the general operation of your new boat? Have you performed a “Pre-Cruise System Check?”

A thorough understanding of the component systems and their operation is essential to the proper operation of the boat. This manual and the associated manufacturers’ information is provided to enhance your knowledge of your Pursuit boat. Read them carefully. Also read the book titled “You and Your Boat,” included in your literature packet.

Maintenance and service tips are included to help you keep your boat in like-new condition.

### **9.2 Rules of the Road**

As in driving an automobile, there are a few rules you must know for safe boating operation. The Nautical Rules of the Road dictate who has the right-of-way in crowded anchorages and when boats meet in open water. These rules and other safety and operation related information is explained in the book titled “You and Your Boat.”

The Coast Guard, Coast Guard Auxiliary, Department of Natural Resources, or your local boat club sponsor courses in boat handling, including rules of the road. We strongly recommend such courses. Books on this subject are also available from your local library.

### **9.3 Pre-Cruise System Check**

#### **Before Starting the Engine(s)**

- Check the weather forecast. Decide if the planned cruise can be made safely.
- Be sure all necessary safety equipment is on board and operative. This should include items like the running lights, spotlight, life saving devices, etc. Please refer to Chapter 8 for additional information on safety equipment.

- Make sure you have signal kits and flare guns aboard, and they are in good operating condition.
- Be sure you have sufficient water and other provisions for the planned cruise.
- Leave a written message listing details of your planned cruise with a close friend ashore. (Float Plan)
- Check the amount of fuel on board.
- Check the water separating fuel filter(s) for water.
- Check the engine oil tank(s) and other fluid levels.
- Set the battery selector switches as desired.
- Check the bilge water level. Look for other signs of potential problems. Monitor for the scent of fuel fumes.
- Have a tool kit aboard. The kit should include the following basic tools:

Spark plug wrench	Hammer
Spark plug gap gauge	Electrician's tape
Screwdriver	Lubricating oil
Pliers	Jackknife
Adjustable wrench	Vise grip
Pipe wrench	



**THERE MUST BE AT LEAST ONE PERSONAL FLOTATION DEVICE ON BOARD FOR EVERY PERSON ON BOARD AND ONE THROW-OUT FLOTATION DEVICE. CHECK THE U.S. COAST GUARD STANDARDS FOR THE CORRECT TYPE OF DEVICE FOR YOUR BOAT.**

- Have the following spare parts on board:
 

Extra light bulbs	Spark plugs
Fuses & circuit breakers	Flashlight and batteries
Drain plug	Engine oil
Propeller	Fuel filters
Propeller nut and washer	Fuel hose and clamps
- Make sure all fire extinguishers are in position and in good operating condition.



VAPORIZING LIQUID EXTINGUISHERS GIVE OFF TOXIC FUMES; USE ONLY COAST GUARD APPROVED FIRE EXTINGUISHERS.

## 9.4 Operating Your Boat

### After Starting the Engine(s)



TO REDUCE THE RISK OF A FIRE OR EXPLOSION, DO NOT START THE ENGINE(S) WHEN FUEL FUMES ARE PRESENT. FUEL FUMES ARE DANGEROUS AND HARMFUL TO YOUR HEALTH.

- Visibly check the engine(s) to be sure there are no apparent water, fuel or oil leaks.
- Check the operation of the engine cooling systems. (Refer to section 1.4)
- Check the engine gauges. Make sure they are reading normally.
- Check the controls for proper operation.
- Make sure all lines, cables, anchors, etc. for securing a boat are on board and in good condition. All lines should be coiled, secured and off the decks when underway.
- Have a safe cruise and enjoy yourself.

### **Remember**

When you operate a boat, you accept the responsibility for the boat, for the safety of passengers and for others out enjoying the water.

- Alcohol or drugs can severely reduce your reaction time and affect your better judgement.
- Alcohol severely reduces the ability to react to several different signals at once.
- Alcohol makes it difficult to correctly judge speed and distance, or track moving objects.
- Alcohol reduces night vision, and the ability to distinguish red from green.



YOU SHOULD NEVER OPERATE YOUR BOAT WHILE UNDER THE INFLUENCE OF ALCOHOL OR DRUGS.

- Avoid sea conditions that are beyond the skill and experience of you and your crew.



**MAKE SURE ONE OTHER PERSON ON THE BOAT IS INSTRUCTED IN THE OPERATION OF THE BOAT.**



**MAKE SURE THE BOAT IS OPERATED IN COMPLIANCE WITH ALL STATE AND LOCAL LAWS GOVERNING THE USE OF A BOAT.**



**DO NOT OPERATE THE BOAT UNLESS IT IS COMPLETELY ASSEMBLED. KEEP ALL FASTENERS TIGHT. KEEP ADJUSTMENTS ACCORDING TO SPECIFICATIONS.**

- Before operating the boat for the first time, read the engine break-in procedures. The break-in procedures are found in the owner's manual for the engine(s). The manual is in the literature packet.
- As different types of engines are used to power the boat, have the dealer describe the operating procedures for your boat. For more instructions on "How To Operate The Boat," make sure you read the instructions given to you in the owner's manual for the engine you have selected.

**Note:** For more instructions on safety, equipment and boat handling, enroll in one of the several free boating courses offered. For information on the courses offered in your area, call the "Boating Course Hotline," 1-800-336-2628.

**Note:** If the drive unit hits an underwater object, stop the engine. Inspect the drive unit for damage. If the unit is damaged, contact your dealer for a complete inspection and repair of the unit.

**To stop the boat, follow this procedure:**

- Allow the engine to drop to the idle speed.
- Make sure the shifting lever is in the neutral position.

**Note:** If the engine has been run at high speed for a long period of time, allow the engine to cool down by running the engine in the idle position for 3 to 5 minutes.

- Turn the ignition key to the "OFF" position.

### After Operation

- If operating in saltwater, wash the boat and all equipment with soap and freshwater.
- Check the bilge area for debris and excess water.
- Fill the fuel tank to near full to reduce condensation.
- Check that the boat is properly moored.
- Turn off all electrical equipment except the automatic bilge pumps.
- If you are going to leave the boat for a long period of time, put the battery main switches in the “OFF” position and close all sea cocks.
- Make sure the boat is securely moored.



**TO PREVENT DAMAGE TO THE BOAT, CLOSE ALL SEACOCKS BEFORE LEAVING THE BOAT.**

## **9.5 Grounding and Towing**

If the boat should become disabled, or if another craft that is disabled requires assistance, great care must be taken. The stress applied to a boat during towing may become excessive. Excessive stress can damage the structure of the boat and create a safety hazard for those aboard.

Freeing a grounded vessel, or towing a boat that is disabled, requires specialized equipment and knowledge. Line failure and structural damage caused by improper towing have resulted in fatal injuries. Because of this, we strongly suggest that these activities be left to those who have the equipment and knowledge, e.g., the U.S. Coast Guard or a commercial towing company, to safely accomplish the towing task.



**THE MOORING CLEATS ON PURSUIT BOATS ARE NOT DESIGNED OR INTENDED TO BE USED FOR TOWING PURPOSES. THESE CLEATS ARE SPECIFICALLY DESIGNED AS MOORING CLEATS FOR SECURING THE BOAT TO A DOCK, PIER, ETC. DO NOT USE THESE FITTINGS FOR TOWING OR ATTEMPTING TO FREE A GROUNDED VESSEL.**



WHEN TOWING OPERATIONS ARE UNDERWAY, HAVE EVERYONE ABOARD BOTH VESSELS STAY CLEAR OF THE TOW LINE AND SURROUNDING AREA. A TOW LINE THAT SHOULD BREAK WHILE UNDER STRESS CAN BE VERY DANGEROUS.



RUNNING AGROUND CAN CAUSE SERIOUS DAMAGE TO A BOAT AND ITS UNDERWATER GEAR. IF YOUR BOAT SHOULD BECOME GROUNDED, DISTRIBUTE PERSONAL FLOTATION DEVICES AND INSPECT THE BOAT FOR POSSIBLE DAMAGE. THOROUGHLY INSPECT THE BILGE AREA FOR SIGNS OF LEAKAGE. AN EXPERIENCED SERVICE FACILITY SHOULD CHECK YOUR UNDERWATER GEAR AT THE FIRST OPPORTUNITY. DO NOT CONTINUE TO USE YOUR BOAT IF THE CONDITION OF THE UNDERWATER EQUIPMENT IS QUESTIONABLE.

## 9.6 Trailering Your Boat

If you trailer your boat, make sure that your tow vehicle is capable of towing the weight of the trailer, boat and equipment and the weight of the passengers and equipment inside the vehicle. This may require that the tow vehicle be specially equipped with a larger engine, transmission, brakes and trailer tow package.

The following safety tips and a book titled “You and Your Trailer,” included in your literature packet, provides additional information you should know before trailering your boat.

**Note:** Contact your dealer to evaluate your towing vehicle and hitch, and to make sure you have the correct trailer for your boat.

- Make sure the trailer is a match for your boat’s weight and hull design. More damage can be done to a boat by the stresses of road travel than by normal water operation. A boat hull is designed to be supported evenly by water. So, when it is transported on a trailer it should be supported structurally as evenly across the hull as possible allowing for even distribution of the weight of the hull, engine and equipment.
- Make sure the trailer bunks and rollers properly support the hull and do not put pressure on the lifting strakes. The rollers and bunks must be kept in good condition to prevent scratching and gouging of the hull.
- The capacity rating of the trailer should be greater than the combined weight of the boat, motor, and equipment. The gross vehicle weight rating must be shown on the trailer. Make sure the weight of the boat, engine, gear and trailer is not more than the gross vehicle weight rating.
- Make sure the boat is securely fastened on the trailer to prevent movement between the boat and trailer. The bow eye on the boat should be secured with a rope, chain or turnbuckle in addition to the winch cable. Additional straps may be required across the beam of the boat.

**Note:** Your dealer will give instructions on how to load, fasten and launch your boat.



BOATS HAVE BEEN DAMAGED BY TRAILERS THAT DO NOT PROPERLY SUPPORT THE HULL. ALWAYS MAKE SURE THE TRAILER BUNKS AND ROLLERS ARE ADJUSTED SO THEY ARE NOT PUTTING EXCESSIVE PRESSURE ON THE LIFTING STRAKES AND ARE PROVIDING ENOUGH SUPPORT FOR THE HULL. HULL DAMAGE RESULTING FROM IMPROPER TRAILER SUPPORT IS NOT COVERED BY THE PURSUIT WARRANTY.

**Before Going Out On The Highway:**

- Make sure the tow BALL and TRAILER COUPLER are the same size and that bolts and nuts are tightly secured.
- The COUPLER MUST BE COMPLETELY OVER THE BALL and the LATCHING MECHANISM LOCKED DOWN.
- Make sure the TRAILER IS LOADED EVENLY from front to rear as well as side to side and has the correct weight on the hitch. Too much weight on the hitch will cause the rear of the tow vehicle to drag and may make steering more difficult. Too little weight on the hitch will cause the rig to fishtail and will make controlling the tow vehicle difficult. Contact your Pursuit dealer or the trailer manufacturer for the correct weight on the hitch for your trailer.
- The SAFETY CHAINS must be attached crisscrossing under the coupler to the frame of the tow vehicle. If the ball was to break, the trailer would follow in a straight line and prevent the coupler from dragging on the road. Make sure the trailer emergency brake cable or chain is also installed to the tow vehicle frame.
- Make sure the LIGHTS on the trailer function properly.
- CHECK THE BRAKES. On a level parking area roll forward and apply the brakes several times at increasing speeds to determine if the brakes on the tow vehicle and trailer are working properly.
- Make sure the tow vehicle has SIDE VIEW MIRRORS that are large enough to provide an unobstructed rear view on both sides of the vehicle.
- CHECK THE TIRES and WHEEL BEARINGS.



MAKE SURE YOUR TOWING VEHICLE AND TRAILER ARE IN COMPLIANCE WITH ALL STATE AND LOCAL LAWS. CONTACT YOUR STATE MOTOR VEHICLE BUREAU FOR LAWS GOVERNING THE TOWING OF TRAILERS.

## *Chapter 10:* **EXTERIOR EQUIPMENT**

### **10.1 Deck**

#### **Rails and Deck Hardware**

The rail system and hardware fittings have been selected and installed to perform specific functions. Fenders or mooring lines should be secured to the cleats and not to rails or stanchions. The stern is equipped with a hawse pipe and cleat system. Mooring lines should be fed through the hawse pipes then secured to the stern cleats. Be sure a clear lead exists when running dock lines or anchor lines. A line inadvertently run around a stanchion or over the rail could cause damage.

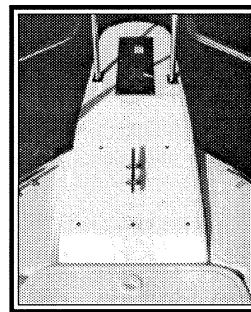
**IMPORTANT:** All fittings must be periodically inspected for loose fit, wear and damage. Any problems should be corrected immediately.



PURSUIT BOATS ARE NOT EQUIPPED WITH HARDWARE DESIGNED FOR TOWING PURPOSES. THE MOORING CLEATS ARE NOT TO BE USED FOR TOWING ANOTHER VESSEL OR HAVING THIS BOAT TOWED.

#### **Bow Pulpit and Roller (Optional)**

The bow pulpit can be equipped with a roller assembly that allows the anchor to be operated and stored at the pulpit. The anchor line is stored in the rope locker and routed out the rope locker hatch, through the roller and connected to the anchor chain. Always make sure the anchor is properly secured when it is in the stored position on the pulpit.

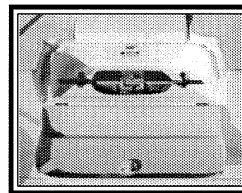


*Bow Pulpit and Roller*

#### **Anchor/Rope Locker**

The anchor locker is in the bow of the boat and accessed through a hatch in the deck. The anchor line is always stored in the locker. The anchor can be mounted on the optional bow pulpit or stored in the anchor locker. If the anchor is stored in the anchor locker it must be properly secured to prevent it from bouncing in the locker and causing damage to the hull or anchor locker.

The anchor locker is drained overboard by drain fittings in the hull at the floor of the locker. It is very important to check the drain frequently to make sure it is clean and free flowing.



*Anchor/Rope Locker*



THE ANCHOR MUST BE POSITIONED SO IT DOES NOT REST AGAINST THE HULL SIDES AND BE PROPERLY SECURED AT ALL TIMES WHEN IT IS STORED IN THE ANCHOR/ROPE LOCKER. A LOOSE ANCHOR IN THE ANCHOR LOCKER WILL BOUNCE AND CAN DAMAGE THE BOAT. DAMAGE RESULTING FROM THE ANCHOR BOUNCING IN THE ANCHOR LOCKER IS NOT COVERED BY THE PURSUIT WARRANTY.

#### **Windlass (Optional)**

The optional windlass is mounted to the deck near the rear of the pulpit above the rope locker. The anchor is stored on the pulpit and is raised and lowered by the windlass. The anchor line is stored in the rope locker and routed out through the windlass to the anchor chain.

The anchor is lowered by releasing the anchor from the cleat or chain binder on the pulpit and operating a “down” control at the helm. The windlass control switch is activated by a safety switch or breaker panel located next to the windlass switch. Turn the safety switch or breaker to “ON” to activate the windlass control and turn it to “OFF” whenever the windlass is not in use.

After the anchor is set, the windlass must not be left to take the entire force from the anchor line. Boats lying to their anchor in a high swell or heavy weather conditions will snub on the line. This can cause slippage or apply excessive loads to the windlass. The line should be made fast to a bow cleat to relieve the load on the windlass.

The anchor is hauled in by releasing the line from the bow cleat and operating the “up” control at the helm. Once the anchor is retrieved, independently secure the anchor to the chain binder or a cleat to prevent it from being accidentally released. This is especially important while the boat is under way.

The windlass manufacturer provides an owner’s manual with its product. It is extremely important that you read the manual and become familiar with the proper care and operation of the windlass.



A WINDLASS MUST BE USED WITH CARE. IT IS EXTREMELY IMPORTANT THAT YOU READ THE OWNER’S MANUAL AND BECOME FAMILIAR WITH THE SAFETY INSTRUCTIONS AND PROPER OPERATION OF THE WINDLASS BEFORE USING IT WITH YOUR BOAT. ALWAYS ENSURE THAT LIMBS, FINGERS, HAIR AND CLOTHING ARE KEPT CLEAR OF THE WINDLASS AND ANCHOR LINE DURING OPERATION.



DO NOT USE A WINDLASS AS A SOLE MEANS OF SECURING AN ANCHOR IN THE BOW PULPIT. ALWAYS SECURE THE ANCHOR LINE TO A CLEAT OR CHAIN BINDER BEFORE OPERATING YOUR BOAT.

## 10.2 Hull

### **Swim Platform**

Your Pursuit is equipped with an integral swim platform and engine mounting system located in the stern of the boat. There are two inspection deck plates in the transom engine well to provide access to the stern bilge and engine mounting bolts. Always make sure these plates are secure before operating your boat.

### **Boarding Ladder (Optional)**

The optional boarding ladder is mounted to the rear of the stern bait and tackle rigging station when it is in the stored position. To use the ladder, remove it from the storage clips and slide the studs into the special bracket on the port side of the transom. The ladder floats and must be secured in the boarding position by turning the cam lock on the ladder so it catches the bottom of the transom ladder bracket. The ladder must be removed from the transom bracket and properly secured to the storage clips before starting the engine(s).



**MOVING PROPELLERS ARE DANGEROUS. THEY CAN CAUSE DEATH, LOSS OF LIMBS, OR OTHER SEVERE INJURY. DO NOT USE THE SWIM PLATFORM OR SWIM LADDER WHILE THE ENGINE(S) ARE RUNNING. STOP THE ENGINE(S) IF DIVERS OR SWIMMERS ARE ATTEMPTING TO BOARD. ALWAYS REMOVE AND PROPERLY STORE THE LADDER BEFORE STARTING THE ENGINE(S).**

## 10.3 Cockpit Equipment

### **Bow Storage Compartment and Fishbox**

There is a large fishbox located under the port bow hatch. This is drained overboard by gravity and can be used as a fishbox or storage compartment. When this box is used as a fishbox, it should be drained and cleaned after each use. A large storage compartment is located under the starboard bow hatch. This compartment is drained into the bilge and is intended for dunnage.

### **Leaning Post/Baitwell**

The leaning post/baitwell is equipped with rod holders, a leaning post cushion, and a circulating livewell. The livewell is supplied by a raw water aerator pump and drains overboard. Refer to Chapter 6 for additional information on the raw water system.

### **Stern Bait and Tackle Rigging Station**

The stern bait and tackle rigging station is equipped with a sink, removable cutting board, fishbox, tackle locker and rigged bait storage area. The sink is plumbed to the freshwater system. Refer to Chapter 6 for additional information on the raw water system.

The tackle locker is below the fishbox and is removable to allow access to the bilge, Y-valve, and the port battery. To remove the tackle locker, open the door and remove the top drawer. Remove the quick release pin on the upper port side of the tackle locker and slide the locker forward out of the frame.

## 10.4 Center Console

### **Helm and Electronics Locker**

The helm and engine controls are located on the rear of the center console. Molded-in electronics storage is located forward of the engine controls.

The top section of the console is hinged and opens to provide access to service the helm equipment or to install electronics. To open the helm portion of the console, release the clamps on the front of the console. The front of the console can then be lifted to expose the underside of the helm. A strap holds the helm in the open position and prevents it from opening too far. Always make sure the helm station clamps are properly secured when the helm is closed.



ALWAYS MAKE SURE THE HELM STATION CLAMPS ARE PROPERLY SECURED BEFORE OPERATING OR TRAILERING YOUR BOAT. IF THE HELM STATION IS NOT PROPERLY SECURED, IT COULD OPEN UNEXPECTEDLY AND DAMAGE THE BOAT OR CAUSE LOSS OF CONTROL.



UNDER NO CIRCUMSTANCES SHOULD THE HELM BE OPENED WHEN THE ENGINE(S) ARE RUNNING. IN SOME SITUATIONS IT IS POSSIBLE TO ACCIDENTALLY ENGAGE THE ENGINE SHIFT AND THROTTLE CONTROL INTO GEAR AS THE HELM IS OPENING. THIS COULD RESULT IN LOSS OF CONTROL, DAMAGE TO THE BOAT, AND INJURY TO PASSENGERS.

### **Head Compartment**

The head compartment is located in the console. A door in the starboard side of the console provides access to the head. The porta potti or head and the freshwater pump are among the equipment mounted in this compartment. Refer to Chapter 11 for information on the equipment in the head compartment.

### **Console Cooler**

A molded insulated cooler is installed under the front seat of the console. The cooler drains to the cockpit sole through a fitting in the side of the console. The cooler should be cleaned thoroughly after each use.

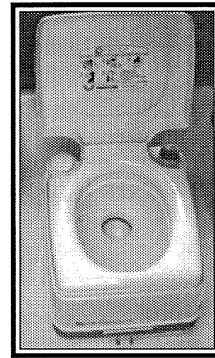
## Chapter 11:

# INTERIOR EQUIPMENT

### 11.1 Portable Head

The system is made up of two major components, an upper tank and a lower tank. The upper tank contains the freshwater supply, a bellows pump, a seat and the lid. The bottom tank contains the flush valve, a waste holding tank, a chemical storage compartment and the drain nozzle. The components are secured together by a clamping mechanism when the portable head is ready for use.

In some areas the law requires that portable heads be equipped with an optional permanent deck mounted pump out system to evacuate the waste with a dock side pump. Boats with a portable head pump out will be equipped with a deck fitting marked "waste" located on the deck. Since this system is required to be permanent, the bottom waste tank cannot be removed and the only way to evacuate the system is by a dock side pump.



*Portable Head*

To use the portable head, add the recommended amount of holding tank deodorant to the waste tank and fill the freshwater tank. To flush after use, pull the waste valve handle straight out, then press the flushing bellows one or more times to rinse. To close and seal the waste holding tank, simply push the valve handle all the way in. Monitor the level in the waste tank and empty as necessary.

#### **Maintenance**

To keep your portable head operating properly it must be emptied and properly cleaned periodically. Please refer to the manufacturer owner's manual for detailed instructions on the proper operation of your portable head.



IN SOME AREAS THE LAW REQUIRES A WASTE PUMP OUT SYSTEM ON PORTABLE HEADS. IF YOUR BOAT IS EQUIPPED WITH THE WASTE PUMP OUT, MAKE SURE YOU KNOW THE LAWS FOR THE AREAS IN WHICH YOU BOAT BEFORE MODIFYING OR REMOVING THE PUMP OUT SYSTEM.



THE PORTABLE HEAD MUST BE PROPERLY WINTERIZED BEFORE WINTER LAY-UP OR FOR COLD WEATHER USE. PLEASE REFER TO THE MANUFACTURER OWNER'S MANUAL FOR COLD WEATHER AND WINTERIZING INSTRUCTIONS.

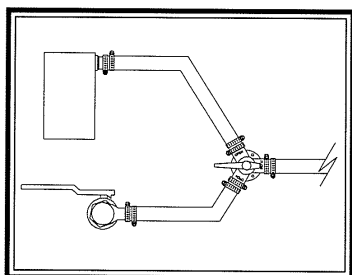
## 11.2 Marine Head System (Optional)

This system is provided as optional equipment. The flush water is supplied by a thru hull fitting and a raw water line. Before using, open the inlet valve on the head and pump to wet the inside of the bowl. After use, close the valve and pump to discharge the waste to the holding tank or overboard.

Waste can be directed either into the holding tank or overboard, when legal to do so. This is accomplished by an optional Y-valve located in the stern bilge below the tackle locker.



*Marine Head*



*Y-Valve*

In the overboard discharge position, the waste exits the boat through a large thru hull fitting located in the stern bilge. The thru hull fitting is equipped with a ball valve. Always open this valve when the overboard discharge is selected and close it when the holding tank is selected.

In the holding tank position, the waste is pumped directly into the holding tank where it remains until it is pumped out by a waste dumping station or the optional overboard discharge system.



**IN MANY AREAS IT IS ILLEGAL TO FLUSH HEAD WASTE DIRECTLY OVERBOARD. VIOLATION OF THESE POLLUTION LAWS CAN RESULT IN FINES OR IMPRISONMENT. ALWAYS KNOW THE LAW FOR THE AREAS IN WHICH YOU BOAT. NEVER DUMP HEAD OR HOLDING TANK WASTE OVERBOARD ILLEGALLY.**

### **Holding Tank**

The holding tank is located in the bilge area. When the tank is full it must either be pumped out by an approved waste dumping station through the waste deck fitting or be pumped overboard with the optional macerator discharge pump, when legal to do so. When the macerator discharge pump is installed, the Y-valve will be used to select either the macerator discharge pump or the waste deck fitting to evacuate the holding tank.

To operate the macerator discharge pump, open the ball valve at the overboard discharge thru hull and set the Y-valve to the macerator pump position. Then activate the macerator switch until the tank is emptied. Turn the switch to “OFF” and close the discharge ball valve when pumping is complete.



**DO NOT ALLOW THE OVERBOARD MACERATOR DISCHARGE PUMP TO RUN DRY FOR MORE THAN 10 SECONDS. SERIOUS DAMAGE TO THE MACERATOR PUMP WILL RESULT.**

#### **Maintenance**

The head should be cleaned and inspected for leaks regularly.

The holding tank should be pumped out and flushed as needed. Periodically add chemical to the head to help control odor and to chemically break down the waste. See the head manufacturer owner's manual for additional operating and maintenance information.

Periodically spray the macerator pump with a metal protector.



**THE HEAD SYSTEM MUST BE PROPERLY WINTERIZED BEFORE WINTER LAY-UP. SEE SECTION ON WINTERIZING.**

## *Chapter 12:* **ROUTINE MAINTENANCE**

### **12.1 Exterior Hull and Deck**

#### **Hull Cleaning-Below The Water Line**

When the boat is removed from the water, clean the outer bottom surface immediately. Algae, grass, dirt and other marine growth is easier to remove while the hull is still wet. Use a pressure cleaner or a hard bristle brush to clean the surface.

If the hull bottom has been painted with antifouling paint, contact your dealer for the recommended maintenance procedures.

#### **Bottom Painting**

If the boat is to be left in saltwater for extended periods, the hull must be protected from marine growth by anti-fouling paint. Because of variations in water temperature, marine growth, and pollution in different regions, your dealer and/or a qualified boat yard in your area should be consulted when deciding what bottom paint system to apply to your hull. This is extremely important as pollution and marine growth can damage fiberglass hulls.



**TO PREVENT DAMAGE TO THE FIBERGLASS, DO NOT SAND THE OUTER BOTTOM GELCOAT SURFACE OF THE BOAT. SANDING THE GELCOAT WILL VOID THE 5-YEAR BLISTER FREE WARRANTY. USE ONLY CHEMICAL WAX REMOVERS AND PRIMERS RECOMMENDED BY THE BOTTOM PAINT MANUFACTURER TO PREPARE THE GELCOAT SURFACE FOR BOTTOM PAINT.**

If the hull bottom has been painted with anti-fouling paint, contact your dealer for the recommended maintenance procedures.

#### **Zincs**

Sacrificial zinc anodes are installed on the outboard engine and should be installed on the trim tabs if the boat is to be left in the water. Contact your dealer for the proper size and type of zinc anodes to be used and the specific installation procedure. Zincs should be checked monthly and changed when they are 75% of their original size.

#### **Fiberglass Gelcoat Surfaces**

Normal maintenance requires only washing with mild soap and water. A stiff brush can be used on the non-skid areas. Kerosene or commercially prepared products will remove oil and tar which could be a problem on trailered boats. Harsh abrasive and chemical cleaners are not recommended because they can damage or dull the gelcoat, reducing its life and making it more susceptible to stains. When the boat is used in saltwater, it should be washed thoroughly with soap and water after each use.

At least once a season, wash and wax all exposed fiberglass surfaces. Use a high quality automotive or boat wax. Follow the procedure recommended by the wax manufacturer. The washing and waxing of your boat will have the same beneficial effects as they have on an automobile finish. The wax will fill minute scratches and pores thus helping to prevent soiling and will extend the life of the gelcoat.

After the boat is exposed to the direct sunlight for a period of time, the color in the gelcoat tends to fade, dull or chalk. A heavier buffing is required to bring the gelcoat back to its original luster. For power cleaning, use a light cleaner such as Mirror Glaze #1®. To clean the boat by hand, use a heavier automotive cleaner. Before cleaning the surfaces, read the instructions given with the cleaner. After cleaning the surfaces, apply wax, and polish all fiberglass surfaces except the non-skid areas.

If the fiberglass should become damaged and need repair, contact your dealer for an authorized repair person to do the work.



**DO NOT WAX NON-SKID AREAS AS THIS COULD MAKE THEM SLIPPERY AND CONSEQUENTLY INCREASE THE POSSIBILITY OF INJURY.**

#### **Stainless Steel Hardware**

When using the boat in saltwater, the hardware should be washed with soap and water after each use. When your boat is used in a corrosive environment such as saltwater, water with a high sulfur content, or polluted water, the stainless steel will periodically develop surface rust stains. This is perfectly normal under these conditions. The stainless can normally be cleaned and protected by using a high quality boat or automotive wax or a commercial metal cleaner and protectant.



**UNDER NO CIRCUMSTANCES SHOULD ANY ABRASIVE MATERIALS SUCH AS SAND-PAPER, BRONZE WOOL, OR STEEL WOOL BE USED ON STAINLESS STEEL. DAMAGE TO THE HARDWARE WILL RESULT.**

#### **Anodized Aluminum Surfaces**

Normally, the only maintenance that is required with anodized aluminum is to periodically wash it with soap and water. If the boat is used in polluted or saltwater, the aluminum should be washed with soap and water after each use. Saltwater allowed to remain on anodized aluminum could penetrate the anodized coating and attack the aluminum.

If the anodized coating is badly scratched, it can be touched up with paint. With proper care, anodized aluminum will provide many years of maintenance free service.

#### **Chrome Hardware**

Use a good chrome cleaner and polish on all chrome hardware.

### **Plexiglas®**

Plexiglas® scratches easily. Use a soft cloth and mild soap and water to clean Plexiglas®. Solvents and products containing ammonia can permanently damage Plexiglas®. A coat of automotive or boat wax is beneficial to protect the surface. Do not use the following on Plexiglas®:

Abrasive cleaners	Acetone
Solvents	Alcohol
Glass cleaners	Cleaners containing ammonia

### **Engines**

Proper engine maintenance is essential to the proper performance and reliability of your outboard engines. Maintenance schedules and procedures are outlined in your engine owner's manual. They should be followed exactly.

If the boat is used in saltwater, flush the cooling systems after each daily use. To flush the systems when the boat is out of the water, follow the procedure outlined in your engine owner's manual.

## **12.2 Upholstery, Canvas and Enclosures**

### **Vinyl Upholstery**

The vinyl upholstery used on the exterior seats and bolsters in your boat should be cleaned periodically with soap and water. Avoid using products containing ammonia or harsh chemicals as they can shorten the life of vinyl. A vinyl protector will protect and extend the life of vinyl. One drawback to vinyl protectors is that they may make the vinyl slippery. You may find this to be undesirable in some applications.

### **Acrylic Canvas**

Acrylic canvas should be cleaned periodically by using a mild detergent and water. Scrub lightly and rinse thoroughly.

After several years, the acrylic canvas may lose some of its ability to shed water. If this occurs, wash the fabric and treat it with a commercially available water proofing designed for this purpose.

**Note:** Some leakage at the seams is normal and unavoidable with acrylic enclosures.

Side curtains and clear connectors can be cleaned with mild soap and water. They should not be allowed to become badly soiled. Dirt, oil, mildew, and cleaning agents containing ammonia, will shorten the life of the vinyl that is used for clear curtains. After cleaning the curtains and allowing them to dry, apply a non-lemon furniture polish or a Plexiglas® and clear plastic protector to extend the life of the curtains.



DO NOT USE ANY POLISH CONTAINING LEMON SCENTS OR LEMON. THE LEMON JUICE WILL ATTACK THE VINYL AND SHORTEN ITS LIFE.

### 12.3 Bilge

To keep the bilge clean and fresh, it is recommended that you use a commercial bilge cleaner on a regular basis. Follow the directions carefully. All exposed pumps and metal components in the bilge should be sprayed periodically with a protector to reduce the corrosive effects of the high humidity always present in these areas.

## *Chapter 13:*

# SEASONAL MAINTENANCE

### 13.1 Lay-up and Storage

#### **Before Storing**

The fuel tank should be left nearly full. In winter storing, with a full tank, a fuel winterizer is recommended to reduce fuel deterioration. For more recommendations for your specific area, check with your local Pursuit dealer. Operate the boat for 15 minutes to allow the treated fuel to reach the engine.

Consult the engine owner's manual for detailed information on preparing the engine for storage.

#### **Lifting**



BOATS HAVE BEEN DAMAGED FROM IMPROPER LIFTING AND ROUGH HANDLING WHEN BEING TRANSPORTED BY LIFT TRUCKS. CARE AND PROPER HANDLING PROCEDURES MUST BE USED WHEN USING A LIFT TRUCK TO MOVE THE BOAT. NEVER ATTEMPT TO LIFT THE BOAT WITH A SUBSTANTIAL AMOUNT OF WATER IN THE BILGE.



SEVERE GELCOAT CRAZING OR MORE SERIOUS HULL DAMAGE CAN OCCUR DURING HAULING AND LAUNCHING IF PRESSURE IS CREATED ON THE GUNWALES (SHEER) BY THE SLINGS. SPREADERS ARE NOT REQUIRED IF BELTS ARE NOT CREATING PRESSURE (CABLE DRUMS FURTHER APART THAN BEAM OF BOAT). FLAT, WIDE BELTING SLINGS AND SPREADERS LONG ENOUGH TO KEEP PRESSURE FROM THE GUNWALES IS ESSENTIAL. DO NOT ALLOW ANYONE TO HAUL YOUR BOAT WHEN THE SPREADERS ON THE LIFT ARE NOT WIDE ENOUGH TO TAKE THE PRESSURE OFF THE GUNWALES.

#### **Supporting The Boat For Storage**

Your trailer or a well-made cradle is the best support for your boat during storage. When storing the boat on a trailer for a long period:

- Make sure the rollers and pads properly support the hull of the boat and do not put pressure on the hull lifting strakes.
- Make sure the trailer is on a level surface and the bow is high enough so that water will drain from the bilge.

- Make sure the engines are in the down position.
- Check the tires once each season. Add enough air for the correct amount of inflation for the tires.

**Note:** Read the owner's manual for the trailer for the correct amount of inflation for the tires.

When storing the boat on a cradle:

- The cradle must be specifically for boat storage.
- Make sure the cradle is well supported and placed on a level surface with the bow high enough to provide proper drainage of the bilge.
- The cradle must be in the proper fore and aft position to properly support the hull. When the cradle is in the correct location, the bunks should match the bottom of hull and should not be putting pressure on the lifting strakes.



BOATS HAVE BEEN DAMAGED BY TRAILERS AND CRADLES THAT DON'T PROPERLY SUPPORT THE HULL. ALWAYS MAKE SURE THE BUNKS AND ROLLERS ARE ADJUSTED SO THEY ARE NOT PUTTING PRESSURE ON THE LIFTING STRAKES AND ARE PROVIDING ENOUGH SUPPORT FOR THE HULL. HULL DAMAGE RESULTING FROM IMPROPER CRADLE OR TRAILER SUPPORT IS NOT COVERED BY THE PURSUIT WARRANTY.

#### **Preparing The Boat For Storage**

- Remove the bilge drain plug, if installed.
- Thoroughly wash the fiberglass exterior, especially the anti-fouling portion of the bottom. Remove as much marine growth as possible. Lightly wax the exterior fiberglass components.
- Remove all oxidation from the exterior hardware, and apply a light film of moisture-displacing lubricant.
- Remove the propeller(s) and grease the propeller shaft(s) using light waterproof grease.
- Remove the batteries and store in a cool place. Clean using clear, clean water. Be sure the batteries have sufficient water and clean terminals. Keep the batteries charged and safe from freezing throughout the storage period.

- Refer to Chapter 4, Electrical System, for information on the maintenance of the D.C. electrical systems.
- Coat all faucets and exposed electrical components in the cockpit with a protecting oil.
- Clean out, totally drain and completely dry the fishboxes and livewells.
- Clean the exterior upholstery with a good vinyl cleaner and dry thoroughly.
- Remove as many cushions and open as many locker doors as possible. Leaving as many of these areas open as possible will improve the boat's ventilation during the storage period.

## 13.2 Winterizing

### Freshwater System

The entire freshwater system must be completely drained. Disconnect all hoses, check valves, etc. and blow all the water from the system. Make sure the hot water heater and freshwater tank are completely drained. Use only very low air pressure when doing this to prevent possible system damage. Because of the check valve mechanism built in the pump, blowing the lines will not remove the water from the freshwater pump. Remove the inlet and outlet hoses on the pump. Turn the pump on and allow it to pump out any remaining water....about a cupful. A recommended alternative to the above-mentioned procedure is the use of commercially available non toxic, freshwater system antifreeze. After draining the potable water tank, lines and water heater, pour the antifreeze mixture into the freshwater tank, prime and operate the pump until the mixture flows from all freshwater faucets. Be sure to open all hot and cold water faucets, including the freshwater spray head in the stern bait station sink. Make sure antifreeze has flowed through all of the freshwater drains. For additional information on the freshwater system refer to Chapter 5.

### Raw Water System

Completely drain the raw water systems. Disconnect all hoses and blow the water from the system. Use only very low air pressure when doing this to prevent possible system damage. Because of the check valve mechanism built in the raw water washdown and livewell pumps, blowing the lines will not remove the water from that raw water pump. Remove the inlet and outlet hoses on the pumps. Turn each pump on and allow it to pump out any remaining water....about a cupful. A recommended alternative to the above-mentioned procedure is the use of commercially available non-toxic, potable water system antifreeze. If potable water antifreeze is used, pour the mixture into a pail and put the raw water intake lines into the solution. Run the pumps one at a time until the antifreeze solution is visible at all raw water faucets and discharge fittings and drains. Be sure antifreeze has flowed through all of the raw water drains.

The head must be properly winterized by following the manufacturer's winterizing instructions in the Marine Toilet owner's manual. Drain the intake and discharge hoses completely using low

air pressure if necessary. The head holding tank must be pumped dry and 1 gallon of potable water antifreeze poured into the tank through the deck waste pump out fitting.

The portable marine head has specific winterizing requirements. Please refer to the manufacturer's owner's manual for winterizing the portable head.

For additional information on the Raw Water System refer to Chapter 6.

### **Bilge**

Coat all metal components, wire busses, and connector plugs in the bilge with a protecting oil. It is also important to protect all pumps, seacocks and steering components.

The bilge pump and bilge pump lines must be completely free of water and dried out when the boat is laid-up for the winter in climates where freezing occurs. Compartments in the bilge that will not drain completely should be pumped out and then sponged until completely free of water.

Dry the hull bilge and self-bailing cockpit troughs. Water freezing in these areas could cause damage.

### **Special Notes Prior To Winter Storage**

If the boat will be in outside storage, properly support a storage cover and secure it over the boat. It is best to have a frame built over the boat to support the canvas. It should be a few inches wider than the boat so the canvas will clear the rails and allow passage of air. If this cover is fastened too tightly there will be inadequate ventilation and this can lead to mildew, moisture accumulation, etc. It is essential to fasten the canvas down securely so that the winds cannot remove it or cause chafing of the hull superstructure. Do not store the boat in a damp storage enclosure. Excessive dampness can cause electrical problems, corrosion, and excessive mildew.

Whenever possible, do not use the bimini top or convertible top canvas in place of the winter storage cover. The life of these canvases may be significantly shortened if exposed to harsh weather elements for long periods.



**PLACING AN ELECTRIC OR FUEL BURNING HEATING UNIT IN THE BOAT CAN BE POTENTIALLY HAZARDOUS AND IS NOT RECOMMENDED.**

Proper storage is very important to prevent serious damage to the boat. If the boat is to be stored indoors, make sure the building has enough ventilation. It is very important that there is enough ventilation both inside the boat and around the boat.

### 13.3 Recommissioning



DO NOT OPERATE THE BOAT UNLESS IT IS COMPLETELY ASSEMBLED. KEEP ALL FASTENERS TIGHT. KEEP ADJUSTMENTS ACCORDING TO SPECIFICATIONS.



IT IS IMPORTANT AND RECOMMENDED THE FITTING OUT PROCEDURE FOR THE MARINE GEAR BE DONE BY A QUALIFIED SERVICE PERSON. READ THE ENGINE OWNER'S MANUAL FOR THE RECOMMENDED PROCEDURE.



BEFORE LAUNCHING THE BOAT, MAKE SURE THE DRAIN PLUG IS INSTALLED.

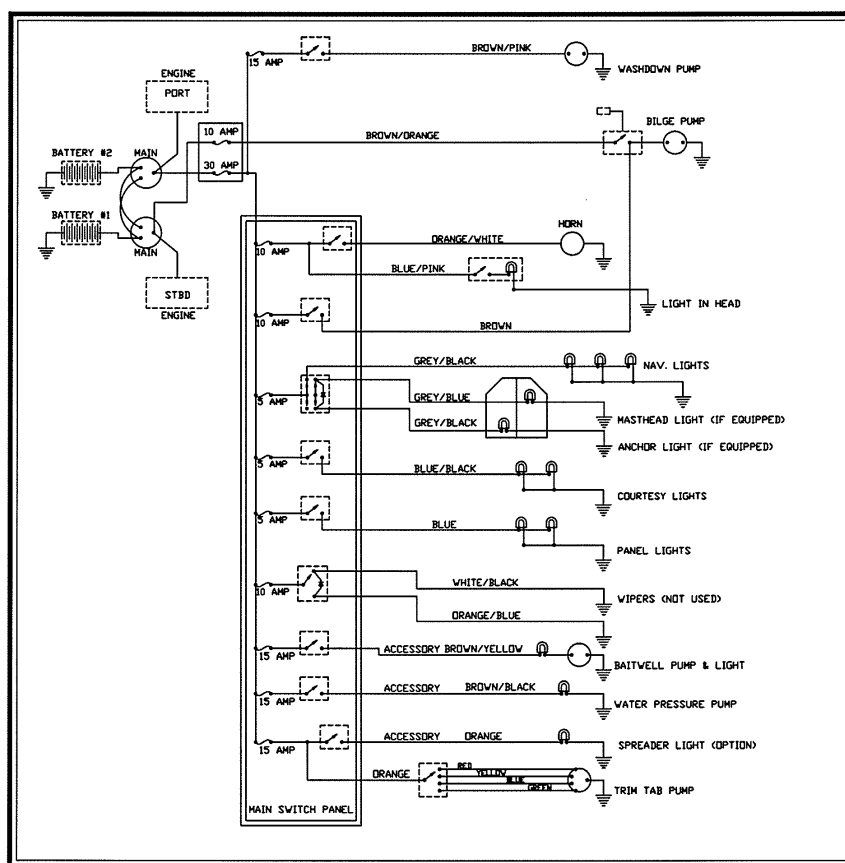
#### Reactivating The Boat After Storage

- Charge and install the batteries.
- Install the drain plugs in the hull.
- Check the engine for damage and follow the manufacturer's instructions for recommissioning.
- Perform all routine maintenance.
- Check all hose clamps for tightness.
- Pump the antifreeze from the water systems and flush several times with fresh water.
- Check and lubricate the steering system.
- Clean and wash the boat.
- Install all cushions and canvas.

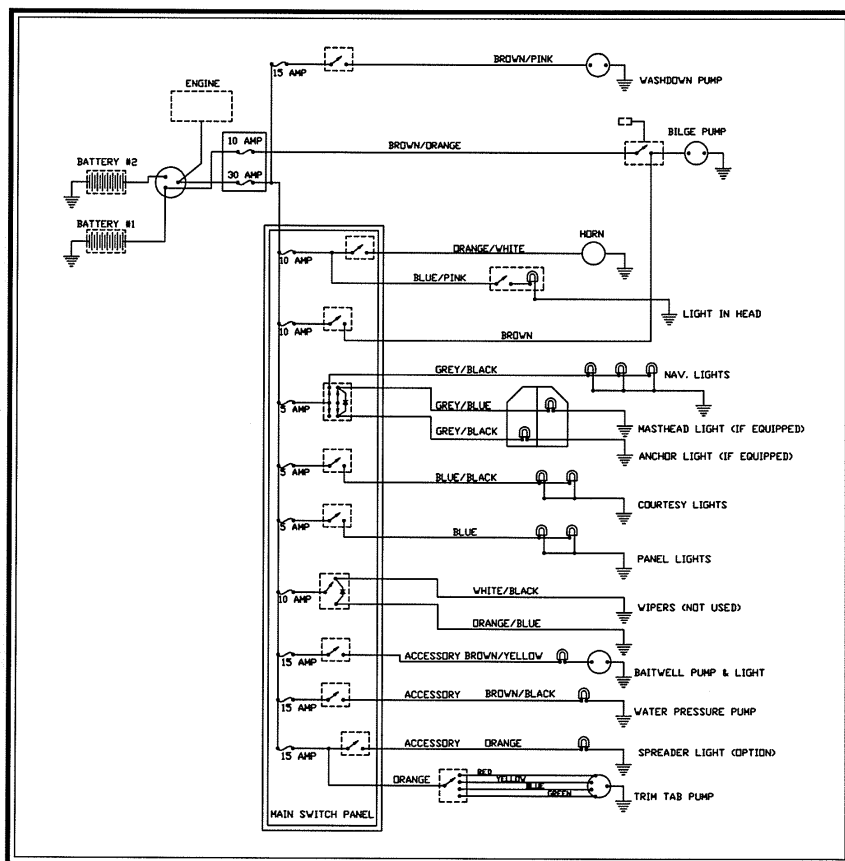
### **After Launching**

- Carefully check all water systems for leaks. Operate each system one at a time checking for leaks and proper operation.
- Check the bilge pump manual and automatic switches.
- Prime the fuel system and start the engine. When the engine starts, check the cooling system port below the engine cowling for a strong stream of water. This insures that the cooling pump is operating. Carefully monitor the gauges and check for leakage and abnormal noises. Operate the boat at slow speeds until the engine temperature stabilizes and all systems are operating normally.

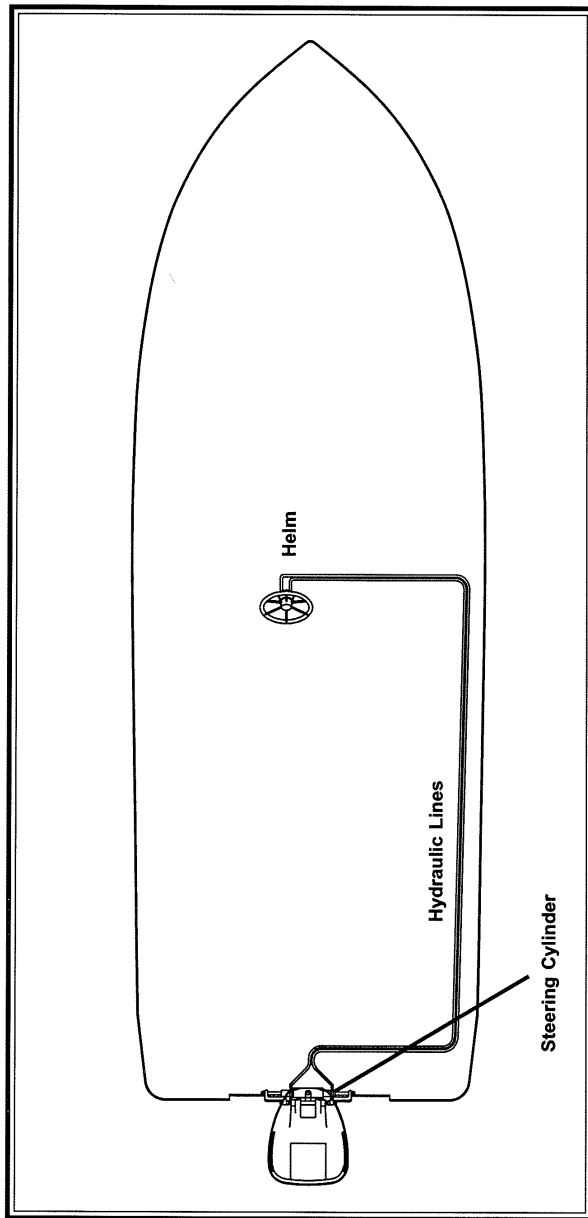
## Chapter 14: SCHEMATICS



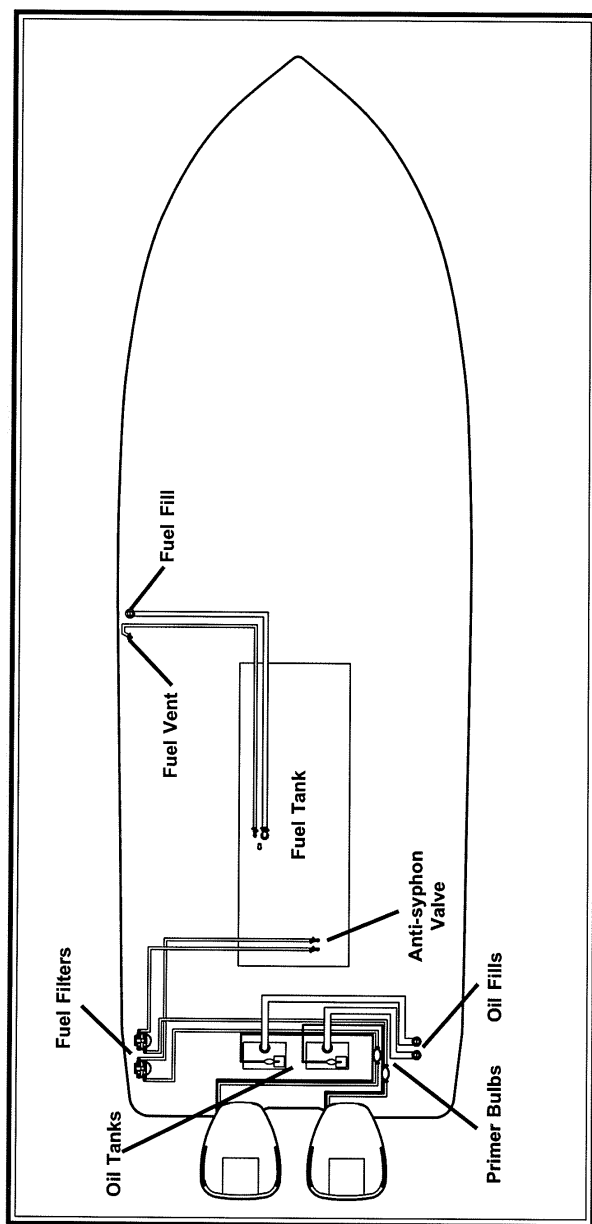
*Twin Engine 12-Volt Wiring Schematic*



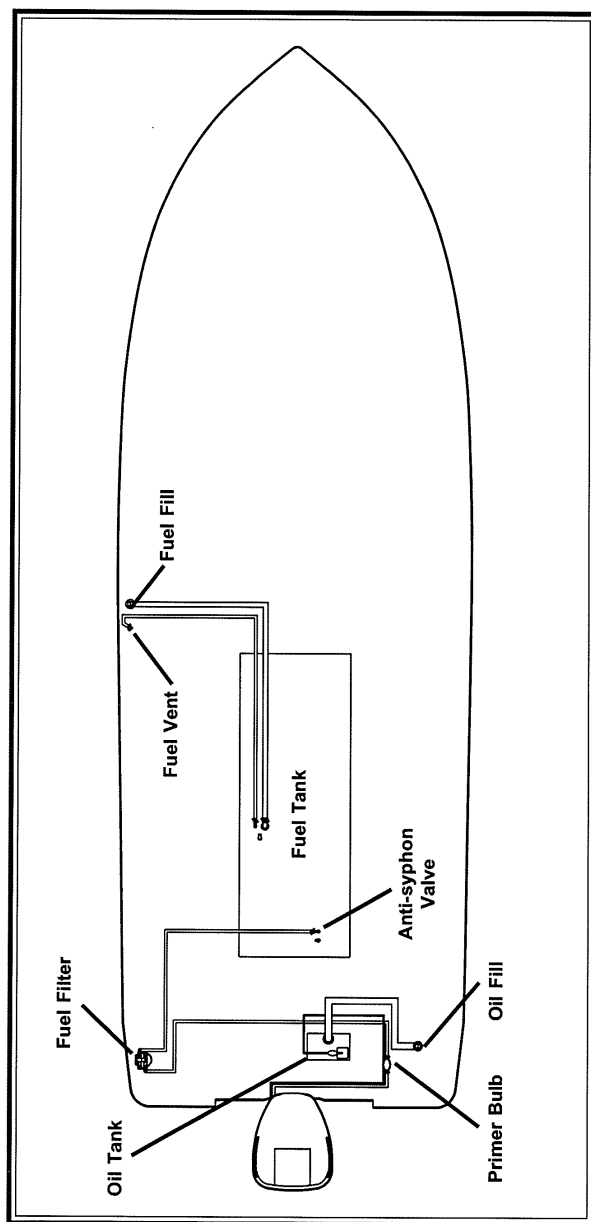
Single Engine 12-Volt Wiring Schematic



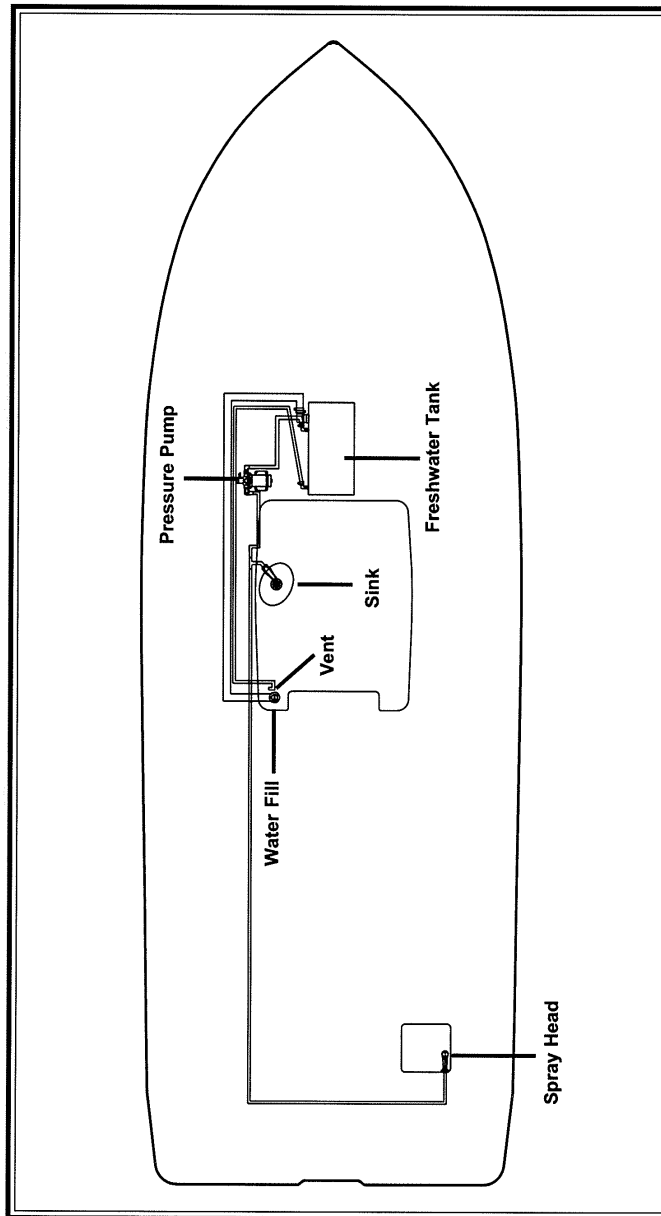
*Hydraulic Steering System*



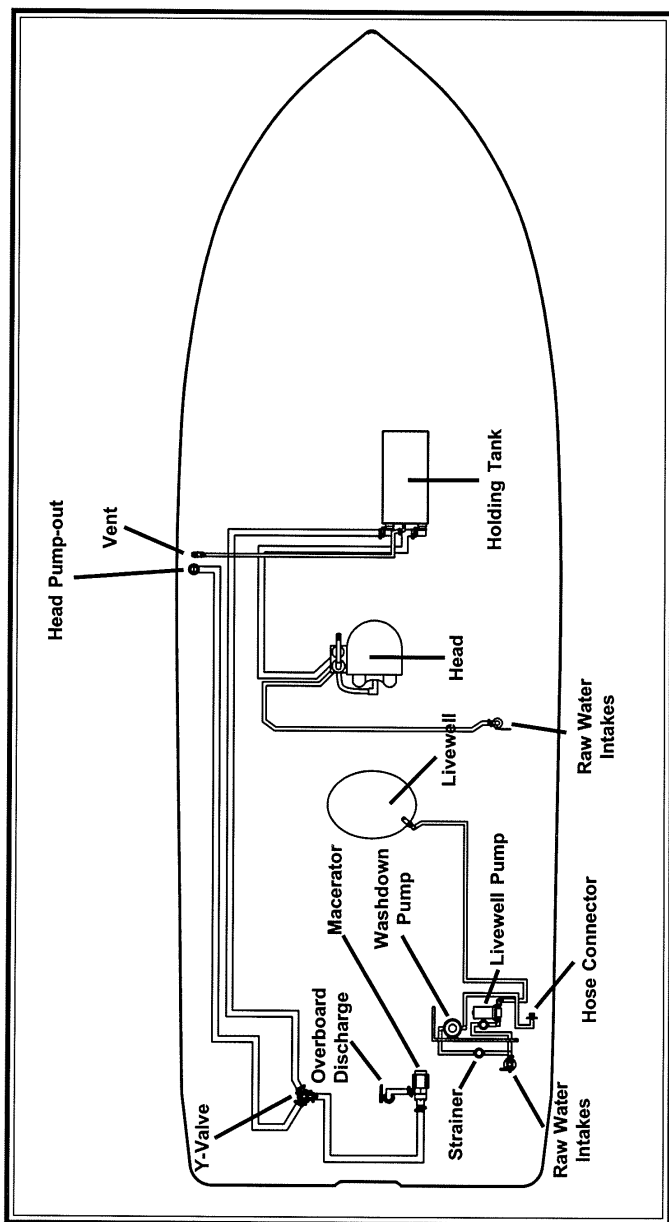
*Twin Engine Fuel System*



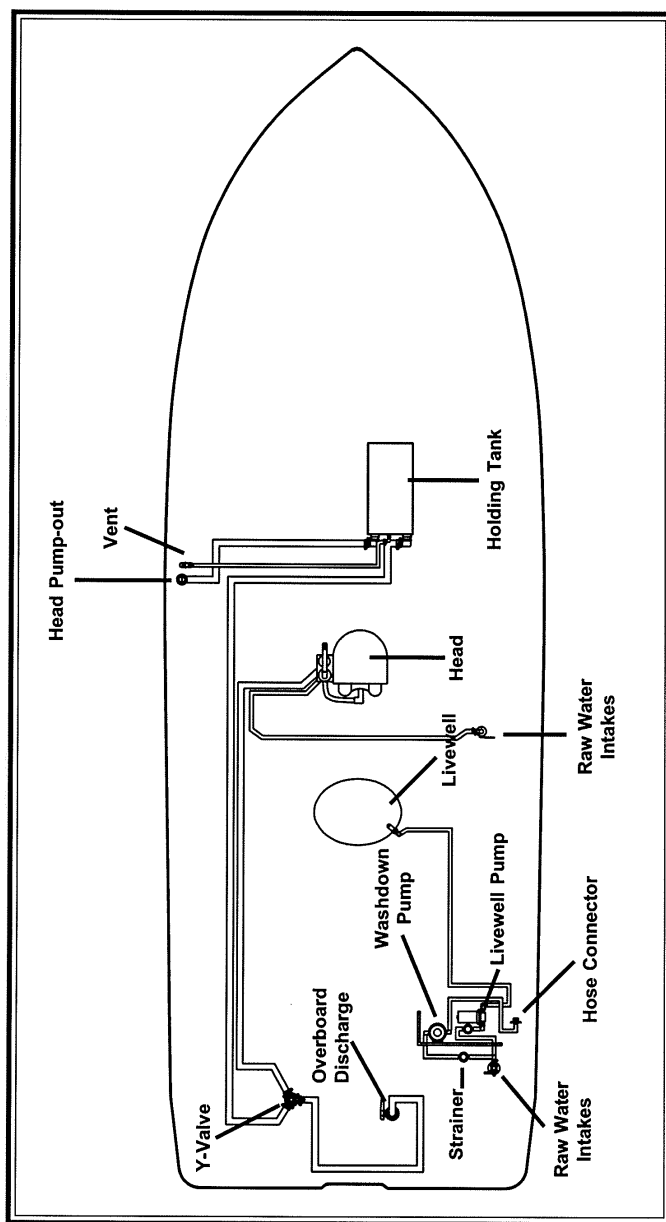
*Single Engine Fuel System*



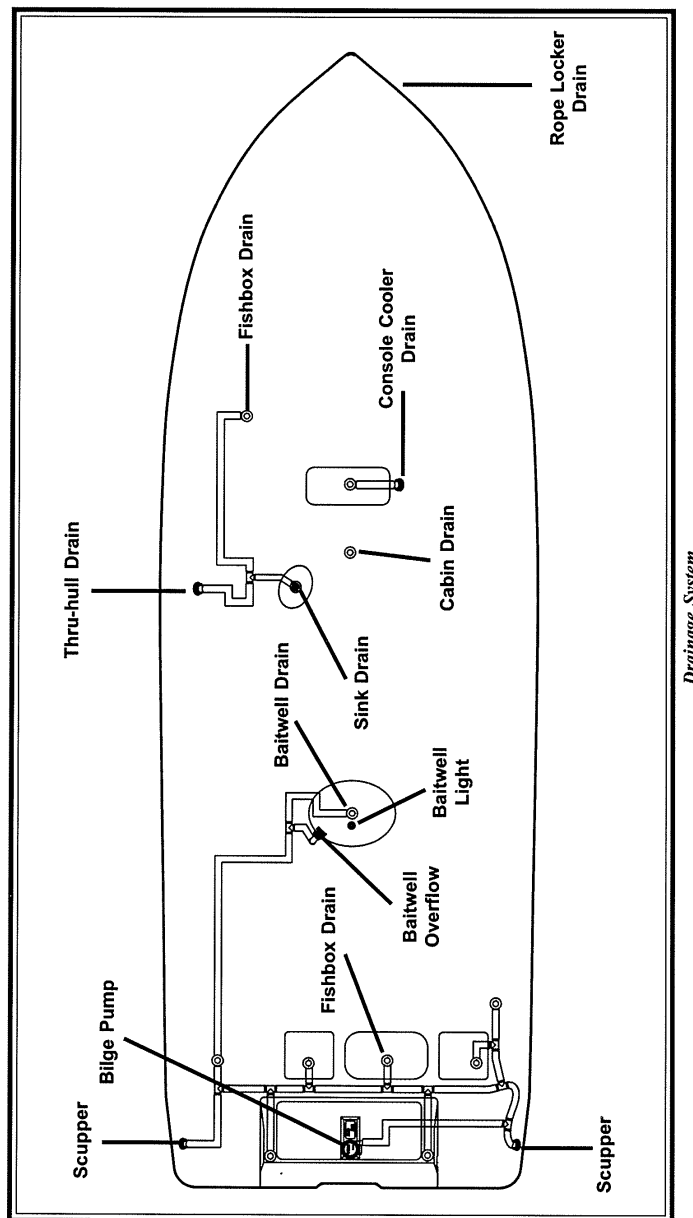
*Freshwater System*



*Raw Water System - Macerator*



*Raw Water System - Without Macerator*



*Drainage System*

## *Chapter 15:*

# GLOSSARY OF TERMS

<b>Aft:</b>	In, near, or toward the stern of a boat
<b>Aground:</b>	A boat stuck on the bottom
<b>Amidship:</b>	In or toward the part of a boat midway between the bow and stern
<b>Anchor:</b>	A specially shaped heavy metal device designed to dig efficiently into the bottom under a body of water and hold a boat in place
<b>Anchorage:</b>	An area specifically designated by governmental authorities in which boats may anchor
<b>Athwartship:</b>	When an object lies on a line or in a plane at right angles to the centerline of a boat
<b>Beam:</b>	The breadth of a boat usually measured at its widest part
<b>Beamy:</b>	Boats of greater than normal beam
<b>Bilge:</b>	The lower interior areas of the hull of a boat
<b>Bilge Pump:</b>	Pumps water that collects in the bilge, overboard
<b>Boarding Ladder:</b>	Set of steps temporarily fitted over the side of a boat to assist persons coming aboard
<b>Boat Hook:</b>	Short shaft of wood or metal with a fitting at one end shaped to aid in extending one's effective reach from the side of the boat
<b>Bow:</b>	The front end of a boat
<b>Bow Line:</b>	A line that leads forward from the bow of the boat
<b>Bow Rail:</b>	Knee high rails of solid tubing to aid in preventing people from falling overboard
<b>Bridge:</b>	The area from which a boat is steered and its speed controlled
<b>Bridge Deck:</b>	Deck forward and usually above the cockpit deck

<b>Bulkhead:</b>	Vertical partition separating compartments of a boat
<b>Cabin:</b>	Superstructure above the main deck level
<b>Capsize:</b>	When a boat turns over
<b>Chain Locker:</b>	A locker, usually located in the bow of a boat, used for stowing the anchor line or chain
<b>Chapman's:</b>	<u>Chapman-Piloting, Seamanship, and Small Boat Handling, 60th Edition</u> , by Elbert S. Maloney, Hearst Marine Books, NY, ISBN 9688-10425-8
<b>Chock:</b>	A deck fitting, usually of metal, with inward curving arms through which lines such as mooring or anchor lines are passed so as to lead them in the proper direction both on board and off the boat
<b>Closed Cooling System:</b>	A separate supply of fresh water is used to circulate only within the engine
<b>Coaming:</b>	A vertical piece around the edges of cockpit, hatches, etc. to stop water on deck from running below
<b>Cockpit:</b>	An open space in the deck of a boat outside of the cabin and deckhouse
<b>Companionway:</b>	Openings in the deck of a boat to provide access below
<b>Compartment:</b>	The interior of a boat divided off by bulkheads
<b>Cradle:</b>	The framework which supports a boat as she is hauled out or stored
<b>Cutlass Bearing:</b>	Rubber bearing in the strut that supports the propeller shaft
<b>Deck:</b>	The floor-like platform of a boat
<b>Draft:</b>	The depth of water a boat needs to float
<b>Dry Rot:</b>	A fungus attack on wood areas
<b>Drydock:</b>	A dock that can be kept dry during boat construction or repair
<b>Electrical Ground:</b>	A connection between an electrical connector and the earth
<b>Engine Bed:</b>	A sturdy structural member running fore-and-aft on which the engine is mounted

<b>Even Keel:</b>	When a boat floats properly as designed
<b>Fender:</b>	A soft object of rubber or plastic used between boats and piles, pier sides, seawalls, etc. to protect the topsides from scarring and to cushion any shock of the boat striking a fixed object
<b>Flying Bridge:</b>	An added set of controls above the level of the normal control station
<b>Fore:</b>	The part of the boat in which the bow is located
<b>Foundering:</b>	When a boat fills with water and sinks
<b>Freeboard:</b>	The height of a boat's topsides from the waterline to the deck
<b>Fuel Pump:</b>	Feeds fuel under pressure
<b>Galley:</b>	The kitchen of a boat
<b>Grab Rail:</b>	Hand-hold fittings mounted on cabin tops or sides for personal safety when moving around the boat, both on deck and below
<b>Ground Tackle:</b>	A general term including anchors, lines, and other gear used in anchoring
<b>Grounds:</b>	A boat touches the bottom
<b>Gunwale:</b>	The upper edge of a boat's side
<b>Hand Rail:</b>	Rail mounted on the boat, for grabbing with your hand, to steady you while walking about the boat
<b>Harbor:</b>	An anchorage which provides reasonably good protection for a boat, with shelter from wind and sea
<b>Hatch:</b>	A door or cover for access down into a compartment of a boat
<b>Head:</b>	Refers to both the toilet and toilet area
<b>Headroom:</b>	The vertical distance between the deck and the cabin or canopy top (or other overhead structure)
<b>Heat Exchanger:</b>	Used to transfer the heat that is picked up by the closed cooling system to the raw cooling water
<b>Helm:</b>	The operating area of a boat

<b>Hull:</b>	The frame or body of the boat
<b>Inboard:</b>	A boat with the engine mounted within the hull inside the gunwale of the boat
<b>Keel:</b>	A plate or timber plate running lengthwise along the center of the bottom of a boat
<b>Knot:</b>	Unit of speed, 1 knot = 1 nautical mile per hour (1.161 miles per hour)
<b>Lay-up:</b>	To decommission a boat for the winter (usually in northern climates)
<b>Lazarette:</b>	A compartment in the stern of a boat used for general storage
<b>Length On The Waterline (L.W.L.):</b>	A length measurement of a boat from the fore part of the stern to the after part of the stern where the hull breaks the water
<b>Life Preserver:</b>	Provides additional buoyancy to keep a person afloat when he/she is in the water
<b>Limber Hole:</b>	A passage cut into the lower edges of floors and frames next to the keel to allow bilge water to flow to the lowest point of the hull from where it can be pumped out
<b>Line:</b>	Rope
<b>Lists:</b>	A boat that inclines to port or starboard while afloat
<b>Locker:</b>	A closet, chest or box aboard a boat
<b>Marina:</b>	A protected facility primarily for recreational small craft
<b>Marine Ways or Railways:</b>	Inclined planes at the water's edge onto which boats are hauled
<b>Moored:</b>	Secured with cables, lines or anchors
<b>Nautical Mile:</b>	Distance measurement equal to a unit about 6/5th's of a statute (land) mile
<b>Oil pump:</b>	Supplies lubricating oil where needed within the engine
<b>Outboard:</b>	A boat with the engine mounted on the transom which is detachable
<b>Overhead:</b>	The ceiling of a cabin or compartment

<b>Pier:</b>	A structure which projects out from the shoreline
<b>Piles or Piling:</b>	A long column driven into the bottom to which a boat can be tied
<b>Plenum:</b>	A chamber for directing air flow, as in engine intake air plenum
<b>Pitching:</b>	The fore and aft rocking motion of a boat as the bow rises and falls
<b>Port:</b>	The left side of the boat when facing the bow
<b>Porthole (port):</b>	The opening in the side of a boat to allow the admittance of light and air
<b>Propeller Shaft:</b>	Shaft which runs from the back of the engine gear box, aft, through the stuffing box, shaft log, struts, and onto which the propeller is attached
<b>Raw Water Cooled:</b>	Water for cooling is drawn in through a hull fitting, circulated in the engine, and then discharged overboard
<b>Reduction Gear:</b>	Often combined with the reverse gear so that the propeller, turning at a slower rate than the engine, will have increased efficiency
<b>Reverse Gear:</b>	Change the direction of rotation of the propeller to give a thrust in the opposite direction for stopping the boat or giving it sternway
<b>Roll:</b>	A boat's sidewise rotational motion in rough water
<b>Rope Locker:</b>	See "chain locker"
<b>Rubrail:</b>	Railing (often rubber or hard plastic) that runs along the boat's sheer to protect the hull when coming alongside docks, piers, or other boats
<b>Rudder:</b>	A moveable flat surface that is attached vertically at or near the stern for steering
<b>Scupper:</b>	An opening in the side or transom of the boat through which water on deck or in the cockpit is drained overboard
<b>Seacock:</b>	Safety valves installed just inside the thru-hull fittings and ahead of the piping or hose running from the fittings
<b>Shaft log:</b>	Pipe through which the propeller shaft passes
<b>Sheer:</b>	The uppermost edge of the hull

<b>Sling:</b>	A strap which will hold the boat securely while being lifted, lowered, or carried
<b>Sole:</b>	The deck of a cockpit or interior cabin
<b>Spring Line:</b>	A line that leads from the bow aft or from the stern forward to prevent the boat from moving ahead or astern
<b>Starboard:</b>	The right side of a boat when facing the bow
<b>Stem:</b>	The line at which the port and starboard topsides meet at the bow
<b>Stern:</b>	The rear end of a boat
<b>Stringer:</b>	Longitudinal members fastened inside the hull for additional structural strength
<b>Strut Bearing:</b>	See "cutlass bearing"
<b>Stuffing Box:</b>	Prevents water from entering at the point where the propeller shaft passes through the shaft log
<b>Superstructure:</b>	Something built above the main deck level
<b>Swamps:</b>	When a boat fills with water from over the side
<b>Swimming Ladder:</b>	Much the same as the boarding ladder except that it extends down into the water
<b>Taffrail:</b>	Rail around cockpit
<b>Thru-hull:</b>	A fitting used to pass fluids (usually water) through the hull surface, either above or below the waterline
<b>Topsides:</b>	The side skin of a boat between the waterline or chine and deck
<b>Transom:</b>	Flat planking across the stern
<b>Travel Lift:</b>	Machinery used at boat yards to hoist boats out of and back into the water
<b>Trim:</b>	This relates to the way a boat floats in the water
<b>Trough:</b>	The area of water between the crests of waves and parallel to them

<b>Twin-Screw Craft:</b>	A boat with two propellers on two separate shafts
<b>Underway:</b>	When a boat moves through the water
<b>Wake:</b>	Disrupted water that a boat leaves astern as a result of its motion
<b>Wash:</b>	The flow of water that results from the action of her propeller or propellers
<b>Water Pump:</b>	Circulates cooling water
<b>Waterline:</b>	The plane of a boat where the surface of the water touches the hull when it is afloat on even keel
<b>Watertight Bulkhead:</b>	Bulkheads secured so tightly so as not to let water pass
<b>Wharf:</b>	A structure generally parallel to the shore
<b>Working Anchor:</b>	An anchor carried on a boat for most normal uses
<b>Yacht Basin:</b>	A protected facility primarily for recreational small craft
<b>Yaw:</b>	When a boat runs off her course to either side