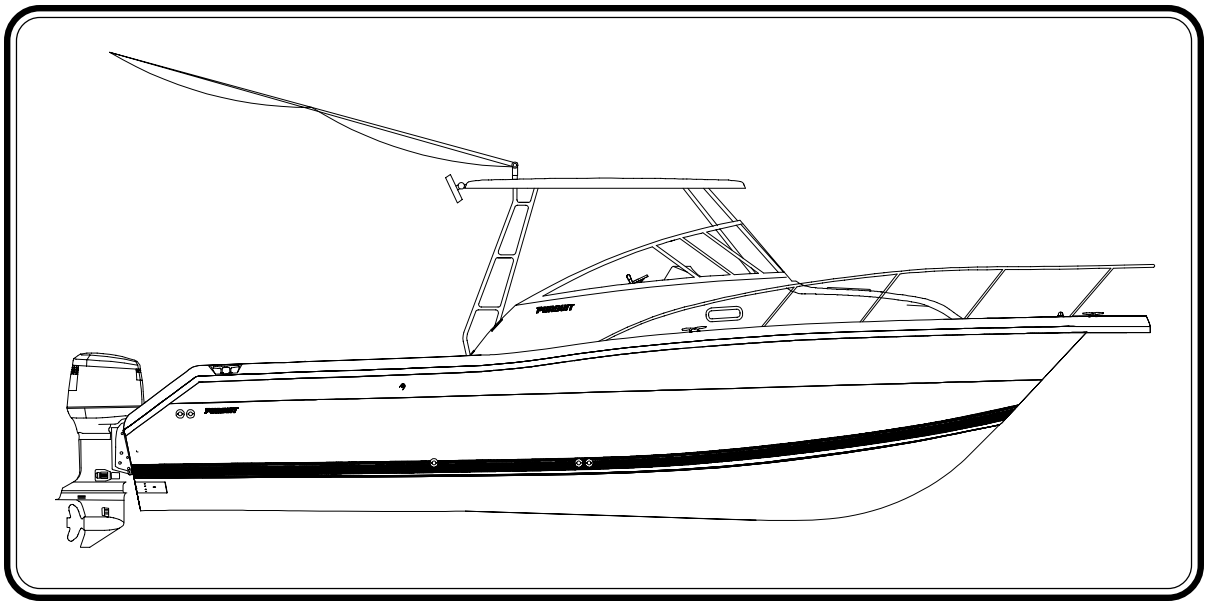
PURSUIT®

3070 EXPRESS

OWNER'S MANUAL



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

PURSUIT® 3070 EXPRESS
Print Date 8/2002

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SAFETY INFORMATION

Your PURSUIT® 3070 Express 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 **DANGER, WARNING, CAUTION**, **and NOTICE** 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.

INFORMATION WHICH IS IMPORTANT TO PROPER OPERATION OR MAINTENANCE, BUT IS NOT HAZARD RELATED.

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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BOAT INFORMATION

Please fill out the following information section and leave it in your Pursuit 3070 Express 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.

BOAT	
MODEL:	HULL SERIAL #:
PURCHASE DATE:	DELIVERY DATE:
IGNITION KEYS #:	REGISTRATION #:
DRAFT:	WEIGHT:
ENGINE(S)	
MAKE:	MODEL:
PORT SERIAL #:	STARBOARD SERIAL #:
TRANSMISSION(S) (Inboard)	
MAKE:	MODEL:
PORT SERIAL #:	STARBOARD SERIAL #:
RATIO:	
OUTDRIVE(S) (Inboard/Outboard)	
MAKE:	MODEL:
PORT SERIAL #:	STARBOARD SERIAL #:
PROPELLER(S)	
MAKE:	BLADES:
DIAMETER/PITCH:	OTHER:
GENERATOR	
MAKE:	MODEL:
SERIAL #:	KW:
DEALER	**PURSUIT**
NAME:	PHONE:
DEALER/PHONE:	REPRESENTATIVE:
SALESMAN:	ADDRESS:
SERVICE MANAGER:	
ADDRESS:	

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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CERTIFICATIONS & SPECIFICATIONS
(For Export Only)

To be in compliance with European directives for recreational boats as published by the International Organization for Standardization (ISO) in effect at the time this boat was manufactured, we are providing the following information.

Manufacturer:

Name _____

Address _____

_____ Zip Code: _____

Identification Numbers:

Hull Identification Number _____

Engine Serial Number _____

Transmission Serial Number _____

Intended Design Category:

☐ Ocean ☐ Inshore

☐ Offshore ☐ Sheltered Waters

Weight and Maximum Capacities:

Unladen Weight - Kilograms (Pounds) _____

Maximum Load - Weight- Kilograms (Pounds) _____

Number of People _____

Maximum Rated Engine Horsepower - Kilowatts (Horsepower) _____

Certifications:

Certifications & Components Covered _____

_____

_____

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IMPORTANT INFORMATION

Warranty and Warranty Registration Cards

The Pursuit Limited Warranty Statement is included with your boat. It has been written to be clearly stated and easily understood. If you have any questions after reading the warranty, please contact Pursuit Customer Relations.

Pursuit, engine manufacturers, and the suppliers of major components maintain their own manufacturer's warranty and service facilities. It is important that you properly complete the warranty registration cards included with your boat and engine(s) and mail them back to the manufacturers to register your ownership. This should be done within 15 days of the date of purchase and before the boat is put into service. A form for recording this information is provided at the beginning of this manual. This information will be important for you and service personnel to know, if and when you may need service or technical information.

The boat warranty registration requires the **H**ull **I**dentification **N**umber **"HIN"** which is located on the starboard side of the transom, just below the rubrail. The engine warranty registration requires the engine serial number(s). Please refer to the engine owner's manual for the location of the serial number(s).

IMPORTANT:

All boat manufacturers are required by the Federal Boat Safety Act of 1971 to notify first time owners in the event any defect is discovered "which creates a substantial risk of personal injury to the public." **It is essential that we have your warranty registration card complete with your name and mailing address in our files so that we can comply with the law if it should become necessary.**

Product Changes

Pursuit is committed to the continuous improvement of our boats. As a result, some of the equipment described in this manual or pictured in the catalog may change or no longer be available. **Pursuit reserves the right to change standard equipment, optional equipment and specifications without notice or obligation.** If you have questions about the equipment on your Pursuit, please contact Pursuit Customer Relations.

Transferring The Warranty

For a Transfer fee, S2 Yachts will extend warranty coverage to subsequent owners of Pursuit models for the duration of the original warranty period. Please refer to the Pursuit Limited Warranty Statement for the procedure to transfer the warranty.

To take advantage of this program, notification of the change of ownership, including the new owner's name, address and telephone number together with the appropriate fee, must be sent to Pursuit Fishing Boats, Customer Relations Department, 3901 St. Lucie Boulevard, Ft. Pierce, Florida 34946, within 30 days of the date of resale.

S2 Yachts will confirm, in writing, that the transfer of the warranty has taken place. After which, the transferee will be treated as the original purchaser as outlined in the Pursuit Limited Warranty Statement.

Service

All warranty repairs must be performed by an authorized Pursuit Dealer. Should a problem develop that is related to faulty workmanship or materials, as stated in the Limited Warranty, you should contact your Pursuit dealer to arrange for the necessary repair. If you are not near your dealer or another authorized Pursuit dealer or the dealer fails to remedy the cause of the problem, then contact the Pursuit Customer Relations Department within 15 days. **It is the boat owner's responsibility to deliver the boat to the dealer for warranty service.**

OWNER'S/OPERATOR'S RESPONSIBILITIES

Registration and Numbering

Federal law requires that all undocumented vessels equipped with propulsion machinery be registered in the state of principal use. A certificate of number will be issued upon registering the boat. These numbers must be displayed on your boat. The owner/operator of a boat must carry a valid certificate of number whenever the boat is in use. When moved to a new state of principal use, the certificate is valid for 60 days.

In order to be valid, the numbers must be installed to the proper specifications. Check with your dealer or state boating authority for numbering requirements. The Coast Guard issues the certificate of number in Alaska; all others are issued by the state.

Insurance

In most states the boat owner is legally responsible for damages or injuries he or someone else operating the boat causes. Responsible boaters carry adequate liability and property damage insurance for their boat. You should also protect the boat against physical damage and theft. Some states have laws requiring minimum insurance coverage. Contact your dealer or state boating authority for information on the insurance requirements in your boating area.

Reporting Boating Accidents

All boating accidents must be reported by the operator or owner of the boat to the proper marine law enforcement authority for the state in which the accident occurred. Immediate notification is required if a person dies or disappears as a result of a recreational boating accident.

If a person dies or there are injuries requiring more than first aid, a formal report must be filed within 48 hours.

A formal report must be made within 10 days for accidents involving more than $500.00 damage or the complete loss of a boat.

A "Boating Accident Report" form is located near the back of this manual to assist you in reporting an accident. If you need additional information regarding accident reporting, please call the Boating Safety Hotline, 800-368-5647.

Education

If you are not an experienced boater, we recommend that the boat operator and other people that normally accompanies the operator, enroll in a boating safety course. Organizations such as the U.S. Power Squadrons, United States Coast Guard Auxiliary, State Boating Authorities and the American Red Cross offer excellent boating educational programs. These courses are worth-while even for experienced boaters to sharpen your skills or bring you up to date on current rules

and regulations. They can also help in providing local navigational information when moving to a new boating area. Contact your dealer, State Boating Authority or the Boating Safety Hotline, 800-368-5647 for further information on boating safety courses.

Required Equipment

U.S. Coast Guard regulations require certain equipment on each boat. The Coast Guard also sets minimum safety standards for vessels and associated equipment. To meet these standards some of the equipment must be Coast Guard approved. "Coast Guard Approved Equipment" has been determined to be in compliance with USCG specifications and regulations relating to performance, construction, or materials. The equipment requirements vary according to the length, type of boat, and the propulsion system. Some of the Coast Guard equipment is described in the Safety Equipment chapter of this manual. For a more detailed description, obtain "Federal Requirements And Safety Tips For Recreational Boats" by contacting the Boating Safety Hotline 800-368-5647 or your local marine dealer or retailer.

Some state and local agencies impose similar equipment requirements on waters that do not fall under Coast Guard jurisdiction. These agencies may also require additional equipment that is not required by the Coast Guard. Your dealer or local boating authority can provide you with additional information for the equipment requirements for your boating area.

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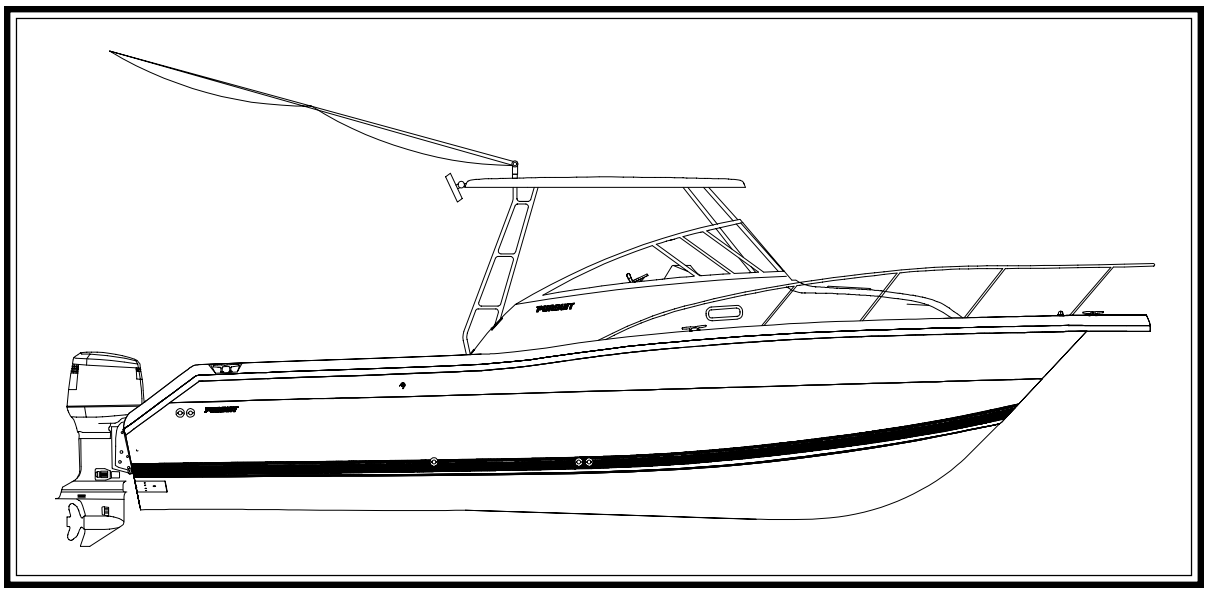
Chapter 1:
PROPULSION SYSTEM



3070 Express

1.1 General

The Pursuit 3070 Express is designed to be powered with twin 2-cycle or 4-cycle outboard motors.

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 System Corrosion

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 galvanic corrosion.

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.

Galvanic corrosion 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 anodes to prevent galvanic corrosion problems. The 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 motors as high as possible. This will decrease the risk of marine growth around the cooling inlets, propeller and exhaust ports and damage from galvanic corrosion.

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

2-cycle outboard motors are lubricated by a variable ratio oil injection system. The oil tanks are mounted below the stern bait station near the transom. 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 tanks. 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.

4-cycle outboard engines have an oil sump in the crankcase that must be kept full of the type and grade of oil recommended by the engine manufacturer. It is normal for 4-cycle engines to consume a small amount of oil. Therefore, the oil must be checked before each use and changed at regular intervals as instructed by the engine owner's manual. As with 2-cycle engines, use only the type of oil specified by the engine manufacturer.

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

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 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 engines 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 TO PASSENGERS AND DAMAGE TO THE MOTORS 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 alarms. These instruments allow the pilot to monitor the engines' operational conditions. Close observation of these instruments allows the pilot to operate the engines at the most efficient level and could save them 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.

Helm

Tachometer

The tachometer displays the speed of the engine in revolutions per minute (RPM). This speed is not the boat speed or 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.

Temperature Warning

The temperature warning indicates the temperature of the engine. 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.

Speedometer
The speedometer indicates the speed of the boat in miles per hour. Most speedometers measure the water pressure against a small hole in a pickup tube located in the engine lower unit or mounted on the bottom of the transom.

Fuel Gauge
The fuel gauge indicates the amount of fuel in the fuel tanks. The fuel gauge switch, located on the helm, is used to switch the gauge reading to the port or starboard 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 engines 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.

Tilt/Trim Gauge
The tilt/trim gauge monitors the position of the outboard engine. The upper range of the gauge indicates the tilt, which is used for trailering and shallow water operation. The lower range indicates the trim position. This is the range used to adjust the hull angle while operating your boat on plane. Please refer the engine owner's manual for more information on the operation of the outboard power tilt and trim.

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
Fuel management systems are standard equipment with some outboard engines. On Yamaha® engines, the fuel management gauge is a multifunction gauge used to monitor the gallons per hour, miles per gallon, total gallons used 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 helm. To adjust the compass for your area, read the instructions on "Compass Compensation" given to you in the literature packet. The compass cannot be adjusted accurately at the factory as it must be compensated for the influence of the electrical equipment and electronics unique to your boat. Therefore, the compass should be adjusted by a professional after the electronics and additional electrical accessories are installed and before operating the boat.

Instrument Maintenance

Electrical protection for instruments and ignition circuitry is provided by a set of circuit breakers located near the main battery switch and on each engine. 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 manuals for specific information on the controls installed on your Pursuit.

Controls

The engine throttle and shift control systems consist of three major components: the control handles, the throttle cable and the shift cable. The cables are all the push-pull type. Two cables are required for each engine. One cable connects the remote throttle control to the carburetor or fuel injectors and the other connects the remote shift control to the engine shift rod linkage.

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 detent forward of neutral), and a reverse position (the 1st detent 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.

The handles of dual lever controls may not always align with each other at all RPM settings due to variations in control cable routing, cable length and adjustments at the engine. Usually the alignment of the handles can be optimized at a chosen RPM, but may vary at other settings.

2.3 Neutral Safety Switch

Every control system has a neutral safety switch incorporated into it. This device prohibits the engine 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.

The neutral safety switches should be tested periodically to ensure that they are operating properly. To test the neutral safety switches, make sure the engines are tilted down and move the shift levers to the forward position. ***Make sure the control levers are not advanced past the idle position.*** Turn the ignition key to the start position just long enough to briefly engage the starter for the engine. ***Do not hold the key in the start position long enough to start the engine.*** The starter should not engage for either engine. Repeat this test with the shift levers in reverse and the engine throttles at idle. Again, the starter should not engage for either engine. If the starter for either engine engages with the shift controls in any position other than the neutral position, then the neutral safety switch is not functioning properly and you should contact your dealer and have the neutral safety switch repaired before using your boat. If an engine starts in gear during this test, immediately move the control levers to the neutral position and turn the engine off.

IN SOME SITUATIONS, IT MAY BE POSSIBLE TO ACCIDENTALLY START THE ENGINES IN GEAR WITH THE THROTTLES ABOVE IDLE IF THE NEUTRAL SAFETY SWITCH IS NOT OPERATING PROPERLY. THIS WOULD CAUSE THE BOAT TO ACCELERATE UNEXPECTEDLY IN FORWARD OR REVERSE AND COULD RESULT IN LOSS OF CONTROL, DAMAGE TO THE BOAT, OR INJURY TO PASSENGERS. ALWAYS TEST THE NEUTRAL SAFETY SWITCH PERIODICALLY AND CORRECT ANY PROBLEMS BEFORE USING THE BOAT.

2.4 Engine Power Tilt and Trim

All outboard engines used on your boat have a tilt and trim feature. The tilt and trim switches are usually built into the engine shift and throttle controls and allow the operator to control the position of the outboards from the helm. Moving the outboards closer to the boat transom is called trimming “in” or “down.” Moving the outboards further away from the boat transom is called trimming “out” or “up.” In most cases, the boat will run best with the outboards adjusted so the hull will run at a 3 to 5 degree angle to the water.

The term “trim” generally refers to the adjustment of the outboards within the first 20^{o} range of travel. This is the range used while operating your boat on plane. The term “tilt” is generally used when referring to adjusting the outboards further up for shallow water operation or trailering. For information on the proper use and maintenance of the power tilt and trim, please refer to the engine owner’s manual.

THE ENGINE HOSES AND CABLES OR THE TRANSOM GEL COAT CAN BE DAMAGED BY TILTING THE ENGINES TO THE FULL UP POSITION WITH THE ENGINES TURNED TO THE WRONG POSITION. MOST TWIN ENGINE AND SINGLE ENGINE BOATS REQUIRE THE STEERING WHEEL TO BE TURNED COMPLETELY TO STARBOARD BEFORE TILTING THE ENGINES TO THE FULL UP POSITION. YOU SHOULD MONITOR THE ENGINES AS THEY TILT TO DETERMINE BEST FULL TILT ENGINE POSITION FOR YOUR BOAT.

SOME AUTOPILOTS HAVE ENGINE POSITION SENSORS THAT ARE MOUNTED TO THE HYDRAULIC STEERING CYLINDER. WITH THESE AUTOPILOTS, THE ENGINE POSITION SENSOR BRACKET COULD HIT THE TRANSOM WHEN THE ENGINES ARE TILTED TO THE FULL UP POSITION AND CAUSE DAMAGE TO THE ENGINE RIGGING, THE AUTOPILOT OR THE TRANSOM. IF YOU HAVE AN AUTOPILOT INSTALLED ON YOUR BOAT, YOU SHOULD MONITOR THE LOCATION OF THE ENGINE CABLES AND AUTOPILOT BRACKETS AS THE ENGINES ARE TILTED TO DETERMINE THE BEST ENGINE POSITION AND MAXIMUM ENGINE TILT FOR YOUR APPLICATION.

2.5 Engine Stop Switch

Your Pursuit is equipped with an engine stop switch and lanyard. When the lanyard is pulled it will engage the switch and shut off the engines. We strongly recommend that the lanyard be attached to the driver whenever the engines are running. If the engines will not start, it could be because the lanyard is not properly inserted into the engine stop switch. Always make sure the lanyard is properly attached to the engine stop switch before attempting to start the engine.

Refer to the engine owner's manual for more information on the engine stop switch.

Engine Stop Switch

2.6 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 steering manufacturer owner's manual for specific information on the steering system.

Dual engine outboards are coupled at the tiller arms by a tie bar. The engines must be aligned so they are parallel with each other to provide maximum stability on straight ahead runs and proper tracking through corners. Engine or steering system damage may require the engines to be realigned.

2.7 Trim Tabs

The trim tabs are recessed into the hull below the swim platform and integrated transom engine mounting system. A dual toggle switch is used 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 provide control for the hull listing.

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.

Trim Tab

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 the trim plane to take effect. **Avoid depressing the switch while awaiting the trim plane reaction.** By the time the effect is noticeable the trim tab 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 tabs 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.

2.8 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 adjustments become necessary, see your Pursuit dealer.

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

Steering System Maintenance

A periodic inspection of all steering hoses, linkage and helm assemblies should be made. Signs of corrosion, cracking, loosening of fastenings, excessive wear, or deterioration should be immediately corrected. Failure to do so could lead to steering system failure that would result in loss of control.

The fluid level for the hydraulic steering should be checked frequently and maintained at the proper level. The steering fluid level at the vent/fill plug at the helm should be maintained at no less than 1/2" below the bottom of the filler cap threads. 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. To reduce problems due to marine growth, always return the trim tabs to the full "UP" position after operating the boat and 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.

The trim tabs are equipped with a zinc anode to prevent galvanic corrosion. Galvanic corrosion is the corrosion process occurring when different metals are submerged in an electrolyte. Sea water is an electrolyte and submerged metal components must be properly protected. The anodes were installed at the factory and will need to be changed when they are 75% of their original size. Refer to the Routine Maintenance chapter of this manual for information on maintaining zinc anodes and the trim tab owner's manual for additional maintenance information, fluid specifications and operating instructions.

Chapter 3:
FUEL SYSTEM

3.1 General

The 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. INVESTIGATE AND CORRECT THE SITUATION IMMEDIATELY. HAVE ALL PASSENGERS PUT ON PERSONAL FLOTATION DEVICES AND KEEP A FIRE EXTINGUISHER READY UNTIL THE SITUATION IS RESOLVED.

Fuel Withdrawal Tubes

The fuel withdrawal tubes are positioned in the fuel tanks 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 and Senders

This indicates the amount of fuel in the tanks. A sender located on each fuel tank sends a signal to the fuel gauge in the helm. Each sender can be accessed through inspection plates in the rear of the cockpit. Due to the mechanical nature of the fuel senders, 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. The fuel gauge switch located on the helm is used to switch the gauge reading to the port or starboard fuel tank.

Fuel Gauge Sending Unit

Note: The fuel gauge switch will not have any effect on the fuel supply to the engines. The fuel supply must be controlled by the valves located near the fuel withdrawal tubes on the fuel tanks.

Fuel Fills

A fuel fill deck plate is located on each gunnel, and is marked "GAS." The fuel fill is opened by turning it counter clockwise with a special key. After fueling, install the fuel cap and tighten with the key. Be sure to use the proper type and grade fuel. Refer to the engine owner's manual for additional information.

Gas Fuel Fill

Note: Do not overtighten the fuel cap. If the cap is overtightened, the O-ring seal could be damaged allowing water to contaminate the fuel system.

DO NOT CONFUSE FUEL FILL DECK PLATES WITH THE WATER OR WASTE FILL DECK PLATES. THESE PLATES ARE ALSO LABELED ACCORDINGLY. IF GASOLINE IS ACCIDENTALLY PUMPED INTO THE WATER OR WASTE TANK, DO NOT ATTEMPT TO PUMP IT OUT YOURSELF. WATER AND WASTE PUMPS ARE NOT DESIGNED TO PUMP FUEL AND A FIRE OR EXPLOSION COULD RESULT. CONTACT YOUR DEALER OR THE PURSUIT CUSTOMER RELATIONS DEPARTMENT FOR ASSISTANCE IN HAVING THE FUEL PROFESSIONALLY REMOVED.

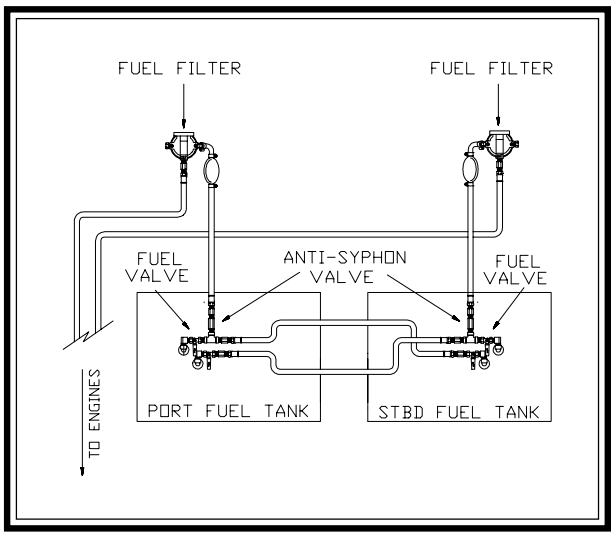
Fuel Vents

There are two fuel vent fittings for the gasoline fuel tanks, one on each side of the hull. While the tank is being filled, the air displaced by the fuel escapes through the vent. After fueling, replace the fill cap(s), and wash the areas around the fuel fill plates and below the fuel vent(s). 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 outboard fuel system on the Pursuit 3070 has two fuel tanks and four manual "ON/OFF" fuel valves that are labeled to indicate the engine the valve will supply. The fuel valves are located on the top of the fuel tanks below the inspection plates in the rear of the cockpit. The valves are off when the handle is perpendicular to the fuel flow. The fuel valves allow the operator to run the engines from both tanks or from either the port tank, which fills from the port gunnel, or the starboard tank, which fills from the starboard gunnel.

Proper fuel management is important on all boats. During normal operation, the port engine should be supplied fuel from the port tank and the starboard engine supplied fuel from the starboard tank. The fuel valves on each tank are labeled port and starboard. The labels refer to the engine the valve supplies. If a fuel supply problem should occur in one of the fuel tanks, both engines can be temporarily operated from either the port or starboard fuel tank by opening both valves on that tank. The fuel valves on the port tank should be off when operating both engines on the starboard tank and the fuel valves on the starboard tank should be off when operating both engines on the port tank. Operating the boat with all four fuel valves open is not recommended and should be avoided.



Fuel Valves

Note: The engines will not draw fuel equally from the fuel tanks when the fuel valves are set so both engines are operating from both tanks (all four fuel valves open.) This could result in one tank being exhausted of fuel while the other tank is partially full, causing fuel supply problems.

Fuel withdrawal lines are equipped with anti-siphon valves where the lines attach to the fuel tanks. These valves prevent gasoline from siphoning out of the fuel tank should a line rupture.

DO NOT REMOVE THE ANTI-SIPHON VALVES FROM THE SYSTEM. SHOULD THE VALVES BECOME CLOGGED, CLEAN AND REINSTALL OR REPLACE.

Fuel filters are installed in the transom area of the boat. The filters are the water separator type and there is one filter for each engine fuel line. Each fuel filter has 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 are inspected periodically and the elements changed as needed.

Fuel Filter

3.3 Generator Fuel System (Optional)

The fuel system for the optional generator is supplied by a separate fuel withdrawal tube in one of the main fuel tanks. The generator withdrawal tube is slightly shorter than the main engine tubes to prevent the generator from consuming reserve fuel when the tank is low. Consequently, the generator will run out fuel before the main engines.

The generator fuel withdrawal is equipped with an “ON/ OFF” valve located on the top of the fuel tank below the inspection plate in the rear of the cockpit. The valve is off when the handle is perpendicular to the fuel flow. An anti- siphon valve near the withdrawal tube prevents gasoline from siphoning out of the fuel tank should a line rupture.

A water separator type fuel filter is installed near the generator. The fuel filter has a sediment bowl that should be checked for water frequently to assure an adequate supply of clean, dry fuel to the engine. The filter should be inspected periodically and the element changed as needed.

3.4 Fueling Instructions

FUEL IS VERY FLAMMABLE. BE CAREFUL WHEN FILLING THE FUEL TANKS. NO SMOKING. NEVER FILL THE TANKS WHILE THE ENGINES ARE RUNNING. FILL THE FUEL TANKS IN AN OPEN AREA. DO NOT FILL THE TANKS 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 ENGINES.

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 and avoid over filling the tank.

Note: The fuel vents are located on each side of the boat.

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

STATIC ELECTRICITY CAN BE GENERATED WHILE FUELING AND CAN CAUSE A FIRE OR EXPLOSION. TO PREVENT STATIC SPARKS WHEN FILLING THE TANK, MAKE SURE THE NOZZLE IS IN CONTACT WITH THE FUEL OPENING.

SPILLED FUEL IS DANGEROUS AND CAN YELLOW FIBERGLASS OR IGNITE. MAKE SURE YOU DO NOT SPILL ANY FUEL. IF FUEL IS SPILLED ON THE DECK, USE A CLOTH TO REMOVE THE FUEL AND PROPERLY DISPOSE OF THE CLOTH ON SHORE. IF FUEL IS SPILLED ON THE WATER, EXERCISE EXTREME CAUTION. FUEL FLOATS ON TOP OF THE WATER AND CAN IGNITE. IF EXCESS FUEL IS SPILLED INTO THE WATER, IMMEDIATELY EVACUATE THE AREA AND NOTIFY THE MARINA AND THE PROPER OFFICIALS.

9. Fill the fuel tanks slightly less than the rated capacity to allow for expansion and to avoid spilling fuel out of the vents and fuel fills.

10. Remove the nozzle.

11. Install and tighten the fuel cap. Be careful not to overtighten the 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.

3.5 Fuel System Maintenance

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

Frequently inspect and lubricate the fuel fill cap O-ring seals with petroleum jelly or silicone grease. The O-ring seal prevents water from entering the fuel system through the fuel fill cap and it should be immediately replaced if there is any sign of damage or deterioration.

Be sure that the fuel tank vent hose is properly routed and attached when the vents are reinstalled or replaced. The fuel tank vent hose must be looped above the vent, secured to the hull near the vent and securely attached to the vent hose fitting with two hose clamps.

The age of gasoline can affect engine performance. Chemical changes occur as the gasoline ages that can cause deposits and varnish in the fuel system as well as reduce the octane rating of the fuel. Severely degraded fuel can damage the engine and boat fuel tank and lines. Therefore, if your boat is not being run enough to require at least one full tank of fresh fuel a month, a fuel stabilizer should be added to the gasoline to protect the fuel from degradation. Your dealer or the engine manufacturer can provide additional information on fuel degradation and fuel stabilizers recommended for your engine.

Avoid using fuels with alcohol additives. Gasoline that is an alcohol blend will absorb moisture from the air which can reach such concentrations that "phase separation" can occur whereby the water and alcohol mixture becomes heavy enough to settle out of the gasoline to the bottom of the tank. Since the fuel pick up tube is very near the bottom of the tank, phase separation can cause the engine to run very poorly or not at all. This condition is more severe with methyl alcohol and will worsen as the alcohol content increases. Water or a jelly like substance in the fuel filters is an indication of phase separation from the use of alcohol blended fuels.

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 ENGINES.

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Chapter 4:
ELECTRICAL SYSTEM

4.1 General

Your Pursuit is equipped with an AC and 12-volt DC electrical systems. The AC system can draw current from one of two sources, either shore power outlets at dock side or the optional generator. The DC system draws current from on board batteries.

The 12-volt batteries in your boat are of the lead-acid type. They will require similar maintenance as those found in automobiles. The batteries are located in the stern bilge below the livewell. The battery tray is moved toward the hatch by a switch located below the gunnel near the stern bilge access hatch. Refer to the "Battery Slide" switch in this chapter for more information on the operation of the battery tray.

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 standard marine system. There are three batteries, one for the starboard engine, one for the port engine and a house or accessory battery. The batteries themselves can be charged by the engines or by the battery charger when hooked to shore power or when operating the optional generator. An automatic 12-volt current control system called the "Total Automatic Battery System® (TABS) manages the charging current for the 12-volt system whenever the engines are running. The TABS automatically senses the condition of each battery and directs the available current to the batteries that require charging. The system is equipped with a battery parallel feature that will connect all three batteries in parallel for extra battery power while starting the engines. The battery parallel switch is a momentary switch located in the helm switch panel that is labeled either "Accessory" or "Parallel." A red LED light on the front of the TABS indicates that the parallel switch is activated. Please refer to the TABS owner's manual for additional information on the operation and maintenance of this system.

All 12-volt power is distributed to the 12-volt accessories through individual circuit breakers located in the 12-volt breaker panel in the cabin. A main breaker located on the front of the TABS protects the system from an overload. Other circuit breakers, located on the front of the TABS, protect the circuit for the optional windlass, the main DC power, the stereo memory and the automatic float switches for the aft and forward bilge pumps and the mid sump. The engine main fuses located on each engine protect the ignition systems and gauges. Some 12-volt accessories are operated directly by a circuit breaker in the cabin breaker panel while others are operated by

a switch fed by the panel breakers. Most of the 12-volt accessories on the deck and cockpit are operated 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.

Battery Switches

There are three "ON" - "OFF" battery switches located on the front of the TABS. The switches are activated using special keys that are attached to the unit. The port battery switch is labeled "Port" and activates the port engine, the starboard battery switch is labeled "Starboard" and activates the starboard engine and the center battery switch is labeled "House" and activates the 12-volt breaker panel in the cabin and all other 12-volt accessories. The house battery switch key is different from the engine switch keys, allowing the house battery to be activated without providing access to the engine starting batteries. Make sure that all three switches are activated whenever the engines are running to ensure that all 12-volt accessories will operate when they are needed. Red LED lights above each switch indicate that the switch is on. The top LED light will be lit when the engines are running or when the parallel switch is engaged.

The TABS controls the charging of all three batteries whenever one or both of the engines is operating. When one or both engines is started, the engine alternator(s) start to recharge the batteries. This charging current passes through the TABS sensing circuit. This circuit senses the charge and switches relays to connect the "House" battery in parallel with the engine batteries. Thus the charge from the engine(s) is split between the batteries, with the lowest battery receiving the most charge. When the engines are turned off, the charging stops and the sensing circuit turns off the relays, disconnecting the "House" battery from the engine starting batteries, thereby automatically isolating the batteries from one another.

When in port or at anchor, the switch that supplies the port engine and the switch that supplies the starboard engine should be off. Only the center battery switch that activates the "House" battery should be on. This will keep the engine starting batteries in reserve for starting the engines. All three battery switches should be in the "OFF" position when leaving the boat unattended.

Note: Current is supplied to the automatic float switches for the bilge pumps when the batteries are connected and the battery switches are off.

12-Volt Accessory Switch Panels

The main accessory switch panels are located at the helm. The circuit breakers that protect the accessories are located in another panel on the helm below the switches.

The following are descriptions of the accessories controlled by the main accessory switch panel:

Windlass Switch

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, located in the TABS.

Bilge Pump Fwd

Activates the forward bilge pump which is installed in the bilge below the aft berth. The pump moves water out through the thru-hull fitting in the hull. To start the pump manually, put the switch in the "ON" position.

Bilge Pump Aft

Activates the stern bilge pump which is installed in the rear center of the bilge. The pump moves water out through the thru-hull fitting in the hull. To start the pump manually, put the switch in the "ON" position.

Note: The bilge pumps will start automatically when there is sufficient water in the bilge to activate the float switches. The float switches are protected by 10-amp circuit breakers located in the TABS and are always supplied current when the batteries are connected.

Fuel Gauge Switch

The fuel gauge switch allows one fuel gauge to be used for both fuel tanks. With the ignition switch on, move the switch to the port position and the gauge will show the fuel level in the port fuel tank. Move the switch to the starboard position and the gauge will show the fuel level in the starboard tank.

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.

Cockpit Lights

Activates the lights that illuminate the cockpit area.

Spreader Lights

Activates the flood lights located on the optional radar arch or hardtop. These lights provide additional lighting for the rear of the cockpit.

Wipers
Activates the windshield wipers.

Power Seat
The switch is located on the helm. It is a momentary switch that controls the fore and aft movement of the helm seat.

Parallel
The battery parallel switch is a momentary switch that will connect all three batteries in parallel for extra battery power while starting the engines. A red LED light on the front of the TABS unit indicates that the parallel switch is activated.

Accessory Switch
The switch is supplied to protect additional equipment that may or may not have been installed by Pursuit or your Pursuit dealer. If no accessories are activated by this switch, it remains wired in the panel in reserve.

Horn
Activates the boat horn.

Additional Accessory Switch Panels
Additional switch panels are 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 are descriptions of additional panels that may be on your Pursuit and the accessories they control:

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 the 15-amp accessory plug breaker. Please refer to the Helm Control Systems chapter for detailed information on the operation of the trim tab controls.

Baitwell Switch
Located under the gunwale in the cockpit. This switch activates the baitwell circulating pump that supplies water to the baitwell. The pump is protected by a circuit breaker in the panel and an automatically resetting breaker on the pump motor.

Washdown Pump
This switch activates the raw water washdown pump. The pump is the pressure demand type and is protected by a circuit breaker in the panel and an automatically resetting breaker on the pump motor.

Battery Slide
The battery tray is moved toward the hatch by a switch located below the gunnel near the stern bilge access hatch. It is a momentary switch that activates an electric ram on the battery tray. The switch is supplied power from the house battery. If the house battery is dead, the battery tray switch can be supplied power by activating the Battery Parallel switch located in the panel next to the battery slide switch.

Battery Parallel
This switch is located on the panel next to the battery slide switch. It is used to parallel the engine and house batteries to supply current to the battery slide switch from the engine battery in the event that the house battery is dead.

Note: Please refer to the Raw Water System chapter for more information on the baitwell and washdown systems.

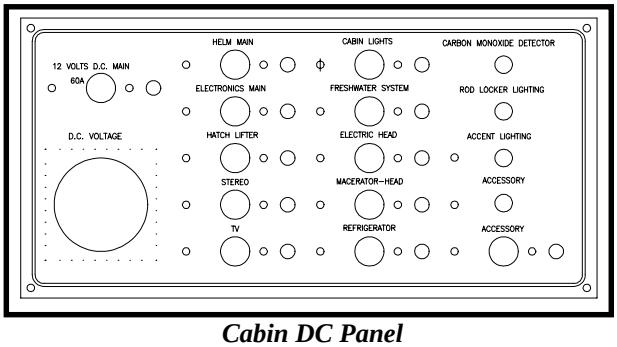
FishBox Pump Out Macerator Pump
The fishbox macerator switch panel is located in the rear of the cockpit near the stern access door. It is a momentary switch that activates the overboard macerator discharge system for the fishbox.

12-Volt Receptacle
Provides electrical current for portable 12-volt equipment.

Holding Tank Macerator
The holding tank overboard discharge macerator switch is located in the holding tank fluid level monitor panel in the head compartment. It is a momentary switch that activates the overboard macerator discharge system for the holding tank. Refer to the Marine Head System in the Interior Equipment chapter for additional information on the operation of the overboard macerator discharge system.

Rod Storage Hatch Lifter
The rod storage compartment hatch control panel is located in the cockpit. It is a momentary switch that controls the electric actuator for the hatch. The helm seat must be in the full aft position for this switch to activate the hatch lifter. Refer to the Exterior Equipment chapter for additional information on the rod storage compartment.

Cabin DC Accessory Breaker Panel
Power is distributed to most of the 12-volt accessories through individual circuit breakers located in the cabin DC breaker panel. A main breaker located on the TABS protects the system from an overload. Some 12-volt accessories are operated directly by the circuit breaker in the panel while others are operated by switches fed by the panel breakers.



Cabin DC Panel

A DC voltage meter is located in the panel to monitor the voltage level in the batteries. It will monitor the voltage of the house battery plus any electrical charges supplied to it when the engines or the battery charger are operating.

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.

The following are descriptions of the accessories controlled by the cabin DC breaker panel:

12-Volt Main
Supplies the 12-volt current to the cabin DC breaker panel and protects the panel from an overload.

Cabin Lights
Supplies 12-volt electrical current to the cabin light switches.

Fresh Water System
Supplies 12-volt electrical current directly to the fresh water pump pressure switch located on the pump. The pump is the pressure demand type and is protected by a circuit breaker in the panel and an automatically resetting breaker on the pump motor. The pressure switch automatically controls the water pump when the system is activated and properly primed.

Electric Head
Supplies electrical current directly to the switch which controls the vacuum pump on the electric head.

Hatch Lifter
Supplies 12-volt electrical current to the rod storage compartment hatch lifter control switch located in the cockpit.

Refrigerator
Supplies 12-volt electrical current directly to the refrigerator when AC current is not being used.

Stereo
Supplies 12-volt electrical current to the stereo.

TV
Supplies 12-volt electrical current to the television.

Helm Main
Supples 12-volt electrical current to the breakers and switches in the helm switch panel.

Electronics Main
Reserved for electronics installations.

Macerator- Head
Supplies electrical current to the switch that controls the macerator overboard discharge pump for the holding tank. This breaker should be in the “OFF” position except when pumping out the holding tank.

Carbon Monoxide Detector
Supplies 12-volt electrical current to the carbon monoxide detector in the cabin. This is a "push to reset" breaker that is normally on all the time, when activated by the house battery switch on the TABS, unless it is tripped by an overload. It should be checked, and the power indicator on the carbon monoxide detector should be lit whenever someone is occupying the cabin. If the breaker has tripped, it indicates that there is a problem with the carbon monoxide detector, the breaker, or the wiring from the breaker panel to the detector. Always determine the cause of the problem and correct it before resetting the breaker.

CARBON MONOXIDE IS A LETHAL, TOXIC GAS THAT IS COLORLESS AND ODORLESS. IT IS A DANGEROUS GAS THAT WILL CAUSE DEATH IN CERTAIN LEVELS.

Accent Lighting
Supplies 12-volt electrical current to the accent lights in the cabin. This is a "push to reset" breaker that is normally on all the time, when activated by the house battery switch on the TABS, unless tripped by an overload.

Rod Locker Lighting
Supplies 12-volt electrical current to the lights in the rod locker. This is a "push to reset" breaker that is normally on all the time, when activated by the house battery switch on the TABS, unless tripped by an overload.

Accessory Reserved for additional 12-volt equipment.

Additional Breakers and Switches

Windlass
The windlass breaker is located on the TABS unit which is located in the stern bilge. This is a "push to reset" breaker that is normally on all the time, when activated by the house battery switch on the TABS, unless tripped by an overload.

Forward Bilge
The forward bilge pump breaker is located on the TABS and provides protection for the automatic float switch on the forward bilge pump. This "push to reset" breaker is always supplied current when the batteries are connected. Another breaker in the helm provides circuit protection for the manual switch.

Aft Bilge
The aft bilge pump breaker is located on the TABS and provides protection for the automatic float switch on the aft bilge pump. This "push to reset" breaker is always supplied current when the batteries are connected. Another breaker in the helm provides circuit protection for the manual switch.

DC Power
The DC power breaker is located on the TABS and provides protection for all DC power to the Cabin DC breaker panel. This is a "push to reset" breaker that is normally on all the time, when activated by the house battery switch on the TABS, unless tripped by an overload.

Stereo Memory
The stereo memory power breaker is located on the TABS and provides protection and power for the stereo memory. This "push to reset" breaker is always supplied current when the batteries are connected.

Mid Sump
The mid sump breaker is located on the TABS and supplies 12-volt electrical current directly to the cabin drain float switch which automatically controls the air conditioner drain and shower drain sump pump. This "push to reset" breaker is always supplied current when the batteries are connected unless tripped by an overload. Make sure this breaker is on before using the cabin shower or activating the air conditioner.

Engine Circuit Breakers or Fuses
There are circuit breakers or fuses located on each engine that provide protection for the ignition systems, electric fuel pump, charging system and other accessories unique to the engines installed in your boat. Please refer to the engine owner's manual for information on the circuit breakers or fuses installed on your engines.

Phone and TV Cable Inlet (Optional)
The optional TV and telephone cable inlet is mounted below the step in the cockpit. It allows the boat to be connected to shore side cable television or telephone service.

Phone & TV Plug

4.3 AC System

The AC system is fed by the shore power outlet or by the optional generator. It is wired totally separate from the 12-volt DC system and is equipped with an on-board galvanic isolation system. All AC current is distributed to the AC accessories through individual circuit breakers located in the AC panel. The main breaker in the panel protects the system from an overload and the reverse polarity light indicates any problems due to an improper shore power supply. All AC outlets in the cabin are protected by ground fault interrupters to protect against electrical shock. A cord set is provided to supply power from the shore power outlet to the boat's AC system.

TO REDUCE THE RISK OF ELECTRICAL SHOCK IN WET WEATHER, AVOID MAKING CONTACT WITH THE SHORE CABLE OR MAKING A CONNECTION TO A LIVE SHORE OUTLET. NEVER SPRAY WATER ON ELECTRICAL CABLES WHILE WASHING DOWN DECKS.

TO REDUCE THE POSSIBILITY OF AN ELECTRICAL SHOCK, IT IS IMPORTANT THAT THE AC GROUND SYSTEM IS FUNCTIONING PROPERLY AND THAT A PROPER CONNECTION EXISTS BETWEEN THE SHORE POWER CORD, THE SHORE POWER INLET, THE BOAT BONDING SYSTEM AND THE OUTLET GROUND CIRCUITS. IF THERE IS ANY DOUBT ABOUT THE INTEGRITY OF THE GROUND CIRCUIT, A QUALIFIED MARINE ELECTRICIAN SHOULD BE CONTACTED IMMEDIATELY AND THE AC SYSTEM SHOULD BE DISCONNECTED UNTIL THE NECESSARY REPAIRS ARE COMPLETED.

Recommended procedure for making a shore connection
Turn the AC main breaker to the "OFF" position. If the dock side outlet includes a disconnect switch, turn it to the "OFF" position also.

Shore Power Inlet

To avoid strain on the cable make sure it has more slack than the mooring lines. Dress the cable so that it cannot be damaged by chafing between the boat and the dock. Make sure the cable does not come in contact with the water. Then connect the cable in the boat plug inlet and the dockside outlet, making sure the connection plug includes a three-prong plug with a ground wire. Tighten the lock rings on both the shore and the boat connector plugs.

Turn the dock side disconnect switch or circuit breaker to the "ON" position and check for proper polarity. If reverse polarity has been achieved, the red polarity indicator in the AC panel will light. If this should happen, make sure the main breaker on the panel is in the "OFF" position, turn the dock power switch or breaker off and disconnect the power cable. A special relay attached to the main breaker should automatically turn the main breakers off whenever reverse polarity is achieved. Notify a qualified electrician to check the wiring at the dock outlet. If the red polarity light does not illuminate when power is supplied to the panel, the polarity is correct and the AC main switch can be moved to the "ON" position.

DO NOT OPERATE THE AC ELECTRICAL SYSTEM FROM SHORE POWER WITH REVERSE POLARITY. REVERSE POLARITY WILL DAMAGE THE SYSTEM AND EXPOSE PASSENGERS TO ELECTROCUTION HAZARDS. THIS CONDITION COULD ALSO CAUSE A FIRE IN THE ELECTRICAL SYSTEM.

DO NOT ATTEMPT TO CORRECT THE WIRING YOURSELF. ELECTRIC SHOCK CAN CAUSE SEVERE INJURY OR EVEN DEATH. ALWAYS HAVE A QUALIFIED ELECTRICIAN CHECK WIRING.

KEEP CHILDREN AWAY FROM ANY ELECTRICAL CABLES OR EQUIPMENT AND ALWAYS USE GROUNDED APPLIANCES ON BOARD YOUR BOAT.

UNDETECTED FAULTS IN THE AC ELECTRICAL SYSTEM COULD CAUSE THE WATER AROUND THE BOAT TO BECOME ENERGIZED. THIS COULD CAUSE A SEVERE SHOCK OR EVEN DEATH TO SOMEONE IN THE WATER NEAR THE BOAT. NEVER SWIM OR ALLOW SWIMMING AROUND THE BOAT WHEN THE AC SYSTEM IS ACTIVATED BY THE GENERATOR OR THE SHORE POWER CONNECTION.

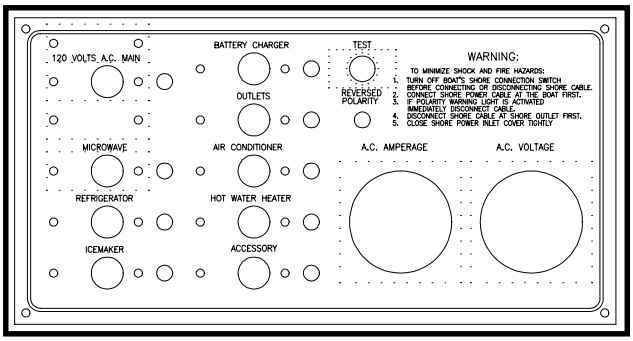
Disconnecting procedure for shore power connection

Turn the main breaker on the AC panel and the disconnect switch on the dock side outlet to the "OFF" position.

Disconnect the cable from the dock side outlet and replace the outlet caps. Disconnect the cable from the boat and close the inlet cap. Store cable.

AC Accessory Breaker Panel

The AC breaker panel is located in the cabin. The following are descriptions of the AC panel equipment and the breakers that protect the accessories:



AC Panel

AC Amp Meter

Indicates the total amperage or current being drawn through the AC panel. It is the total current level of all of the AC equipment in operation at the time.

AC Volt Meter

Indicates the voltage supplied to the panel.

AC Main Breaker

Protects the general distribution network. This breaker is very sensitive. The resulting power surge that occurs when connecting the dock side cord may cause the main breaker to trip. To avoid this surge, always turn the main breaker to the "OFF" position before plugging or

unplugging the shore power cord. The AC panel also is equipped with a relay that will cause the main breaker to trip when reverse polarity current is detected.

Reverse Polarity Light

The red light indicates reverse polarity current supplied to the panel. This situation will cause the red light to remain lit. Additionally, special relay attached to the main breaker will automatically turn the main breaker off whenever reverse polarity is achieved. If reverse polarity is achieved, immediately turn off all cabin AC breakers and dockside outlet breakers, disconnect the shore power cable and notify a qualified electrician to check the dockside wiring.

Reverse Polarity Light Test Switch

There is a momentary switch located below the reverse polarity light in the AC breaker panel. This switch is used to test the reverse polarity light to ensure that it is functioning. The light can be tested by depressing the switch whenever the AC system is activated. The reverse polarity light should be tested each time the AC system is activated. If the light does not activate when the switch is pressed, disconnect the shore power cable and notify a qualified electrician to check the light and the dockside wiring if necessary.

Microwave

Supplies AC current directly to the microwave oven. See the microwave manual for more information.

Hot Water Heater

Supplies electrical current directly to the water heater circuit. The water temperature is automatically controlled by a thermostat in the water heater control panel. Before operation, you must have water in the water heater (see the water heater manual for more information).

Battery Charger

Supplies electrical current directly to the automatic battery charger. The battery charger charges and maintains the 12-volt batteries simultaneously when activated. It is fully automatic and is equipped with an amp meter to monitor charging. See the battery charger manual for more information.

Charging also can be monitored by using the volt meters in the engine gauge cluster and the cabin DC breaker panel. To monitor the engine batteries, activate the charger and turn the engine battery switches on. Turn the ignition key switch for each engine to the "ON" position **(DO NOT START THE ENGINES)** and read the voltage on the volt meter for each engine. To monitor the house battery, activate the charger and turn the house battery switch on. Read the volt meter in the cabin DC breaker panel. If the batteries are in good condition and charging properly, the volt meters will indicate between 12 and 14.5 volts. If the reading is below 12 volts, then the battery is not accepting a charge or the charger is not working properly. Always turn the ignition switches off immediately after the monitoring is complete. See the battery charger manual for more information.

The wires that supply DC charging current to the batteries are protected by an internal fuse in the battery charger and three external circuit breakers, one for each battery bank output wire, located near the TABS unit. The external breakers protect the DC charging circuit from the batteries to the charger. The internal fuses in the charger protect the DC charging circuit from the charger to the batteries. The circuit breakers can be tested by pressing the red button on the breaker. This will trip the breaker and deactivate the circuit. Reset the breaker by raising the lever at the center of the breaker until it locks in the horizontal position.

Air Conditioner
Supplies electrical current to the air conditioning control panel and the air conditioner raw water pump when this option is installed. Otherwise it is reserved for additional AC equipment.

Note: This breaker may trip if sea water is not being supplied to the air conditioning unit. If this breaker trips, reset and check for water flow out of the air conditioning thru hull. Refer to the air conditioner owner's manual for additional information.

Refrigerator
Supplies AC electrical current directly to the optional refrigerator when AC power is available and chosen over the 12-volt power supply. See the refrigerator manual for more information.

Ice Maker
Supplies AC electrical current directly to the optional ice maker. See the refrigerator manual for more information.

Outlets
Supply electrical current to the cabin ground fault interrupter (GFI) electrical outlets.

Accessory Reserved for additional AC equipment.

Note: All AC electrical outlets are provided with ground fault interrupters to protect against electric shock. These outlets should be tested periodically to ensure proper operation by pressing the test/reset buttons in the center of the face plate. GFI outlets do not protect against short circuits and overloads. This is done by the outlet breakers on the AC panel.

GFI OUTLETS DO NOT PROVIDE 100% PROTECTION FROM ELECTRIC SHOCK. EVEN THOUGH GROUND FAULT INTERRUPTERS PROVIDE PROTECTION BY REDUCING EXPOSURE TIME FROM LINE TO GROUND SHOCK HAZARDS, IT IS STILL POSSIBLE TO RECEIVE AN ELECTRIC SHOCK FROM DEFECTIVE APPLIANCES OR POWER TOOLS AND MISUSED ELECTRICAL EQUIPMENT.

Additional AC Breaker Panels

Shore Power Inlet

Located in the cockpit near the shore power inlet plug. This breaker protects the AC system between the shore power inlet plug and the main AC panel.

Shore Power Breaker

AC Power Selector Switch

The AC breaker panel will be equipped with this switch if the optional AC generator has been installed in your boat. Move the selector switch to the "SHORE" position when connected to dock side power. Move the selector switch to the "OFF" position when disconnecting the dock side power or when no AC power is being supplied. Move the selector switch to the "GENERATOR" position when the generator is being operated.

Generator Operation Panel

These switches control the starting, running, and stopping of the optional generator. The procedures may vary depending on the model and type of generator installed in your boat. An owner operator's manual for the generator has been supplied with this manual. Please refer to it for details on the generator operation.

Note: Gasoline generators charge the battery just enough to compensate for the DC electrical current the engine requires to operate. Therefore, it is important to activate the battery charger to maintain the house battery whenever the generator is running.

GENERATOR ENGINES PRODUCE CARBON MONOXIDE WHICH IS A LETHAL, TOXIC GAS THAT IS COLORLESS AND ODORLESS. IT IS A DANGEROUS GAS THAT WILL CAUSE DEATH IN CERTAIN LEVELS. ONLY OPERATE THE GENERATOR IN WELL VENTILATED AREAS AND NEVER OPERATE THE GENERATOR WHILE YOU ARE SLEEPING.

4.4 Electrical System Maintenance

12-Volt DC 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 or silicone grease. 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.

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. The correct fluid level in the cells is usually approximately 1/4 to 1/2 inch above the plates. If fluid is needed, fill to the proper level with distilled water. **Do not over fill!** Please note that some batteries are sealed and cannot be filled.

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 or silicone grease 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.

NEVER USE AN OPEN FLAME IN THE BATTERY STORAGE AREA. AVOID STRIKING SPARKS NEAR THE BATTERY. A BATTERY CAN EXPLODE IF A FLAME OR SPARK IGNITES THE HYDROGEN GAS THE BATTERY EMITS WHILE BEING CHARGED.

AC Electrical System Maintenance

Periodically inspect all wiring for nicks, chafing, brittleness, improper support, etc. Examine the shore power cord closely for cracks in the insulation and corrosion in electrical connectors. Spraying receptacles and electrical connections with an electrical contact cleaner or a metal and electrical protector will reduce corrosion and improve electrical continuity.

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

The entire AC circuitry, especially the shore power cord, should be seasonally tested for proper continuity by an experienced electrician. This will detect any shorts, open wires, or ground faults. Ground fault interrupters should be tested periodically to ensure proper operation by pressing the test/reset buttons in the center of the face plate. The polarity indicator system also should be inspected for proper operation.

The engine maintenance required on the generator is similar in many ways to primary inboard engines. The most important factors to the generator's longevity are proper ventilation, maintenance of the fuel system, ignition system, cooling system, lubrication system and the AC alternator.

Maintenance schedules and procedures are outlined in your generator owner's manual. They should be followed exactly.

CORROSION ALLOWED TO BUILD ON THE ELECTRICAL CONNECTORS CAN CAUSE A POOR CONNECTION RESULTING IN SHORTS, GROUND FAULTS OR POOR GROUND CONNECTIONS. ELECTRICAL CONNECTORS SHOULD BE CHECKED AT LEAST ANNUALLY AND CLEANED AS REQUIRED. DO NOT ALLOW CORROSION TO BUILD ON CONNECTIONS.

THE AC AND DC ELECTRICAL SYSTEMS ALWAYS SHOULD BE DISCONNECTED FROM THE POWER SOURCE BEFORE INSPECTING OR SERVICING THE SYSTEM. NEVER SERVICE ANY COMPONENT OF AN ELECTRICAL SYSTEM WHILE IT IS ENERGIZED.

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Chapter 5:
FRESHWATER SYSTEM

5.1 General

The freshwater system consists of a potable water tank, distribution lines and a distribution pump. The pump is equipped with an automatic pressure switch and is located in the stern bilge. An in-line strainer located near the pump protects the system from debris. The tank is filled through a labeled deck plate located on the gunnel.

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.

DO NOT CONFUSE FUEL FILL DECK PLATES WITH THE WATER OR WASTE FILL DECK PLATES. THESE PLATES ARE ALSO LABELED ACCORDINGLY. IF GASOLINE IS ACCIDENTALLY PUMPED INTO THE WATER OR WASTE TANK, DO NOT ATTEMPT TO PUMP IT OUT YOURSELF. WATER AND WASTE PUMPS ARE NOT DESIGNED TO PUMP FUEL AND A FIRE OR EXPLOSION COULD RESULT. CONTACT YOUR DEALER OR PURSUIT CUSTOMER RELATIONS FOR ASSISTANCE IN HAVING THE FUEL PROFESSIONALLY REMOVED.

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 System” breaker on the cabin DC 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 System” breaker should be placed in the “OFF” position.

DO NOT ALLOW THE FRESHWATER PUMP TO RUN DRY. THE FRESHWATER PUMP WORKS ON DEMAND AND WILL NOT SHUT OFF AUTOMATICALLY WHEN THE TANK IS EMPTY. THIS CAN RESULT IN DAMAGE TO THE PUMP. ALWAYS TURN THE WATER PRESSURE BREAKER OFF WHEN THE FRESHWATER SYSTEM IS NOT IN USE.

5.3 Water Heater

The water heater is located in a compartment below the dinette seat. All heaters have a AC element that is thermostatically controlled at the heater and activated by a circuit breaker located in the AC panel. A high pressure relief valve protects the system from excessive pressure. Always make sure all air is purged from the water heater and lines before activating the water heater breaker. Refer to the water heater owner's manual for additional information.

DO NOT SUPPLY CURRENT TO AN EMPTY WATER HEATER. DAMAGE TO THE HEATER WILL RESULT. THE SYSTEM MUST BE FILLED AND PRIMED BEFORE USING THE WATER HEATER.

5.4 Shore Water Connection (Optional)

The shore water connection allows the direct connection of the water system to a shore side water supply. This provides the system with a constant supply of freshwater and minimizes the pressure pump operation. A female inlet fitting is mounted in the cockpit. A pressure reducer is installed in the system along with two check valves. One check valve keeps water from running out of the shore water inlet fitting when the pressure pump operates. The second provides protection for the pressure pump when the shore water is connected.

To use shore water, connect a hose from the shore water faucet to the shore water fitting on the boat. Next, turn on the shore water. The pressure pump will not run and the water in the boat's water tank will not be used.

Note: The water tank will not be filled by connecting to shore water.

DO NOT MODIFY OR CHANGE THE SHORE WATER INLET CONNECTOR WITH ANOTHER TYPE WITHOUT CONSULTING PURSUIT CUSTOMER RELATIONS OR YOUR DEALER. THE USE OF THE WRONG TYPE OF INLET CONNECTOR CAN DAMAGE THE FRESHWATER SYSTEM.

5.5 Shower Operation

The head sink faucet is also the shower spray head. To use as a shower, make sure the "Freshwater System" breaker in the DC breaker panel is on, then lift the spray head off the sink or out of the locker (cockpit shower) and turn the water on. Adjust the hot and cold water faucet until the desired temperature is obtained. Some minor variations in the water temperature may occur as the pressure pump cycles.

Shower water is drained from the head compartment by a sump pump system connected to the shower drain. An automatic float switch in the shower sump controls the pump. The pump is protected by the mid sump circuit breaker in the TABS. After showering, let the cold water flow for a period of time to flush the drainage system of soap residue.

The shower sump system is located in the bilge below the aft berth in the cabin. It is essential that the shower drain strainer is cleaned regularly and the sump is inspected periodically for accumulated debris that needs to be removed.

5.6 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:

- 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.
- The freshwater system is equipped with a strainer located on the intake line near the pump. This should be checked at least annually and cleaned as necessary.
- Periodically remove the lid on the shower drain sump assembly located under the floor of the cabin aft berth. Clean debris from the sump and flush with clean water. Activate the float switch to test the pump.
- 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 to keep it fresh.

  Be sure that the vent hose is properly routed and attached when the vent is reinstalled or replaced. The vent hose must be looped above the vent, secured to the hull near the vent and securely attached to the vent hose fitting with a hose clamp.

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

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

THE FRESHWATER BREAKER SHOULD BE PLACED IN THE "OFF" POSITION WHENEVER LEAVING THE BOAT UNATTENDED OR WHEN THE FRESHWATER SYSTEM IS NOT IN USE.

Chapter 6:
RAW WATER SYSTEM

6.1 General

In the raw or seawater systems, all water pumps are supplied by hoses connected to ball valves and thru hull fittings 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 seawater to most of the various accessories.

The optional air conditioner uses an AC seawater supply pump. This is the only AC pump in the system and it is automatically activated when the air conditioning or heating system is in use.

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. 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 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 under the gunwale on the side 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 on the intake side of the pump located in the bilge below the stern access hatches in the transom splashwell. This should be checked frequently and cleaned as necessary.

The Washdown Pump Connector

The washdown pump hose connector 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

Seawater is provided to the livewell by a 12-volt diaphragm pump. This pump is designed to carry a constant flow of water to the livewell. The pump is activated by the baitwell switch in the cockpit. 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.

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

To fill the livewell, insert the plug into the drain fitting at the bottom of the livewell. Make sure the valve at the intake thru hull fitting is open and activate the baitwell switch. When the water level reaches the overflow, it will begin to circulate.

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.

Note: Do not use the livewell as a dry storage area when it is not in use. Seawater could accidently be delivered to the livewell from the thru hull fitting and damage equipment stored there.

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

ALWAYS TURN THE LIVEWELL PUMP SWITCH TO THE "OFF" POSITION WHEN LEAVING THE BOAT UNATTENDED.

6.4 Air Conditioning Pump

The air conditioner is self-contained and seawater cooled. An AC centrifugal raw water pump supplies seawater that cools the condensing unit as it circulates through the system and is discharged overboard. The pump is located in Q-Berth storage compartment and is activated whenever AC current is available and the air conditioning system is operating.

Seawater is supplied to the pump from a thru hull fitting located in the hull near the pump. A sea strainer between the pump and thru hull fitting protects the system from contaminants that could damage the pump or the air conditioning system. Make sure the seawater pump receives adequate seawater by periodically cleaning the sea strainer basket.

Please refer to the air conditioner owner's manual for more information on the operation and maintenance of the air conditioner.

6.5 Raw Water System Maintenance

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

- Check hoses, particularly the seawater supply lines, for signs of deterioration.
- Remove and clean the seawater strainers for the livewell, air conditioner and washdown pump, as needed.
- Spray pumps and thru hull valves with a protective oil periodically.
- The fishboxes and livewells should be drained and cleaned after each use.
- Operate all thru hull valves at least once a month to keep them operating properly.

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 THE SECTION ON WINTERIZING.

Chapter 7:
DRAINAGE SYSTEMS

7.1 General

All water is drained by gravity to overboard thru hull fittings located in the hull sides above the waterline. The cabin and some cockpit component drain thru hull fittings are equipped with PVC ball valves that are always open under normal operating conditions. In the event of an emergency, the valves can be closed to prevent sea water from entering the boat through the drainage system. It is important to check and operate the drain valves at least annually to make sure they are in good condition and operating properly. You also should check the drain system frequently to ensure it is free flowing and that the hoses on the thru hull fittings are secure and not leaking.

Please review the drainage schematic to become familiar with the location of the thru hull drain valves.

SITUATIONS REQUIRING ONE OR MORE DRAIN VALVES TO BE CLOSED CAN BE POTENTIALLY DANGEROUS TO THE BOAT AND YOUR CREW. IF THIS OCCURS, DISTRIBUTE PERSONAL FLOTATION DEVICES TO THE CREW AND TAKE ALL NECESSARY SAFETY PRECAUTIONS, INCLUDING NOTIFYING THE COAST GUARD, UNTIL THE PROBLEM IS FOUND AND CORRECTED.

7.2 Cockpit Drains

Your Pursuit has two scupper drains located in the rear of the cockpit. Water is channeled away from all hatches by a gutter or drain rail system. The water then drains overboard through the scupper drain system.

7.3 Hard Top Drains

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 the other legs, which are not drilled for a wire chase, that allows 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 LEGS COULD FREEZE AND CAUSE THE LEGS TO SPLIT.

7.4 Bilge Drainage

The bilge pumps are activated both manually, by switches in the helm station, and automatically, by a float switch mounted near the rear pump and built into the forward pump. The automatic float switches remain activated when the battery switches are in the "OFF" position and the batteries are connected. All bilge pumps pump water out of thru hulls located above the waterline in the hull. The rear bilge pumps and automatic switch are located near the transom, below the engine splashwell, and the forward pump is located in the bilge below the aft berth in the cabin.

Bilge Pump

The rear bilge pump system consists of two pumps and an automatic float switch. One pump, that is fully automatic, is activated by the float switch. There is no manual switch for this pump. The automatic float switch is activated by a "push to reset" breaker on the TABS unit that is supplied current whenever the batteries are connected. The other rear bilge pump is activated manually by the aft bilge switch in the helm. It is not activated automatically by the float switch. The manual switch is supplied current when the house battery switch is activated. It is protected by a breaker in the helm breaker panel.

The forward bilge pump is activated manually by the forward bilge switch in the helm and automatically by a float switch built into the pump. The manual switch is supplied current when the house battery switch is activated. It is protected by a breaker in the helm breaker panel. The automatic float switch is activated by a "push to reset" breaker on the TABS unit that is supplied current whenever the batteries are connected.

The manual bilge pumps should be activated briefly each time the boat is used. This will ensure that they are operating properly and increase the service life of the pumps. The automatic switch should be manually activated to verify operation.

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

When the boat is out of the water the bilge can be drained by a thru hull drain located in the transom near the bottom of the hull. The plug should be removed whenever the boat is hauled out of the water and installed just prior to launching. It is important to check the drain plug regularly to make sure it is tight.

A LOOSE DRAIN PLUG WILL ALLOW SEA WATER TO ENTER THE BILGE AND COULD CAUSE THE BOAT TO SINK. IT IS VERY IMPORTANT TO CHECK THE DRAIN PLUG FREQUENTLY TO ENSURE IT IS PROPERLY TIGHTENED.

Important: Any oil spilled in the bilge must be thoroughly removed and properly disposed of before operating the bilge pump. 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 $10,000.

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.

7.5 Fishbox, Cooler and Storage Compartment Drains

The cooler located behind the passenger seat, the rod locker and storage compartment and the storage compartment below the rear facing seat behind the helm seat drains by gravity to overboard thru hulls located in the hull sides just above the waterline.

The fishbox below the cockpit floor is drained overboard by a macerator pump out system. The macerator is activated by a momentary switch located in a switch panel in the cockpit below the gunnel. The fishboxes should be flushed out and cleaned after each use.

Note: The macerator discharge pump can only be run dry for a few seconds. Allowing the macerator pump to run after the fishbox is empty will cause damage to the pump.

7.6 Water System Drains

All exterior 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 livewell drain into the overboard drains.

7.7 Cabin Drains

The galley and head sink drain by gravity to overboard thru hulls located in the hull sides just above the waterline. The shower and air conditioner condensate are drained by a sump pump system. The sump system is located in the bilge and accessed through a hatch below the aft berth in the cabin. An automatic float switch in the sump controls the pump. The pump is protected by the midship sump circuit breaker in the TABS. The sump is activated whenever the batteries are connected. The sump has a removable hatch to allow the system to be inspected and serviced. It is essential that the sump system be inspected periodically and any accumulated debris removed. Manually activate the system to verify operation.

The drain thru hull fittings for the sump pump and the sink drains are equipped with PVC ball valves that are always open under normal operating conditions. In the event of an emergency, the valves can be closed to prevent sea water from entering the boat through the shower sump or drain system. The drain valve for the sump pump is located in the bilge below the starboard side of the aft berth. The valves for the head and galley sinks are located at the thru hull fitting for each drain. It is important to check and operate the valves at least annually to make sure they are in good condition and operating properly. Please review the drainage schematic to become familiar with the location of the sump pump and gravity drain thru hull valves.

7.8 Rope Locker Drains

The rope locker drains overboard through a special drain fitting located in the hull side at the bottom of the rope locker. It is important to inspect the drain frequently to remove any accumulated debris.

7.9 Drainage System 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 hardtop leg drain holes. This is especially important just before winter lay-up.
- Clean the bilge pump and automatic float switch strainers of debris and check the bilge for foreign material that can cause the automatic switch to malfunction.
- Frequently test the rear automatic bilge pump switch for proper operation. This is accomplished by turning the knob on the side of the float chamber and lifting the float switch until the pump is activated. You can also use a garden hose to flood the bilge until the water level is high enough to activate the pump.

- The manual bilge pumps should be activated briefly each time the boat is used. This will ensure that they are operating properly and increase the service life of the pumps.

- Flush all gravity drains with freshwater to keep them clean and free flowing.

- Clean and inspect the shower and drain sump system. Remove accumulated debris and flush with freshwater. Frequently test the automatic pump switch for proper operation. Manually activate the system to verify operation.

- Clean and flush the fishbox and cooler/storage boxes with soap or a bilge cleaner and freshwater after each use to keep them clean and fresh.

- Operate the thru hull valves once a month and service as required.

Note: 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.

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Chapter 8:
VENTILATION SYSTEM

8.1 Cabin Ventilation

Ventilation to the cabin area is provided by a deck hatch and opening port windows.

Port Windows
The port windows are secured by cam action locks. The locks should be adjusted so they are tight enough to seal the windows in the closed position, but not so tight that they break the plastic. The cam locks are adjusted by turning the two allen head bolts located at the base of each cam lock.

Head Compartment
Ventilation to the head compartment is provided by an opening port window. The port window is secured by cam action locks. The locks should be adjusted so they are tight enough to seal the window in the closed position, but not so tight that they break the plastic.

Deck Hatch
The deck hatch is supported in the open position by an adjustable hatch adjuster. To close the hatch, loosen the hatch adjuster and lower the hatch. Secure in the closed position with the two cam levers on the inside of the hatch.

8.2 Windshield Ventilation

The windshield is equipped with an opening vent panel on each side of the windshield. To open the vent, release the locking T-handle and rotate it outboard until it locks in place. To prevent damage to the vent glass, do not leave the T-handle in the unlocked position.

8.3 Carbon Monoxide and Proper Ventilation

FAILURE TO PROPERLY VENTILATE THE BOAT WHILE THE ENGINES ARE RUNNING MAY PERMIT CARBON MONOXIDE TO ACCUMULATE WITHIN THE CABIN. CARBON MONOXIDE IS A COLORLESS AND ODORLESS GAS THAT IS LETHAL WHEN INHALED AND CAN CAUSE SERIOUS INJURY AND DEATH. CARE MUST BE TAKEN TO PROPERLY VENTILATE THE BOAT AND TO AVOID CARBON MONOXIDE FROM ACCUMULATING IN THE BOAT WHENEVER THE ENGINES ARE RUNNING.

Carbon monoxide (CO), a by-product of combustion, is invisible, tasteless, odorless, and is produced by all engines, heating and cooking appliances. The most common sources of CO on boats are gasoline engines, auxiliary generators and propane or butane stoves. These produce large amounts of CO and should never be operated while sleeping. The hazard also may be created by a boat nearby whose exhaust fumes are entering your boat. Boats also have a problem due to the "station wagon effect" where engine exhaust fumes are captured in the vacuum or low pressure area, usually the cockpit, bridge deck and cabin, that can be created by the forward speed of the boat.

Boats underway should close all aft facing hatches and doors. The forward facing deck hatches should be open whenever possible to help pressurize the living spaces of the boat. No sleeping in the cabin should be permitted while underway. Proper ventilation should be maintained on the bridge deck by opening windshield vents as far as possible to help pressurize the cockpit area. The canvas drop or aft curtain must be removed and the side curtains should be opened or removed to increase air flow and maintain proper ventilation whenever the engines are running. ***Under no circumstances should the engines be operating with side curtains closed and the aft or drop curtain installed.***

Extreme caution must be taken while at anchor or in a slip when an auxiliary power generator is operating. Wind still nights can easily allow exhaust fumes, containing high concentrations of CO, from the generator on your boat or from an adjacent boat's generator to enter the boat. The exhaust fumes may enter your boat through open hatches or windows.

A carbon monoxide detector has been installed in your cabin as standard equipment. While a CO detector enhances your protection from CO poisoning, it does not guarantee it will not occur. Do not use the carbon monoxide detector as a replacement for ordinary precautions or periodic inspections of equipment. Never rely on alarm systems to save your life, common sense is still prudent and necessary. Remember, the operator of the boat carries the ultimate responsibility to make sure the boat is properly ventilated and the passengers are not exposed to dangerous levels of carbon monoxide. You should always be alert to the symptoms and early warning signs of carbon monoxide poisoning. You also should read the "Carbon Monoxide Monitoring System" in the Safety Equipment chapter of this manual, and the owner's manual supplied by the CO detector manufacturer for operation instructions and additional information regarding the hazards and symptoms of carbon monoxide poisoning.

ACTUATION OF THE CARBON MONOXIDE DETECTOR INDICATES THE PRESENCE OF CARBON MONOXIDE (CO) WHICH CAN BE FATAL. EVACUATE THE CABIN IMMEDIATELY. DO A HEAD COUNT TO CHECK THAT ALL PERSONS ARE ACCOUNTED FOR. DO NOT REENTER THE CABIN UNTIL IT HAS BEEN AIRED OUT AND THE PROBLEM FOUND AND CORRECTED.

FAILURE TO PROPERLY VENTILATE THE BOAT WHILE THE ENGINES ARE RUNNING MAY PERMIT CARBON MONOXIDE TO ACCUMULATE WITHIN THE CABIN. CARBON MONOXIDE IS A COLORLESS AND ODORLESS GAS THAT IS LETHAL WHEN INHALED. CARE MUST BE TAKEN TO PROPERLY VENTILATE THE BOAT AND TO AVOID CARBON MONOXIDE FROM ACCUMULATING IN THE BOAT WHENEVER AN ENGINE IS RUNNING.

8.4 Bilge Compartment Ventilation

All 3070 Express models are equipped with ventilation for the bilge compartment. A flow of air into the bilge compartment is provided by four vents located on either side of the cockpit, under the gunnel boards. This provides adequate air movement in the bilge and generator compartments.

8.5 Maintenance

- Periodically lubricate all hinges and latch assemblies with a light oil.
- Periodically clean and coat gasket materials with silicone to help keep them pliable.
- The opening cabin deck hatches, port windows, and the curved section in each front corner of the standard windshield are made of acrylic plastic glass. Acrylic glass scratches easily. Never use a dry cloth or glass cleaning solutions on acrylic glass . Use a soft cloth and mild soap and water for routine cleaning. Solvents and products containing ammonia can permanently damage acrylic glass. Please refer to the Routine Maintenance chapter for more information on the proper maintenance for acrylic plastic glass.
- Periodically return the carbon monoxide alarm to the manufacturer for testing and recalibration. Please refer to the carbon monoxide alarm manual or contact the manufacturer for more information on maintaining and calibrating the alarm.

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Chapter 9:
EXTERIOR EQUIPMENT

9.1 Deck

Rails and Deck Hardware

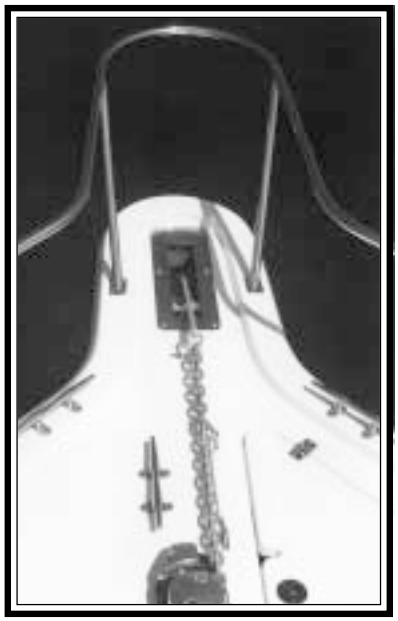
The rail system and hardware fittings have been selected and installed to perform specific functions. Fenders or mooring lines should be secured to the cleats and not to rails or stanchions. Mooring lines should be secured to the cleats. Be sure a clear lead exists when running dock lines or anchor lines.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

Important: All fittings must be periodically inspected for loose fit or 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

The bow pulpit is built into the hull and is equipped with a roller assembly that allows the anchor to be operated and stored at the pulpit. The pulpit roller is designed for a Delta® plow or a Danforth® style anchor. 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. A cleat or chain binder is provided on the deck near the pulpit to secure the anchor. Always make sure the anchor is properly secured when it is in the stored position on the pulpit.



Bow Pulpit , Roller and Anchor/Rope Locker

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. If an 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 by a thru hull fitting in the hull side near the bottom of the locker. It is very important to check the drain frequently to make sure it is clean and free flowing.

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 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. 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.

Windshield

The Pursuit 3070 Express is equipped with a vented heavy duty aluminum windshield with tinted glass and built in hand rails. The windshield is equipped with an opening vent panel on each side of the windshield. To open the vent, release the locking T-handle and rotate it outboard until it locks in place. To prevent damage to the vent glass, do not leave the T-handle in the unlocked position.

The front and side wing panels are tempered safety glass. The curved glass panels on the port and starboard side of the windshield are made of tinted acrylic plastic glass. Acrylic glass scratches easily. Never use a dry cloth or glass cleaning solutions on acrylic. Use a soft cloth and mild soap and water for routine cleaning. Solvents and products containing ammonia can permanently damage acrylic. Please refer to the Routine Maintenance chapter for more information on the proper care and maintenance of acrylic plastic glass.

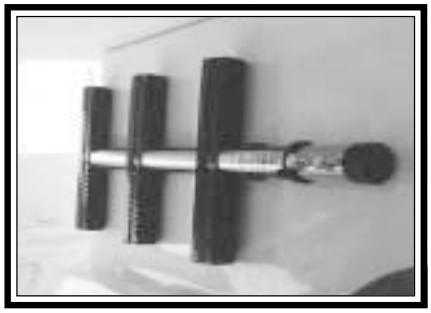
9.2 Hull

Swim Platform

Your Pursuit is equipped with an integral swim platform and engine mounting system located in the stern of the boat. There are three 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

The 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).



Boarding Ladder

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).

Trim Tabs

The trim tabs are recessed into the hull below the swim platform. The trim tabs are an important part of the control systems. Please refer to the Helm Control Systems chapter for detailed information on the trim tabs.

9.3 Cockpit

IN CERTAIN CONDITIONS, OPEN EXTERIOR DOORS AND HATCHES THAT ARE NOT SECURED PROPERLY CAN SLAM CLOSED UNEXPECTEDLY AND CAUSE INJURY TO PASSENGERS OR DAMAGE TO THE BOAT. MOST DOORS AND HATCHES ARE EQUIPPED WITH SPECIAL FASTENERS, HATCH LIFTERS, OR SNAPS AND/OR STRAPS, TO SECURE THEM IN THE OPEN POSITION. ALWAYS MAKE SURE THAT THESE HATCHES AND DOORS ARE PROPERLY SECURED WHENEVER THEY ARE IN THE OPEN POSITION.

Rod Storage

A large storage or rod compartment is located below the bridge deck. The hatch lifter switch in the cockpit activates an electric ram that raises the rear of the bridge deck providing access to the rod storage area. A limit switch on the helm seat adjuster prevents the bridge deck from opening unless the seat is in the full aft position. This prevents the seat and helm equipment from being damaged when the leaning post and bridge deck are lifted to access the rod storage.

Rod Locker

The compartment is equipped with overboard drainage and rod racks for secure rod storage.

Power Helm Seat

The helm seat is equipped with an electric ram activated by a switch at the helm that moves the seat forward or backward. Always make sure the seat is in the full aft position before opening the helm or the rod locker.

Prep /Entertainment Center & Ice Maker

The prep/entertainment center is equipped with a sink, storage locker or optional ice maker, aft facing seat and storage/cooler area. The sink is plumbed to the fresh water system and is drained by gravity to a thru hull fitting in the hull side above the waterline.

An AC ice maker is supplied as optional equipment and is mounted in the prep/entertainment center. The ice maker operates on AC power only. The ice maker door has a special latch to secure the door while under way; make sure the door is properly secured whenever the boat is moving. Refer to the ice maker owner's manual for additional operating and maintenance instructions. The freshwater system must be activated to supply water to the ice maker.

Stern Bait Rigging Station

The stern bait rigging station is equipped with a transom door, sink, livewell, cutting board and rigged bait storage unit. The sink is plumbed to the freshwater system and drains overboard. The livewell is supplied by a raw water circulating pump and drains overboard. Refer to the Raw Water System chapter for additional information on the livewell.

Stern Bait and Tackle Rigging Station

There is a hatch on the starboard side of the rigging station to provide access for the TABS, the battery switches, water pumps, batteries and stern bilge. The batteries are on a tray that slides toward the hatch. An electric ram that is activated by the battery slide switch in the cockpit moves the battery tray toward the hatch or to the stored position. The switch and the ram are supplied power by the house battery. A parallel switch next to the battery tray switch will parallel the house battery with the engine batteries and supply power to the battery slide switch in the event that the house battery is dead and the batteries need to be accessed.

Below Deck Fishbox

A fishbox is located in the stern below the cockpit sole. The fishbox is drained by a macerator pump located in the bilge and activated by a momentary switch in the rear of the cockpit near the stern bait and tackle rigging station. A momentary switch is used because the pump will be damaged if it is allowed to run dry for more than 30 seconds. The fishbox should be pumped out and cleaned after each use. Refer to the Drainage Systems chapter for more information on the fishbox drainage.

Transom Door

A transom door is incorporated into the rigging station. The transom door should only be operated when the boat is not in motion. The door must be latched in either the full "OPEN" or full "CLOSED" position. Never leave the transom door unlatched.

Note: Periodically inspect the transom door fittings for wear, damage, or loose fit. Any problems should be inspected and corrected immediately.

Transom Door

THE TRANSOM DOOR SHOULD BE CLOSED AND PROPERLY LATCHED WHENEVER THE ENGINE(S) ARE RUNNING. NEVER OPEN THE TRANSOM DOOR WHILE UNDERWAY OR IN ROUGH SEA CONDITIONS. IN CERTAIN SITUATIONS, AN OPEN TRANSOM DOOR COULD ALLOW A SUBSTANTIAL AMOUNT OF WATER TO ENTER THE COCKPIT CREATING A POTENTIALLY DANGEROUS CONDITION.

OPERATING THE BOAT UNDER POWER WITH THE TRANSOM DOOR OPEN MAY ALLOW PERSONS TO FALL OVERBOARD AND INTO BOAT PROPELLERS OR TO BE LOST IN OPEN WATER. ALWAYS CHECK TO MAKE SURE THE TRANSOM DOOR IS PROPERLY CLOSED AND LATCHED BEFORE STARTING THE ENGINES AND NEVER OPERATE THE BOAT UNDER POWER WITH THE TRANSOM DOOR OPEN.

Cockpit Shower

A freshwater shower is located behind a small door in the cockpit. It is supplied hot and cold water by the freshwater system and works much like the shower in the head.

L-lounge, Tackle Locker and Cooler

The L-shaped lounge passenger seat is mounted on a storage box. A cooler is located behind the lounge seat. The insulated cooler drains overboard. A door below the L-lounge provides access to the tackle locker.

Stern Seat

A recessed fold down seat is built into the rear of the cockpit. To use the seat, release the latches that secure the back rest. Then raise the back rest and allow it to rest on the livewell. Release the strap and lower the seat from the stored position. Close the back rest and secure it with the latches. To store the seat, release the latches that secure the back rest. Then raise the back rest and allow it to rest on the livewell. Raise the front of the seat and fold it into the recess. Secure the seat with the strap, close the back rest and secure it with the latches.

Stern Seat

Helm and Electronics Locker

The helm and engine controls are located on an opening helm station. The helm station is hinged at the bottom and opens to provide access to service the helm equipment. A removable panel in the cabin provides access for installing and servicing the gauges and electronics.

To open the helm station, slide the helm seat back as far as it will go and unscrew the knobs at the top 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.

Helm and Electronics Locker

ALWAYS MAKE SURE THE HELM STATION KNOBS ARE PROPERLY SECURED BEFORE OPERATING OR TRANSPORTING 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 INTO GEAR AND/OR ADVANCE THROTTLE CONTROLS AS THE HELM IS OPENING. THIS COULD RESULT IN LOSS OF CONTROL, DAMAGE TO THE BOAT, AND INJURY TO PASSENGERS.

Note: The power helm seat must be adjusted to the full aft position and the rod locker bridge deck hatch must be completely closed before opening the helm.

Cabin Door

The sliding cabin door is made of acrylic plastic glass and slides on a top and bottom track. A lockable latch secures the door in the closed position. There is a special hook on the bulkhead next to the door to secure it in the open position.

Cabin Door

It is very important that the cabin door is secured properly in the open or closed position. The cabin door is heavy and if the door is not properly latched, it could slide when the boat rocks and pinch someone's fingers between the door and the bulkhead or damage the door.

When closing the door, make sure you push the door against the door jam with enough pressure to allow the latch to secure the door. When the door is open, it must be properly secured with the hook.

The door is made of acrylic plastic glass. Acrylic glass scratches easily and can chip. Always make sure the bulkhead bumper and the vinyl-covered latch are in good condition. They should be changed whenever they show signs of deterioration from the exposure to elements. Please refer to the Routine Maintenance chapter for information on the proper care and maintenance of acrylic plastic glass.

NEVER LEAVE THE CABIN DOOR UNLATCHED. THE CABIN DOOR IS HEAVY AND SLIDES EASILY. IF THE DOOR IS LEFT UNLATCHED, IT COULD SLIDE UNEXPECTEDLY AS THE BOAT ROCKS, DAMAGING THE DOOR OR CAUSING AN INJURY TO A PASSENGER. ALWAYS MAKE SURE THE DOOR IS PROPERLY LATCHED IN THE OPEN OR CLOSED POSITION.

Hard Top

The optional hard top consists of a laminated fiberglass top mounted to a welded aluminum frame that is bolted to the deck. It is designed to accommodate radio antennas, radar antennas and navigation lights. It could also be equipped with optional top gun outriggers and/or rod holders.

The hard top is not designed to support the additional weight of items like an instrument locker or a life raft. Radar and electronics antennas must be mounted to the top between the front and rear legs. Do not mount any antennas or equipment to the brow area forward of the front legs. The hard top frame is not designed to support the weight of accessories in this area and could be damaged. The starboard rear leg is the wire chase for lights and antennas mounted to the top.

The warranty for the hard top will be void if the top is modified in any way or heavy accessories like life rafts, or electronics lockers are mounted to the top. Additionally, if items like radar antennas spotlights and other accessories are mounted in the wrong location, the warranty could be void. If you intend to add equipment or make modifications to the hard top, you should contact Pursuit Customer Relations to make sure the equipment you would like to add or the intended modification will not void the warranty on the top.

Because the aluminum frames vary slightly, the side curtains, front clear connector and drop curtain are custom made to each boat at the factory. To install the curtains, slide the front clear connector into the slide track at the front of the top and snap it to the top of the windshield frame beginning with the center snaps. The clear connector will have to be stretched just enough to pull out the wrinkles to reach the snaps on the windshield or the deck.

Once the clear connector is completely installed, the side curtains can be put on. Slide the side curtains into the slide tracks on the sides of the top and to the zippers on the front connector. Snap the curtains to the windshield and the deck beginning with the forward snaps on the windshield. The side curtains will have to be stretched slightly to pull out the wrinkles and reach the snaps.

If you have an optional drop curtain, slide it into the slide track on the back of the hard top and attach it to the rear of the side curtains. Snap the drop curtain to the deck and cockpit.

Note: Cold weather can make the clear vinyl material on the curtains stiff and difficult to stretch to the snaps. This can be particularly difficult with new canvas that has been stored off the boat. Laying the curtains in the sun for 30 minutes during the heat of the day will make installing them much easier in cold weather.

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Chapter 10:
INTERIOR EQUIPMENT

10.1 Marine Head System

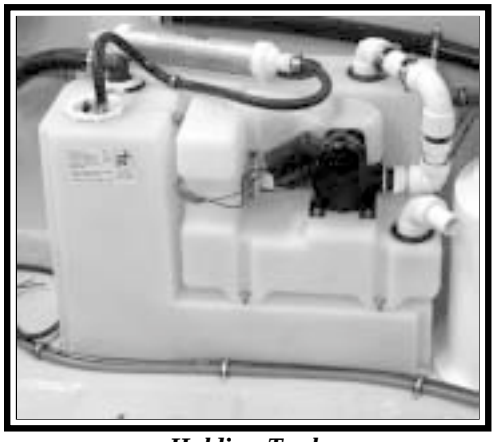
The head compartment is equipped with a sink, hot and cold faucet that converts to a shower by pulling the faucet out of the base. A special seat folds down over the toilet to make showering more comfortable.

An opening port light above the sink provides daylight and ventilation. There is also a 12-volt overhead light. An AC G.F.I. duplex outlet is provided by the sink.

Marine Head System

Your boat is equipped with a VacuFlush marine head system as standard equipment. VacuFlush systems use a small amount of water (one pint to one quart) and vacuum, which is generated by the 12-volt vacuum pump, to flush. The toilet is connected to the pressurized fresh water system. Using fresh water results in less odor in the head compartment.

To use the toilet, make sure the "Electric Head" breaker on the cabin DC breaker panel is on. Then add water to wet the bowl by depressing the foot activated flush lever slightly until the desired water level is reached. Flush the toilet by activating the flush lever all the way for approximately three seconds or until contents clear the bowl. A sharp popping noise is normal when the vacuum seal is broken and flushing action begins. It is also normal for a small amount of water to remain in the bowl after flushing.



Holding Tank

The waste is transferred into the holding tank where it remains until it is pumped out by a waste dumping station or the overboard macerator discharge system. The waste moves through a one-inch opening in the toilet base. Incoming air fragments the waste as it passes through the base opening. This process eliminates the need for macerators or mechanical motors in the toilet base.

The vacuum generator is mounted on the holding tank and contains stored vacuum. System vacuum is monitored by a vacuum switch which is located on the vacuum generator tank. When the switch senses a drop in vacuum in the system, it automatically signals the pump to energize and bring the vacuum back to operating level. This process is normally completed in less than two minutes.

It is normal for the stored vacuum to leak down slightly between flushes, causing the vacuum pump to run for a short period. The pump should not run more than once every three hours after the last flush for recharging the system. Please refer to the toilet manufacturer owner's manual for more information on the operation of the marine head system.

Holding Tank and Macerator Discharge Pump

The holding tank is located in the compartment on the port side of the Q-Berth behind the closeout panel. When the tank is full, the tank monitor will show full and the vacuum pump will not run. The tank 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. There is no Y-valve in this system.

To operate the macerator discharge pump, open the ball valve at the overboard discharge thru hull fitting below the aft berth. Then activate the momentary macerator switch located in the holding tank monitor panel in the head compartment, until the tank is emptied. Release the switch and close the discharge ball valve when pumping is complete.

Note: The macerator discharge pump can only be run dry for a couple of seconds. Allowing the macerator pump to run after the holding tank is empty will cause damage to the pump.

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.

<u>Maintenance</u>

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 manufacturer owner's manual for additional operating and maintenance information.

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

10.2 Refrigerator (AC / DC)

A dual voltage refrigerator is supplied as standard equipment and is mounted in the galley. This unit will operate on AC or 12-volt DC power. The refrigerator switches to 12-volt DC automatically when the AC power is disconnected and the refrigerator breaker is activated on the cabin DC panel. When AC current is provided by the refrigerator circuit breaker on the AC panel, the refrigerator automatically switches to AC power.

Care should be exercised while operating the refrigerator on 12-volt power without the engines running. It draws a substantial amount of current and can severely drain a battery through extended use. The refrigerator door has a special latch to secure the door while under way; make sure the door is properly secured whenever the boat is moving. Refer to the refrigerator owner's manual for additional operating and maintenance instructions.

10.3 Air Conditioner

The air conditioning unit is the reverse cycle type and operates on AC power. It is located below the port side of the V-Berth in the storage compartment. The unit is equipped with reverse cycle heat and can be operated as a cooling or heating unit. It is protected by the accessory breaker in the AC breaker panel. To operate, make sure the thru hull valve for the air conditioner raw water supply pump is on. Turn the air conditioner breaker to the "ON" position. The unit will then be controlled by the air conditioning control panel in the cabin. When activated, water should continuously flow from the overboard drain thru hull.

Air Conditioning Control Panel

Air locks can occur in the air conditioning water supply system at the time of launching. If your boat has been recently launched and water is not flowing from the overboard thru hull when the air conditioner is activated, an air lock may have to be purged from the system. This can be achieved by making sure the valve at the air conditioning pump intake thru hull is open. Then run the boat at cruise speed for several minutes. A scoop attached to the intake thru hull fitting will pressurize the system and force the air lock through the pump. The system will then be primed and should operate properly. If this procedure does not correct the situation, there could be a problem with the water pump and a qualified technician should be contacted to inspect the system. See the air conditioner owner's manual for additional operating and maintenance instructions.

Note: Air conditioners use surface water as a cooling medium. The boat must be in the water and the raw water supply system must be properly activated prior to use. Operation without proper cooling will cause the air conditioning circuit breaker to trip and could cause system damage. Always check for proper water flow out of the air conditioning pump discharge thru hull when the air conditioner is operating.

10.4 Galley and Sink

The galley is equipped with storage and a fresh water sink. Water is supplied to the sink by a 12-volt pump located in the stern bilge. When activated by the "Fresh Water System" breaker in the 12-volt panel, the system will operate much like the water system in a home. An automatic pressure sensor keeps the system pressurized. The sink drains overboard through the cabin drain system.

See the Freshwater Systems Chapter for more information on the freshwater system.

Companion Way Steps and Aft Berth

The companion way steps are hinged and can be folded to provide access to the aft berth and more room in the galley. The steps are held in the folded position by a bracket on the cabin bulkhead. Always make sure the steps are properly secured when they are in the folded position.

The aft berth is located behind the steps. There are three access hatches below the berth to provide access to the bilge pump, holding tank macerator pump, air conditioning and sump pumps, and other components mounted in that area of the bilge. The wall panels are removable to provide access to the battery charger, VacuFlush holding tank system and other components mounted in the mechanical systems compartment behind and along side of the aft berth compartment. Light is provided to this compartment by a 12-volt light on the wall.

Companion way steps

Microwave Oven

A microwave oven is provided as standard equipment on the 3070 Express. The microwave operates on AC power and is protected by the microwave breaker in the AC breaker panel.

Please refer to the microwave owner's manual for detailed information on the microwave oven installed in your boat.

Microwave

10.5 Carbon Monoxide Detector

A carbon monoxide (CO) detector is installed in the cabin on the rear bulkhead. If excess carbon monoxide fumes are detected, an audible beeping will sound indicating the presence to the toxic gas.

Carbon Monoxide Detector

Carbon monoxide (CO), a by-product of combustion, is invisible, tasteless, odorless, and is produced by all engines, heating and cooking appliances. The most common sources of CO on boats are gasoline engines and auxiliary generators and propane or butane stoves. These produce large amounts of CO and should never be operated while sleeping.

Please read the owner's manual supplied by the detector manufacturer for operation instructions and additional information regarding the hazards of carbon monoxide gas. Also read more about carbon monoxide, carbon monoxide detectors, and proper ventilation in the Ventilation Systems and Safety Equipment chapters in this manual. If you did not receive a manual for your carbon monoxide detector, please contact Pursuit Customer Relations.

ACTUATION OF THE CARBON MONOXIDE DETECTOR INDICATES THE PRESENCE OF CARBON MONOXIDE (CO) WHICH CAN BE FATAL. EVACUATE THE CABIN IMMEDIATELY. DO A HEAD COUNT TO CHECK THAT ALL PERSONS ARE ACCOUNTED FOR. DO NOT REENTER THE CABIN UNTIL IT HAS BEEN AIRED OUT AND THE PROBLEM FOUND AND CORRECTED.

CO POISONING PRODUCES FLU-LIKE SYMPTOMS: WATERY AND ITCHY EYES, HEADACHES, AND FATIGUE. YOU CAN'T SEE IT AND YOU CAN'T SMELL IT. IT'S AN INVISIBLE KILLER.

CO DETECTORS ARE VERY RELIABLE AND RARELY SOUND FALSE ALARMS. IF THE ALARM SOUNDS, ALWAYS ASSUME THE HAZARD IS REAL AND MOVE PERSONS WHO HAVE BEEN EXPOSED TO CARBON MONOXIDE INTO FRESH AIR IMMEDIATELY. NEVER DISABLE THE CO DETECTOR BECAUSE YOU THINK THE ALARM MAY BE FALSE. ALWAYS CONTACT THE DETECTOR MANUFACTURER, PURSUIT CUSTOMER RELATIONS OR YOUR LOCAL FIRE DEPARTMENT FOR ASSISTANCE IN FINDING AND CORRECTING THE SITUATION.

10.6 Dinette and Table

The dinette is on the starboard side of the cabin. It is equipped with a table and two lounge seats that will seat four people. There is a compartment below a hatch under each seat cushion. The water heater is in the rear compartment and the front compartment is available for storage.

Daylight and fresh air is provided to this area by an opening port window and an overhead hatch above the V-berth. Additional lighting is provided by 12-volt lights on either end of the dinette. There also is recessed lighting below the teak trim at the base of the raised dinette floor that is activated by the switch on the starboard side of the companionway.

10.7 V-Berth

A V-berth is located in the bow area of the cabin forward of the galley and hanging locker. There are storage compartments below hatches under each V-berth cushion. The hanging locker and air conditioner intake vent is located forward of the berth. Daylight and fresh air is provided to this area by an overhead opening hatch. Additional lighting is provided by two 12-volt lights on the forward bulkhead.

The V-berth is hinged to provide access to a large storage compartment below it. If the boat is equipped with the optional air conditioner, it will be mounted in the forward part of the V-berth storage compartment. Be careful when storing items in this compartment when the air conditioner is installed. Items stored on or immediately next to the air conditioning unit could cause damage to the air conditioner or be damaged by heat or condensation.

10.8 T.V.

The optional TV is mounted to a special bracket located on the top of the hanging locker. A special mounting bracket allows the TV to be viewed from the V-berth or the dinette. Make sure the TV is secured against the hanging locker whenever the boat is underway.

An optional TV antenna can be installed on the aluminum arch or hard top. If this option is installed, there will be a slide switch to select the dockside cable, when available, or the antenna. A red light on the antenna indicates that the antenna is selected and activated.

TV and VCR

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Chapter 11:
SAFETY EQUIPMENT

11.1 General

Your boat and outboard engines have been equipped with safety equipment designed to enhance the safe operation of the boat and to meet U.S. Coast Guard safety standards. The Coast Guard or state, county, and municipal law enforcement agencies require certain additional accessory safety equipment on each boat. This equipment varies according to length and type of boat and type of propulsion. Most of the accessory equipment required by the Coast Guard is described in this chapter. Some local laws require additional equipment. It is important to obtain "Federal Requirements And Safety Tips for Recreational Boats," published by the Coast Guard, and copies of state and local laws, to make sure you have the required equipment for your boating area.

Your Pursuit could be equipped with engine alarms and cabin monitoring equipment. These systems are designed to increase your boating safety by alerting you to potentially serious problems in the primary power systems, the engine compartment, and the cabin. Alarm systems are not intended to lessen or replace good maintenance and precruise procedures.

This chapter also describes safety related equipment that could be installed on your boat. This equipment will vary depending on the type of engines and other options installed by you or your dealer.

11.2 Engine Alarms

Most outboards and generator engines 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 alarms sounds:

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

- If the boat is equipped with water sensors in the fuel filters, be sure to check them for excessive water.

11.3 Neutral Safety Switch

Every control system has a neutral safety switch incorporated into it. This device prohibits the engines from being started while the shift lever is in any position other than the neutral position and should be inspected and tested periodically to ensure the switch is working. If the engines will not start, slight movement of the shift levers 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. Please refer to the Helm Control Systems chapter for more information on the neutral safety switch.

11.4 Engine Stop Switch

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

Engine Stop Switch

Note: You should carry an extra stop switch lanyard and instruct at least one other crew member on the operation of the stop switch and location of the extra lanyard.

11.5 Required Safety Equipment

Besides the equipment installed on your boat by Pursuit, certain other equipment is required by the U.S. Coast Guard 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. Refer to the "Federal Requirements And Safety Tips For Recreational Boats" pamphlet for a more detailed description of the required equipment. You can also contact the U.S. Coast Guard Boating Safety Hotline,

800-368-5647 or the “Boat U.S. Foundation Course Hotline,” 1-800-336-2628 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.

The following is a list of the accessory equipment required on your boat by the U.S. Coast Guard:

Personal Flotation Devices (PFDs):
PFDs must be Coast Guard approved, in good and serviceable condition, and of appropriate size for the intended user. Wearable PFDs must be readily accessible, meaning you must be able to put them on in a reasonable amount of time in an emergency. Though not required, the Coast Guard emphasizes that PFDs should be worn at all times when the vessel is underway. Throwable devices must be immediately available for use. All Pursuit boats must be equipped with at least one Type I, II or III PFD for each person on board, plus one throwable device (Type IV).

Visual Distress Signals:
All Pursuit boats used on coastal waters, the Great Lakes, territorial seas, and those waters connected directly to them, must be equipped with Coast Guard approved visual distress signals. These signals are either Pyrotechnic or Non-Pyrotechnic devices.

Pyrotechnic Visual Distress Signals:
Pyrotechnic visual distress signals must be Coast Guard approved, in serviceable condition, and readily accessible. They are marked with a date showing the service life, which must not have expired. A minimum of three are required. Some pyrotechnic signals meet both day and night use requirements. They should be stored in a cool, dry location. They include:

- Pyrotechnic red flares, hand held or aerial.
- Pyrotechnic orange smoke, hand-held or floating.
- Launchers for aerial red meteors or parachute flares.

PYROTECHNICS ARE UNIVERSALLY RECOGNIZED AS EXCELLENT DISTRESS SIGNALS. HOWEVER, THERE IS POTENTIAL FOR INJURY AND PROPERTY DAMAGE IF NOT PROPERLY HANDLED. THESE DEVICES PRODUCE A VERY HOT FLAME AND THE RESIDUE CAN CAUSE BURNS AND IGNITE FLAMMABLE MATERIAL. PISTOL LAUNCHED AND HAND-HELD PARACHUTE FLARES AND METEORS HAVE MANY CHARACTERISTICS OF A FIREARM AND MUST BE HANDLED WITH CAUTION. IN SOME STATES THEY ARE CONSIDERED A FIREARM AND PROHIBITED FROM USE. ALWAYS BE EXTREMELY CAREFUL AND FOLLOW THE MANUFACTURER'S INSTRUCTIONS EXACTLY WHEN USING PYROTECHNIC DISTRESS SIGNALS.

Non-Pyrotechnic Devices:
Non-Pyrotechnic visual distress signals must be in serviceable condition, readily accessible, and certified by the manufacturer as complying with U.S. Coast Guard requirements. They include:

- **Orange Distress Flag. (Day use only)**
  The distress flag is a day signal only. It must be at least 3 x 3 feet with a black square and ball on an orange background. It is most distinctive when attached and waved from a paddle or boat hook.

- **Electric Distress Light. (Night use only)**
  The electric distress light is accepted for night use only and must automatically flash the international SOS. distress signal. Under Inland Navigation Rules, a high intensity white light flashing at regular intervals from 50-70 times per minute is considered a distress signal.

Sound Signaling Devices:
The navigation rules require sound signals to be made under certain circumstances. Recreational vessels are also required to sound fog signals during periods of reduced visibility. Therefore, you must have some means of making an efficient sound signal.

Navigation Lights:
Recreational boats are required to display navigation lights between sunset and sunrise and other periods of reduced visibility (fog, rain, haze, etc.) Navigation lights are intended to keep other vessels informed of your presence and course. Your Pursuit is equipped with the navigation lights required by the U.S. Coast Guard at the time of manufacture. It is up to you to make sure they are operational and turned on when required.

Fire Extinguishers:
At least one fire extinguisher is required on all Pursuit boats. Coast Guard approved fire extinguishers are hand-portable, either B-I or B-II classification and have a specific marine type mounting bracket. It is recommended the extinguishers be mounted in a readily accessible position.

Fire extinguishers require regular inspections to ensure that:

- Seals & tamper indicators are not broken or missing.

- Pressure gauges or indicators read in the operable range.

- There is no obvious physical damage, corrosion, leakage or clogged nozzles.

Refer to the “Federal Requirements And Safety Tips For Recreational Boats” pamphlet or contact the U.S. Coast Guard Boating Safety Hotline, 1-800-368-5647, for information on the type and size fire extinguisher required for your boat.

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

INFORMATION FOR HALON OR AGENT FE-241 FIRE EXTINGUISHERS IS PROVIDED BY THE MANUFACTURER. IT IS ESSENTIAL THAT YOU READ THE INFORMATION CAREFULLY AND COMPLETELY UNDERSTAND THE SYSTEM, IN THEORY AND OPERATION, BEFORE USING YOUR BOAT.

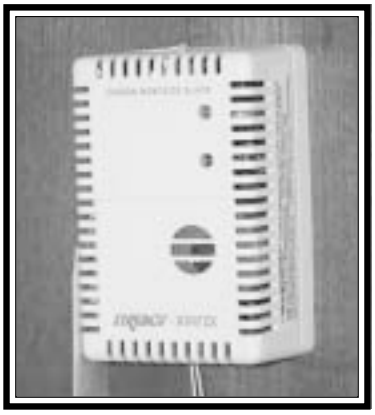
Bilge and Fuel Fires

Fuel compartment and bilge fires are very dangerous because of the presence of gasoline in the various components of the fuel system and the possibility for explosion. You must make the decision to fight the fire or abandon the boat. If the fire can not be extinguished quickly or it is too intense to fight, abandoning the boat may be your only option. If you find yourself in this situation, make sure all passengers have a life preserver on and go over the side and swim well upwind of the boat. This will keep you and your passengers well clear of any burning fuel that could be released and spread on the water as the boat burns or in the event of an explosion. When clear of the danger, check about and account for all those who were aboard with you. Give whatever assistance you can to anyone in need or in the water without a buoyant device. Keep everyone together in a group for morale and to aid rescue operations.

GASOLINE CAN EXPLODE. IN THE EVENT OF A FUEL COMPARTMENT OR BILGE FIRE, YOU MUST MAKE THE DIFFICULT DECISION TO FIGHT THE FIRE OR ABANDON THE BOAT. YOU MUST CONSIDER YOUR SAFETY, THE SAFETY OF YOUR PASSENGERS, THE INTENSITY OF THE FIRE AND THE POSSIBILITY OF AN EXPLOSION IN YOUR DECISION.

11.6 Carbon Monoxide Detector

CARBON MONOXIDE IS A LETHAL, TOXIC GAS THAT IS COLORLESS AND ODORLESS. IT IS A DANGEROUS GAS THAT WILL CAUSE DEATH IN CERTAIN LEVELS.



Carbon Monoxide Detector

The carbon monoxide detector is in the cabin and warns the occupants of dangerous accumulations of carbon monoxide gas. If excess carbon monoxide fumes are detected, the detector will sound an alarm indicating the presence of the toxic gas.

Should a very high level of carbon monoxide exist, the alarm will sound in a few minutes. However, if small quantities of CO are present or high levels are short-lived, the alarm will accumulate the information and determine when an alarm level has been reached. The carbon monoxide detector is automatically acti-

vated whenever the cabin DC breaker panel is energized. Some of these devices require a warm up period. Refer to the manufacturer's instructions.

Always make sure the Cabin DC Breaker Panel and the carbon monoxide detector are activated by the house battery switch whenever the cabin is occupied.

Carbon monoxide (CO), a by-product of combustion, is invisible, tasteless, odorless, and is produced by all engines, heating and cooking appliances. It exists wherever fuels are burned to generate power or heat. The most common sources of CO on boats are gasoline engines and auxiliary generators and propane or butane stoves. These produce large amounts of CO and should never be operated while sleeping. Also be aware that, in some situations, CO from a generator or an engine being operated in nearby boats can enter your boat and present a hazard for you and your passengers. High concentrations of CO can be fatal within minutes. Many cases of carbon monoxide poisoning indicate that while victims are aware they are not well, they become so disoriented they are unable to save themselves by either exiting the area or calling for help. Also, young children, elderly persons, and pets may be the first affected.

Drug or alcohol use increases the effect of CO exposure. Individuals with cardiac or respiratory conditions are very susceptible to the dangers of carbon monoxide. CO poisoning is especially dangerous during sleep when victims are unaware of any side effects.

Low levels of carbon monoxide over an extended period of time can be just as lethal as high doses over a short period. Therefore, low levels of carbon monoxide can cause the alarm to sound before the occupants of the boat notice any symptoms of carbon monoxide poisoning. CO detectors are very reliable and rarely sound false alarms. If the alarm sounds, always assume the hazard is real and move persons who have been exposed to carbon monoxide into fresh air immediately. Never disable the CO detector because you think the alarm may be false. Always contact the detector manufacturer or your local fire department for assistance in finding and correcting the situation.

In certain situations, boats can have a problem due to the “station wagon effect” where engine exhaust fumes are captured in the vessel by the vacuum created by a rear opening or installed canvas while underway. Boats that are underway should close all aft portholes and open a forward facing hatch which may lend to pressurize the living spaces within the boat. Sleeping, particularly in aft cabins, should not be permitted while underway. Occupants of the “bridge” also should maintain proper ventilation by opening a forward window or windshield vents to drive fumes away from the occupants. Extreme caution must be taken while at anchor or in a slip and an auxiliary power generator is operating. Wind still nights can easily allow fumes to enter the boat. Inspect the exhaust systems of propulsion and the auxiliary generators, if installed, frequently for possible leaks. High concentrations of CO in your boat may originate from an adjacent boat. Exhaust fumes from nearby boats may enter your boat through open hatches or windows.

Symptoms of carbon monoxide poisoning are dizziness, ears ringing, headaches, tightness of chest or hyperventilation, drowsiness, fatigue or weakness, inattention or confusion, lack of

normal coordination, nausea and unconsciousness. The victim's skin also may turn red. A slight buildup of carbon monoxide in the human body over several hours causes headache, nausea and other symptoms similar to food poisoning, motion sickness or the flu. Anyone with these symptoms should immediately be moved to an area of fresh air. Have the victim breath deeply and seek immediate medical attention.

Remember, carbon monoxide detectors do not guarantee that CO poisoning will not occur. Do not use the CO detector as a replacement for ordinary precautions or periodic inspections of equipment. Never rely on alarm systems to save your life, common sense is still prudent and necessary.

Please read the owner's manual supplied by the CO detector manufacturer and included with this manual, for operation instructions and additional information regarding the hazards of carbon monoxide gas. Refer to the Ventilation Chapter for information on ventilating your boat properly while underway and other precautions while at anchor or in a slip. This is especially essential if your boat is equipped with a generator.

Many manufacturers of carbon monoxide detectors offer a testing and recertification program. We recommend that you contact the manufacturer of your carbon monoxide detector and have it tested and recertified periodically.

ACTUATION OF THE CARBON MONOXIDE DETECTOR INDICATES THE PRESENCE OF CARBON MONOXIDE (CO) WHICH CAN BE FATAL. EVACUATE THE CABIN IMMEDIATELY. DO A HEAD COUNT TO CHECK THAT ALL PERSONS ARE ACCOUNTED FOR. DO NOT REENTER THE CABIN UNTIL IT HAS BEEN AIRED OUT AND THE PROBLEM FOUND AND CORRECTED.

11.7 First Aid

It is the operator's responsibility to be familiar with the proper first-aid procedures and be able to care for minor injuries or illnesses of your passengers. In an emergency, you could be far from professional medical assistance. We strongly recommend that you be prepared by receiving training in basic first aid and CPR. This can be done through classes given by the Red Cross or your local hospital.

Your boat should also be equipped with at least a simple marine first-aid kit and a first-aid manual. The marine first-aid kit should be designed for the marine environment and be well supplied. It should be accessible and each person on board should be aware of its location. As supplies are used, replace them promptly. Some common drugs and antiseptics may lose their strength or become unstable as they age. Ask a medical professional about the supplies you

should carry and the safe shelf life of prescription drugs or other medical supplies that may be in your first-aid kit. Replace questionably old supplies whether they have been used or not.

In many emergency situations, the Coast Guard can provide assistance in obtaining medical advice for treatment of serious injuries or illness. If you are within VHF range of a Coast Guard Station, make the initial contact on channel 16 and follow their instructions.

11.8 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.

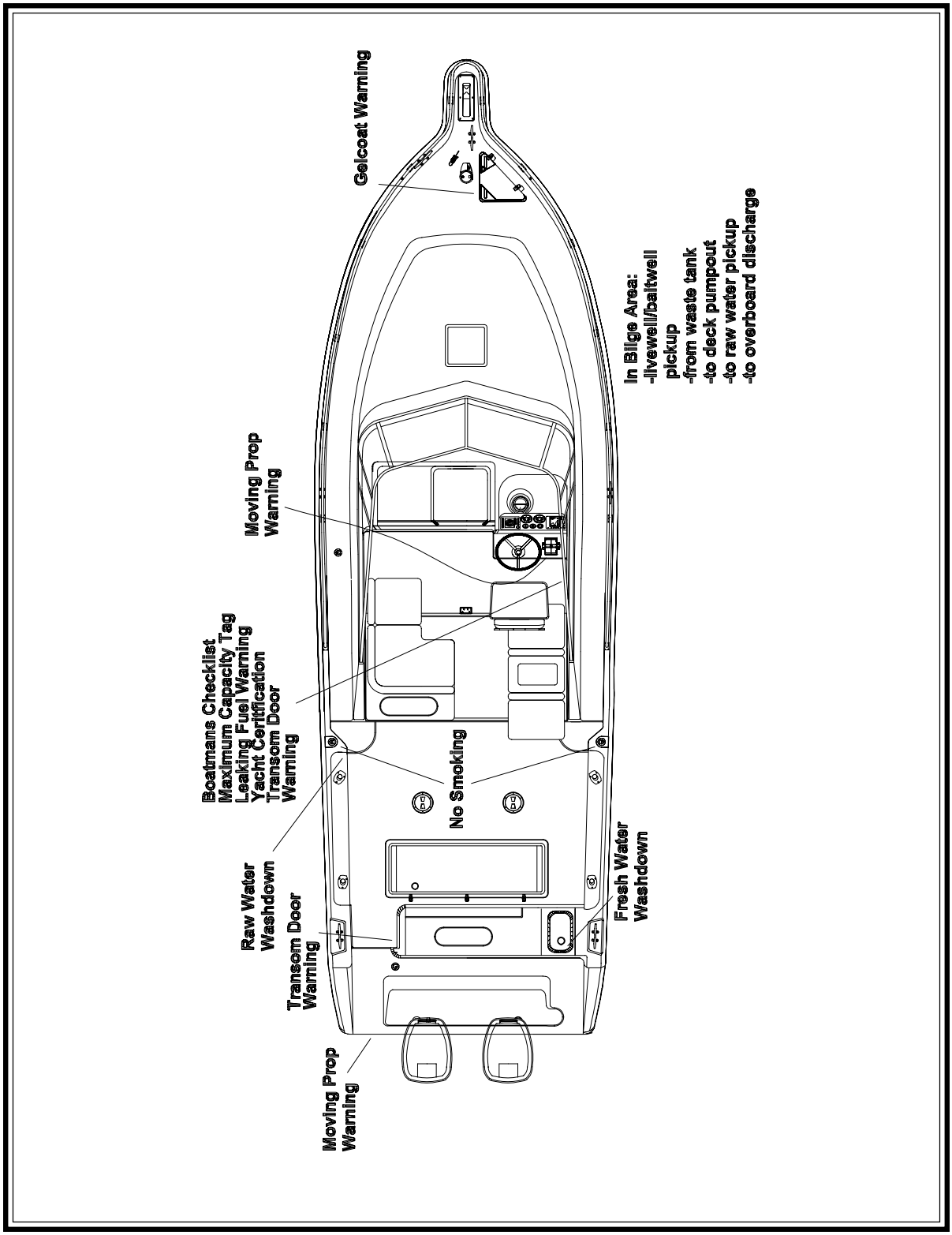
Satellite EPIRBS

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 Oceanic and Atmospheric 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	Life Raft	Spare Anchor
Heaving Line	Fenders	First Aid Kit
Flashlight & Batteries	Mirror	Searchlight
Sunburn Lotion	Tool Kit	Ring Buoy
Whistle or Horn	Anchor	Chart and Compass
Boat Hook	Spare Propellers	Mooring Lines
Food & Water	Binoculars	Sunglasses
Marine Hardware	Extra Clothing	Spare Part
Spare Keys	Portable Radio	

11.9 Caution and Warning Labels



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Chapter 12:
OPERATION

12.1 General

Before you start the engines on your Pursuit, you should have become familiar with the various component systems and their operation, and have 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 boat. Please read them carefully.

Your boat must have the necessary safety equipment on board and be in compliance with the U.S. Coast Guard, local and state safety regulations. There should be one Personal Floatation Device (PFD) for each person. Nonswimmers and small children should wear PFDs at all times. You should know and understand the “Rules of the Road" and have had an experienced operator brief you on the general operation of your new boat. At least one other person should be instructed on the proper operation of the boat in case the operator is suddenly incapacitated.

The operator is responsible for his safety and the safety of his passengers. When boarding or loading the boat, always step onto the boat, never jump. All passengers should be properly seated whenever the boat is operated above idle speed. Your passengers should not be allowed to sit on the seat backs, gunnels, bows, transoms or on fishing seats whenever the boat is underway. The passengers should also be seated to properly balance the load and must not obstruct the operator's view, particularly to the front.

Overloading and improper distribution of weight can cause the boat to become unstable and are significant causes of accidents. Know the weight capacity and horsepower rating of your boat. Do not overload or overpower your boat. **Remember, it is the operator's responsibility to use good common sense and sound judgment in loading and operating the boat.**

12.2 Rules of the Road

As in driving an automobile, there are a few rules you must know for safe boating operation. The following information describes the basic navigation rules and action to be taken by vessels in a crossing, meeting or overtaking situation while operating in inland waters. These are basic examples and not intended to teach all the rules of navigation. For further information consult the “Navigation Rules” or contact the Coast Guard, Coast Guard Auxiliary, Department of Natural Resources, or your local boat club. These organizations 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.

SAILBOATS NOT UNDER POWER, PADDLE BOATS, VESSELS UNABLE TO MANEUVER, VESSELS ENGAGED IN COMMERCIAL FISHING AND OTHER VESSELS WITHOUT POWER HAVE THE RIGHT OF WAY OVER MOTOR POWERED BOATS. YOU MUST STAY CLEAR OR PASS TO THE STERN OF THESE VESSELS. SAILBOATS UNDER POWER ARE CONSIDERED MOTOR BOATS.

Crossing Situations

When two motor boats are crossing, the boat on the right has the right of way. The boat with the right of way should maintain its course and speed. The other vessels should slow down and permit it to pass. The boats should sound the appropriate signals.

Meeting Head-On or Nearly-So Situations

When two motor boats are approaching each other head-on or nearly head-on, neither boat has the right of way. Both boats should reduce their speed and turn to the right so as to pass port side to port side, providing enough clearance for safe passage. The boats should sound the appropriate signals.

Overtaking Situations

When one motor boat is overtaking another motor boat, the boat that is being passed has the right of way. The overtaking boat must make the adjustments necessary to provide clearance for a safe passage of the other vessel. The boats should sound the appropriate signals.

The General Prudential Rule

In obeying the Rules of the Road, due regard must be given to all dangers of navigation and collision, and to any special circumstances, including the limitations of the vessels, which may justify a departure from the rules that is necessary to avoid immediate danger or a collision.

Navigation Aids

Aids to navigation are placed along coasts and navigable waters as guides to mark safe water and to assist mariners in determining their position in relation to land and hidden dangers. Each aid to navigation is used to provide specific information. You should be familiar with these and any other markers used in your boating area.

STORMS AND WAVE ACTION CAN CAUSE BUOYS TO MOVE. YOU SHOULD NOT RELY ON BUOYS ALONE TO DETERMINE YOUR POSITION.

12.3 Pre-Cruise Check

Before Starting the Engines:

- Check the weather forecast. Decide if the planned cruise can be made safely.
- Be sure all required documents are on board.
- 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 the Safety Equipment chapter for additional information on safety equipment.
- Make sure you have signal kits and flare guns aboard, and they are current and 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). The float plan should include a description of your boat, where you intend to cruise, and a schedule of when you expect to arrive in the cruising area and when you expect to return. Keep the person informed of any changes in your plan to prevent false alarms. This information will tell authorities where to look and the type of boat to look for in the event you fail to arrive.
- Check the amount of fuel on board. Observe the "rule of thirds": one third of the fuel for the trip out, one third to return and one third in reserve. An additional 15% may be consumed in rough seas.
- Check the water separating fuel filters for water.
- Check the oil in the engine oil tanks.
- Turn on the battery switches.
- Check the bilge water level. Look for other signs of potential problems. Monitor for the scent of fuel fumes.
- Test the automatic and manual bilge pump switches to make sure the system is working properly.

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 a tool kit aboard. The kit should include the following basic tools:

Spark plug wrench	Hammer
Spark plug gap gauge	Electrician's Tape
Screwdrivers	Lubricating Oil
Pliers	Jackknife
Adjustable Wrench	Vise Grip Pliers
Needle Nose Pliers	Wire Crimping Tool
End Wrench Set	Wire Connector Set

- Have the following spare parts on board:

Extra light bulbs	Spark plugs
Fuses and circuit breakers	Flashlight and batteries
Drain plugs	Engine oil
Propellers	Fuel filters
Propeller nuts	Fuel hose and clamps

- Make sure all fire extinguishers are in position and in good operating condition.
- Be sure the shift control is in the neutral position.
- Be sure the emergency stop lanyard is attached to the operator and the stop switch.

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

12.4 Operating Your Boat

After Starting the Engines:

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

- Visibly check the engines to be sure there are no apparent water, fuel or oil leaks.
- Check the operation of the engine cooling systems.
- Check the engine gauges. Make sure they are reading normally.

- Check the controls and steering for smooth and proper operation.
- Allow the engines to warm up for 10 to 15 minutes before operating them above idle speeds.
- 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 and any drugs can severely reduce your reaction time and affect your better judgment.
- 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 AND 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 AND 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. 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 engines 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 Safety Hotline," 800-368-5647 or the "Boat U.S. Foundation Course Hotline," 1-800-336-2628 for further information on boating safety courses.

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 engines to drop to the idle speed.
- Make sure the shifting levers are in the neutral position.

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

- Turn the ignition keys to the "Off" position.
- Raise the trim tabs to the full up position.

After Operation:

- If operating in saltwater, wash the boat and all equipment with soap and water. Flush the engines using freshwater. Please refer to the engine owner's manual for instructions on flushing your outboard engines.
- Check the bilge area for debris and excess water.
- Fill the fuel tanks to near full to reduce condensation. Allow enough room in the tanks for the fuel to expand without being forced out through the vent.
- 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 seacocks.
- Make sure the boat is securely moored.

TO PREVENT DAMAGE TO THE BOAT, CLOSE ALL SEA COCKS BEFORE LEAVING THE BOAT.

12.5 Tower Operation (Dealer Option)

Your boat could be equipped with a fabricated aluminum tower by your dealer. Towers are normally equipped with full engine controls, trim tab controls, compass, engine alarms, restart buttons and tachometers. This allows for complete operation of the boat from the tower.

Operation of the Tower Controls

The engines should be started at the lower helm. Monitor the gauges to make sure all systems are normal and the engines have been allowed to warm up slightly before proceeding to the tower helm. The ignition or restart switches on the tower are only used to restart an engine in the event it should stall. The shift controls must be in neutral for the restart switches to be functional.

The following is a list of safety precautions for tower operation:

- Do not operate the boat from the tower in rough sea conditions. The boat's motions are exaggerated in the tower and this motion may become excessive in rough seas.

- Be careful when using the trim tabs from the tower. The reaction of the trim tabs will be exaggerated in the tower. Use small tab corrections and wait ten (10) seconds for the tabs to react. Keep making small corrections until the hull is at the desired attitude.

- Do not overload the tower. Most towers are designed to hold the weight of only two average sized people. Weight in the tower raises the boat's center of gravity. Too much weight in the tower could make the boat unstable.

- Do not operate the boat in tight quarters, such as marinas, from the tower. The operator is isolated from the boat while in the tower and will not be able to assist in docking procedures.

- Always pay close attention to your grip and footing on the tower ladders. Your ability to achieve a good grip and proper footing is reduced in wet or rough weather. Therefore, the tower should be avoided in these conditions.

- Only operate the boat from the tower in familiar waters or where running aground is not a possibility. Running aground while operating the boat from the tower could result in severe injury.

- Always be alert for waves and boat wakes when operating the boat from the tower. Remember that the boat's motions are exaggerated in the tower.

- Good common sense and judgment must be exercised at all times when operating a boat from the tower.

- If the engine alarm sounds, immediately put the boat in NEUTRAL and shut "OFF" the engine until the problem is found.

- Always put the boat in NEUTRAL before moving to and from the tower helm and cockpit.

GOOD COMMON SENSE, JUDGMENT AND EXTREME CAUTION MUST BE EXERCISED WHEN OPERATING A BOAT WITH SOMEONE IN THE TOWER. DO NOT ALLOW ANYONE IN THE TOWER WHEN THE WATER IS ROUGH OR WHEN OPERATING IN UNFAMILIAR WATERS WHERE RUNNING AGROUND IS A POSSIBILITY. REMEMBER, WEIGHT IN THE TOWER RAISES THE BOAT'S CENTER OF GRAVITY AND THE BOAT'S MOTION IS GREATLY EXAGGERATED FOR THE PEOPLE IN THE TOWER.

12.6 Docking, Anchoring and Mooring

Docking and Dock Lines

Maneuvering the boat near the dock and securing the boat require skill and techniques that are unique to the water and wind conditions and the layout of the dock. If possible, position a crew member at the bow and stern to man the lines and assist in docking operations. While maneuvering close to the dock consideration must be giving to the wind and current. You should anticipate the effect these forces will have on the boat and use them to help put the boat where you want it. It is important to practice in open water using an imaginary dock enough to develop a sense for the way your boat handles in a variety of docking scenarios. You must be able to foresee the possibilities and have solutions in mind before problems occur.

Approaching a dock or backing into a slip in high winds or strong currents requires a considerable amount of skill. If you are new to boat handling, you should take lessons from an experienced pilot to learn how to maneuver your boat in tight quarters in less than ideal conditions. You should also practice away from the dock during windy conditions.

Dock lines are generally twisted or braided nylon. Nylon is strong and stretches to absorb shock. It also has a long life and is soft and easy on the hands. The line's size will vary with the size of the boat. Typically a 30 to 40 foot boat will use 5/8-inch line and a 20 to 30 foot boat will use 1/2-inch line. The number of lines and their configuration will vary depending on the dock, the range of the tide, and many other factors. Usually a combination of bow, stern and spring lines is used to secure the boat.

Maneuvering to the Dock

Approach the dock slowly at a 30 to 40 degree angle. Whenever possible, approach against the wind or current. Turn the engines straight & shift to neutral when you feel you have enough momentum to reach the dock. Use reverse on the outboard engine while turning the steering wheel towards the dock to slow the boat and pull the stern towards the dock as the boat approaches. Straighten the engines and use both engines to stop the boat if it is still moving forward against the pilings. If you executed your approach properly, the boat will lightly touch the pilings at the same time the forward momentum is stopped. Have the dock lines ready and secure the boat as soon at it stops. Use fenders to protect the boat while it is docked. Keep the engines running until the lines are secured.

Backing into a Slip

Approach the slip with the stern against the wind or current and the engines straight ahead. Use the engines and turn the steering wheel to maneuver the boat into alignment with the slip. Reverse the engines and slowly back into the slip. Shift from reverse to neutral frequently to prevent the boat from gaining too much speed. Move the stern right and left by shifting the engines in and out of gear or turning the wheel. When nearly in the slip all the way, straighten the engines and shift to forward to stop. Keep the engines running until the lines are secured.

Securing Dock Lines

Securing a boat along side the dock typically requires a bow and stern line and two spring lines. The bow and stern lines are usually secured to the dock at a 40° angle aft of the stern cleat and forward of the bow cleat. The after bow spring line is secured to the dock at a 40° angle aft of the after bow spring cleat. The forward quarter spring is secured to the dock at a 40° angle forward of the stern cleat. The spring lines keep the boat square to the dock and reduce fore and aft movement while allowing the boat to move up and down with the tide.

Securing a boat in a slip is somewhat different. It typically requires two bow lines secured to pilings on each side of the bow, two stern lines secured to the dock and two spring lines that prevent the boat from hitting the dock. The bow lines are typically secured with enough slack to allow the boat to ride the tide. The stern lines are crossed. One line runs from the port aft boat cleat to the starboard dock cleat and the other line runs from the starboard aft boat cleat to the port cleat on the dock. The stern lines center the boat, control the forward motion, and allow the boat to ride the tide. Two forward quarter spring lines typically are secured to the stern cleats and to mid ship pilings or cleats. The spring lines keep the boat from backing into the dock while allowing it to ride the tide.

Leaving the Dock

Always start the engines and let them warm up for 10 to 15 minutes before releasing the lines. Boats steer from the stern and it is important that you achieve enough clearance at the stern to maneuver the boat as quickly as possible. Push the stern off and maneuver such that you get stern clearance quickly. Proceed slowly until well clear of the dock and other boats.

Mooring

Approach the mooring heading into the wind or current. Shift to neutral when you have just enough headway to reach the buoy. Position a crew member on the bow to retrieve the mooring with a boat hook and secure the line. Keep the engines running until the line is secured.

Leaving a Mooring

Start the engines and let them warm up for several minutes before releasing the mooring line. The boat will already be headed into the wind, so move it forward enough to loosen the line and untie it. Back the boat away from the mooring until you can see the buoy. Move the boat slowly away from the mooring.

Anchoring

Make sure the bitter end of the anchor rode is attached to the boat before dropping the anchor. Bring the bow into the wind or current and put the engine in neutral. When the vessel comes to a stop, lower the anchor over the bow. Pay out anchor line so that it is at least 5 to 7 times the depth of the water and secure the line to a cleat. Use caution to avoid getting your feet or hands tangled in the line. Additional scope of 10 times the depth may be required for storm conditions. Check landmarks on shore to make sure the anchor is not dragging. If it is dragging, you will have to start all over. It is prudent to use two anchors if you are anchoring overnight or in rough weather.

Releasing the Anchor

Release the anchor by driving the boat slowly to the point where the anchor line becomes vertical. It should release when you pass that point. If the anchor doesn't release right away, stop the boat directly above the anchor and tie the line to the cleat as tight as possible. The up and down movement of the boat will usually loosen the anchor within a minute. Make sure you secure the anchor and properly stow the line before operating the boat.

NEVER ANCHOR THE BOAT BY THE STERN. THE STERN OF THE BOAT IS VULNERABLE TO SWAMPING FROM WAVE ACTION AND WIND AND CURRENT WILL PUT MORE STRESS ON THE ANCHOR WHEN IT IS ATTACHED TO THE STERN. ONLY ANCHOR THE BOAT BY THE BOW

12.7 Controls, Steering or Propulsion System Failure

If the propulsion, control or steering system fails while you are operating the boat, bring both throttles to idle and shift to neutral. Decide whether you need to put out the anchor to prevent the boat from drifting or to hold the bow into the seas. Investigate and correct the problem if you can. Turn the engines off before opening the engine cowling to make repairs. If you are unable to correct the problem, call for help.

If only one engine has failed, you can usually run home on the other engine. Be careful not to apply too much power to the engine that is running. When only one engine is used to power a twin engine boat, that engine is over propped and can be overloaded if too much throttle is applied. You should contact your dealer or the engine manufacturer for the maximum power settings when running on one engine.

12.8 Collision

If your boat is involved in a collision with another boat, dock, piling or a sandbar, your first priority is to check your passengers for injuries and administer first aid if necessary. Once your passenger's situations are stabilized, thoroughly inspect the boat for damage. Check below decks for leaks and the control systems for proper operation. Plug all leaks or make the necessary

repairs to the control systems before proceeding slowly and carefully to port. Request assistance if necessary. Haul the boat and make a thorough inspection of the hull and running gear for damage.

12.9 Grounding, Towing and Rendering Assistance

The law requires the owner or operator of a vessel to render assistance to any individual or vessel in distress, as long as his vessel is not endangered in the process.

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, AND COULD CAUSE SERIOUS INJURY OR DEATH.

RUNNING AGROUND CAN CAUSE SERIOUS INJURY TO PASSENGERS AND 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.

12.10 Flooding or Capsizing

Boats can become unstable if they become flooded or completely swamped. You must always be aware of the position of the boat to the seas and the amount of water in the bilge. Water entering the boat over the transom can usually be corrected by turning the boat into the waves. If the bilge is flooding because of a hole in the hull, the engine bracket or a defective hose, you may be able to plug it with rags, close the thru-hull valve or assist the pumps by bailing with buckets. Put a mayday call in to the Coast Guard or nearby boats and distribute life jackets as soon as you discover your boat is in trouble.

If the boat becomes swamped and capsizes, you and your passengers should stay with the boat as long as you can. It is much easier for the Coast Guard, aircraft, or other boats to spot, than people in the water.

12.11 Fishing

Fishing can be very exciting and distracting for the operator when the action gets intense. You must always be conscious of the fact that your primary responsibility is the safe operation of your boat and the safety of your passengers and other boats in the area.

You must always make sure the helm is properly manned and is never left unattended while trolling. If your boat is equipped with a tower, caution and good common sense must be exercised whenever someone is in the tower. Most towers are designed for two average-sized people. Remember, weight in the tower raises the boat's center of gravity and the boat's motion is greatly exaggerated for the people in a tower.

If you are fishing in an area that is crowded with other fishing boats, it may be difficult to follow the rules of the road. This situation can become especially difficult when most boats are trolling. Being courteous and exercising good common sense is essential. Avoid trying to assert your right of way and concentrate on staying clear and preventing tangled or cut lines and other unpleasant encounters with other boats. Also keep in mind that fishing line wrapped around a propeller shaft can damage seals in the engine lower unit.

12.12 Man Overboard

If someone falls overboard, you must be prepared to react quickly, particularly when you are offshore. The following procedures will help you in recovering a person that has fallen overboard.

- Immediately stop the boat and sound a man overboard alarm and have all passengers point to the person in the water.

- Circle around quickly and throw a cushion or life jacket to the person, if possible, and another to use as a marker.

- Keep the person on the driver side of the boat so you can keep him in sight at all times.

- Make sure to approach the person from the downwind side and maneuver the boat so the propellers are well clear of the person in the water.

- Turn off the engines when the person is alongside and use a ring buoy or a boat cushion with a line attached, a paddle or boathook to assist him to the boat. Make sure you don't hit him with the ring buoy or the boat.

- Pull the person to the boat and assist him on board.

- Check the person for injuries and administer first aid if necessary. If the injuries are serious, call for help. Refer to the Safety Equipment chapter for more information on first aid and requesting emergency medical assistance.

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 ENGINES ARE RUNNING. STOP THE ENGINES IF DIVERS OR SWIMMERS ARE ATTEMPTING TO BOARD. ALWAYS PROPERLY STORE THE LADDER BEFORE STARTING THE ENGINES.

12.13 Trash Disposal

The discharge of plastic trash or trash mixed with plastic is illegal anywhere in the marine environment. Regional, State, and local restrictions on garbage discharges also may apply.

Responsible boaters store refuse in bags and disposed of it properly on shore. You should make sure your passengers are aware of the local waste laws and the trash management procedure on your boat.

12.14 Transporting Your Boat

The Pursuit 3070 Express is a large boat and should only be trailered by professionals that have the knowledge and equipment to move large boats without causing damage.

Please contact your dealer or the Pursuit Customer Relations Department if you are planning to transport your boat and have any questions in regard to the proper equipment and support for the hull.

BOATS HAVE BEEN DAMAGED BY TRAILERS THAT DON'T PROPERLY SUPPORT THE HULL. ALWAYS MAKE SURE THE TRAILER BUNKS AND PADS 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.

Chapter 13:
ROUTINE MAINTENANCE

13.1 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.

Bottom Painting

If the boat is to be left in saltwater for extended periods, the hull must be protected from marine growth by antifouling 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.

SANDING OR SANDBLASTING THE HULL BOTTOM WILL DAMAGE THE FIBERGLASS. USE ONLY STANDARD ANTIFOULING PAINTS AND FIBERGLASS WAX REMOVERS AND PRIMERS RECOMMENDED BY THE ANTIFOULING PAINT MANUFACTURER WHEN PREPARING THE HULL FOR BOTTOM PAINT. SANDING OR SANDBLASTING AND THE USE OF A COATING OTHER THAN STANDARD ANTIFOULING PAINT OR EPOXY BARRIER COATINGS ARE NOT RECOMMENDED AND WILL VOID THE FIVE YEAR HULL BLISTER WARRANTY.

Do not allow the hull antifouling paint to contact the outboard motor. Most antifouling paints designed for hull bottoms contain copper and can cause severe galvanic damage to the motor. Always leave a 1/2" barrier between the hull bottom paint and outboard motor.

Most bottom paints require some maintenance. Proper maintenance is especially important when the boat is in saltwater and not used for extended periods or after dry storage. If the hull bottom has been painted with antifouling paint, contact your dealer for the recommended maintenance procedures.

Anodes

Sacrificial anodes are installed on the outboard engines, the trim tabs and on the transom. The transom zinc is connected to the bonding system and protects the underwater hardware that is bonded.

The anodes are less noble than copper based alloys and aluminum and will deteriorate first, protecting the more noble underwater hardware against galvanic corrosion. Anodes should be checked monthly and changed when they are 75% of their original size. Always use the type and

grade of anode recommended by the engine manufacturer of outboard and stern drive boats. When replacing the anodes, make sure the contact surfaces are clean, shiny metal and free of paint and corrosion. Never paint over the anode.

Boats stored in saltwater will typically need to have the anodes replaced at least every 6 months to one year. Anodes requiring replacement more frequently may indicate a stray current problem within the boat or at the slip or marina. Anodes that do not need to be replaced after one year may not be providing the proper protection. Loose or low quality anodes could be the problem. Contact your dealer for the proper size and type of anodes to be used and the specific installation procedure.

Fiberglass Gelcoat Surfaces

Normal maintenance requires only washing with mild soap and water. A stiff brush can be used on the nonskid 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. 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 nonskid areas.

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

DO NOT WAX NONSKID 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 SANDPAPER, BRONZE WOOL, OR STEEL WOOL BE USED ON STAINLESS STEEL. DAMAGE TO THE HARDWARE WILL RESULT.

Anodized Aluminum Surfaces

Anodized aluminum should be washed periodically with soap and water to keep it clean. If the boat is used in saltwater or polluted water, the aluminum should be washed with soap and water after each use. Saltwater allowed to remain on anodized aluminum will penetrate the anodized coating and attack the aluminum.

Hard tops with aluminum frames, bimini tops and towers with canvas and/or fiberglass tops require special attention to the anodized aluminum just below the top. This area is subject to salt build up from salty condensation and sea spray. It is also frequently overlooked when the boat is washed and will not be rinsed by the rain. Consequently, the aluminum just below the top is more likely to become pitted than the exposed aluminum on the structure. Make sure the aluminum in this area is washed frequently with soap and water and rinsed thoroughly. Pay particular attention to places where the top material and lacing contact the frame. Once a month coat the entire frame with a metal protector made for anodized aluminum to protect against pitting and corrosion caused by the harsh effects of saltwater. The anodized aluminum used on your Pursuit was coated with a metal protector called Aluma Guard at the factory. Aluma Guard is a nonabrasive marine metal protector that protects anodized aluminum, stainless steel, brass, and chrome. It also protects color anodizing from fading and discoloring due to harmful ultraviolet rays. It is available from Rupp Marine Inc., 4761 Anchor Avenue, P.O. Drawer F, Port Salerno, FL 34992.

ONE DRAWBACK TO ALUMA GUARD AND OTHER METAL PROTECTORS IS THAT THEY CAN MAKE THE METAL SLIPPERY. THEREFORE, THEY SHOULD NOT BE USED ON TOWER LADDERS, STEERING WHEELS AND OTHER AREAS WHERE A GOOD GRIP AND SURE FOOTING IS IMPORTANT.

Stains can be removed with a metal polish or fine polishing compound. To minimize corrosion, use a caulking compound to bed hardware and fasteners mounted to aluminum fabrications. If the anodized coating is badly scratched it can be touched up with paint. With proper care, anodized aluminum will provide many years of service.

Note: You should contact Pursuit Customer Relations before making any modifications to aluminum fabrications. Unauthorized modifications can void the warranty.

Chrome Hardware

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

Acrylic Plastic Glass

Acrylic glass scratches easily. Never use a dry cloth or glass cleaning solutions on acrylic. Use a soft cloth and mild soap and water for routine cleaning. Solvents and products containing ammonia can permanently damage acrylic plastic glass.

Fine scratches can be removed with a fine automotive clear coat polishing compound. A coat of automotive or boat wax is beneficial to protect the surface. Do not use the following on acrylic glass:

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.

The age of gasoline can affect engine performance. Chemical changes occur as the gasoline ages that can cause deposits and varnish in the fuel system as well as reduce the octane rating of the fuel. Severely degraded fuel can damage the engine and boat fuel tank and lines. Therefore, if your boat is not being run enough to require at least one full tank of fresh fuel a month, a fuel stabilizer should be added to the gasoline to protect the fuel from degradation. Your dealer or the engine manufacturer can provide additional information on fuel degradation and fuel stabilizers recommended for your engine.

Avoid using fuels with alcohol additives. Gasoline that is an alcohol blend will absorb moisture from the air which can reach such concentrations that "phase separation" can occur whereby the water and alcohol mixture becomes heavy enough to settle out of the gasoline to the bottom of the tank. Since the fuel pick up tube is very near the bottom of the tank, phase separation can cause the engine to run very poorly or not at all. This condition is more severe with methyl alcohol and will worsen as the alcohol content increases. Water or a jelly like substance in the fuel filters is an indication of possible phase separation from the use of alcohol blended fuels.

13.2 Upholstery, Canvas and Enclosures

Vinyl Upholstery

The vinyl upholstery used on the exterior seats and bolsters, and for the headliner in the cabin, should be cleaned periodically with soap and water. Any stain, spill or soiling should be cleaned up promptly to prevent the possibility of permanent staining. When cleaning, always rub gently.

Avoid using products containing ammonia, powdered abrasive cleaners, steel wool, ink, strong solvents, acetone and lacquer solvents or other harsh chemicals as they can cause permanent damage or shorten the life of vinyl. Never use steam heat, heat guns or hair dryers on vinyl.

Stronger cleaners, detergents and solvents may be effective in stain removal, but can cause either immediate damage or slow deterioration. Lotions, sun tan oil, waxes and polishes, etc., contains oils and dyes that can cause stiffening and staining of vinyls.

- Dry soil, dust and dirt - Remove with a soft cloth.
- Dried on dirt - Wash with a soft cloth dampened with water.
- Variations in surface gloss - Wipe with a water dampened soft cloth and allow to air dry.
- Stubborn dirt - Wash with a soft cloth dampened with Ivory Flakes® and water. Rinse with clean water.
- Stubborn spots and stains - Spray with either Fantastik Cleaner® or Tannery Car Care Cleaner® and rub with a soft cloth. Rinse with clean water.
- Liquid spills - Wipe immediately with a clean absorbent cloth. Rinse with clean water.
- Food grease and oily stains - Spray immediately using either Fantastik Cleaner® or Tannery Car Care Cleaner®, wiping with a soft cloth. Take care not to extend the area of contamination beyond its original boundary. Rinse with clean water.

Acrylic Canvas

Acrylic canvas should be cleaned periodically by using a mild soap and water. Scrub lightly and rinse thoroughly to remove the soap. Do not use detergents. The top or accessories should never be folded or stored wet.

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 an acrylic glass and clear plastic protector to extend the life of the curtains.

Vinyl curtains should be stored either rolled or flat, without folds or creases. Folding the curtains will make permanent creases that could cause the vinyl to crack.

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

Snaps should be lubricated periodically with petroleum jelly or silicone grease. Zippers should be lubricated with silicone spray or paraffin.

The bimini top, side curtains, clear connector, back drop and aft curtain must be removed when trailering. Canvas enclosures are not designed to withstand the extreme wind pressure encountered while trailering and will be damaged. Always remove and properly store the enclosure before trailering your boat.

Do not operate engines, fuel consuming heaters or burners with the canvas enclosures closed. The cockpit must be open for legal ventilation and to prevent the possible accumulation of carbon monoxide fumes, which could be lethal.

CARBON MONOXIDE IS A LETHAL, TOXIC GAS THAT IS COLORLESS AND ODORLESS. IT IS A DANGEROUS GAS THAT WILL CAUSE DEATH IN CERTAIN LEVELS.

13.3 Cabin Interior

The cabin interior can be cleaned just like you would clean a home interior. To preserve the teak woodwork, use teak oil. To maintain the carpeting, use a vacuum cleaner. Because air and sunlight are very good cleansers, periodically put cushions, sleeping bags, etc. on deck, in the sun and fresh air, to dry and air out. If cushions or equipment get wet with saltwater, remove and use clean, fresh water to rinse off the salt crystals. Salt retains moisture and will cause damage. Dry thoroughly and reinstall.

Vinyl headliner material should be cleaned periodically as explained in the previous section. Avoid using products containing ammonia, bleach, or harsh chemicals as they can shorten the life of vinyl.

If you leave the boat for a long period of time, put all cushions on their sides, open all interior cabin and locker doors, and hang a commercially available mildew protector in the cabin.

ALWAYS READ THE LABEL CAREFULLY ON MILDEW PROTECTORS. REMOVE THE PROTECTOR AND ALLOW THE CABIN TO VENTILATE COMPLETELY BEFORE USING THE CABIN.

13.4 Bilge

To keep the bilge clean and fresh, use a commercial bilge cleaner regularly. Follow the directions carefully. The generator compartment should be kept clean and free of oil accumulation and debris. All exposed pumps and metal components, including the generator, should be sprayed periodically with a protector to reduce the corrosive effects of the high humidity always present in these areas.

Maintenance intervals are outlined in the generator owner's manual. Their recommendations should be followed exactly.

Periodically check the bilge pumps for proper operation and clean debris from the strainers and float switches. Inspect all hoses, clamps and thru hulls for leaks and tightness on a regular basis and operate all thru hull valves at least once a month to keep them operating properly.

A flow of air into the bilge compartment is provided by vents. Periodic inspection and cleaning of the ventilation ducts is necessary to ensure adequate air circulation.

13.5 Generator (Optional)

The engine maintenance required on the generator is similar in many ways to any inboard engine. The engine incorporates a pressure-type lubrication system and a fresh water cooled engine block which is thermostatically controlled. The most important factors to the generator's longevity are proper ventilation and maintenance of the fuel system, ignition system, cooling system, lubrication system and the AC alternator.

The primary fuel filter should be monitored for water before each use. The element should be changed at least once each year or more frequently depending on the quality of the fuel and the hours run. The sea strainer should be checked frequently for debris and cleaned as required.

Maintenance schedules and procedures are outlined in your generator owner's manual. They should be followed exactly.

13.6 Drainage System

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

- Clean the cockpit drains with a hose to remove debris that can block water drainage.

- Clean the hardtop, tower or radar arch leg drain holes. This is especially important just before winter lay-up.

- Frequently test the automatic bilge switch for proper operation. This is accomplished by turning the knob on the side of the float switch and lifting the float until the pump is activated. You can also use a garden hose to flood the bilge until the water level is high enough to activate the pump.

- Flush all gravity drains with freshwater to keep them clean and free flowing.

- Operate the thru hull valves once a month and service as required.

Note: 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 14:
SEASONAL MAINTENANCE

14.1 Storage and Lay-up

Before Hauling:

- Pump out the head. Flush the holding tank using clean soap, water and a deodorizer. Pump out the cleaning solution.

- The fuel tank should be left nearly full to reduce condensation that can accumulate in the fuel tank. Allow enough room in the tank for the fuel to expand without leaking out the vents. Moisture from condensation in the fuel tank can reach such concentrations that it becomes heavy enough to settle out of the gasoline to the bottom of the tank. Since fuel pickup tubes are located near the bottom of the tank, this accumulated moisture can cause the engine to run poorly or not at all after extended storage.

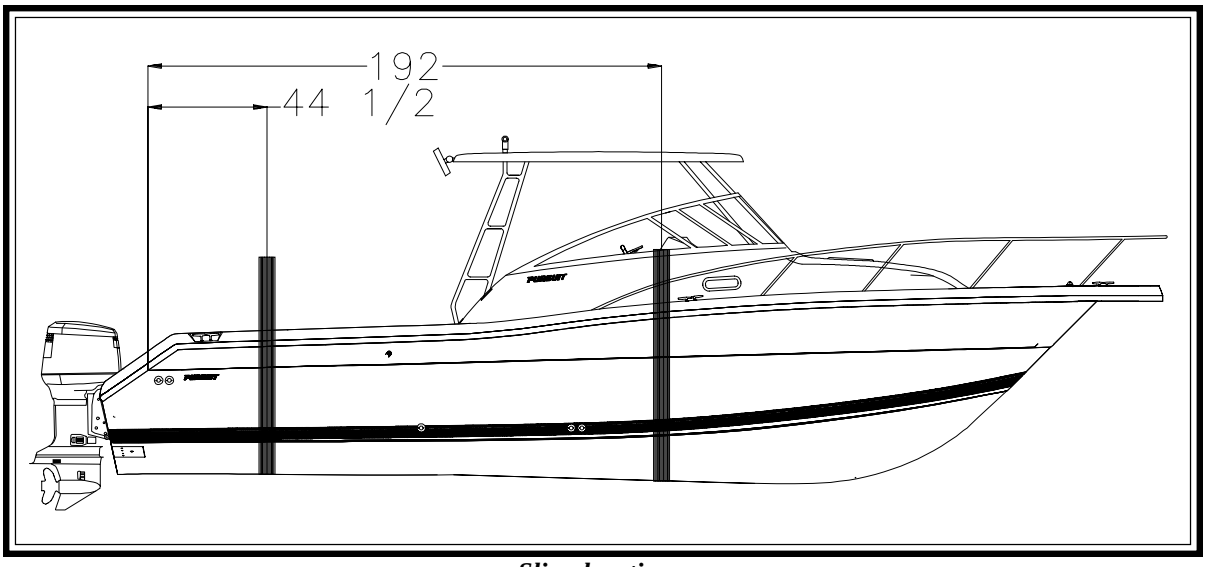
  Chemical changes also occur as the gasoline ages that can cause deposits and varnish in the fuel system as well as reduce the octane rating of the fuel. Severely degraded fuel can damage the engine and boat fuel tank and lines.

  Therefore, if your boat is not being run enough to require at least one full tank of fresh fuel a month or during winter storage, a fuel stabilizer should be added to the gasoline to help protect the fuel system from these problems. Operate the boat for at least 15 minutes after adding the stabilizer to allow the treated fuel to reach the engine.

  Your dealer or the engine manufacturer can provide additional information on fuel degradation and fuel stabilizers recommended for your engine. For more recommendations for your specific area, check with your local Pursuit dealer.

- Drain water from the freshwater system.

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



Sling locations

Lifting

It is essential that care be used when lifting your boat. Make sure the spreader bar at each sling is at least as long as the distance across the widest point of the boat that the sling will surround. Put the slings in position. Refer to the sling locations drawing for the correct position of the lifting slings. The fore and aft slings should tied together to prevent the slings from sliding on the hull.

NOTICE

BOATS CAN BE 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.

NOTICE

SEVERE GELCOAT CRACKING OR MORE SERIOUS HULL DAMAGE CAN OCCUR DURING HAULING AND LAUNCHING IF PRESSURE IS CREATED ON THE GUNWALES (SHEER) BY THE SLINGS. FLAT, WIDE 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

A trailer, elevating lift 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 trailer is on a level surface and the bow is high enough so that water will drain from the bilge and cockpit.
- The trailer must properly support the hull. The bunks and rollers should match the bottom of the hull and should not be putting pressure on the lifting strakes.
- Make sure the hitch is properly supported.
- 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 lift or cradle:

- The cradle must be specifically for boat storage.
- Make sure the lift or cradle is well supported with the bow high enough to provide proper drainage of the bilge.
- Make sure the engines are in the down position.
- The cradle or lift must be in the proper fore and aft position to properly support the hull. When the cradle or lift 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, LIFTS 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(s), if installed.
- Thoroughly wash the fiberglass exterior, especially the antifouling 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 propellers and grease the propeller shafts 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.

Note: Refer to the Electrical System Chapter, for information on the maintenance of the AC and DC electrical systems.

- Coat all faucets and exposed electrical components in the cabin and cockpit with a protecting oil.

- Clean out, totally drain and completely dry the fishboxes, sinks and livewells.

- Thoroughly clean the interior of the boat. Vacuum all carpets and dry clean drapes and upholstery.

- Remove cushions, open the refrigerator/cooler door and 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.

Note: It is recommended that a mildew preventer be hung in the boat's cabin before it is closed for storage.

- Clean the exterior upholstery with a good vinyl cleaner and dry thoroughly. Spray the weather covers and boat upholstery with a spray disinfectant. Enclosed areas such as the refrigerator, shower basin, storage locker areas, etc. should also be sprayed with this disinfectant.

14.2 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 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 outlet hose 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 nontoxic, 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 and the water supply valve for the head. Make sure antifreeze has flowed through all of the freshwater drains.
The shower drain sump system must be properly winterized. Clean debris from the drain and sump and flush for several minutes with fresh clean water. After the system is clean, pump the drain sump as dry as possible. Then pour a potable water antifreeze mixture into the shower drain until antifreeze has been pumped through the entire system and out of the thru hull.

For additional information please refer to the Freshwater System chapter.

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 pump, blowing the lines will not remove the water from the raw water 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 nontoxic, 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.

Make sure to run the stern fishbox macerator pump until all the water is removed from the fishbox and the pump. To avoid damage to the pump, be careful not to run the pump dry for more than 10 seconds.

Generator Raw Water Systems
Drain the sea strainer, heat exchangers and raw water supply and discharge lines for the optional generator raw water supply pumps. Make sure all sea water has drained from the exhaust system. Some, but not all, generator engine mufflers could have a drain plug that must be removed to properly drain the muffler. Once this is accomplished, pour a nontoxic marine engine antifreeze mixture into a large pail and put the generator raw water intake lines into the solution. Run the generator until the antifreeze solution is visible at the exhaust port, then shut the engine off.

Properly winterize the generator engine and fuel system by following the engine manufacturer's winterizing procedures located in your engine owner's manuals or contact a Pursuit dealer.

Marine Toilet
The marine toilet 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 and macerator discharge pump must be pumped dry and one gallon of potable water antifreeze poured into the tank through

the deck waste pump out fitting. After the antifreeze has been added to the holding tank, open the overboard discharge valve and activate the macerator pump until the antifreeze solution is visible at the discharge thru hull.

Note: Make sure you follow the marine toilet manufacturer's winterizing instructions exactly.

Air Conditioner

Disconnect and drain the air conditioner intake and discharge hoses. Remove all water from the sea strainer and thru hull fitting. Allow all water to drain from the system. A recommended alternative to the above-mentioned procedure is the use of commercially available nontoxic, potable water system antifreeze. If potable water antifreeze is used, drain the sea strainer and pour the mixture into a pail and put the raw water intake line into the solution. Run the air conditioner until the antifreeze solution is visible at the discharge fitting on the hull side.

The air conditioner components must be properly winterized by following winterizing procedure in the air conditioner owner's manual.

Note: The air conditioning, engine control system, head, and steering systems have specific lay up requirements. Please refer to the owner's manuals for recommended winterizing procedures.

Bilge

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

Hard Top

It is imperative that all drain holes in the legs are open and that the legs are completely free of water. Remove the canvas and thoroughly clean and store in a safe, dry place. Remove all electronics. Coat all wire connectors and bus bars in the helm compartment with a protecting oil.

Clean the aluminum frame with soap and water and dry thoroughly. Apply an aluminum metal protector to the entire frame to reduce corrosion and pitting.

ALWAYS MAKE SURE THE LEG DRAIN HOLES ARE CLEAR WHEN THE BOAT IS LAID UP FOR THE WINTER. WATER TRAPPED INSIDE THE HARDTOP, TOWER OR RADAR ARCH LEGS COULD FREEZE AND CAUSE THE LEGS TO SPLIT.

Tower (if installed)

It is imperative that all drain holes in the tower and hardtop legs are open and completely free of water. Tower basket drains should be checked and clear of debris. Remove the tower sun shade, if installed, the belly band or other upholstery and thoroughly clean and store in a safe, dry place. Remove all electronics. Coat all wire connectors and bus bars in the helm compartment with a protecting oil. Cover the tower basket with a tarp and secure it properly. Clean the aluminum frame with soap and water and dry thoroughly. Apply an aluminum metal protector to the entire frame to reduce corrosion and pitting.

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 BILGE AREA 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.

Note: If the boat is to be stored indoors or outdoors, open all drawers, clothes lockers, cabinets, and doors a little. If possible, remove the upholstery, mattresses, clothing, and rugs. Then hang a commercially available mildew protector in the cabin.

14.3 Recommissioning

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

Note: It is important and recommended that 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 HULL DRAIN PLUG IS INSTALLED.

Reactivating The Boat After Storage:

- Charge and install the batteries.
- Install the drain plug in the hull.
- Check the engines and generator for damage and follow the manufacturer's instructions for recommissioning.
- Check the engines mounting bolts to make sure they are tight.
- Perform all routine maintenance.
- Check all hose clamps for tightness.
- Pump the antifreeze from the fresh and raw water systems and flush several times with freshwater. Make sure all antifreeze is flushed from the water heater and it is filled with freshwater before it is activated.
- Check and lubricate the steering system.
- Clean and wash the boat.
- Install all upholstery, cushions and canvas.

After Launching:

- Carefully check all water systems and the engine bolts for leaks. Operate each system one at a time checking for leaks and proper operation.

- Check the bilge pump manual and automatic switches.

- When the engines start, check the cooling system port below the engine cowling for a strong stream of water. This ensures 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.

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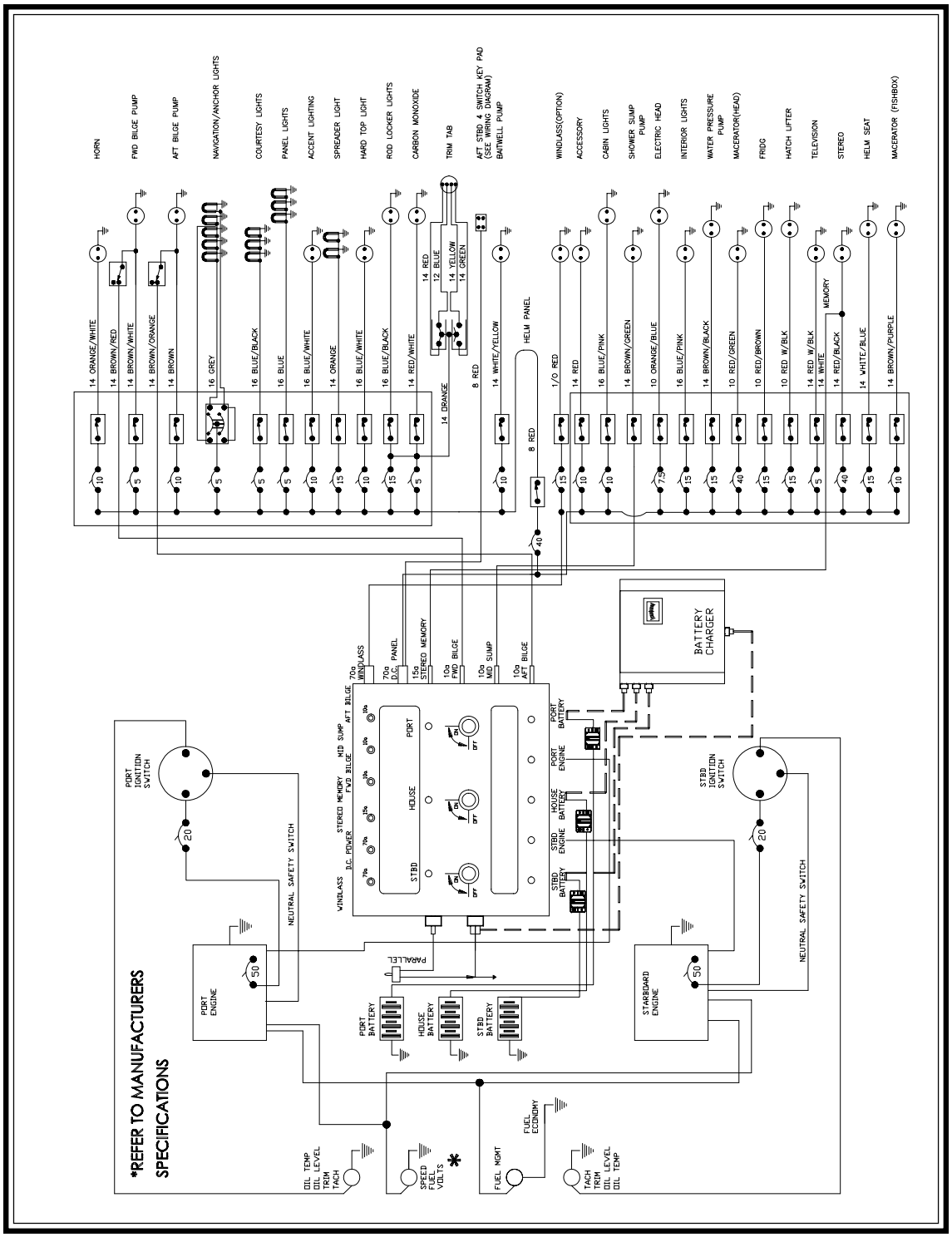
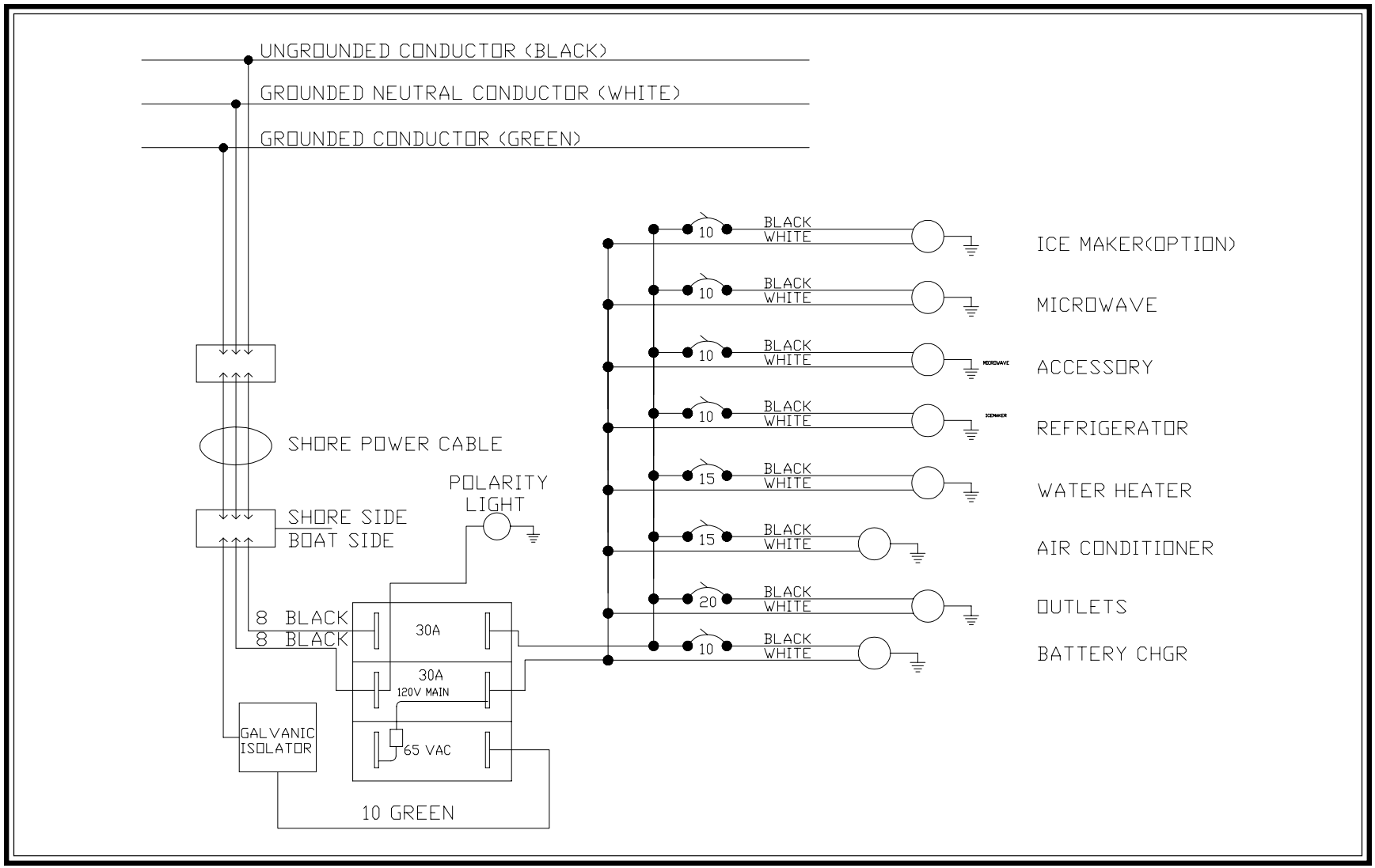
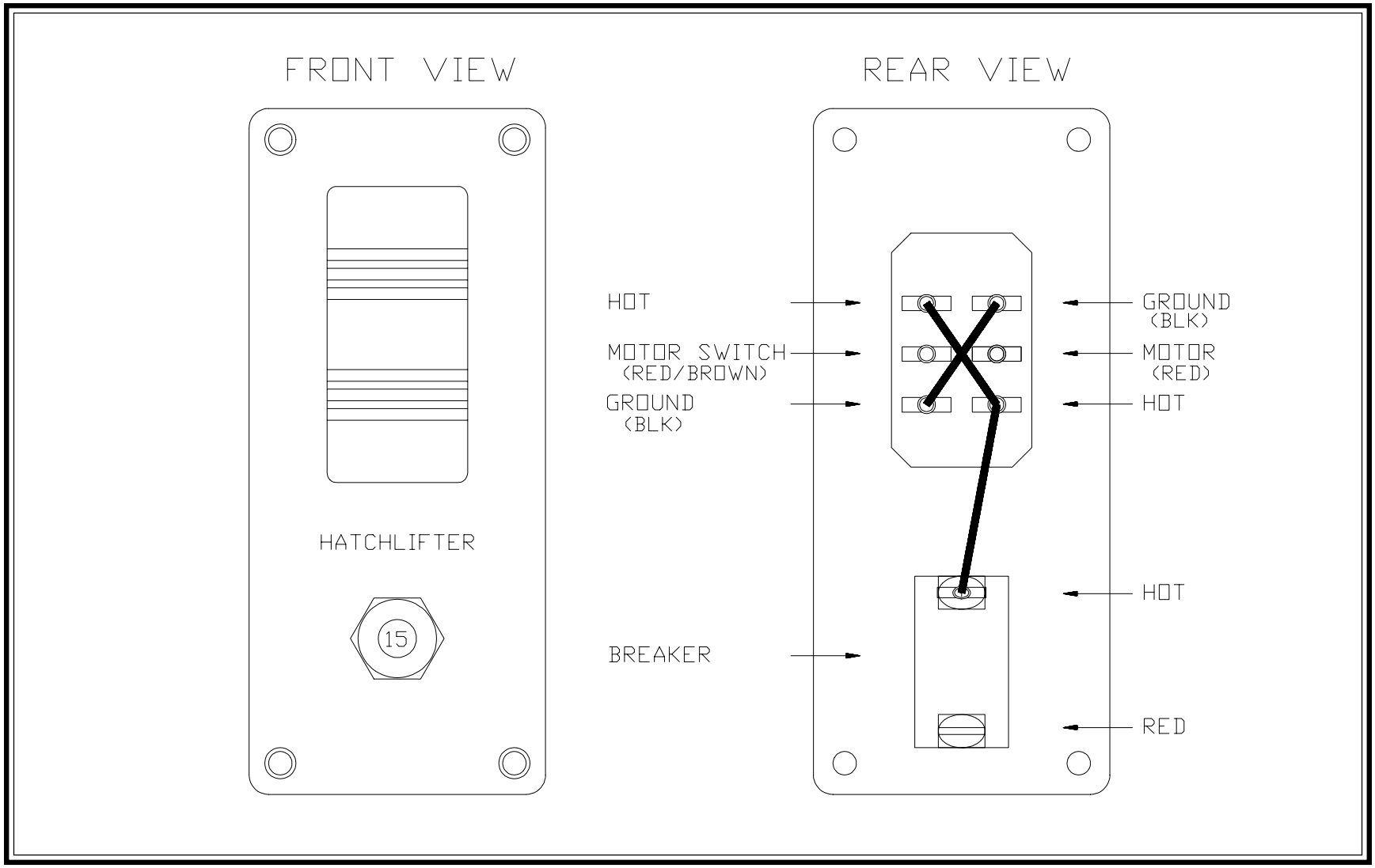
Chapter 15:
SCHEMATICS



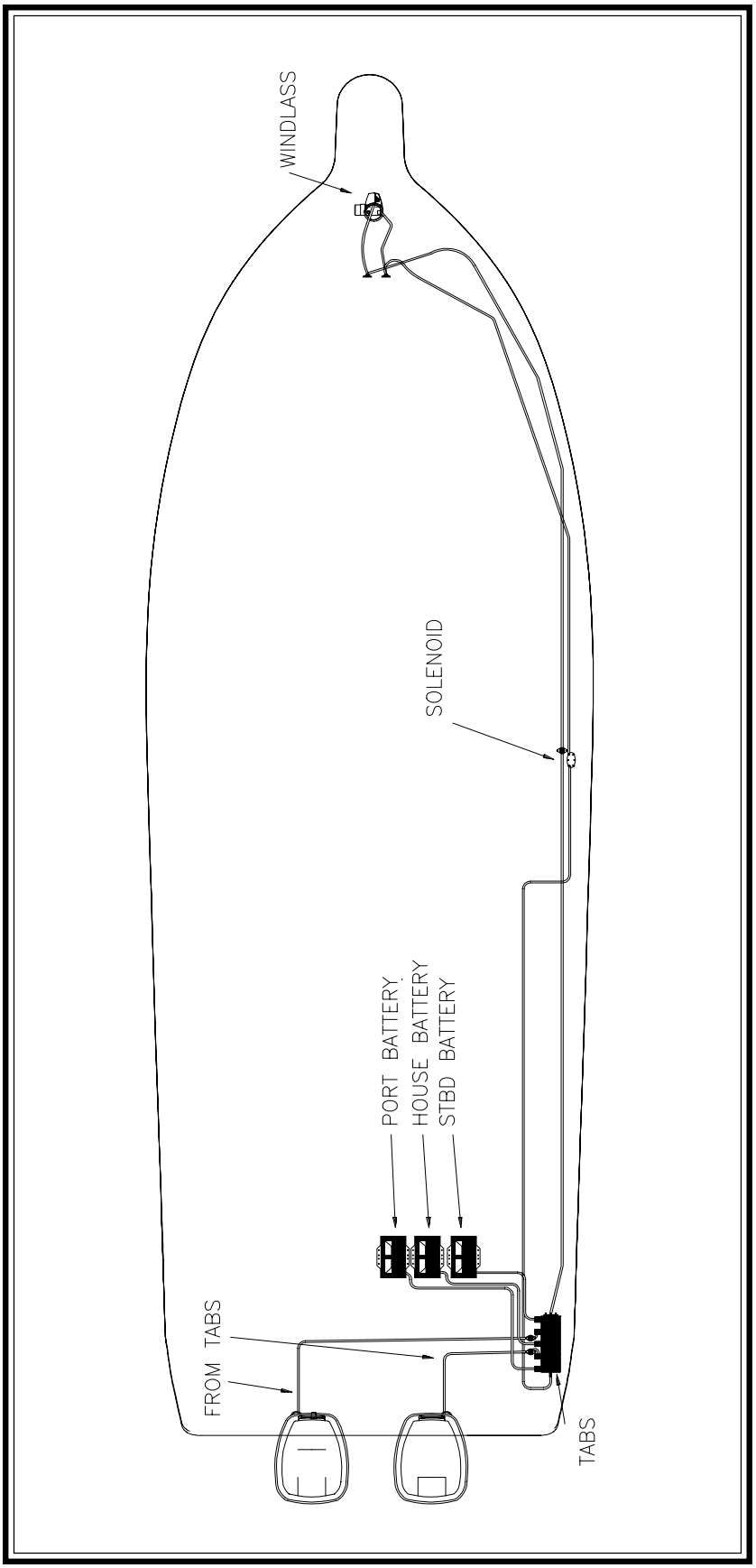
12-Volt DC Wiring Schematic



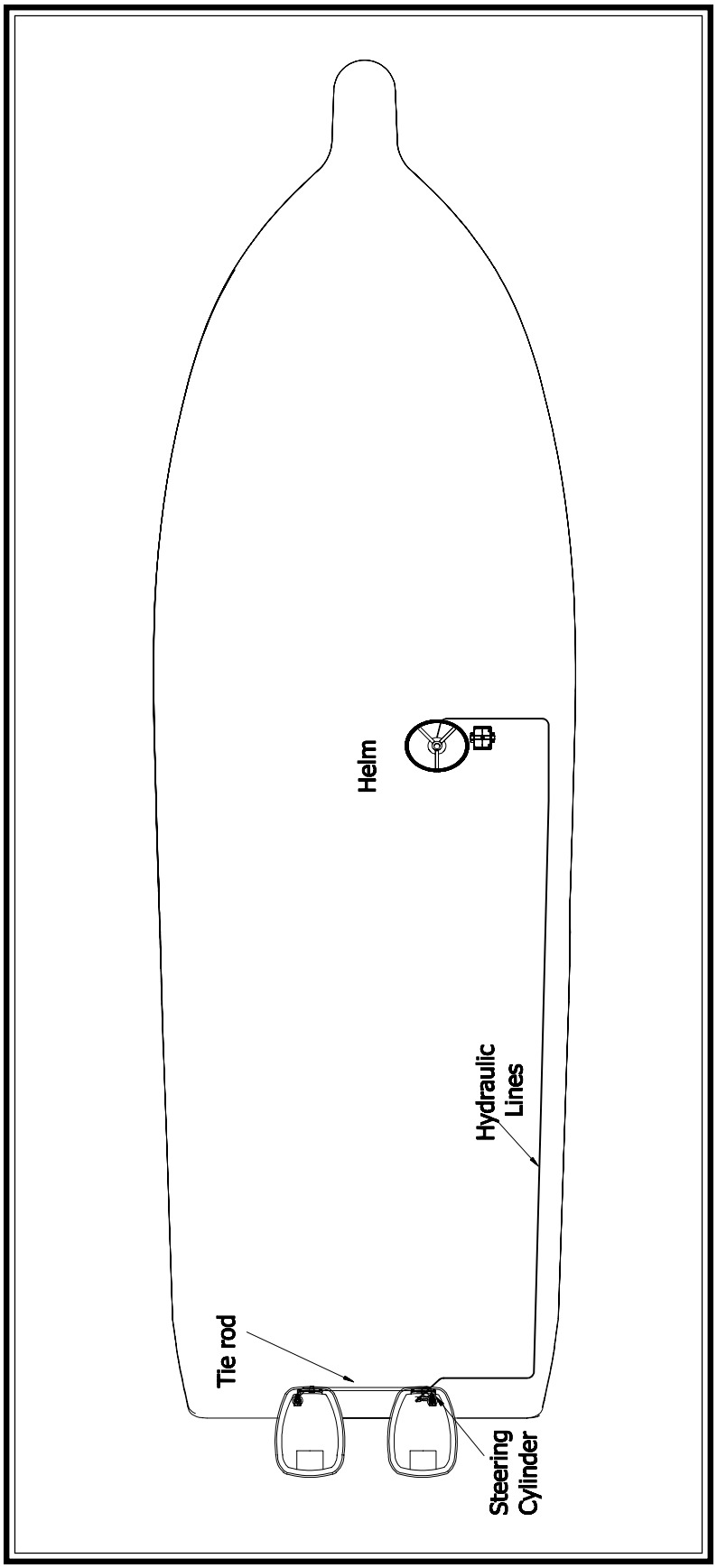
AC Wiring Schematic



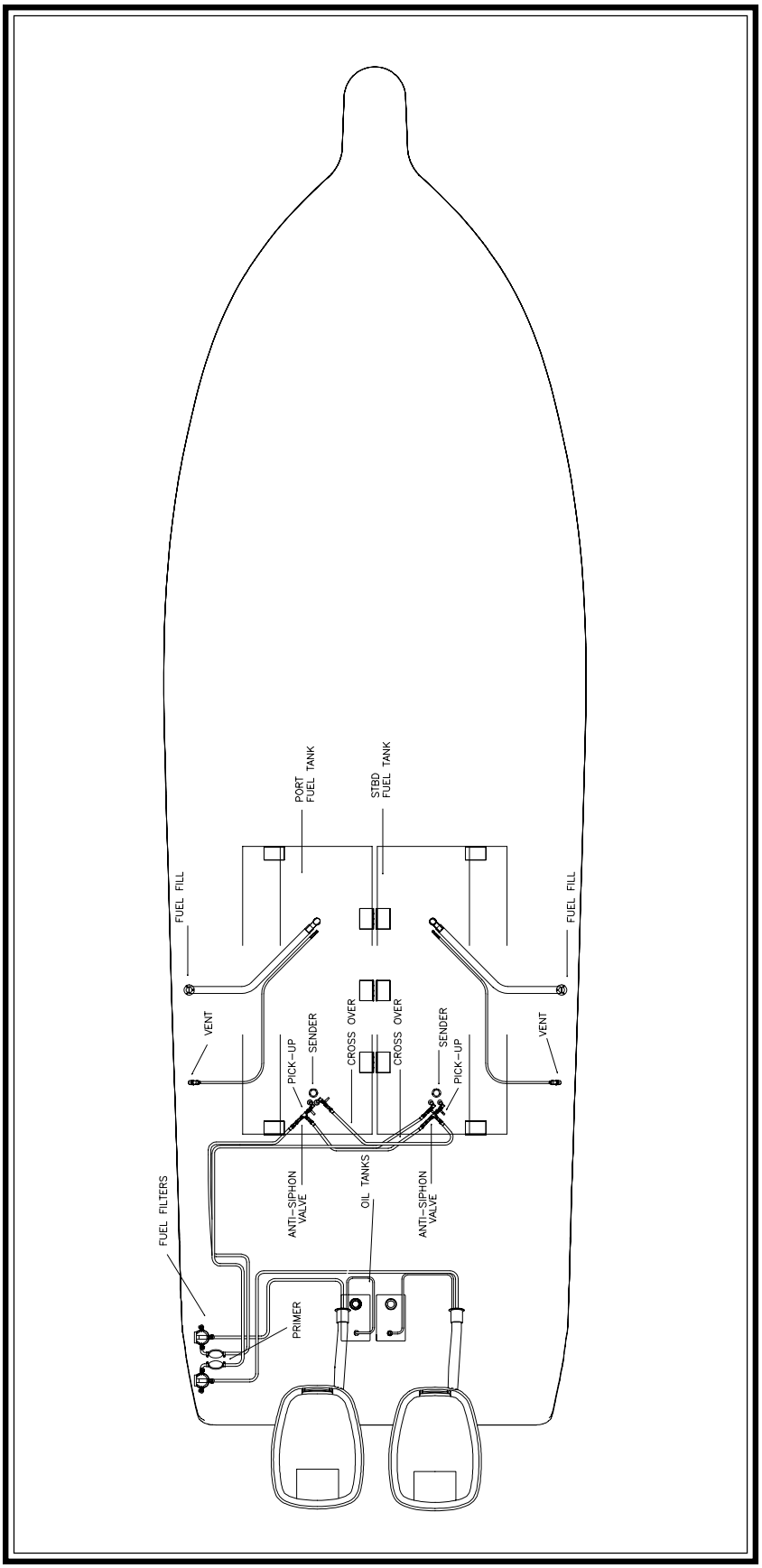
Storage/Rod Locker Hatch Lifter Switch



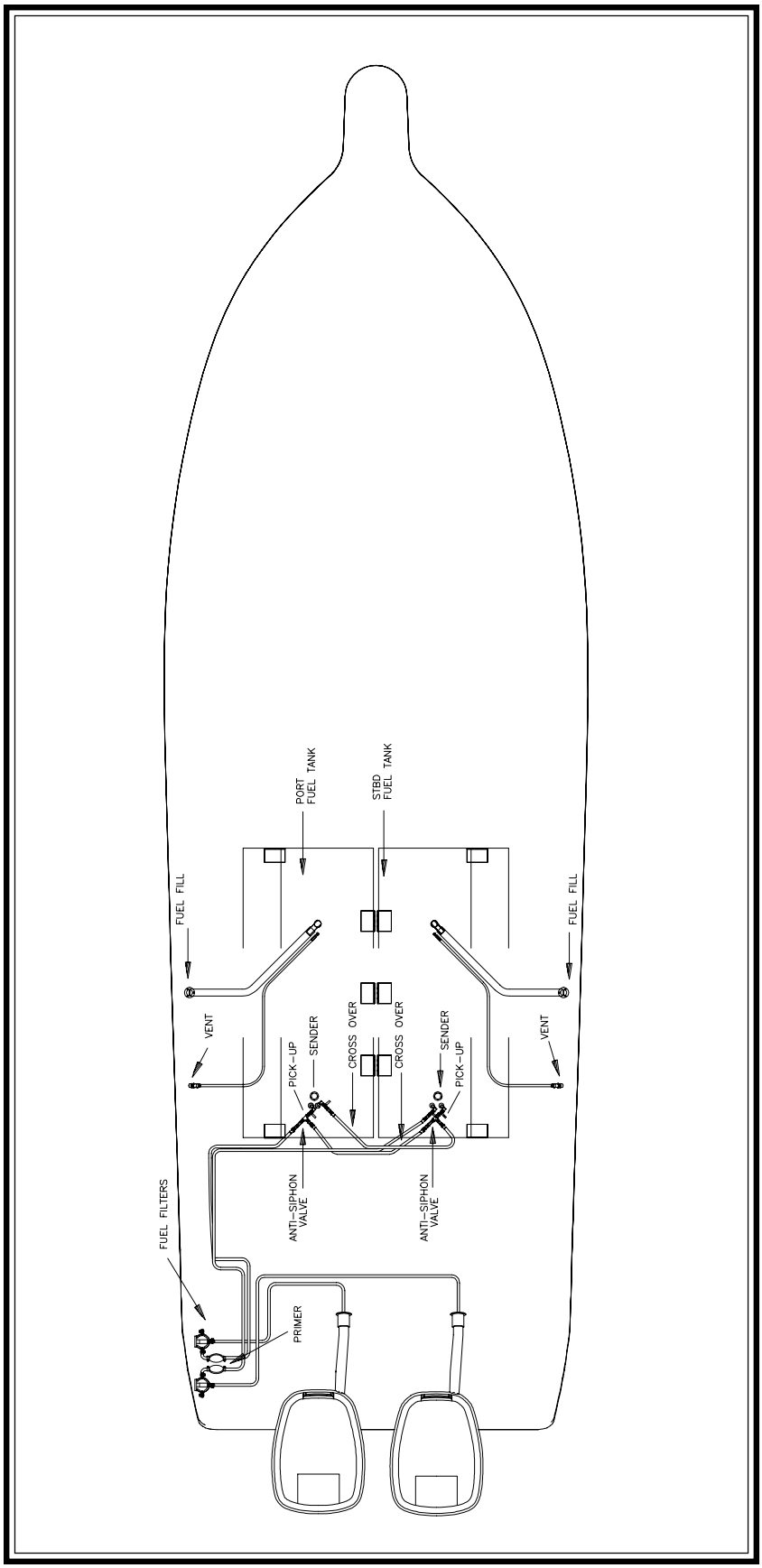
Battery Cable Routing



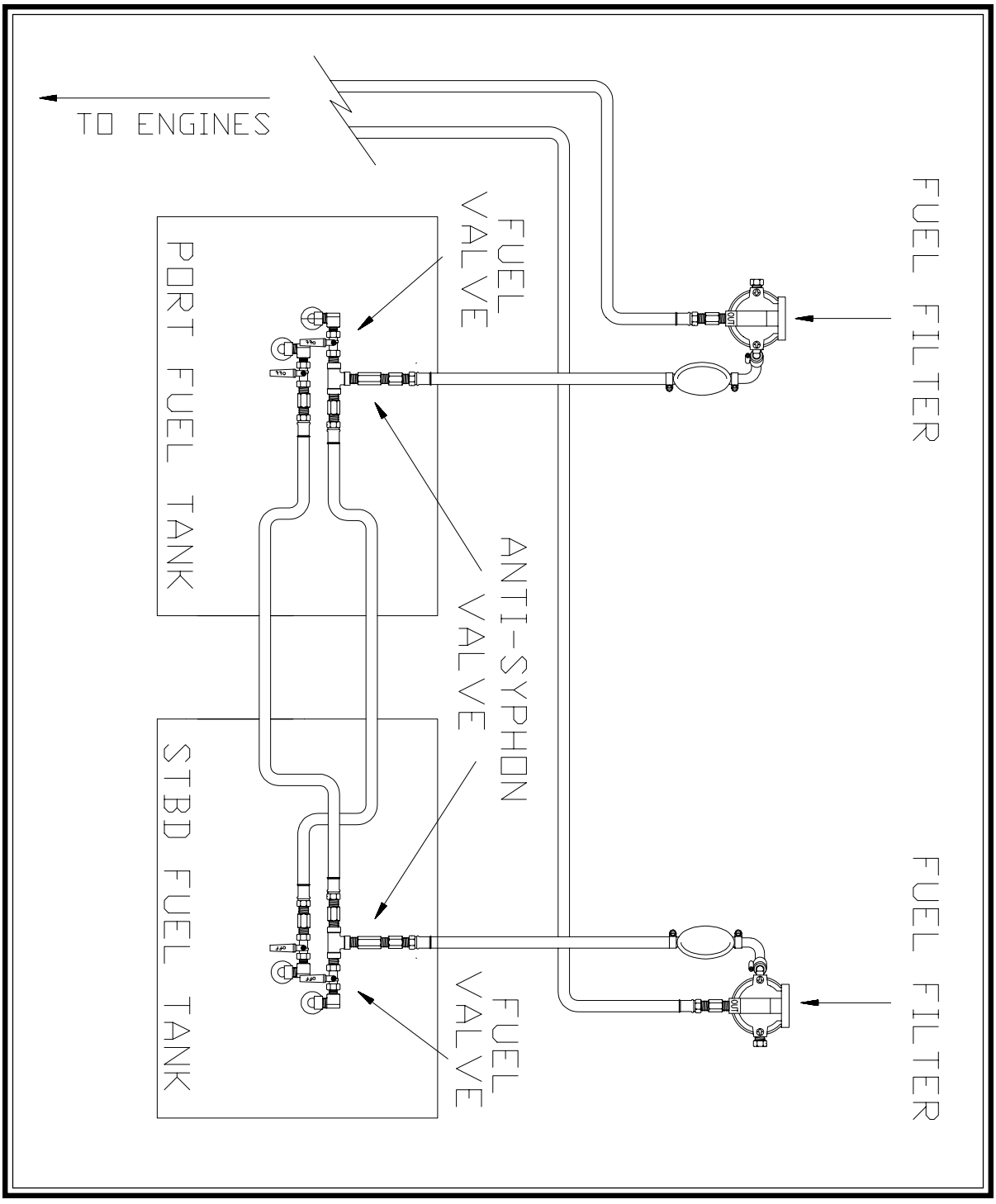
Hydraulic Steering System



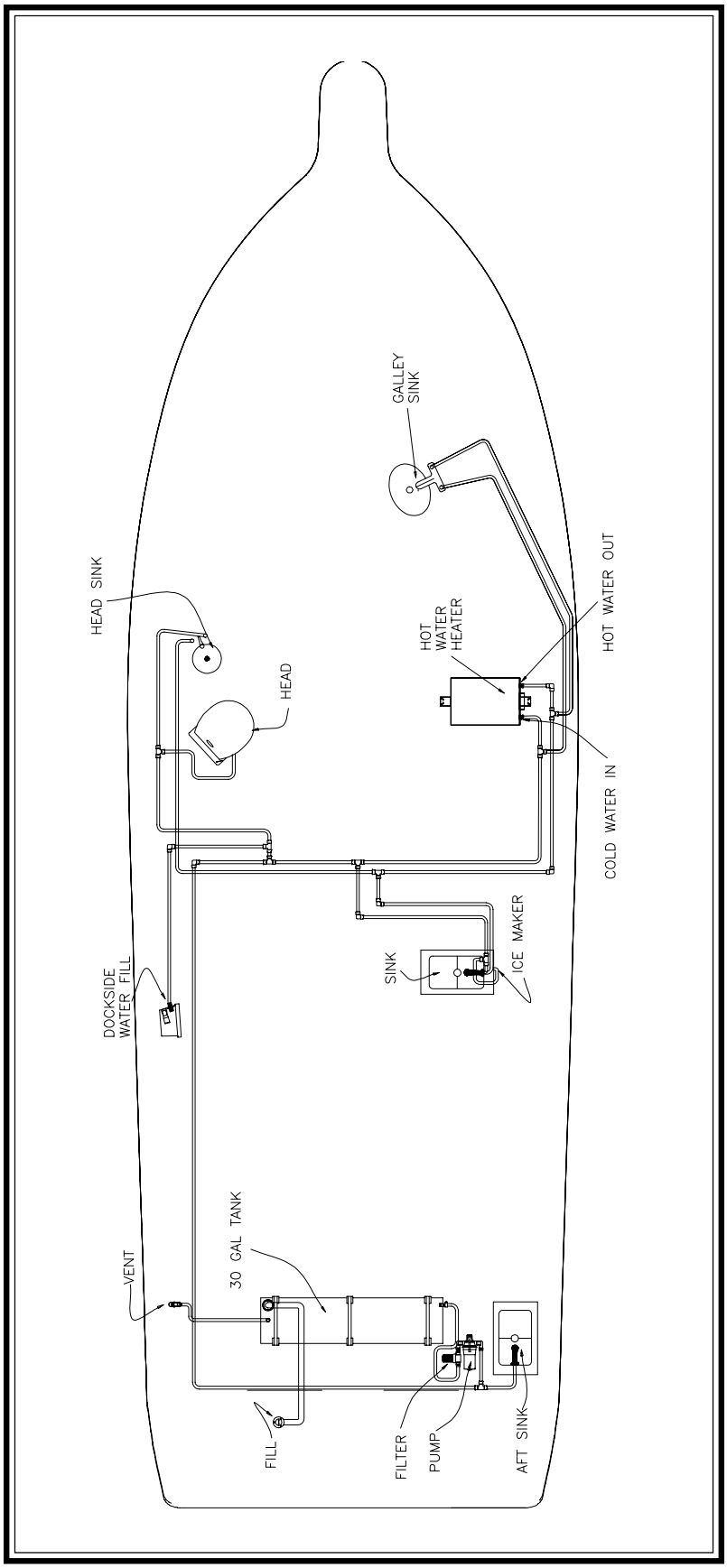
Fuel System - 2 Stroke



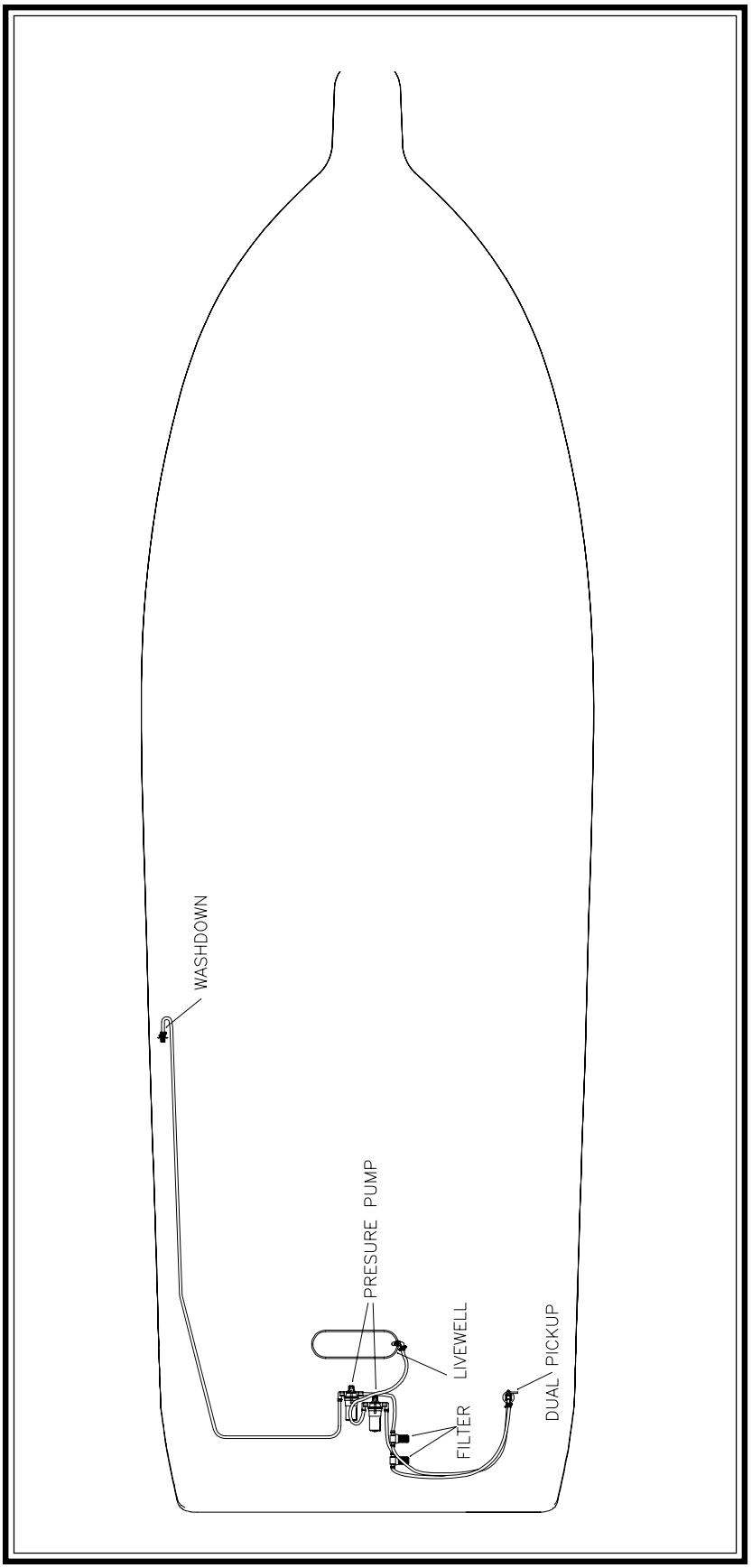
Fuel System -4 Stroke



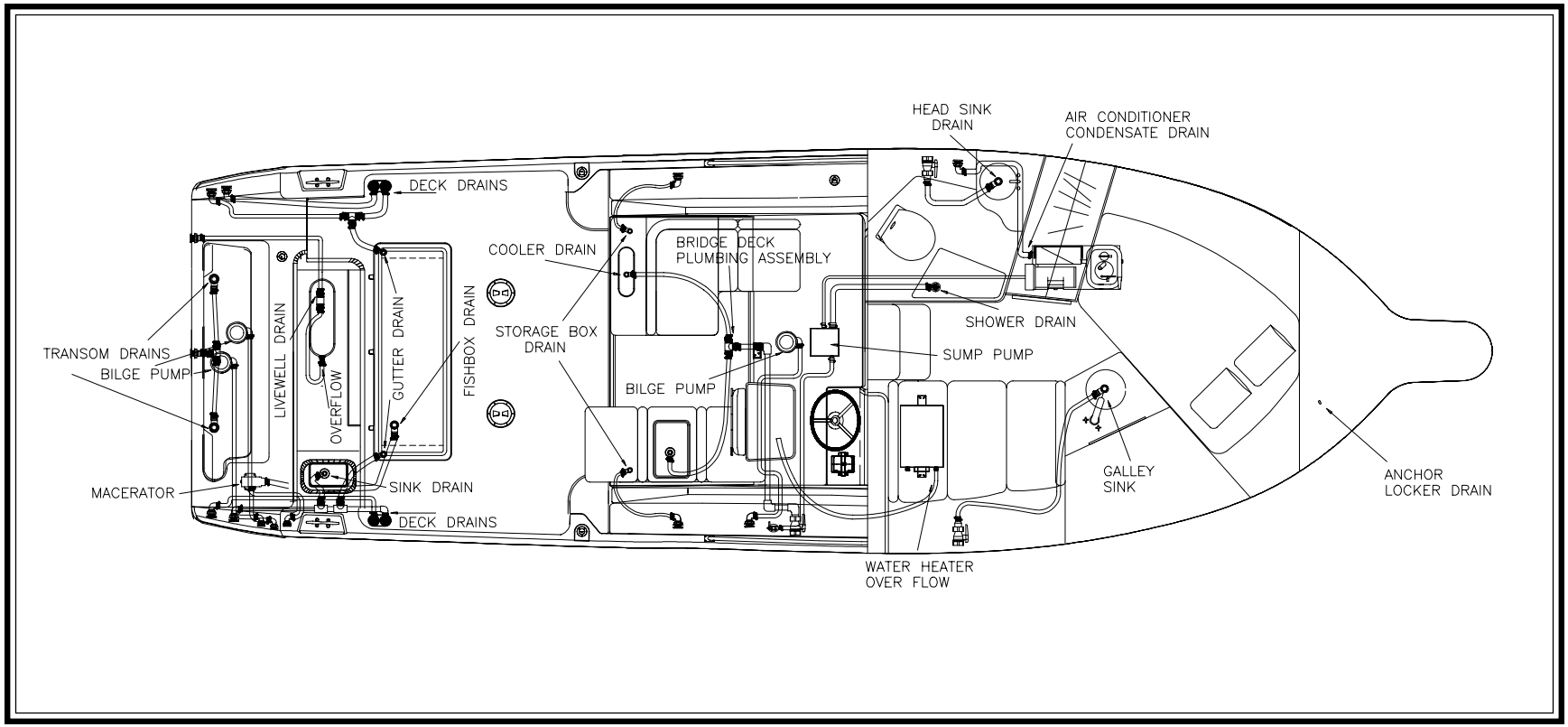
Fuel Selector Valves



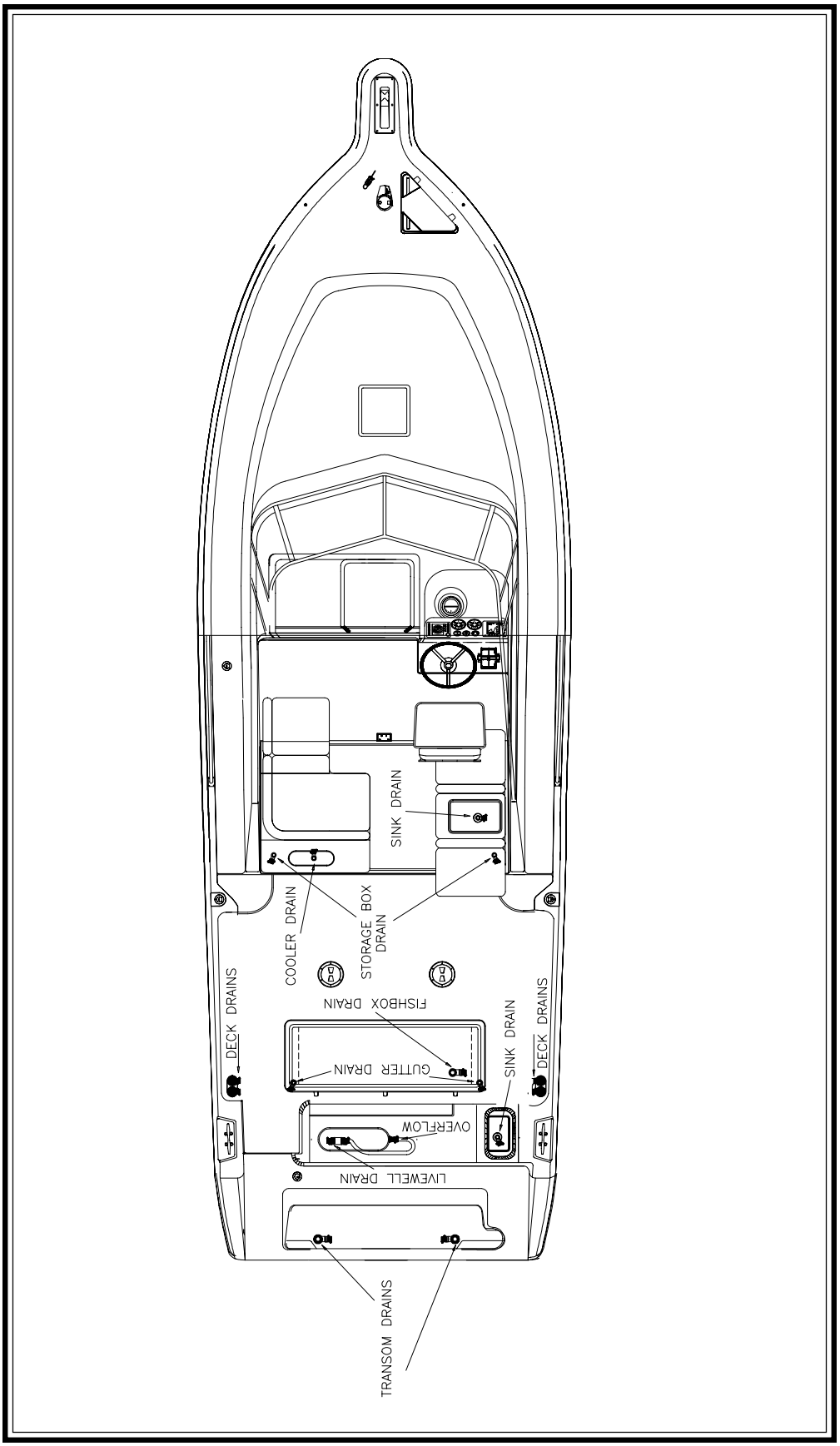
Freshwater System



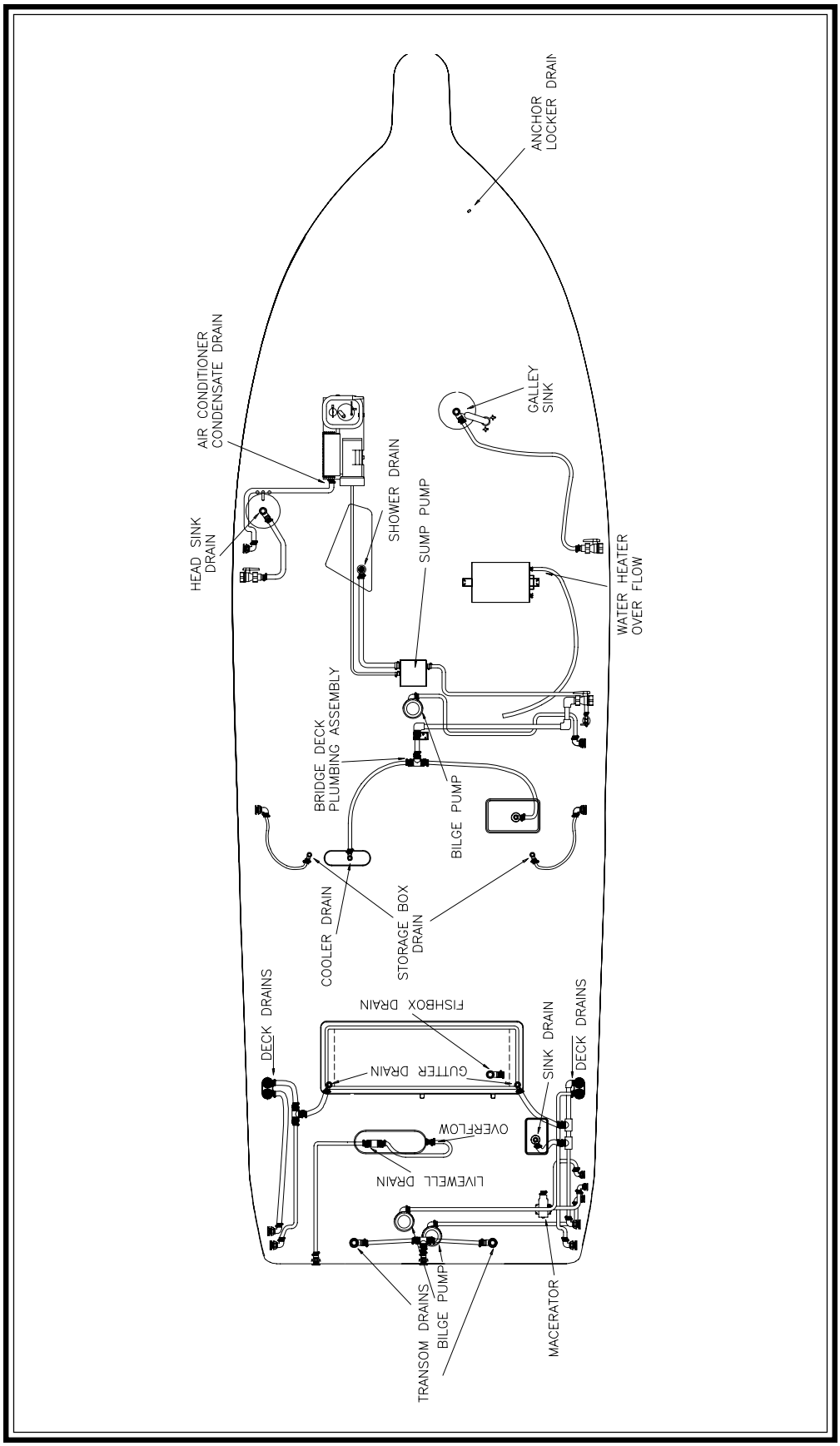
Raw Water System



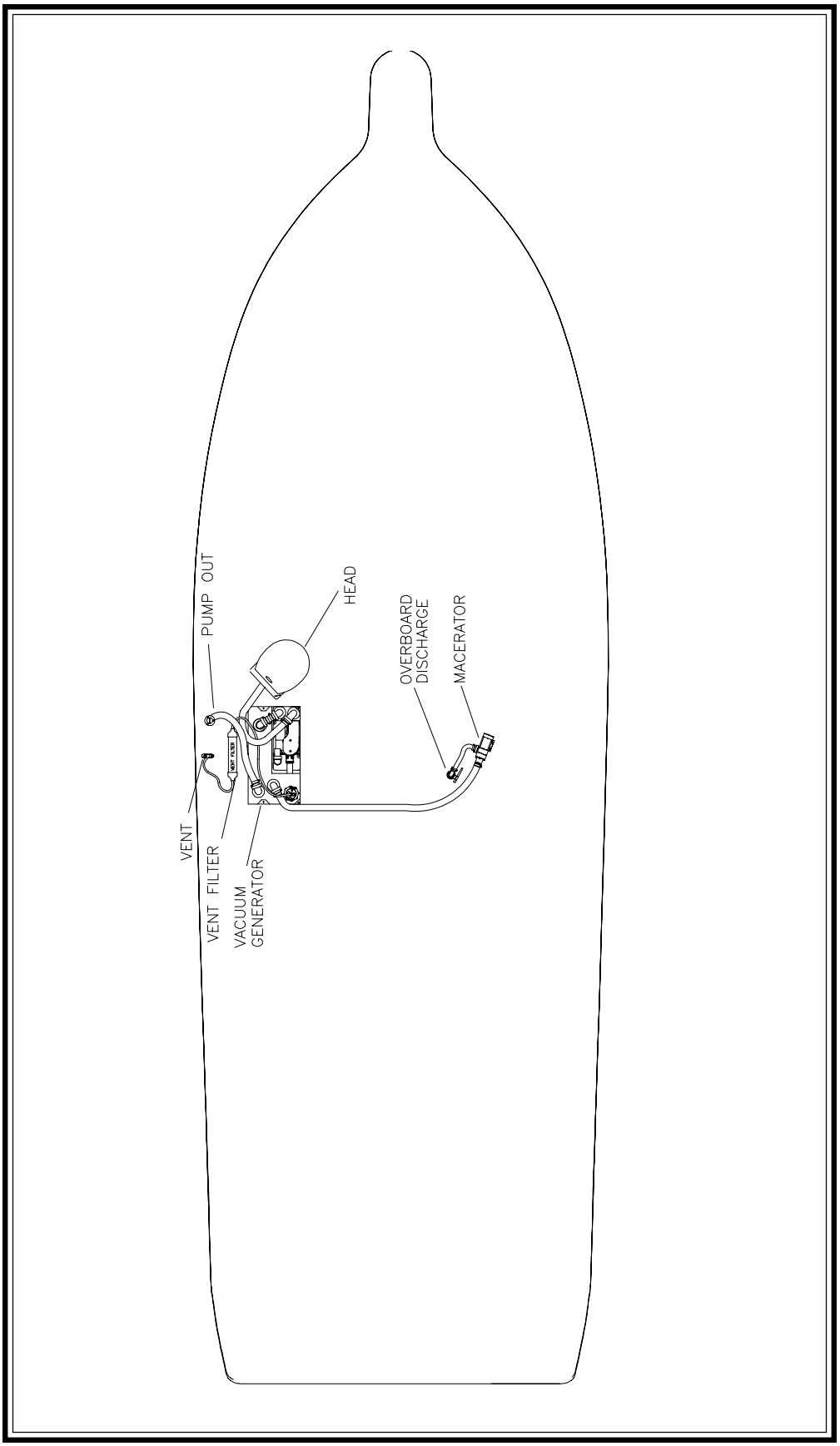
Hull and Deck Drainage System



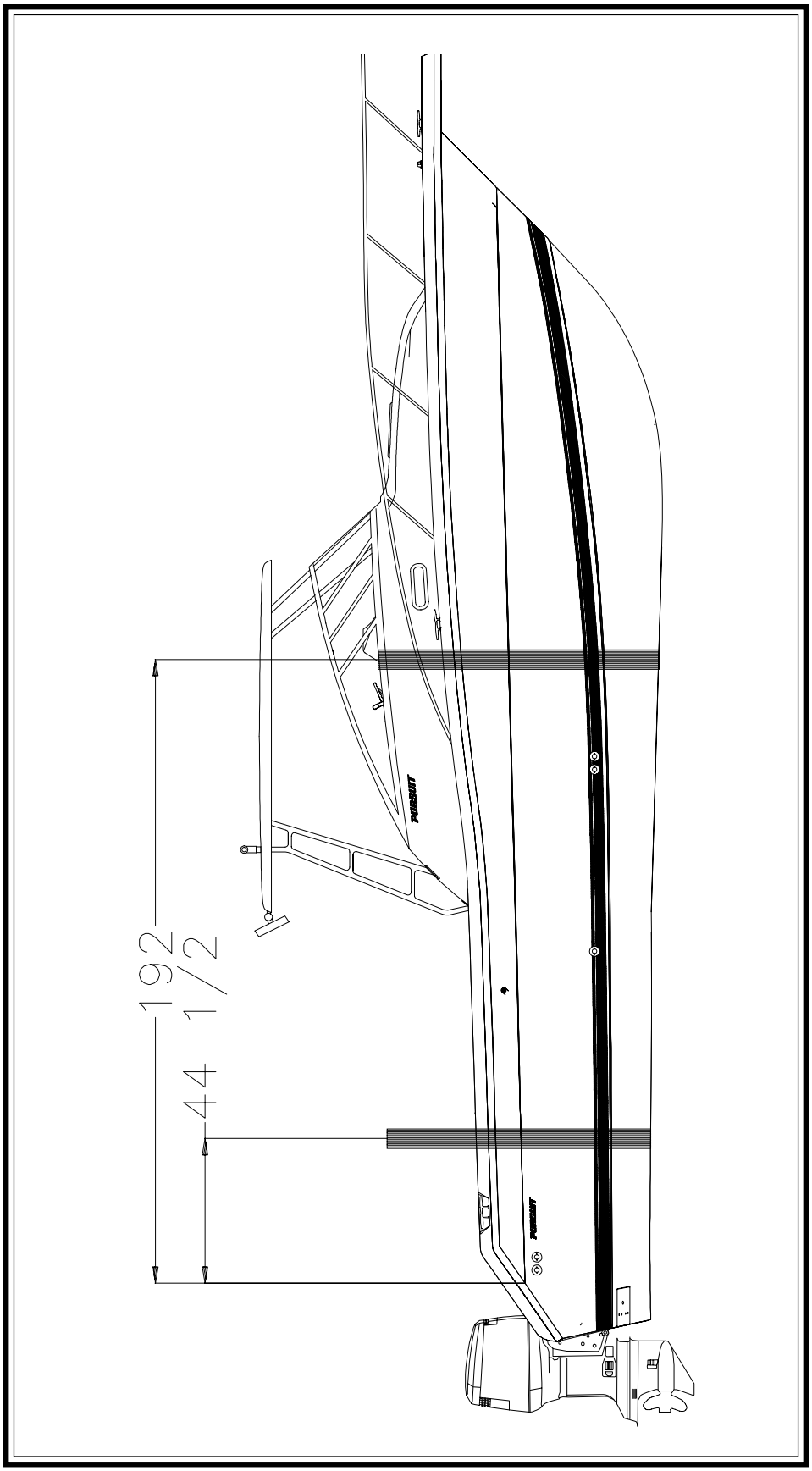
Deck Drain System



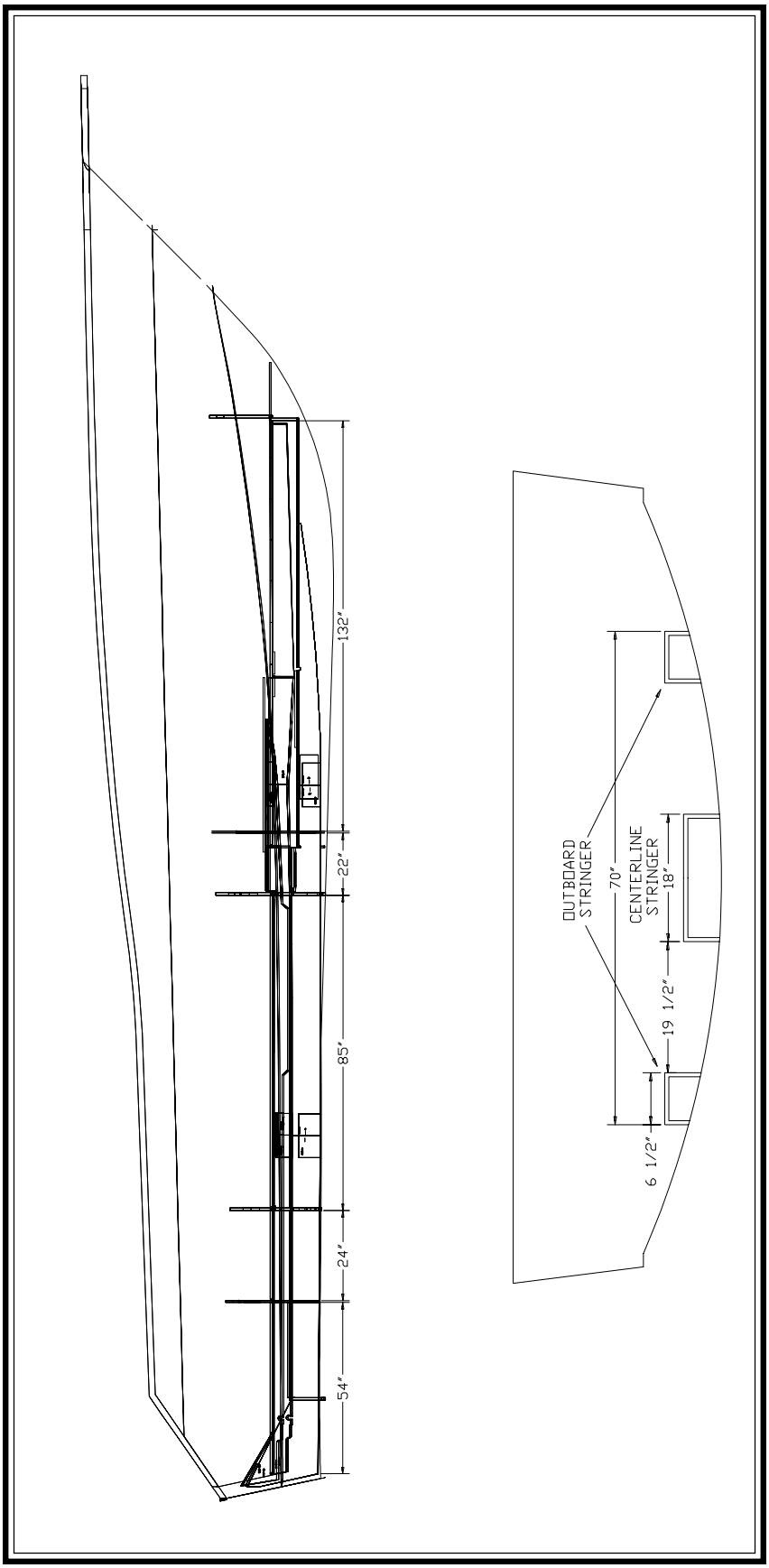
Hull Drain System



Head Holding Tank System



Sling Positions



Bunk Locations

APPENDIX A:
GLOSSARY OF TERMS

Aft: In, near, or toward the stern of a boat.

Aground: A boat stuck on the bottom.

Amidships: In or toward the part of a boat midway between the bow and stern.

Anchor: A specially shaped heavy metal device designed to dig efficiently into the bottom under a body of water and hold a boat in place.

Anchorage: An area specifically designated by governmental authorities in which boats may anchor.

Ashore: On shore.

Astern: Behind the boat, to move backwards.

Athwartship: At right angles to the center line of the boat.

Barnacles: Small, hard-shelled marine animals which are found in salt water attached to pilings, docks and bottoms of boats.

Beam: The breadth of a boat usually measured at its widest part.

Bearing: The direction of an object from the boat, either relative to the boat's direction or to compass degrees.

Berth: A bunk or a bed on a boat.

Bilge: The bottom of the boat below the flooring.

Bilge Pump: A pump that removes water that collects in the bilge.

Boarding: Entering or climbing into a boat.

Boarding Ladder: Set of steps temporarily fitted over the side of a boat to assist persons coming aboard.

Boat Hook: Short shaft of wood or metal with a hook fitting at one end shaped to aid in extending one's reach from the side of the boat.

Bow: The front end of a boat's hull.

Bow Line: A line that leads forward from the bow of the boat.

Bow Rail: Knee high rails of solid tubing to aid in preventing people from falling overboard.

Bridge: The area from which a boat is steered and controlled.

Bridge Deck: A deck forward and usually above the cockpit deck.

Broach: When the boat is sideways to the seas and in danger of capsizing; a very dangerous situation that should be avoided.

Bulkhead: Vertical partition or wall separating compartments of a boat.

Cabin: Enclosed superstructure above the main deck level.

Capsize: When a boat lays on its side or turns over.

Chock: A deck fitting, usually of metal, with inward curving arms through which mooring or anchor lines are passed so as to lead them in the proper direction both on board and off the boat.

Cleat: A deck fitting, usually of metal with projecting arms used for securing anchor and mooring lines.

Closed Cooling System: A separate supply of fresh water that is used to cool the engine and circulates only within the engine.

Coaming: A vertical piece around the edges of cockpit, hatches, etc. to stop water on deck from running below.

Cockpit: An open space, usually in the aft deck, outside of the cabin.

Companionway: Opening in the deck of a boat to provide access below.

Compartment: The interior of a boat divided off by bulkheads.

Cradle: A framework designed to support a boat as she is hauled out or stored.

Cutlass Bearing: A rubber bearing in the strut that supports the propeller shaft.

Deck: The floor-like platform of a boat that covers the hull.

Displacement: The volume of water displaced by the hull. The displacement weight is the weight of this volume of water.

Draft: The depth of water a boat needs to float.

Dry Rot: A fungus attack on wood areas.

Dry-dock: A dock that can be pumped dry during boat construction or repair.

Electrical Ground: A connection between an electrical connector and the earth.

Engine Beds: Sturdy structural members running fore and aft on which the inboard engines are mounted.

EPIRB: Emergency Position Indicating Radio Beacon. Operates as a part of a worldwide satellite distress system.

Even Keel: When a boat floats properly as designed.

Fathom: A measure of depth. One Fathom = 6 feet.

Fender: A soft object of rubber or plastic used to protect the topsides from scarring and rubbing against a dock or another vessel.

Fend off: To push or hold the boat off from the dock or another boat.

Flying Bridge: A control station above the level of the deck or cabin.

Flukes: The broad portions of an anchor which dig into the ground.

Fore: Applies to the forward portions of a boat near the bow.

Foundering: When a boat fills with water and sinks.

Freeboard: The height from the waterline to the lowest part of the deck.

Galley: The kitchen of a boat.

Grab Rail: Hand-hold fittings mounted on cabin tops or sides for personal safety when moving around the boat, both on deck and below.

Ground Tackle: A general term including anchors, lines, and other gear used in anchoring.

Grounds: A boat touches the bottom.

Gunwale: The upper edge of a boat's side.

Hand Rail: Rail mounted on the boat, for grabbing with your hand, to steady you while walking about the boat.

Harbor: An anchorage which provides reasonably good protection for a boat, with shelter from wind and sea.

Hatch: An opening in the deck with a door or lid to allow for access down into a compartment of a boat.

Head: A toilet on a boat.

Heat Exchanger: Used to transfer the heat that is picked up by the closed cooling system to the raw cooling water.

Helm: The steering and control area of a boat.

Hull: The part of the boat from the deck down.

Inboard: A boat with the engine mounted within the hull of the boat. Also refers to the center of the boat away from the sides.

Inboard/outboard: Also stern drive or I/O. A boat with an inboard engine attached to an outboard drive unit.

Keel: A plate or timber plate running lengthwise along the center of the bottom of a boat.

Knot: Unit of speed indicating nautical miles per hour. 1 knot = 1 nautical mile per hour (1.15 miles per hour). A nautical mile is equal to one minute of latitude: 6076 feet. Knots times 1.15 equals miles per hour. Miles per hour times .87 equals knots.

Lay-up: To decommission a boat for the winter (usually in northern climates).

Leeward: The direction toward which the wind is blowing.

Length On The Waterline (l.w.l.): A length measurement of a boat at the waterline from the stern to where the hull breaks the water near the bow.

Limber Hole: 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 where it can be pumped overboard.

Line: The term used to describe a rope when it is on a boat.

Lists: A boat that inclines to port or starboard while afloat.

L.O.A.: Boat length overall.

Locker: A closet, chest or box aboard a boat.

Loran: An electronic navigational instrument which monitors the boat's position using signals emitted from pairs of transmitting stations.

Lunch hook: A small light weight anchor typically used instead of the working anchor. Normally used in calm waters with the boat attended.

Midships: The center of the boat.

Marina: A protected facility primarily for recreational small craft.

Marine Ways or Railways: Inclined planes at the water's edge onto which boats are hauled.

Moored: A boat secured with cables, lines or anchors.

Mooring: An anchor permanently embedded in the bottom of a harbor that is used to secure a boat.

Nautical Mile: A unit of measure equal to one minute of latitude. (6076 feet)

Nun Buoy: A red or red-striped buoy of conical shape.

Outboard: A boat designed for an engine to be mounted on the transom. Also a term that refers to objects away from the center line or beyond the hull sides of a boat.

Pad Eye: A deck fitting consisting of a metal eye permanently secured to the boat.

Pier: A structure which projects out from the shoreline.

Pile or Piling: A long column driven into the bottom to which a boat can be tied.

Pitching: The fore and aft rocking motion of a boat as the bow rises and falls.

Pitch: The measure of the angle of a propeller blade. Refers to the theoretical distance the boat travels with each revolution of the propeller.

P.F.D: Personal Flotation Device.

Port: The left side of the boat when facing the bow.

Porthole (port): The opening in the side of a boat to allow the admittance of light and air.

Propeller: A device having two or more blades that is attached to the engine and used for propelling a boat.

Propeller Shaft: 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.

Pyrotechnic Distress Signals: Distress signals that resemble the brilliant display of flares or fireworks.

Raw Water Cooled: Refers to an engine cooling system that draws sea water in through a hull fitting or engine drive unit, circulates the water in the engine, and then discharges it overboard.

Reduction Gear: Often combined with the reverse gear so that the propeller turns at a slower rate than the engine.

Reverse Gear: Changes the direction of rotation of the propeller to provide thrust in the opposite direction for stopping the boat or giving it sternway.

Roll: A boat's sideways rotational motion in rough water.

Rope Locker: A locker, usually located in the bow of a boat, used for stowing the anchor line or chain.

Rubrail: 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.

Rudder: A moveable flat surface that is attached vertically at or near the stern for steering.

Sea anchor: An anchor that does not touch the bottom. Provides drag to hold the bow in the most favorable position in heavy seas.

Scupper: An opening in the hull side or transom of the boat through which water on deck or in the cockpit is drained overboard.

Seacock: Safety valves installed just inside the thru-hull fittings and ahead of the piping or hose running from the fittings.

Shaft Log: Pipe through which the propeller shaft passes.

Sheer: The uppermost edge of the hull.

Sling: A strap which will hold the boat securely while being lifted, lowered, or carried.

Slip: A boat's berth between two pilings or piers.

Sole: The deck of a cockpit or interior cabin.

Spring Line: A line that leads from the bow aft or from the stern forward to prevent the boat from moving ahead or astern.

Starboard: The right side of a boat when facing the bow.

Steerageway: Sufficient speed to keep the boat responding to the rudder or drive unit.

Stem: The vertical portion of the hull at the bow.

Stern: The rear end of a boat.

Stow: To pack away neatly.

Stringer: Longitudinal members fastened inside the hull for additional structural strength.

Strut: Mounted to the hull which supports the propeller shaft in place.

Strut Bearing: See “cutlass bearing.”

Stuffing Box: Prevents water from entering at the point where the propeller shaft passes through the shaft log.

Superstructure: Something built above the main deck level.

Swamps: When a boat fills with water from over the side.

Swimming Ladder: Much the same as the boarding ladder except that it extends down into the water.

Taffrail: Rail around the rear of the cockpit.

Thru-hull: A fitting used to pass fluids (usually water) through the hull surface, either above or below the waterline.

Topsides: The side skin of a boat between the waterline or chine and deck.

Transom: A flat stern at right angles to the keel.

Travel Lift: A machine used at boat yards to hoist boats out of and back into the water.

Trim: Refers to the boat's angle or the way it is balanced.

Trough: The area of water between the crests of waves and parallel to them.

Twin-Screw Craft: A boat with two propellers on two separate shafts.

Underway: When a boat moves through the water.

Wake: Disrupted water that a boat leaves astern as a result of its motion.

Wash: The flow of water that results from the action of the propeller or propellers.

Waterline: The plane of a boat where the surface of the water touches the hull when it is afloat on even keel.

Watertight Bulkhead: Bulkheads secured so tightly so as not to let water pass.

Wharf: A structure generally parallel to the shore.

Working Anchor: An anchor carried on a boat for most normal uses. Refers to the anchor used in typical anchoring situations.

Windlass: A winch used to raise and lower the anchor.

Windward: Toward the direction from which the wind is coming.

Yacht Basin: A protected facility primarily for recreational small craft.

Yaw: When a boat runs off her course to either side.

Appendix B:
MAINTENANCE SCHEDULE AND LOG

MAINTENANCE	Each Use	Weekly	Monthly	Each Season	Yearly	As Needed
Clean hull below the waterline				X		
Bottom paint hull					X	X
Check sacrificial anodes			X			
Replace sacrificial anodes					X	X
Wash boat canvas & hardware	X		X			
Wax exterior gelcoat				X		X
Clean & protect hardware						X
Polish & protect plastic glass				X		X
Clean exterior upholstery	X					X
Clean cabin & interior upholstery						X
Flush engine with fresh water	X					
Spray metal components in bilge with a protector			X			
Clean bilge				X		X
Check bilge for leaks	X		X			
Inspect & operate thru-hull valves			X			
Inspect steering & control systems	X					
Service steering & control systems				X		
Inspect fuel system for leaks	X					
Inspect & service fuel system				X		
Inspect fuel tank vents & screens					X	
Replace fuel filters					X	
Lubricate fuel fill O-rings			X			
Inspect fire extinguisher			X			
Test bilge pump auto switches			X			
Inspect & protect electrical components, wire & battery connections						
Check battery electrolyte & service			X			
Test and inspect AC electrical system & shore power cord				X		
Inspect water systems for leaks				X		
Check neutral safety switch	X					
Check trim tab fluid level			X			

MAINTENANCE LOG

Date	Hours	Dealer	Service/Repairs

MAINTENANCE LOG

Date	Hours	Dealer	Service/Repairs

MAINTENANCE LOG

Date	Hours	Dealer	Service/Repairs

MAINTENANCE LOG

Date	Hours	Dealer	Service/Repairs

MAINTENANCE LOG

Date	Hours	Dealer	Service/Repairs

Appendix C:

DEPARTMENT OF TRANSPORTATION U.S. COAST GUARD C.G. 1865 (REV. 1/88)	**BOATING ACCIDENT REPORT**	FORM APPROVED OMB NO.211-0010

The operator/owner of a vessel used for recreational purposes is required to file a report in writing whenever an accident results in: loss of life or disappearance from a vessel, or an injury which requires medical treatment beyond first aid: or property damage in excess of $200 or complete loss of the vessel. Reports in death and injury cases must be submitted within 48 hours. Reports in other cases must be submitted within 10 days. Reports must be submitted to reporting authority in the state where the accident occurred. This form is provided to assist the operator in filing the required written report.

COMPLETE ALL BLOCKS (indicate those not applicable by "NA")

NAME AND ADDRESS OF OPERATOR	AGE OF OPERATOR DATE OF BIRTH	OPERATOR'S EXPERIENCE This type of boat / Other boat operating Exp. [ ] Under 20 Hours / [ ] Under 20 Hours [ ] 20 to 100 Hours / [ ] 20 to 100 Hours [ ] 100 to 500 Hours / [ ] 100 to 500 Hours [ ] Over 500 Hours / [ ] Over 500 Hours
OPERATOR TELEPHONE NUMBER	OWNER TELEPHONE NO.	
NAME AND ADDRESS OF OWNER	RENTED BOAT [ ] YES [ ] NO / NUMBER OF PERSONS ON BOARD	FORMAL INSTRUCTION IN BOATING SAFETY [ ] None [ ] State [ ] U.S. Power Squadrons [ ] USCG Auxiliary [ ] American Red Cross [ ] Other (Specify) _____

VESSEL NO. (this vessel)

BOAT REGISTER. NO.	BOAT NAME	BOAT MAKE	BOAT MODEL	MFR HULL IDENTIFICATION NO.
TYPE OF BOAT [ ] Open Motorboat [ ] Cabin Motorboat [ ] Auxiliary Sail [ ] Sail (only) [ ] Rowboat [ ] Canoe [ ] Other (Specify)	HULL MATERIAL [ ] Wood [ ] Aluminum [ ] Steel [ ] Fiberglass [ ] Rubber/vinyl [ ] Other (Specify)	ENGINE [ ] Outboard [ ] Inboard gasoline [ ] Inboard diesel [ ] Inboard-outdrive [ ] Jet [ ] Other (Specify)	PROPULSION No. of engines _____ Horse Power (total) _____ Type of fuel _____ Has boat had a Safety Examination? [ ] Outboard [ ] NO For current year? [ ] YES [ ] NO Year _____ Indicate whether [ ] USCG Auxiliary Courtesy Marine Exam [ ] State/local examination [ ] Other	CONSTRUCTION Length _____ Year built (boat) _____

ACCIDENT DATA

DATE OF ACCIDENT	TIME am pm	NAME OF BODY OF WATER	LOCATION (Give location precisely) Lat Long
STATE	NEAREST CITY OR TOWN		COUNTY

WEATHER	WATER CONDITIONS	TEMPERATURE (Estimate)	WIND	VISIBILITY
[ ] Clear [ ] Rain [ ] Cloudy [ ] Snow [ ] Fog [ ] Hazy	[ ] Calm (waves less than 6") [ ] Choppy (waves 6" to 2') [ ] Rough (greater than 6') [ ] Strong Current	Air _____ F° Water _____ F°	[ ] None [ ] Light (0 - 6mph) [ ] Moderate (7 - 14 mph) [ ] Strong (15 - 25 mph) [ ] Storm (Over 25 mph)	DAY NIGHT [ ] Good [ ] [ ] Fair [ ] [ ] Poor [ ]

OPERATION AT TIME OF ACCIDENT (Check all applicable)	TYPE OF ACCIDENT (Check all applicable)	WHAT IN YOUR OPINION CONTRIBUTED TO THE ACCIDENT (Check all applicable)
[ ] Commercial Activity [ ] Drifting [ ] Cruising [ ] At Anchor [ ] Maneuvering [ ] Tied to Dock [ ] Approaching Dock [ ] Fueling [ ] Leaving Dock [ ] Fishing [ ] Water Skiing [ ] Hunting [ ] Racing [ ] Skin Diving/ Swimming [ ] Towing [ ] Other (Specify) [ ] Being Towed	[ ] Grounding [ ] Collision with Fixed Object [ ] Capsizing [ ] Flooding [ ] Collision with Floating Object [ ] Sinking [ ] Fire or explosion (fuel) [ ] Falls Overboard [ ] Fire or explosion (Other than fuel) [ ] Falls in boat [ ] Hit by Boat or Propeller [ ] Fallen Skier [ ] Collision with Vessel [ ] Other (Specify)	[ ] Weather [ ] Alcohol use [ ] Excessive speed [ ] Drug use [ ] No Proper Lookout [ ] Fault of Hull [ ] Restricted Vision [ ] Fault of Machinery [ ] Overloading [ ] Fault of Equipment [ ] Improper Loading [ ] Hunting [ ] Racing [ ] Operator Inexperience [ ] Hazardous Waters [ ] Operator Inattention [ ] Other (Specify)

PERSONAL FLOTATION DEVICES (PFDS)	**PROPERTY DAMAGE**	**FIRE EXTINGUISHERS**
Was the boat adequately equipped with COAST GUARD APPROVED FLOTATION DEVICES? [ ] Yes [ ] No Were they accessible? [ ] Yes [ ] No Were they serviceable? [ ] Yes [ ] No Were they used by survivors? [ ] Yes [ ] No What type? [ ] I, [ ] II, [ ] III, [ ] IV, [ ] V (specify) _____ Were PFD's properly used? [ ] Yes [ ] No Adjusted [ ] Yes [ ] No Sized [ ] Yes [ ] No Was the vessel carrying NON approved flotation devices? [ ] Yes [ ] No Were they accessible? [ ] Yes [ ] No Were they used? [ ] Yes [ ] No If Yes, indicate kind. Include any comments of PFD's under ACCIDENT DESCRIPTION on other side of form	Estimated amount This boat $ Other boat $ Other Property $ **DESCRIBE PROPERTY DAMAGE** **NAME AND ADDRESS OF OWNER OF DAMAGED PROPERTY**	Were they used? (If yes, list Type(s) and number used.) [ ] Yes [ ] No [ ] NA Types:

BOATING ACCIDENT REPORT

If more than 3 fatalities and/or injuries, attach additional form(s)

DECEASED

NAME	ADDRESS	DATE OF BIRTH	WAS VICTIM?	DEATH CAUSED BY	WAS PFD WORN?
			[ ] Swimmer [ ] Non Swimmer	[ ] Drowning [ ] Other [ ] DISAPPEARANCE	[ ] Yes [ ] No What Type?
			[ ] Swimmer [ ] Non Swimmer	[ ] Drowning [ ] Other [ ] DISAPPEARANCE	[ ] Yes [ ] No What Type?
			[ ] Swimmer [ ] Non Swimmer	[ ] Drowning [ ] Other [ ] DISAPPEARANCE	[ ] Yes [ ] No What Type?

INJURED

NAME	ADDRESS	DATE OF BIRTH	NATURE OF INJURY	MEDICAL TREATMENT

ACCIDENT DESCRIPTION

DESCRIBE WHAT HAPPENED (Sequence of events. Include Failure of Equipment. If diagram is needed, attach separately. Continue on additional sheets if necessary. Include any information regarding the involvement of alcohol and/or drugs in causing or contributing to the accident. Include any descriptive information about the use of PFD's.)

VESSEL NO. 2 (if more than 2 vessels, attach additional form (s)

Name of Operator	Address	Boat Number
Telephone Number		Boat Name
Name of Owner	Address	

WITNESSES

Name	Address	Telephone Number

WITNESSES

SIGNATURE	Address	Telephone Number
QUALIFICATION (Check One) [ ] Operator [ ] Owner [ ] Investigator [ ] Other		Date Submitted

(do not use) - **FOR REPORTING AUTHORITY REVIEW** (use agency date stamp)

Causes based on (check one) [ ] This report [ ] Investigation and this report [ ] Investigation [ ] Could not be determined	Name of Reviewing Office	Date Received
Primary Cause of Accident	Secondary Cause of Accident	Reviewed By

Appendix D:

FLOAT PLAN

Pursuit recommends filling out a float plan each time you use your boat for an offshore day trip or a long cruise. Leave this information with a responsible person ashore, like a close friend or relative that you know well.

1. Name of person reporting and telephone number.

   _____

2. Description of boat.
   Type _____ Color _____ Trim _____
   Registration No. _____ Length _____
   Name _____ Make _____ Other Info _____

3. Engine type _____ H.P. _____
   No. of Engines _____ Fuel Capacity _____

4. Survival equipment: (Check as appropriate)

☐ PFDS	☐ Flares	☐ Mirror
☐ Smoke Signals	☐ Flashlight	☐ Food
☐ Paddles	☐ Water	☐ Others
☐ Anchor	☐ Raft or Dinghy	☐ EPIRB

5. Radio ☐ Yes ☐ No Type _____

6. Automobile license _____
   Type _____ Trailer License _____
   Color _____ and make of auto _____

7. Persons aboard _____
   Name _____ Age _____ Address & telephone No. _____
   _____
   _____
   _____

8. Do any of the persons aboard have a medical problem?
   ☐ Yes ☐ No If yes, what? _____

9. Trip Expectations: Leave at _____
   From _____ Going to _____
   Expect to return by _____ (time)
   and no later than _____

10. Any other pertinent info. _____

11. If not returned by _____ (time)
    call the COAST GUARD, or (Local authority)_____

12. Telephone Numbers.
    _____ _____
    _____ _____
    _____ _____
    _____ _____

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Appendix E: TROUBLESHOOTING GUIDE

PROBLEM	CAUSE AND SOLUTION
CONTROL SYSTEMS	
Hydraulic Steering is slow to respond & erratic.	• Steering system is low on fluid. Fill and bleed system. • Steering system has air in it. Fill and bleed system. • A component in the steering system is binding. Check and adjust or repair binding component. • Engine steering spindle is binding. Grease spindle.
The boat wanders and will not hold a course at cruise speeds.	• There could be air in the steering system. Fill & bleed the system. • The engine steering tab is corroded or out of adjustment. Replace or adjust steering tab. • Engine steering spindle is binding. Grease spindle.
The engine will not start with the shift control lever in neutral.	• The control cable is out of adjustment & not activating the neutral safety cut out switch. • The shift control lever is not in the neutral detent. Try moving the shift lever slightly. • There is a loose wire on the neutral safety switch on the transmission. Inspect wires and repair loose connections. • The starter or ignition switch is bad.
PERFORMANCE PROBLEMS	
Boat is sluggish and has lost speed & RPM.	• The boat may be need to have marine growth cleaned from hull and running gear. • Propeller may be damaged & need repair. • Weeds or line around the propeller. Clean propeller. • Boat is overloaded. Reduce load. • Check for excessive water in the bilge. Pump out bilge & find & correct the problem. • The throttle adjustments has changed and the engine is not getting full throttle. Adjust the throttle cable.
The boat vibrates at cruising speeds.	• Propeller may be damaged & need repair. • The propeller or propeller shaft is bent. Repair or replace damaged components. • The running gear is fouled by marine growth or rope. Clean running gear. • The engine is not trimmed Properly. Trim engine.

TROUBLESHOOTING GUIDE

PROBLEM	CAUSE AND SOLUTION
ENGINE PROBLEMS	
The engine is running too hot.	• The engine raw water pick up strainer up is clogged with marine growth. Clean pick up • The engine raw water pump impeller is worn or damaged. Repair the pump. • The engine thermostat is faulty and needs to be replaced.
The engine alternator is not charging properly.	• The battery cable is loose or corroded. Clean and tighten battery cables. • The alternator is not charging and must be replaced. • The engine battery isolator in the charging system is not working properly. Replace the isolator. • The battery is defective. Replace the battery.
The engine suddenly will not operate over 2000 RPM.	• The engine emergency system has been activated. The on board computer has sensed a problem and has limited the RPM to protect the engine. Find & correct the problem. • The tachometer is bad and needs to be replaced.
The engine is loosing RPM. The boat is not overloaded and the hull bottom and running gear are clean and in good condition.	• The engine may be having a problem with a sticky antisiphon valve, located in the fuel line near the fuel tank, that is restricting the fuel flow. Remove & clean or replace the antisiphon valve. • The remote gasoline fuel filter could be dirty. Inspect and replace the fuel filter. • The primary fuel filter on the engine may be dirty. Inspect and replace the fuel filter. • The electronic engine control system on the engine is malfunctioning. Repair the engine control system. • The fuel injection system on the engine is malfunctioning . Repair the fuel injection system.

TROUBLESHOOTING GUIDE

PROBLEM	CAUSE AND SOLUTION
ACCESSORY PROBLEMS	
The livewell pump runs, but does not pump water.	• The strainer on the intake scoop is clogged preventing the water from getting to the pump. Put the boat in reverse to clean the strainer. • There is an air lock in the system. Run the boat above 15 m.p.h. and the pick up scoop will force the air lock past the pump and prime the system. • The thru-hull valve is not open. Open valve. • The valve in the livewell is not open. Open the valve in the livewell.
The automatic float switch on the bilge pump raises but does not activate the pump.	• The in-line fuse near the battery switch has blown. Replace the fuse. • The pump impeller is jammed by debris. Clean pump impeller housing. • The pump is defective. Replace pump.