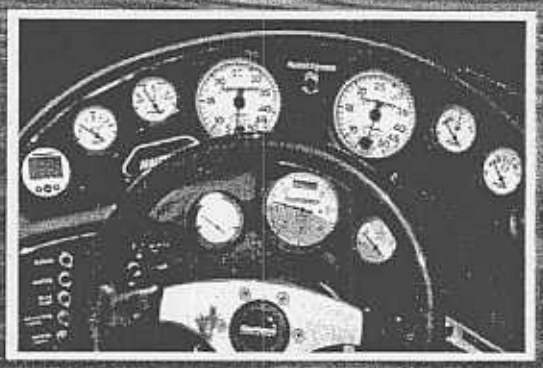


SKI NAUTIQUE OPEN BOW®

Owner's Manual

Dear Correct Craft Owner:

Congratulations on your purchase of a Ski Nautique Open Bow. You have chosen a boat that is unequaled "on the waters of the world" for water-skiing.

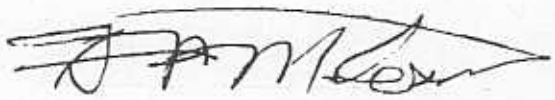
Since 1925, we have manufactured some of the finest products boat builders can produce.

Your Ski Nautique Open Bow was manufactured with the latest marine technology and materials. You have bought into a legacy handed down by W. C. Meloon over 70 years ago. His dedication to building boats to the glory of God remains true today as the cornerstone of our commitment in bringing to you the finest in water sports boats. We are celebrating our seventy-fourth year of boat building. These years of experience and the four generations of Meloons have gone into the building of your Nautique. We hope that you will enjoy it to the fullest.

Take a moment to review this owners manual for your Ski Nautique Open Bow. We have assembled this manual to inform you about your boat and educate you further on boating. There are many tips and tricks on care and maintenance sprinkled throughout the manual, along with some cautions that will apply to your boat. Boating is very important to us and we would like you to enjoy many years of boating in your Ski Nautique Open Bow.

Welcome into the Nautique family.

Sincerely,



Walter N. Meloon
President/Chief Executive Officer

They that go down to the sea in ships,
that do business in great waters;
These see the works of the Lord,
and his wonders in the deep.
-Psalm 107:23

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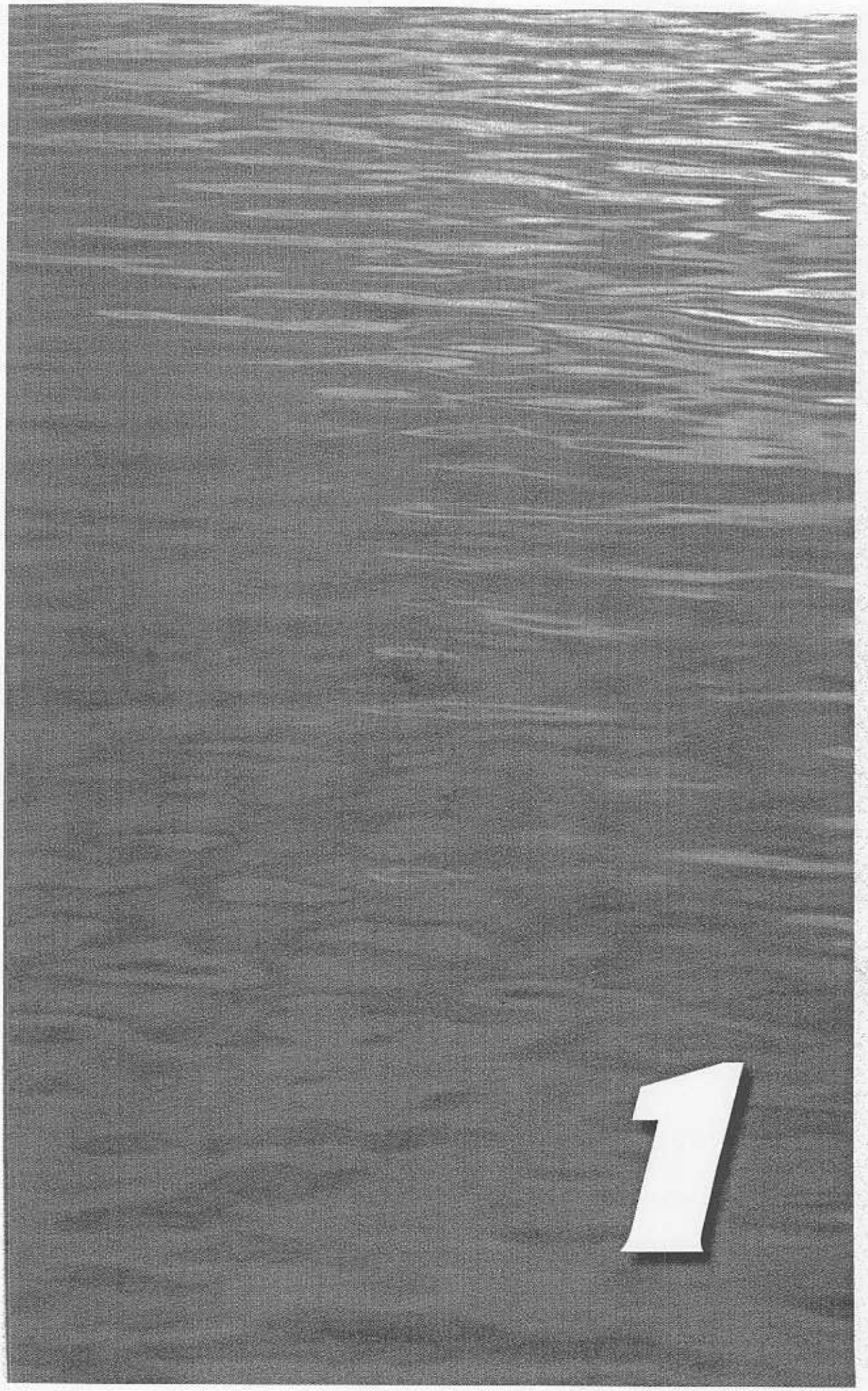
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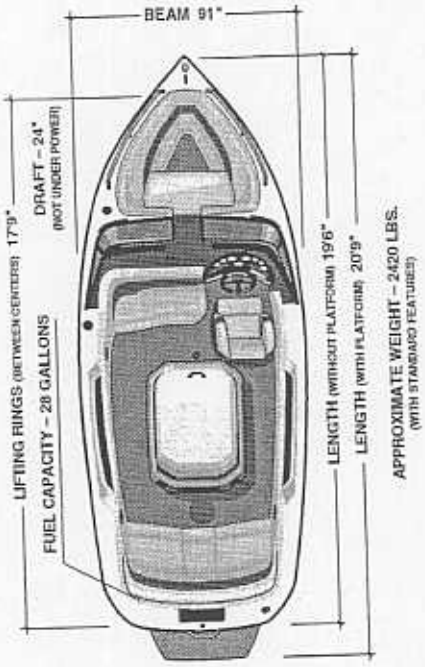
Chapter 1

Ski Nautique Open Bow Overview

Specifications Ski Nautique® Open Bow

Length without Platform	*19'6"*	*(5.94m)*
Length with Platform	*20'9"*	*(6.32m)*
Beam	*91"*	*(2.31m)*
Draft	*24"*	*(0.61m)*
Fuel Tank Capacity	*32 Gallons*	*(121L)*
Approx. Weight	*2,340 lbs.*	*(1,061kg)*
Lifting Rings (dist between centers)	*17'9"*	*(5.24m)*



Welcome to the Ski Nautique family.

We realize you may be anxious to get your Ski Nautique Open Bow in the water. This manual has been written to familiarize and educate you about your boat so you will be more comfortable out on the water. Your Ski Nautique Open Bow is built to provide you with the finest watersports boat in the world. Whether you are slalom skiing or riding a wakeboard, we trust you and your family will enjoy this boat for many years.

Let's start by taking a look at the dash pod to familiarize yourself with the locations of the gauges and switches.

Dash Layout and Gauges Standard equipment on your boat are the following gauges (pictured clock-wise): Oil Pressure, Temperature, Speedometer, Tachometer/ Hour Meter, Speedometer, Fuel, Volts. Optional equipment is an air/water temp gauge, clock, and a water depth gauge.

Circuit Breakers There are ten push button circuit breakers on the dash pod. You will need to push the button in to turn an item on. There is a LED indicator that will light up to tell you the circuit breaker is on. In the event of a electrical current overload, the circuit breaker will trip and the button will pop out into the off position.

Dash Layout

Bilge pumps The bilge pump switch turns on the bilge pumps. There is a bilge pump down by the bottom of the pylon and another bilge pump back by the rudder. When you push the bilge pump button, they will run for several

moments to sense if there is water in the bilge. If there is water in the bilge, they will remain on until the water is pumped out. If there is no water in the bilge, they will turn off. They turn on periodically to determine if there is water in the bilge. If so, they will remain on until the water is pumped out.

Note: The "Bilge" circuit breaker must be turned on for this feature to operate. This will not drain significant power from your battery unless the bilge pumps are required to run frequently because of a leak or excessive rainwater. This pumping system should not be relied on over an extended period of time. We suggest you frequently inspect your boat.

Navigation Lights This switch controls the navigation lights. The law requires the bow light and the 360 degree light (located at the transom) be turned on while running the boat after sunset or before dawn.

Anchor This switch turns on the 360 degree light. This light is required by law to be on after sunset and before dawn when the boat is not moving.

Accessories If you choose to add components to your boat such as a heater, shower or stereo amplifier, they can be wired to these breakers.

Note: Be certain to match the appropriate breaker amp load to the component. This should be done by someone knowledgeable in 12 volt D.C. wiring.

Ignition This switch allows power to come to the ignition switch and the rest of the instrument pod.

Blower This switch turns on the blower in the bilge. The blower must be turned on for four (4) minutes prior to engine ignition and also at anytime when the boat is operated at slow speeds.

12 Volt Plug This plug can be utilized to power cell phones, video cameras or various other electronics. This plug is powered through a ten (10) amp breaker.

Engine Warning Light This light is in the center of the dash pod between the speedometers and indicates high engine temperature.

Horn This is a momentary rocker switch.

Gauges

- **Volt** This gauge tells you how many volts the alternator is producing. During normal running, it should read 13-14 volts. Running a heater, shower or stereo amplifier will draw power from the alternator and possibly drop voltage below normal. If this occurs, the battery will not charge correctly.
- **Temp** This tells you the temperature of the engine.
- **Oil Pressure** This gauge tells you the status of the engine oil pressure.

NOTE: Without oil pressure, the moving parts in the engine will not be lubricated which will lead to severe engine damage.

- **Tachometer** This tells you the revolutions per minute the engine is turning.

- **Hour Meter** This instrument records the time that the ignition switch is turned on.
- **Speedometers** There are two speedometers on the dash. These can be calibrated by turning the small black knob that sticks out of the front of the speedometers. These speedometers are two completely separate systems.

Emergency Cut-off Switch We have included an emergency cut-off switch for the protection of you and your passengers. The clip at the end of the lanyard must be attached securely to the driver. Check the system by attaching the clip to the switch, start the boat and then pull the clip off the switch. The engine should stop. Under no circumstances should you operate the boat if this system does not function properly. If it does not function properly, contact your Correct Craft dealer to have the problem corrected.

Throttle The throttle control consists of the throttle lever, a lock out ring and a neutral button. (See photo) The neutral button is a push-button at the bottom of the throttle lever which allows the throttle to be advanced without the transmission being engaged. The throttle lever must be in the neutral position to start the engine.

The throttle arm has three detent positions.

Note: When in a detent position the throttle arm will resist movement, but can be moved with sufficient pressure. Neutral detent is straight up. Forward detent is approximately 30° toward the bow, and reverse detent is approximately 30° toward the stern. Moving throttle from neutral detent to either forward or reverse detent will shift the boat into that gear. The engine will remain at idle speed. To increase (forward or reverse) engine speed and therefore boat speed, continue to rotate the throttle arm past the detent.

Note: When shifting out of neutral, it is best to pause in the appropriate detent before applying additional throttle.

The lockout ring mechanism prevents unintentional shifting into forward or reverse. To operate the throttle lever, you must lift the lockout ring. DO NOT shift quickly from forward into reverse. Stay in the neutral position until the boat has lost speed before shifting into reverse. Shifting should not be attempted above 1200 RPM except in emergency situations.

Throttle

CAUTION: Loading and unloading of passengers from a dock or from the water should only be done after the engine has been turned off.

Pylon The ski pylon is manufactured from high strength aluminum alloy that is engineered for durability. It is hard coat anodized and impregnated with a PTFE (teflon) material. If the

pylon becomes loose, stop using the pylon and take the boat to your Correct Craft dealer for service.

Pylon—Warning/Caution Avoid personal injury. This water ski pylon was designed for water skiing only. Any other uses, such as parasailing, kite flying, towing other boats and/or using an extended pylon, etc. may overstress the pylon possibly causing personal injury and/or equipment damage. DO NOT sit behind (aft) the tow pylon when towing skiers.

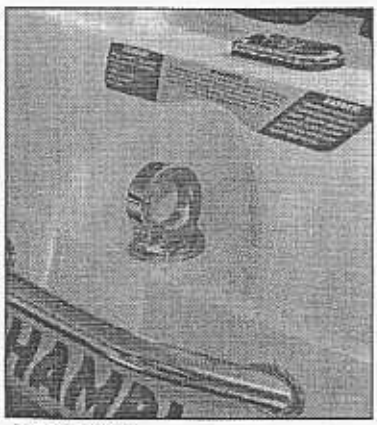
CAUTION: Although the extended pylon and barefoot booms have become popular additions to many tournament inboards, Correct Craft strongly objects and opposes the use of any pylon extension whether up or to the side of any of its products. The use of pylon extensions can alter the handling characteristics of the boat, possibly resulting in dangerous instability which could then lead to loss of control, a situation which could cause serious or fatal injury to the boat driver, passenger(s), person(s) being towed, and anyone else who might be in the vicinity of such a mishap.

Correct Craft does not approve of any structural changes, additions or modifications to our products. Any time a dealer or consumer makes a change(s) to our product, they do so at their own risk and sole liability. Correct Craft, Inc. will not be held liable for unauthorized changes, whether deletions or additions, to the original equipment/product manufactured and sold by Correct Craft, Inc. even if such changes, additions, etc. are made by an "authorized" dealer, customer, promotional representative or any other person, known or unknown to Correct Craft, Inc.

Lifting Rings Your Ski Nautique Open Bow has lifting rings at the bow and at the stern. These are designed to lift your boat in a steady and secure manner. Be certain to use a winch that has a lifting capacity sufficient for your boat. See boat weight specs in the front of this manual. These weights are dry weight. You must add the weight of the battery, fuel, and gear to the dry weight.

CAUTION: Drain the bilge to eliminate excess water before you lift the boat.

Note: Use a hook that will pass easily through the lifting ring without binding. This is very important. A hook that is too large or off-center could break the lifting ring.



Lifting Rings

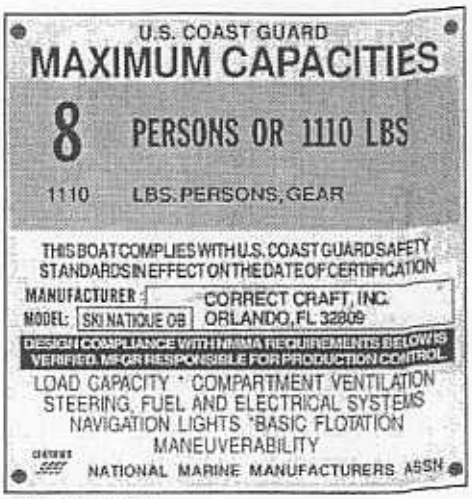
Capacity Plate The capacity plate is used by boat manufacturers participating in the National Marine Manufacturers Association certification program. Correct Craft has submitted a Ski Nautique Open Bow for inspection and compliance with their guidelines.

The capacity plate has the following information permanently printed on it. It is attached to the boat by the throttle for the operator

to read before they drive the boat.

- The total weight of persons, gear and other items which the boat is capable of carrying under normal conditions. This weight must include any water added to the Launch Control System or other added ballast.
- The maximum number of persons allowed on the boat.

This information on the capacity plate applies under normal conditions and special care must be used in any other than normal conditions.



Capacity Plate

Check the capacity plate on your boat and abide by these limits.

NOTE: The use of any ballast system, including the Launch Control System, requires the reduction of the maximum load capacity listed on your boat's capacity plate. ***(ie: If the maximum capacity is listed as 1110 lbs and you add 400 lbs of ballast, then the amount of persons and gear that you can carry is reduced to 710 lbs.)***

CAUTION: A fully loaded Ski Nautique Open Bow will handle differently than an unloaded one. Drive and turn the boat more cautiously when you have a full load in the boat. As wakeboarding has developed, we have witnessed the advent of ballast systems, which add weight and increase the size of the wake. The simplest ballast systems on the market are the water bladder type, such as the "Launch Pad".

Please be advised that by using this practice, it is extremely easy to overload the boat. Each Correct Craft, Inc. boat is required to have a capacity label that lists the maximum weight of people and gear that can be placed in the boat. The quest for the "phattest" wake has caused people to go to excess and when they do, it can be expected that the boat may function in an adverse manner, possibly resulting in injury to persons inside and/or outside of the boat. Correct Craft, Inc. must advise that overloading the boat in such a way may be dangerous.

Hull Identification Number The hull identification number is a requirement of the U.S. Coast Guard for boat manufacturers. It is a standardized numbering system that assigns a specific sequence of numbers and letters to a specific boat. This number is molded into the hull. You will find it on the right-hand side of the transom just below the rubrail. Write this number down in your records and keep it in a safe place away from the boat.

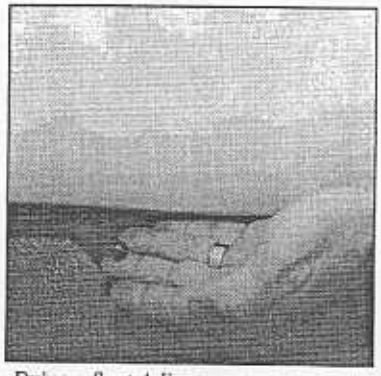
Here is a brief explanation to help you understand the hull number:

The first three digits represent Correct Craft, Inc.(CTC). The next five digits are the boat's serial number. The following digit is a letter from "A" through "L" designating the month the boat was made.

There are three remaining numbers. The first of these represent the last digit of the year the boat was built. The final two numbers state the MODEL year. A boat built in August of 1998 is actually a 1999 model boat.

Driver's Seat Adjustment There is a lever under the driver's seat on the left side that allows the seat to slide.

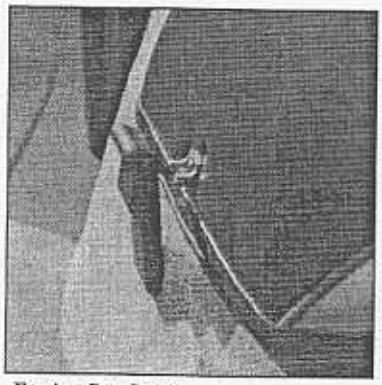
Fueling Remove the slotted fuel fill cap to put gas in the boat. There is a special "key" for this cap. Use caution when fueling your boat. Never fuel your boat unattended. Use care to avoid being splashed by fuel, or spilling fuel.



Drivers Seat Adjustment

Love Seat Access storage under the bow area by lifting up on the bottom of the love seat cushion. The entire love seat will hinge upward to allow access. You can leave this seat in the "up" position to help dry the carpet.

Engine Box Latching/Lifting There are two rubber latches that hold the top of the engine box to the base. Pull on the top of these latches and the upper part or the engine box will be released. Lift up on the engine box handle and the gas shocks will help you lift the engine box. This "clam-shell" design allows you to check the engine without lifting the entire engine box. You can leave the top open to dry the bilge.

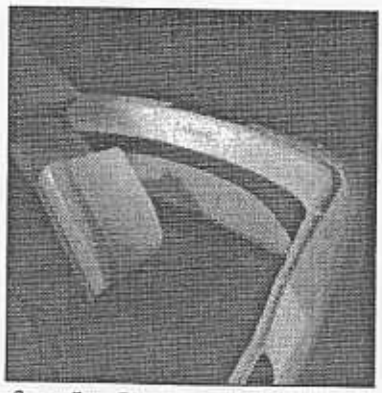


Engine Box Latch

Dash Cooler The dash cooler is divided into two compartments. This allows storage for gear and soft drinks. Both compartments have drains.

Stern Seat Center Cushion
The stern seat center cushion can be removed to to get in and out of the boat. An alternative is to flip it upside down and use it as an elevated step.

Stern Seat Base Removal
Lift both side cushions and locate the latches under the cushions. Flip the handle on the latches and lift the bottom up and out. There is a stanchion from the floor to the deck behind the coming pads. There are two rubber latches that hold the stern seat back to the stanchion. After both of these latches have been released, the stern seat back can be lifted straight up.



Stern Seat Base Removal

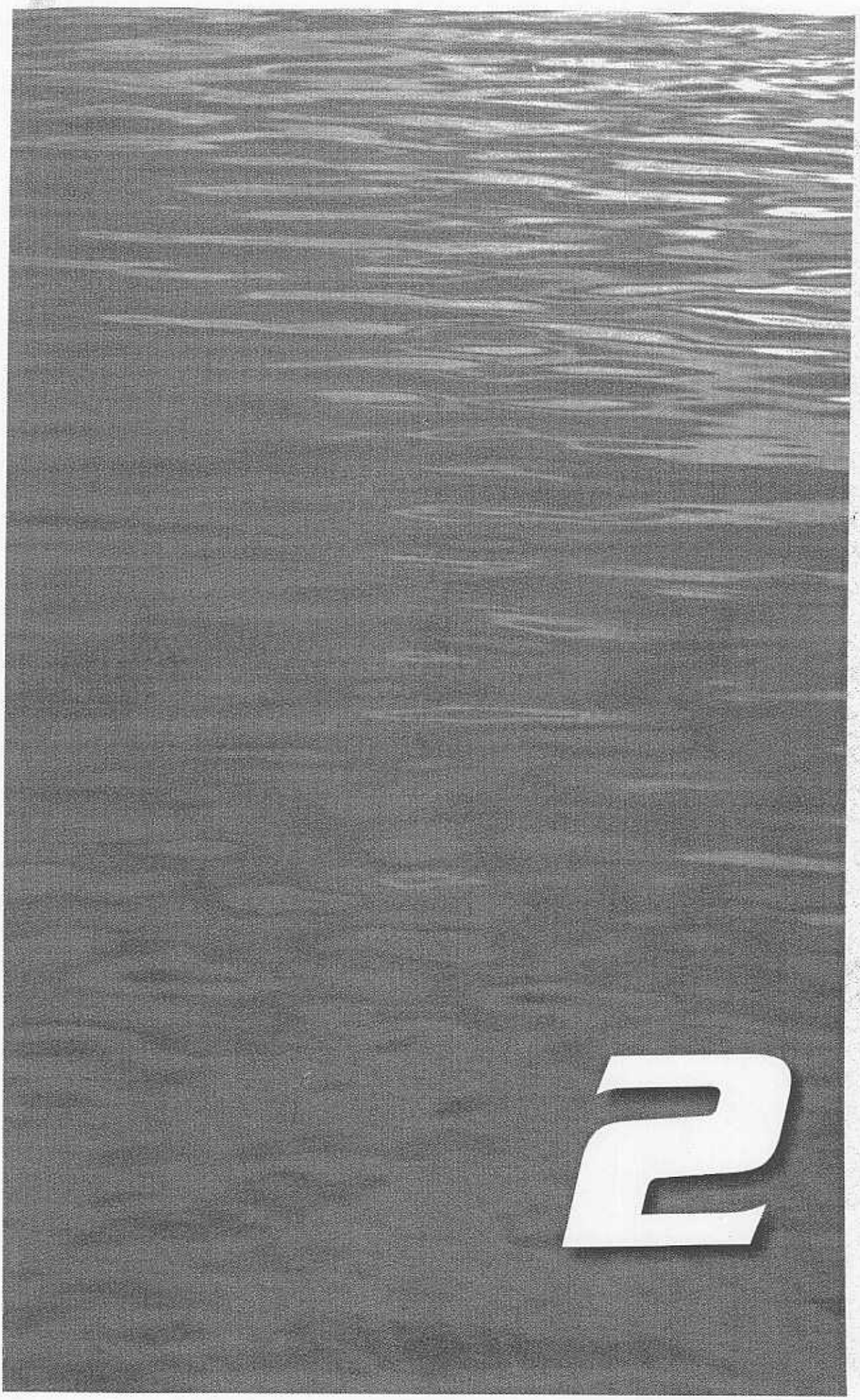
To re-install, lower the stern seat back down into position gently. There are three (3) stainless steel clips attached to the deck that fit into cut-outs in the fiberglass stern seat back. Set the stern seat base in position and clip both latches in place.

Fuel Tank Location The fuel tank is located behind the stern seat back. To inspect the hose connections, remove the stern seat as described above.

Boarding Platform Removal Pull the two pins that are located in the mounting brackets and lift the platform vertically. Make sure to keep the pins attached to the brackets on the platform so you don't lose them. If you misplace these pins, contact your dealer for a replacement set.

Battery location The battery is located under the floor in front of the in-floor cooler.

Walk Through Windshield Opening/Latching
There are two latches on the inside starboard edge of the walk-through windshield. Rotate both of these latches until the door can be opened. Always have this door closed and latched when trailering the boat.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Chapter 2

ENGINE OVERVIEW

It is the owners responsibility to check all of the items below to be certain all preparation steps have been completed before you use your boat. Checking these items periodically will soon become habitual. If leaks or other abnormal conditions are found, stop using the boat and contact your Correct Craft dealer to have the problem(s) corrected.
The following instructions are vitally important:

- Lift the top half of the engine box. Check to see if all the engine drain plugs are in. Make sure the hull drain plug down in the bilge is installed.
- Look at all the hoses to make sure they are installed and the hose clamps are tight. Turn on the blower (switch is on the dash). Run the blower at least four (4) minutes. This helps to remove fuel vapors that might be down in the bilge before starting engine. Remember, if you have detected the presence of fuel vapors, do not start engine until source has been determined, any problems corrected and vapors removed.

Very Important!

- Check all gasoline line connections. These connections are located at the fuel tank, the fuel filter/Fuel Control Cell and the carburetor/fuel injection system. All Correct Craft boats are equipped with anti-siphon valves on the outlet fittings of the fuel tanks to reduce the chance of fuel siphoning from the fuel tank if a fuel hose leaks or is severed.
- Fill the fuel tank and check for leaks. Check again for leaks after the engine has run for a few minutes.

Check list before starting:

1) **Engine oil level** - boat must be sitting level.
2) **Transmission oil level** - boat must be sitting level.
3) **Shifting linkage and detent in forward, neutral and reverse.**
4) **Leaks** (water, fuel and oil).
5) **Coolant level** (if the engine is freshwater cooled).
6) **Operation of the throttle and transmission shift control.**
7) **Battery condition.**
8) **Visually inspect for any loose mounting fasteners.**
9) **Verify the emergency engine cut off switch located by the throttle is fully functional.** Clip the safety lanyard securely to your body at all times you are driving.

- Once the boat is in the water, remove the inspection plate behind the motorbox in the floor and visually check for water leaking at the stuffing box. This stuffing box must drip a moderate amount of water to properly lubricate the drive shaft. If the water is really coming in, pull the boat out and have the

dealer adjust the stuffing box. *There is a detailed instruction for this in the boat care section.*

- Check to make sure there are no ropes, gear bags, arms/legs near the belts and pulleys of the motor. Severe injury can result by becoming entangled in the belts of the motor while it is running. Make sure the boat is deep enough in the water to supply the water intake with water to cool the engine. Move the throttle into the neutral position. This is in the "straight up" position.

WARNING: Before you start your engine, always ventilate the engine compartment by opening the top of the engine box and run the blower for four (4) minutes to remove any fuel fumes that may be in the bilge. This is especially important after repairing or refueling to check for fuel spills or leaks before starting the engine.

- Close the engine box.
- If you have a carbureted motor, push in the transmission disengagement button located at the bottom of the throttle, lift the lock-out collar below the throttle knob and move the throttle forward twice. This throttle action feeds the carburetor enough gas to start a cold engine. Return the throttle to the neutral position (straight up) before starting.
- If you have a fuel injected engine, it is not necessary to pump the throttle before starting.
- Start the engine.

CAUTION: Do not continue to operate the starter for more than 30 seconds without pausing to allow the starter motor to cool off for five (5) minutes. This allows the battery to recover between starting attempts.

Note: Pumping the throttle on a carbureted engine should not be necessary with a warm engine.

WARNING: In order to prevent personal injury to you or others, whenever the engine is running the engine box must be closed. Never operate the engine with the engine box open or while someone is in the area of an open engine box. Never open the engine box unless the engine is turned off and the engines rotating parts are stationary and remain in a stationary position. Rotating machinery can cause injury and even death if an accident should occur. Whenever a problem exists that requires the operation of the engine with the engine box open, extreme care must be exercised.

IT IS RECOMMENDED THAT ALL WORK ON THE ENGINE BE DONE BY TRAINED AND QUALIFIED SERVICE PERSONNEL.

During the warm up period, scan the gauges for correct operation of all the systems:

- Oil pressure 35-80 PSI (Approx.) at 2000 RPM
- Cooling water temperature for raw water systems140-170 degrees
- Cooling water temperature for fresh water systems: 170 - 210 Degrees
- Volts should rise to around 13 - 14 volts or higher
- Idle RPM (600 - 700) in gear

CAUTION: Do not operate at high RPM's in neutral. Do not shift into forward or reverse at engine speeds above idle RPM's.

CAUTION: Do not operate engine without cooling water flowing through the water pump or the neoprene water pump impeller will become damaged, and severe engine damage may result.

If the fuel injected engine does not start:

- If the fuel filter has just been changed or if the fuel system has been run dry, it will be necessary to cycle the ignition switch from the "off" position to the "on" position several times until the fuel pumps build adequate pressure. The cycling of the key is necessary because the fuel pumps will run only 1-2 seconds when the key is turned on, unless the engine starts. The throttle control should stay in neutral during engine ignition. If the throttle is advanced, it is possible for the computer to think that the engine is flooded and initiate a clear flood condition which will shut off fuel to the engine and not allow it to start. The idle speed flare normally encountered on hot or cold start is perfectly normal. This is programmed into the computer. When the engine starts the idle speed will jump to approximately 1,500 rpm and quickly decrease to somewhere between 750 and 900 rpm.
- Check for gasoline and cooling water leaks on the engine.
- Check for cooling water circulation (look at the water filter at the rear port side of the engine for water movement).

Flooded engine If your engine does become flooded, use caution when attempting to start the engine. Push in the transmission disengagement button at the bottom of the throttle arm and push the throttle to full throttle position. By pushing the button in, the shift linkage is disengaged and the transmission remains in neutral during the starting procedure. Run the starter until the engine starts. This applies to carbureted and fuel injected engines.

CAUTION! NEVER RUN ENGINE WITHOUT COOLING WATER.

To protect your investment, we suggest that you bring your boat back to your local dealer after 25 hours of operation for an inspection of the shaft alignment, stuffing boxes adjustment, and have the fuel system checked for leaks. This is not a free service. Follow Pleasure Craft Marine's (PCM) recommendations in the maintenance section for additional service to the

motor. (**See Chapter 8**) Consult your dealer to determine what charges will apply.

Do not run the starter for more than 30 seconds without taking a 5 minute break to let the starter motor cool down.

When the engine starts, move the throttle lever back until the engine is running about 2,500 RPM or less. Check the gauges for normal readings and let the engine run for a minute to burn the excess fuel. If the gauge readings are abnormal, shut the engine off immediately and contact your Correct Craft dealer. When the engine runs normally, check the engine for fuel, water and exhaust leaks. If there are leaks, these must be corrected before you continue.

NOTE: Read the "Notice to Dealer" sticker inside the motor box. These preparation checks have probably been completed by your dealer, but it is the owner's responsibility to check these items. This will also help you become more familiar with your boat.

After your initial run:
- Check oil level in the engine
- Check the transmission oil level
- Check for leaks (water, fuel and oil)
- Engine frame bolts and mounts are tight
- Throttle and shift control operates correctly

WARNING: If the engine backfires when you try to start it, the problem may be more serious than flooding. DO NOT CONTINUE TRYING TO START THE ENGINE; CONTACT YOUR CORRECT CRAFT DEALER OR A QUALIFIED TECHNICIAN TO CORRECT THE PROBLEM. To keep on trying to start the engine under these conditions could cause engine damage or physical harm to you and those around you.

Break In Procedure Make sure all your passengers are properly seated before starting the break in procedure. After the engine is thoroughly warmed up and you have driven the boat into a large open area, open the throttle to wide open until the maximum RPM's are reached. Do not exceed 5,000 RPM. Reduce the throttle to 2,800-3,000 RPM's and cruise at or below this speed for 1/2 hour. Reduce the speed to idle, open the throttle wide and operate at that speed for one minute; reduce to the previous cruising speed for a few minutes and repeat. Accelerating from idle speed to full throttle loads the engine and assists in seating the piston rings. This cycle can be repeated from time to time during the first five hours of operation, but full throttle should not be used for longer than 1-2 minutes.

WARNING: Follow these procedures only when conditions are such that you can drive the boat safely.

During this break in period you can confirm correct propeller selection. With a normal load in the boat, the maximum RPM's should not exceed 5,000 RPM. Watch all gauges carefully and reduce speed if abnormal readings are shown.

CAUTION: Do not attempt to break in an engine by letting it idle at the dock.

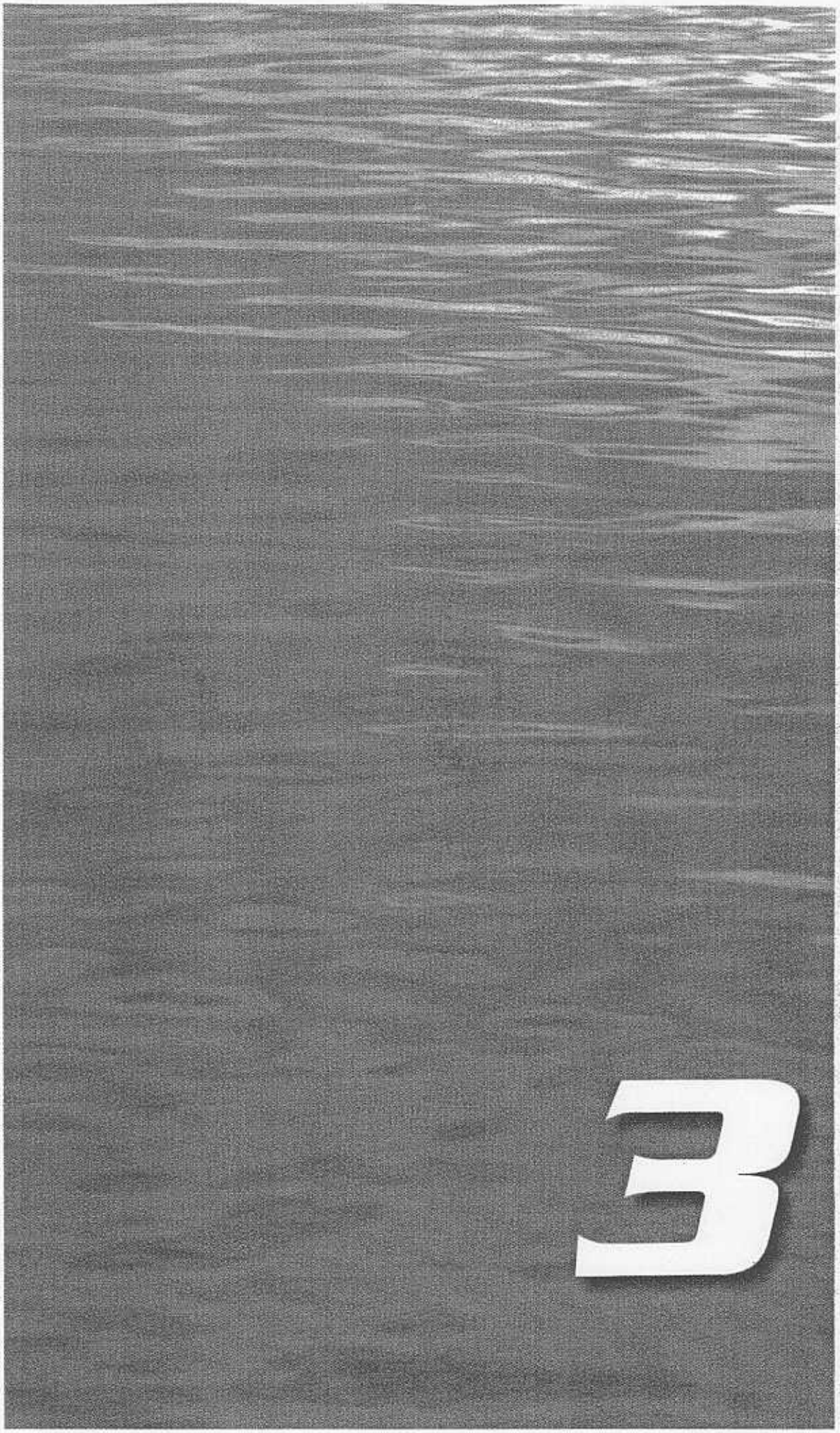
GENERAL NOTES

The maximum RPM of the engine at full throttle under normal load conditions can be controlled by propeller pitch, diameter and design. It is essential that the propeller does not underload or overload the engine.

Overloading, resulting in low RPM's at wide open throttle will give poor performance, poor fuel economy and eventually result in engine damage.

Underloading, if operated above the recommended maximum RPM's will result in poor fuel economy and engine damage.

NOTE: Running your boat in shallow water can cause sand and silt to be pulled into the cooling system. This can create excessive water pump wear and may clog the water passages in the engine. Heavy weed growth in the water can plug the raw water strainer and oil coolers and cause engine damage. There is a raw water filter located near the rear of the engine that filters the water before it goes into the transmission cooler and then the engine. Check this every time you use the boat to make sure it is not clogged.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Chapter 3

CAUTIONS AND WARNING LABELS

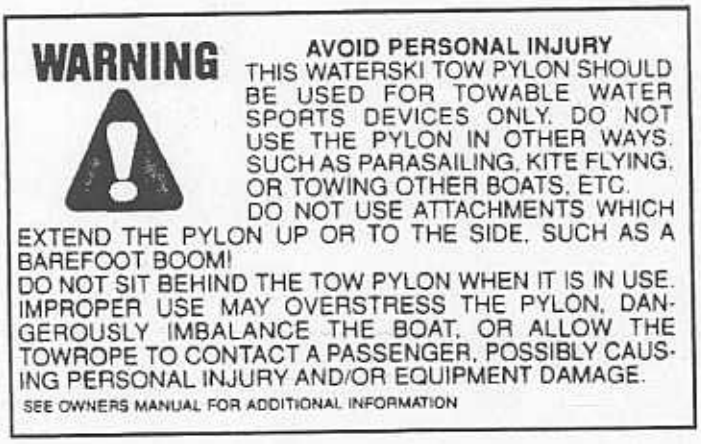
Cautions and Warning Labels

The following are the warning/information labels that should be on your boat. It is your responsibility to maintain the readability of these labels and to follow their warnings.

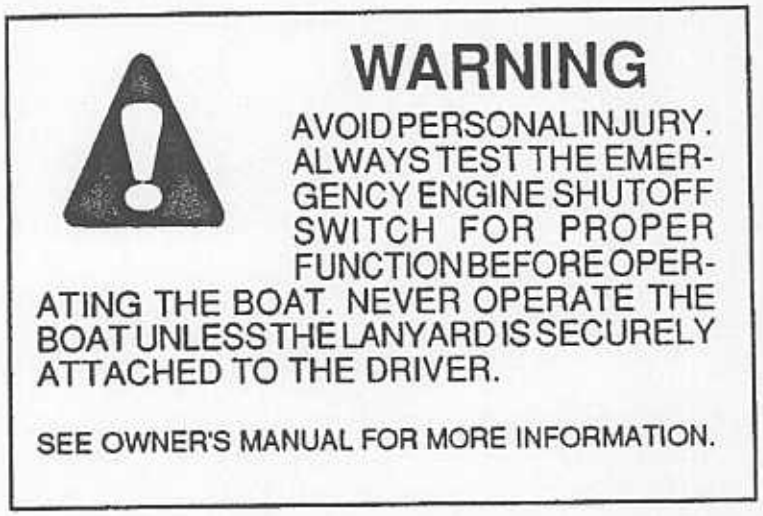
If your warning labels are not intact or are unreadable, please contact Correct Craft for a replacement set. These labels serve the vital function of warning you and your passengers of possible dangers and must remain in good condition on your boat.

NOTE: The warning / information label is listed next to each below.

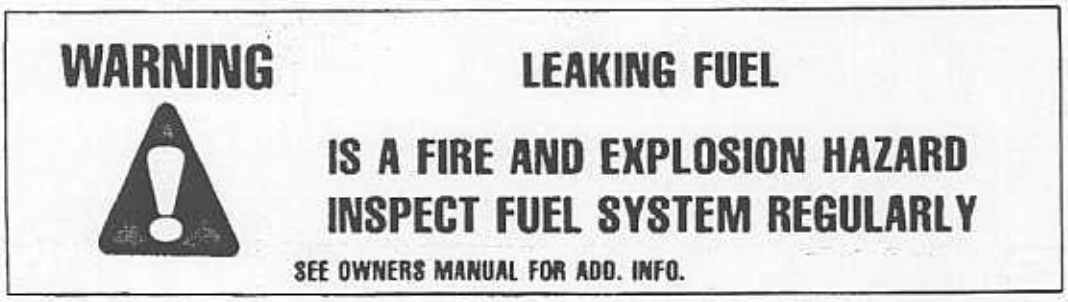
Tow Pylon:



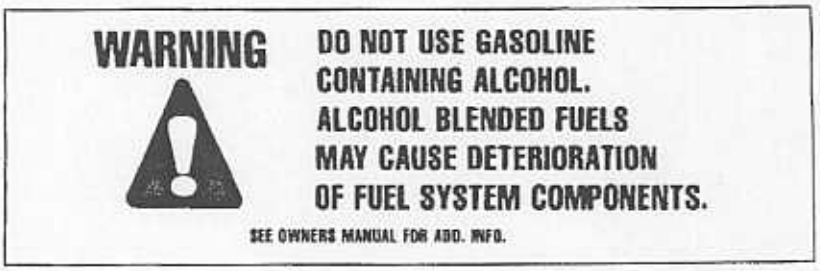
Emergency Shut-off Switch



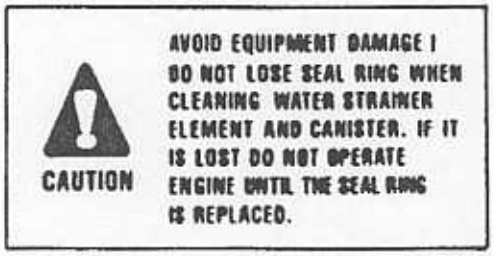
Inside Motor Box & On Fuel Tank



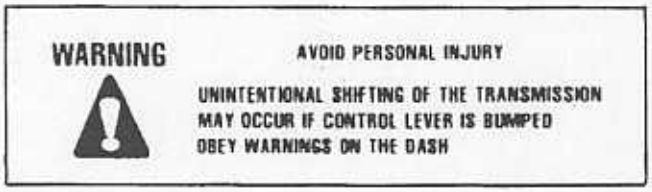
Fuel Fill



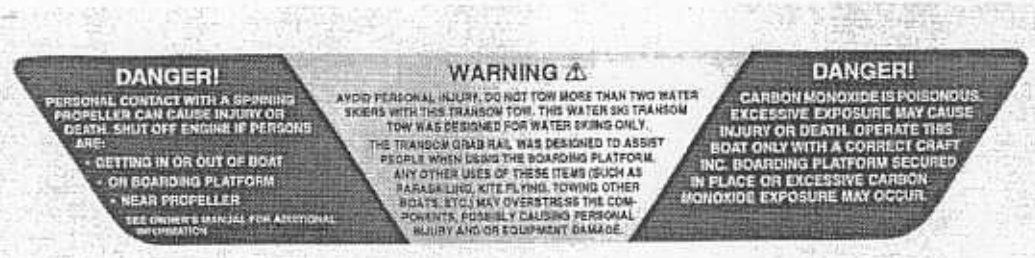
Water Strainer



Throttle Control



Transom Warning Label



Dash

WARNING

GASOLINE VAPORS CAN EXPLODE

BEFORE STARTING ENGINE OPERATE BLOWER FOR FOUR MINUTES. CHECK COMPARTMENTS FOR GAS VAPORS. RUN BLOWER WHEN BELOW CRUISING SPEED. TO INSURE SAFE USE AND MAINTENANCE OF THIS BOAT, READ AND UNDERSTAND THE OWNERS MANUAL THOROUGHLY. IF YOU DO NOT HAVE A MANUAL, CONTACT CORRECT CRAFT INC. AT 6100 S. ORANGE AVE. ORLANDO, FL 32809 (407) 855-4141

Dash

WARNING

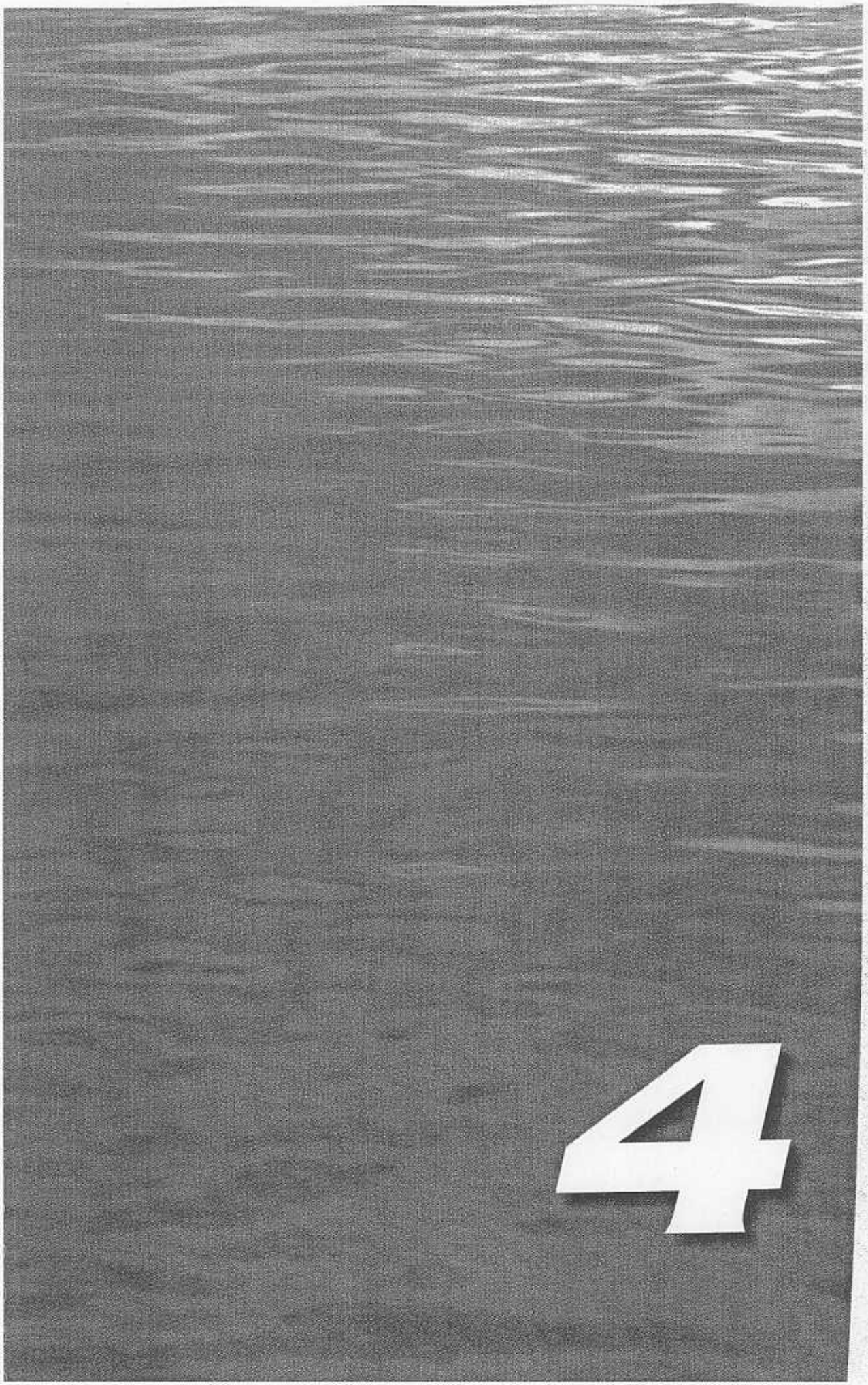
GASOLINE VAPORS CAN EXPLODE

AVOID PERSONAL INJURY DO NOT USE GASOLINE CONTAINING ALCOHOL. IT MAY LEAD TO DETERIORATION OF FUEL SYSTEM COMPONENTS, CAUSING FIRE AND EXPLOSION. THE ENGINE SHOULD NEVER BE RUNNING WHEN THE OPERATOR IS NOT SEATED WITH BODY FACING FORWARD WITH HANDS ON THE CONTROLS. LEAKING FUEL IS A FIRE AND EXPLOSION HAZARD; INSPECT FUEL SYSTEM REGULARLY. DO NOT SIT ON SEAT BACKS, SIDES OF BOAT OR ENGINE BOX WHILE ENGINE IS RUNNING. DO NOT MAKE HIGH SPEED MANEUVERS IN THIS BOAT. DO NOT STAND ON SIDES OF BOAT AT ANY TIME. SEE OWNERS MANUAL FOR ADDITIONAL INFORMATION.

Dash

WARNING

DANGER CONTACT WITH A SPINNING PROPELLER CAN CAUSE INJURY OR DEATH. SHUT OFF THE ENGINE IF PERSONS ARE GETTING IN OR OUT OF THE BOAT, NEAR PROPELLER OR ON A BOARDING PLATFORM. CARBON MONOXIDE IS POISONOUS. DO NOT OPERATE THIS BOAT WITHOUT A CORRECT CRAFT BOARDING PLATFORM SECURED IN PLACE OR EXCESSIVE CARBON MONOXIDE EXPOSURE MAY OCCUR.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Chapter 4

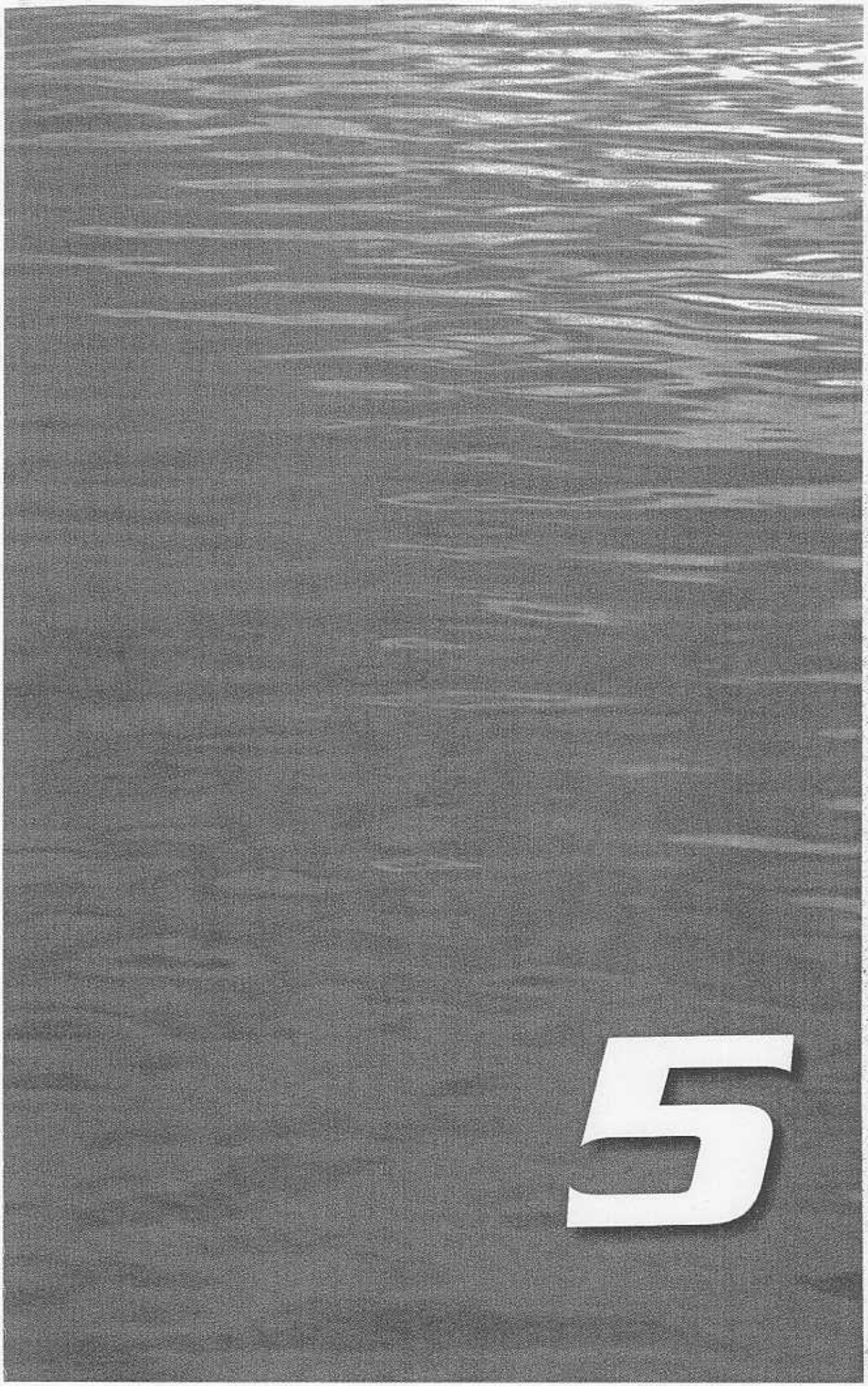
Boat handling guidelines/Safety regulations

- Always observe the rules of the road and common sense and courtesy on the water. If you think of it as driving a car, it becomes a bit easier. If a boat is coming towards you, you should pass that boat keeping it on your port (left) side.
- In a "crossing situation," that is, another boat passing in front of you, if the boat is on your starboard (right) side, that boat has right-of-way.
- In an "overtaking situation," the boat being overtaken (passed) has the right-of-way. The overtaking boat should pass on the port side of the boat being overtaken with a single blast of the horn. If you have to pass a boat on the starboard side for some safety reason, two blasts from the horn are required.
- When you encounter an unpowered boat like a sailboat or canoe, these boats ALWAYS have the "right-of-way". If a sailboat is using a motor, it must follow the "Rules of the Road."
- Do not demand the right-of-way, even if you are correct. The only correct move is to avoid a collision.
- NEVER OPERATE YOUR BOAT UNDER THE INFLUENCE OF ALCOHOL OR OTHER CONTROLLED SUBSTANCES!! This puts you and your passengers in danger as well as other boaters on the water.
- While the engine is running, and during the boat mooring, all occupants should be properly seated. Do not sit on engine box, seat backs, or gunnels, etc. You COULD fall overboard and be hit by the propeller. If you are sitting up in the open bow seating area, be careful not to obstruct the vision of the driver. Do not allow objects, arms or legs or any other body parts to hang over the bow or gunnels.
- Look carefully before turning, especially when you are turning around to pick up a fallen skier. Someone else may not be following the "Rules of the Road."
- Keep a visual check for boats behind your boat. This is an area where accidents can happen very quickly.
- Do not stand while the boat is moving.
- Sit in the driver's seat while the boat is moving and INSIST that your passengers remain properly seated.
- Do not sit on the gunnels, deck, seat backs, boarding platform or engine box while the engine is running or while the boat is moving.
- Make sure you have a properly sized Coast Guard Approved PFC (Personal Flotation Device) on board and easily accessible for each person.

- There are no brakes to help you stop your boat. Water current and wind can affect your ability to stop safely. The driver must use caution and sound judgment at all times to maintain control of the boat, especially to maintain a reasonable distance from all potential areas of danger. Slow down in all areas of potentially hazardous navigation and in all conditions of reduced visibility. Be alert for posted speed limits, swimming areas, no wake zones and other restrictions. Common sense plus courtesy add up to safety.

States have varying regulations regarding water sports activity. Check the local and state agencies in your area to determine laws regulating boating and water sports. These laws were written to protect boaters and water sports enthusiasts. Some states require that the driver have a qualified observer in the boat while pulling a skier. Learn and follow the laws where you will be boating. Correct Craft recommends that you have a qualified observer in the boat with the driver at all times when a person is skiing.

There are free pamphlets available regarding such things as Rules of the Road, Navigational Aids and Federal Requirements for Recreational Boats. Your dealer can supply these, as can organizations such as the United States Coast Guard Auxiliary and the U. S. Power Squadrons. Check with your state's boating publications. Regulations vary from state to state.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Chapter 5

CARE

There are some engine maintenance functions that are best performed by your dealer. Maintenance items that can be done by you or your dealer are listed below. We suggest that you familiarize yourself with these even if you have your dealer service your boat.

CARE OF YOUR BOAT The old adage "An ounce of prevention is worth a pound of cure" applies to your boat. Here are some tips that will help keep your boat in good running order and in good condition.

1. Read the instructions regarding your engine very carefully.
2. Check for fuel line leaks every time you use the boat.
3. NEVER start your engine if gasoline odor is present. Gasoline fumes are highly explosive. Before starting your engine, open the motor box, inspect the engine compartment for gasoline fumes and operate the blower for at least four minutes. Your Nautique has two gas struts that hold the motor box up. Run your blower when operating at slow speeds. If fuel vapors are present, do not start the motor. Check all hoses and fittings to determine the source of the vapor. Make the necessary adjustments or take the boat to your local dealer to eliminate the fuel vapor.
4. When servicing the ignition switch or any wiring, always disconnect the battery cables from the battery.
5. Check for water circulation when the motor is running. Exhaust should contain steady flow of water. In closed cooling systems, make sure the coolant in the cooling system is at the proper level.

BILGE PUMPS Check your bilge pumps often to make sure they are operating efficiently. There are two bilge pumps; one is at the rear of the boat near the rudder and the other is under the floor by the ski pylon. To keep the pumps from getting clogged, remove any debris that you find in the bilge. Wash the bilge with a good biodegradable household detergent or a bilge cleaner available at a marine supply store. Rinse with water WITH YOUR BILGE PUMPS RUNNING. If your pumps seem to lag, remove the top of the pump from the base and check the impeller to make sure there is no debris stuck inside. See your dealer if there is still a problem with the pumps.

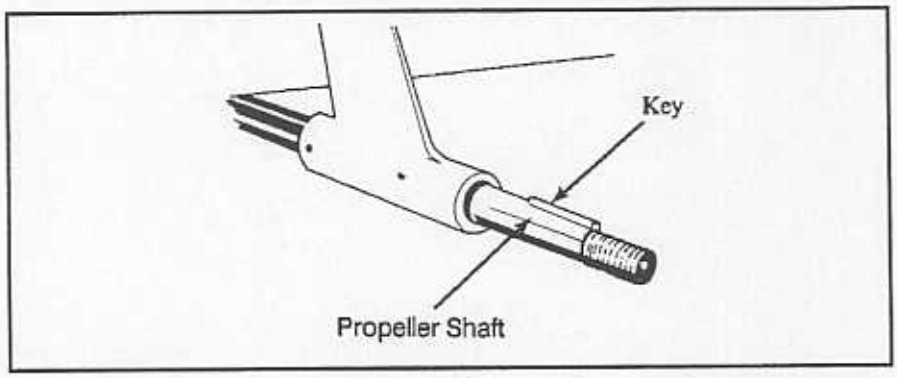
PROPELLER Here are a few tips for the installation of the propeller.

CAUTION: A propeller can be very sharp so be careful when you handle it. It's a good idea to wear a pair of protective gloves when handling any propeller.

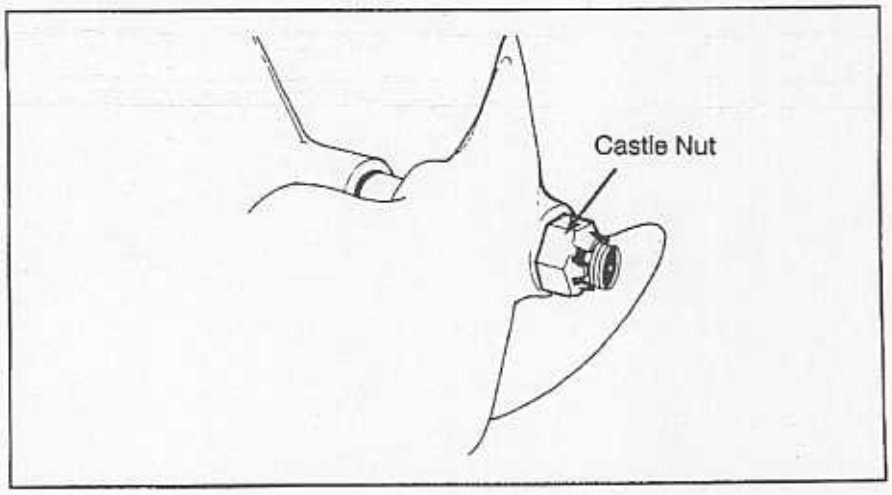
1. Before placing the propeller on the shaft, take a look at the keyway on the shaft and in the propeller. Make sure the key slides freely in the shaft keyway as well as the propeller keyway. You may need to file the flat sides of the key

and the keyway to remove burrs. Rotate the shaft until the keyway is "up". Place the key in the shaft keyway. Rotate the propeller so the keyway in the propeller is aligned with the keyway on the shaft. (See illustration.) Once aligned, push the propeller onto the shaft. You'll hear a solid "thunk" as the propeller is seated. NOTE: THE PROPELLER WILL ONLY SLIP ON IN ONE DIRECTION SINCE THE SHAFT AND PROPELLER BORE ARE TAPERED.

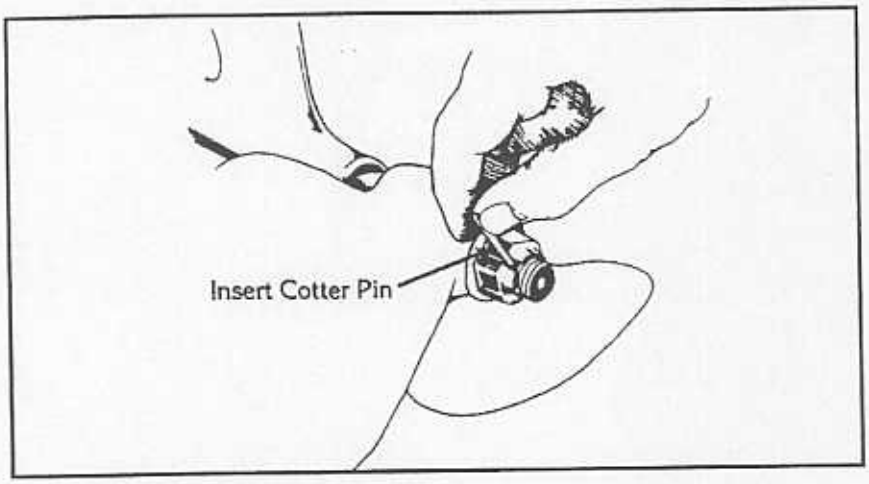
2. Put the castle nut on the shaft and wrench tighten.



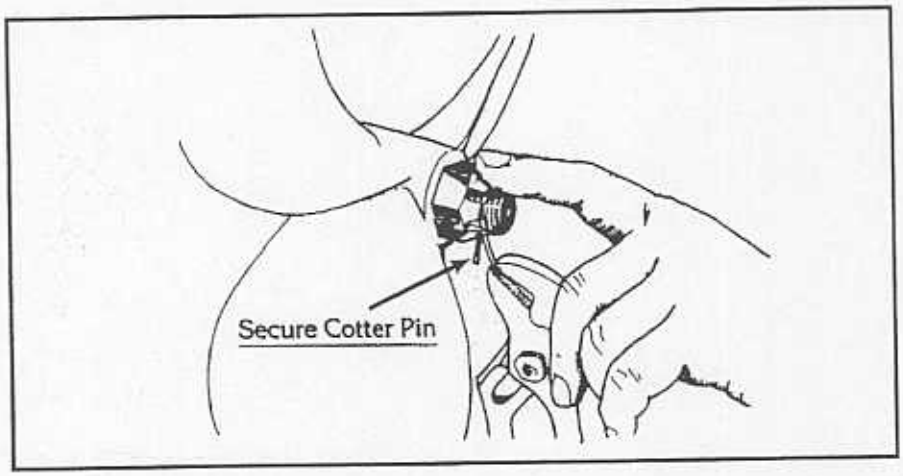
3. When the castle nut is tight, look for the cotter pin hole and insert the stainless steel cotter pin through the shaft. (see illustration). With a light tap, drive the cotter pin down through the slot and hole so that its rounded top rests snugly against the hole. Bend the loose ends of the cotter pin back against the shaft with a pair of pliers and tap them lightly to secure.



To remove propeller, remove the cotter pin. Loosen the castle nut to the end of shaft. Do not completely remove castle nut. Use a propeller puller available at most marine supply stores to remove the propeller. Use a new cotter pin when you replace the prop (see illustration).



A FINAL CAUTIONARY NOTE: BE CAREFUL HANDLING YOUR PROPELLER. A SHARP PROPELLER CAN CAUSE A PAINFUL CUT!!

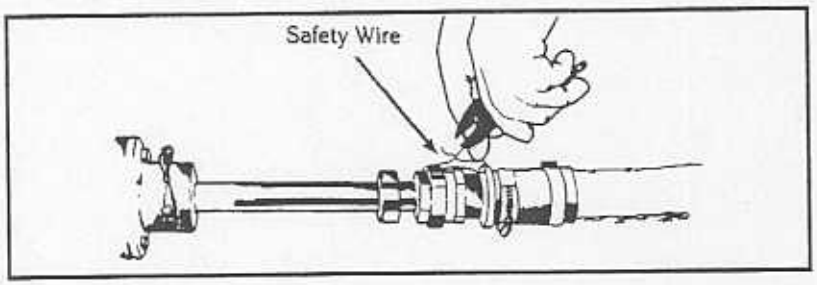


PROPELLER SHAFT STUFFING BOX The "stuffing box" and "packing gland" is designed to prevent water from coming through the through-hull fittings. These are found on the propeller shaft where the shaft goes through the hull and where the rudder comes up through the bottom of the boat. These devices contain a lubricated fibrous packing that acts as a seal.

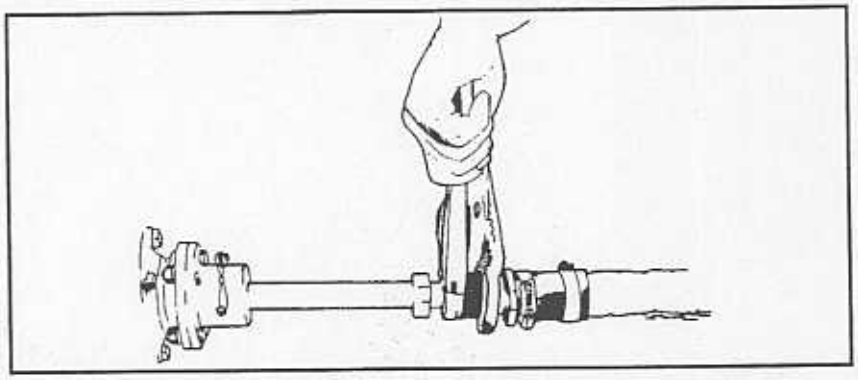
The propeller shaft stuffing box should be checked frequently (with the engine off) for excessive leakage other than a few drops per minute. This rate is acceptable and expected. To inspect the shaft stuffing box, remove the inspection plate in the floor behind the engine box. If you view a steady stream of water or an excessive drip rate, you need to tighten the stuffing box. If tightening is required, follow the procedures with careful attention.

1. You will need two pipe wrenches, twelve inches of .032 gauge stainless steel safety wire, flat blade screw driver and wire cutters. Remove the engine box. Remove the floorboard between the engine box and the stern seat.

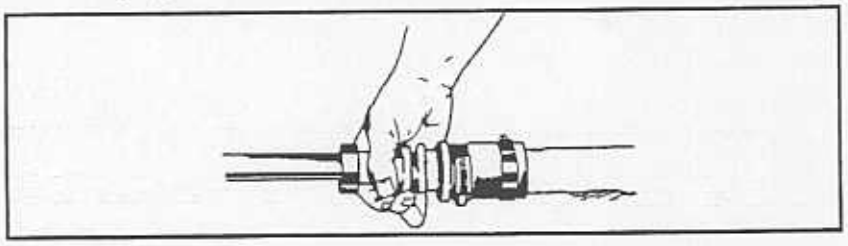
2. Cut and discard the safety wire (this wire prevents the packing gland nut from loosening.) See illustration.



3. Hold the gland nut (large nut) with a pipe wrench and loosen the locking nut with another pipe wrench. See illustration.



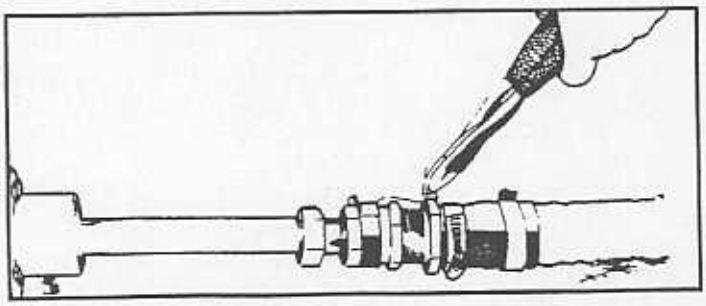
4. Now, HAND-TIGHTEN the gland nut until the dripping slows down to about 6 - 10 drips per minute. See illustration.



5. Using wrenches as in step three, re-tighten the locking nut against the gland nut. Make sure that it is VERY TIGHT. If you still experience leakage, consult your dealer.

6. Loosen one of the hose clamps at the rear of the assembly. Rotate the assembly until the safety wire eyelet is on top, and retighten the hose clamps.

7. Replace the safety wire as shown in the illustration.

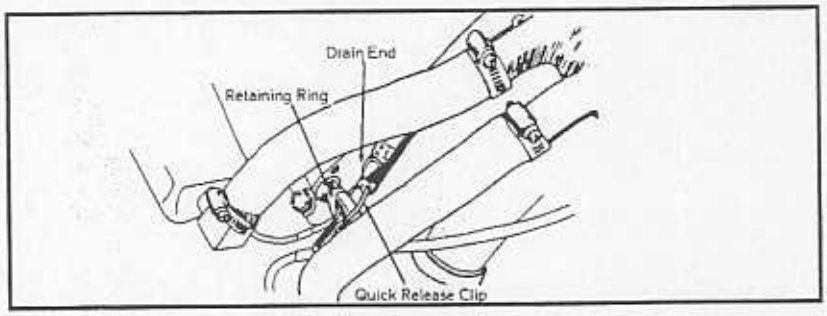


NOTE: BE SURE TO REPLACE THE SAFETY WIRE. THIS IS VERY IMPORTANT. USE A STAINLESS STEEL SAFETY WIRE OF AT LEAST .032 GAUGE.

Through-Hull Fittings All fittings that actually pass through the hull on the wetted surface are caulked in. These are not serviceable and should not be tampered with.

Quick Drain Oil System The first oil change should be done after 25 hours. All the rest of the oil changes should be done after every 50 hours. There is a drain hose attached to the bottom of the oil pan. With a small plug screwed into the loose end of this hose. Remove the hull drain plug and stick the end of the drain hose through the drain hole in the bottom of the boat. Make sure there are no kinks or sharp bends in the hose. Remove the plug at the end of the hose and drain the oil into a container under the boat.

The engine will drain most efficiently when the oil is warm. Allow several minutes for the oil to settle and drain.



NOTE: BE SURE THE ENGINE IS OFF WHEN YOU ARE DRAINING YOUR OIL.(See Chapter 8 for step-by-step instructions)

Salt Water Boating IF YOU USE YOUR BOAT IN SALT WATER, FRESH WATER FLUSHING OF YOUR ENGINE AND COOLING SYSTEM IS A MUST.

Flushing the system by running the boat in fresh water is a good way to flush the engine, but it must be done immediately. If this is not possible, Correct Craft offers a optional fresh water flush kit.

This illustration shows the proper hook-up to the stern of your boat. The relief valve in this fitting prevents excessive water pressure from being applied to your engine. We strongly recommend the use of this system for boats that are used in salt water.

If you do not use a fresh water flush system on your salt water boat, we advise you to see your dealer for alternative flushing methods.

Battery Maintenance

WARNING: The battery cables should be removed from the battery when the boat is placed in storage, on display, or in transit. This will eliminate the possibility of the engine accidentally starting without a supply of cooling water and damaging the engine.

Here are several suggestions for the care and cleaning of your marine battery:

- DO wear eye protection and rubber gloves when working on or around batteries.
- DO take care when connecting or disconnecting a battery charger. Be sure the charger is turned off and unplugged from power source when you clip on/off the connecting clamps. Make sure you have a solid connection with the charging clamps. Poor connections are common causes of electrical arcs which can cause an explosion. Follow the instructions.
- DO use a voltmeter or hydrometer to check the battery charge condition.
- DO NOT smoke or bring a flame near a battery at any time.
- DO NOT have your head directly above a battery when making or breaking electrical connections.
- DO NOT use a metal object to spark between battery posts to check if the battery is charged.
- DO NOT make or break electrical circuits at the battery terminals; a spark usually occurs when a live circuit is opened or made.

To clean your battery, remove and wash down the battery case with a diluted ammonia or baking soda/water solution to neutralize the acid, then flush with fresh water. Keep the fill/vent caps tight so the neutralizing solution does not get into the battery cells.

The electrolyte level should be checked every 30 days. Add distilled water to maintain the level between the top of the plates and the bottom of the fill/vent cap. Do not overfill and remember that batteries contain sulfuric acid which can cause severe burns.

Speedometer Troubleshooting The most common cause for speedos not working correctly is there are weeds or sand blocking the little hole in the pitot tube. The speedo may not show any speed at all or might only show a fraction of the true boat speed.

In many cases, these obstructions can be eliminated by backing the boat up quickly. Make certain you can back the boat safely. All persons should be inside and properly seated in the boat. If this does not work, remove the dash pod and remove the rubber hose from the back of the speedo. Pressurize the rubber hose with a hand pump or some other form of low air pressure. Do not exceed 25 PSI.

If you are expecting freezing temperatures, you will need to drain all water from the speedo system. Remove the dash pod and pull the hoses off the speedos. Pressurize the hoses to blow out any water. Do not exceed 25 PSI.

Winterizing Your Boat Winter storage procedures vary depending on climate, type of storage and length of storage. Check with your dealer/storage facility manager for their advice on what works best in your climate.

When storing your boat up on a rack system, it is important that the racks adequately support the hull bottom.

If you don't have a trailer, then a cradle should be used that takes into account the even distribution of weight.

If you do not have a dealer or marina nearby and must arrange winter storage yourself, feel free to contact your regional warehouse.

If you use a mooring cover, DO NOT put it on when the interior of the boat is wet and/or hot. It will trap moisture that may lead to mildew on the carpet and/or vinyl. Make sure your mooring cover allows air to circulate, even if you have to leave a portion of the cover off.

The raw water filter bowl remains full of water even after the rest of the raw water system has been drained. To properly winterize your boat, the filter bowl should be removed and emptied. **Be careful to not lose the rubber O-ring that seals the bowl to the cap.** If the water is not removed, the bowl could be damaged by freezing and cause overheating problems during the next season.

It is a good practice to store your boat with the gas tank nearly full, however you need to allow room in the tank for fuel expansion. Add a fuel stabilizing fluid that slows down the rate of fuel decomposition. You can purchase this at most marinas or auto supply houses. Add the stabilizer to the nearly full tank, then run the engine to circulate it throughout the fuel system and into the carburetor (if so equipped). This will help keep the seals from decaying and cracking. Always follow the manufacturer's recommendations for proper mixing.

Check For Water In Your Fuel System A small amount of water left in the system for several months can result in damage. If you are storing your boat for the winter, it is a good practice to remove any water in the fuel system.

The Fuel Control Cell can be drained by removing the drain plug at the bottom of the canister. Loosen the incoming fuel hose to provide an incoming air source. Clamp the incoming fuel line some way to minimize the amount of fuel that may drain. Once the canister is drained, coat the threads of the drain plug with a fuel resistant pipe thread sealer, then replace and tighten the plug. Reconnect the fuel hose, and tighten the hose clamp. It is imperative that the threads be sealed properly to avoid a possible fuel leak.

Check your Fuel Control Cell once each year for signs of water in the canister. If it appears there is an undue amount of water build-up in the canister, see your Correct Craft Dealer for service.

An empty fuel tank can accumulate water inside by repeated condensation. A nearly full tank will not allow water to condense on its inner surfaces. It is a good idea to keep a nearly full tank at all times to reduce the chance of condensation build-up.

Note: GASOLINE EXPANDS WHEN THE TEMPERATURE INCREASES. ALLOWANCE MUST BE MADE FOR SUCH EXPANSION. DON'T FILL COMPLETELY IF THE BOAT IS STORED ON AN UN-LEVEL SURFACE OR IF IT IS EXPOSED TO HEAT.

Gelcoat Maintenance Regular maintenance is the key word to keeping your hull and deck surfaces in good-looking condition. Some of the things that will affect your boats finish are sun exposure, residue from trees, minerals in the water.

To help maintain the shine of your boat, wash the hull with a mild bio-degradable detergent after each use. This will help to remove any debris and waterborne materials that are on the hull. Use a soft sponge or towel and dry with a chamois cloth to prevent water spots.

Wax the hull sides and deck regularly. Waxes and polishes are available at a marine supply stores. Read the directions on these products carefully before you use them.

The hull bottom is an especially important area to keep clean since any build-up of the natural coatings and algae in water will create drag and reduce the boat's efficiency. If you must leave your boat in the water, there are compounds to remove algae build-up on your hull. Some of these can be caustic. Pay special attention to the cautions on the label of these coatings. Ask your dealer for advice on which work best in your area.

If your boat's gelcoat develops a chalky look over a period of time due to exposure to sun, there are gelcoat buffing and polishing compounds available at marine supply stores. Do not use common household scouring pads or powders.

If you will be keeping your boat in the water for ANY period of time, we suggest that the wetted surface of the hull be painted with an epoxy paint formulated for blister protection.

Correct Craft offers a 90-day limited warranty against gelcoat defects to the original purchaser. For more information, see the complete warranty at the back of this manual.

Teak Care Teak is a unique wood used for marine applications. It is an open cell wood that is highly resistant to the dry-rot associated with many other woods and is also highly resistant to marine organisms. Don't coat the teak on your boat with any kind of varnish or polyurethane coatings. There are several teak oils available at marine supply stores.

When the teak on your boat is new, it has a medium brown color. After a period of time, exposure to the elements will cause it to turn a weathered gray color. If you want to refinish the teak, we suggest you purchase a teak cleaner from a reputable marine supply store. Follow the instructions on the teak refinishing bottles. You should use these products in an open space with eye protection, rubber gloves and good ventilation. Be very careful to avoid spilling these products on any part of your body.

Care of Metal Keep all metal work rinsed and wiped dry. Periodically polish it with a commercially available metal polish to remove substances such as air-borne pollution and natural body oils from your hands.

Care of Glass Your windshield, mirrors and gauge faces all deserve the same attention as the other parts of your boat. Clean them often with commercially available glass cleaners.

Vinyl Maintenance and Cleaning Correct Craft has selected the finest marine grade vinyl for your Nautique. It is important to keep it clean at all times. There are some substances that will stain the vinyl if you leave them on for even a short period of time. Remove any contaminant and clean the area immediately. Do not use 409 Cleaner or any Silicone based products. Certain household cleaners, powdered abrasives, steel wool and industrial cleaners can cause damage and discoloration. Do not use these cleaners. Dry cleaning fluids and lacquer solvents should not be used.

COMMON STAINS AND STEPS TO TREAT:

	#1	#2	#3
Chewing gum	D	A	D then A
Eyeshadow	E	B	E then B
Engine oil	B	B	B
Spray paint	C	B	B
Mildew or wet leaves *	D	B	A
Shoe polish *	A	B	
Yellow mustard	D	B	
Oil based paint (fresh)	D	B	
Oil based paint (dried)	A	B	
Suntan lotion *	D	B	
Tar/Asphalt	A	B	
Lipstick	A	B	
Latex paint	A	B	
Crayon	D	B	
Ketchup	A	B	
Grease	D	B	
Ball-point ink *	E	B	
Permanent marker *	E	B	
Coffee, tea, chocolate	B	B	

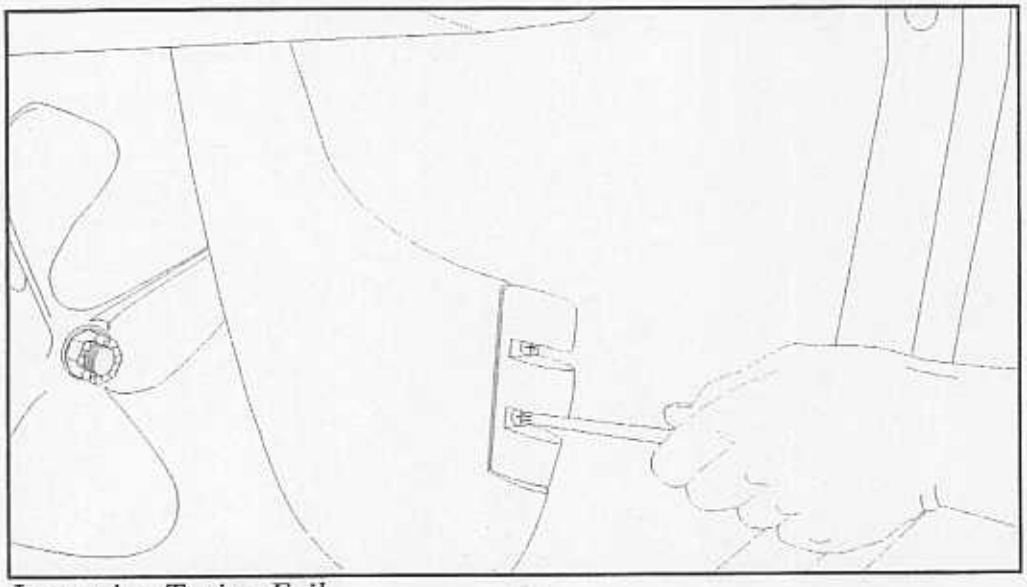
Use the chart above to clean some of the common stains:

A. Medium-soft brush, warm soapy water/rinse/dry
B. Meguires Quick Clean #52
C. One(1) tablespoon ammonia, one fourth (1/4) cup hydrogen peroxide, 3/4 cup water rinse/dry
D. Wipe or scrape off excess (chill gum with ice)
E. Denatured Alcohol/rinse/dry
After all cleaning methods, rinse well with water

*Suntan lotion, shoe polish, wet leaves and some other products contain dyes that stain permanently.

TUNABLE RUDDER

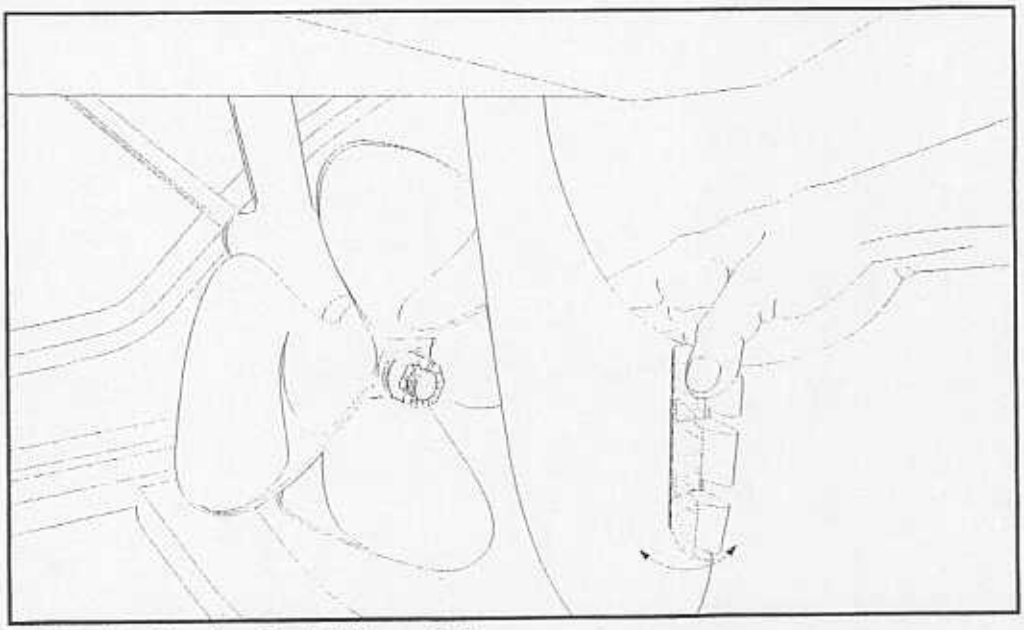
The Tunable Rudder is designed to offer easy adjustment of steering. This system utilizes a composite tuning foil which is located at the upper aft corner of the rudder blade. To adjust the foil a Phillips head screwdriver will be needed. Loosen the two machine screws located in the relief slots of the tuning foil.



Loosening Tuning Foil

If the boat is pulling left, rotate the foil to the left and tighten screws.
If boat is pulling to right, rotate the foil to the right and tighten screws.
Always remember that movement of the trailing edge of the foil to one side will cause the steering to pull to the opposite side.

Note: After each adjustment, test run and adjust again if necessary.



Adjusting Tuning Foil left or right

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Chapter 6

TRAILER/TRAILERING

Hitch If you don't already have a trailer hitch installed on your vehicle, you should go to a reputable installer to have the proper size hitch installed. Always use a hitch rated with the appropriate capacity to match the trailer and boats gross weight .

WARNING: Do not attempt to tow more than one trailer at a time behind your vehicle. Attempting to tow an additional trailer will adversely affect the trailer tongue weight and loss of vehicle control and/or injury or death may occur.

CAUTION: Never install a bumper mounted hitch on your vehicle. Always use a hitch that is attached to the frame of your vehicle.

Wiring The trailer requires wiring from your vehicle to the trailer lights. This can usually be done by the hitch company.

Security There are several locking devices available at marine supply stores that will aid in securing your boat whether or not it is attached to your vehicle.

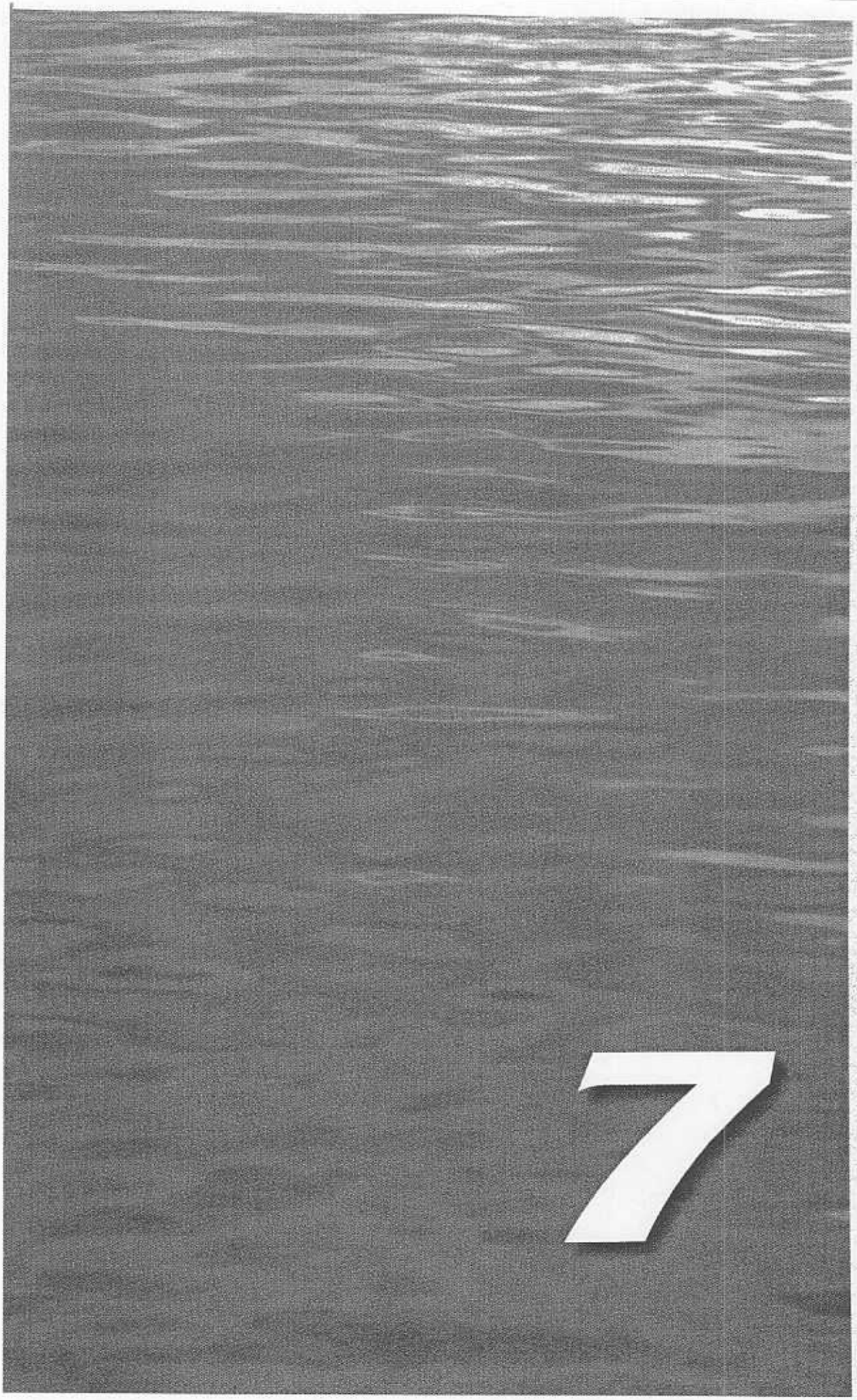
Towing Your Boat Consult this checklist prior to trailering your boat.

- Check wheel lug nuts for tightness.
- Be sure the trailer tongue is securely on the hitch and the safety chains from the trailer are secured to the vehicle.
- There needs to be a cable or strap securing the bow eye of the boat to the trailer. Make sure this is tight and is secure.
- Be sure the trailer electrical connector is plugged in. Allow sufficient slack for cornering. Check brake lights, turn signals, emergency flasher and running lights.
- Be sure your gear inside the boat and seat cushions can not shift or fly out of the boat during trailering.
- Make certain the walk-through door of the windshield is closed and latched while the boat is being trailered.
- If you are using any sort of water "ballast" system to add weight to the boat, make certain it has been drained before you put the boat on the trailer. These systems can adversely affect the tongue weight of the trailer. Your boat is not designed to carry exceptionally heavy loads. This can adversely effect the proper balance of the boat/trailer combination and cause tire failure and/or loss of control.

- If your boat is equipped with a bow winch, make sure that the boat is properly located on the trailer and the winch strap/cable is tight.
- Make sure the platform bracket pins are in place before trailering.

Long Trips Each time you stop on a long trip, check the following:

- Tightness of the wheel lug nuts and the bearing lubricant.
- Make sure the boat is still positioned snugly against the bow stops.
- Examine the hitch connection to be sure it is firmly attached and the safety chains are securely fastened.
- Make sure that all trailer lights are still functioning properly.
- Re-examine the contents of your boat to insure that no items such as life jackets or other gear have shifted and will not fly out while you are on the road.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Chapter 7

CORRECT CRAFT LIMITED WARRANTY

The Correct Craft warranty is backed by a family tradition of boat building experience since 1925.

Lifetime Limited Warranty Correct Craft, Inc. warrants to the original retail purchaser of each new Correct Craft boat that, under normal authorized use, the deck, hull and stringer system shall remain free from structural defects for as long as the boat is owned by the original retail purchaser.

Transferable Lifetime Limited Warranty In addition, Correct Craft offers a transferable Lifetime Limited Warranty covering the deck, hull and stringer system as detailed above. This policy may be transferred (for a nominal fee) to the second (2nd) purchaser during a period of five (5) years from the date of delivery to the original retail purchaser. See your local dealer for details.

Exception: The "lifetime" and "transferable" warranties do not cover the gelcoat nor any other components fastened or applied to the hull or deck. Gelcoat discoloration, blisters or bubbles and cracks are not considered structural defects.

Gelcoat Ninety (90) Day Non-Transferable Warranty Correct Craft, Inc. warrants to the original retail purchaser that each new Correct Craft boat will, under normal authorized use, be free of gelcoat defect for a period of ninety (90) days from the date of delivery to the original retail purchaser.

One (1) Year Non-Transferable Warranty Correct Craft, Inc. warrants to the original retail purchaser that each new Correct Craft boat will, under normal authorized use, be free of defect in material and workmanship for a period of one (1) year from the date of delivery to the original retail purchaser.

Exceptions

The warranty shall not apply to:

1.) Any Correct Craft boat which has been used at any time for commercial or racing purposes, as a demonstrator or in a promotional program, ski school or ski show.
2.) Upholstery, canvas or glass, unless defect is noticed at time of delivery and notification is given to Correct Craft, Inc. within 10 days thereof.
3.) Underwater gear which includes propeller, propeller shaft, strut, rudder and fins.
4.) Chrome plated, anodized or aluminum finished or colorfastness of finishes.
5.) Damage or malfunction of a boat resulting from improper maintenance, misuse, negligence, improper or inadequate trailering or cradling of boat.
6.) Any addition, modification or repair of the boat, or any component thereof, by any person or party other than Correct Craft, Inc., or or any defect or product failure caused by or arising out of any such addition, modification

or repair. Generally, with respect to any product liability issues, Correct Craft should not be held liable for product defects caused by substantial changes to the boats by the buyer or any third party not authorized by Correct Craft, Inc.

7.) Engines, parts or accessories, controls or other products not manufactured by Correct Craft, Inc. which Correct Craft may use or sell in connection with Correct Craft boats. To the extent that these parts are warranted, purchaser must look to the manufacturer warrantor thereof for such warranty and remedy thereunder for defects in materials or workmanship.

8.) Any and all consequential damages including, but not limited to, cost incurred for haul-out, launching, towing, and storage charges, telephone or rental charges of any type, inconveniences, or loss of time or income.

Any defect or damage covered by this warranty shall, at the discretion of Correct Craft, Inc., be repaired free of charge at an authorized dealership. Repairs will be warranted only for the remainder of the original warranty period. Transportation and/or labor to and from the point of repair will be the responsibility of the owner.

THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION OF THE FACE HEREOF. THIS LIMITED WARRANTY IS EXPRESSLY MADE IN LIEU OF ALL OTHER EXPRESSED WARRANTIES. DURATION OF ANY IMPLIED WARRANTY OR MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR OTHERWISE, SHALL BE LIMITED TO AND COINCIDENT TO THE DURATION OF THESE EXPRESSED WARRANTIES. UNDER NO CIRCUMSTANCES SHALL CORRECT CRAFT, INC. BE LIABLE TO THE PURCHASER OR ANY THIRD PARTY FOR LOSS OF PROFITS OR OTHER DIRECT OR INDIRECT COST, LOSSES OR CONSEQUENTIAL DAMAGES ARISING OUT OF OR AS A RESULT OF DEFECTS IN PRODUCTS HEREIN ABOVE WARRANTED.

Some states do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply to you. Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations may not apply to you. This warranty gives you specific legal rights and you also have other rights which may vary from state to state.

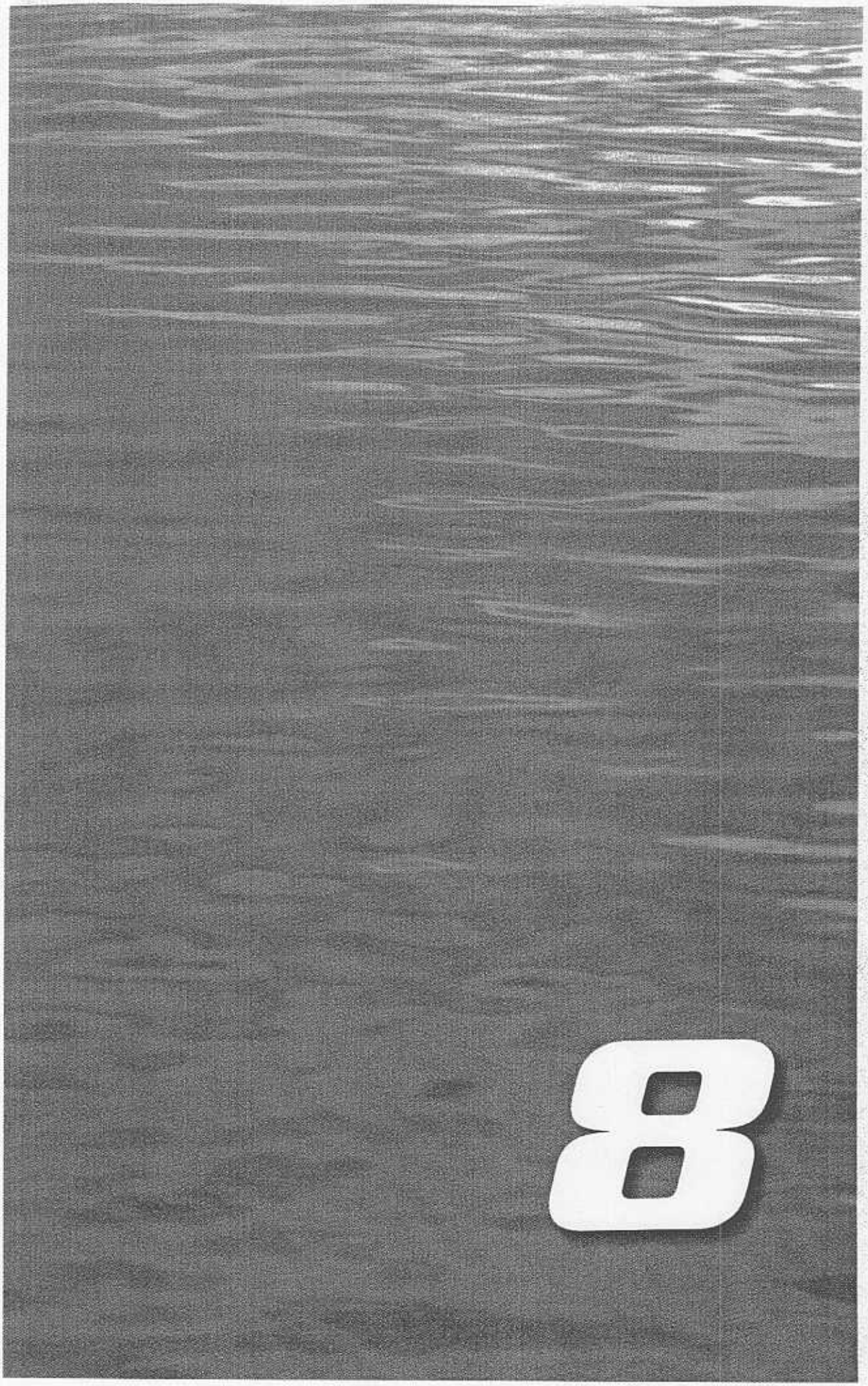
This warranty is expressly conditioned upon the completion and return of the warranty registration card to Correct Craft, Inc. Although not obligated to, and without creating such an obligation, this will enable us to notify you of any necessary performance or safety modifications to your boat and to verify ownership in case a warranty claim is filed on your boat.

Procedure In the event your Correct Craft boat has a claim covered by this warranty, the following procedure shall be followed to secure performance or warranty obligations:

1.) Notify the selling dealer within 30 days after the discovery of any claimed defect, or 10 days from the day of delivery in the event of a claimed defect involving upholstery, canvas or glass.
2.) You may be required to transport the boat, at your expense, to an authorized dealership for their inspection and/or repair.
3.) Correct Craft, Inc. reserves the right to require further evaluation and/or information regarding a warranty claim against a boat prior to its repair as well as designate the place of repair.

Correct Craft, Inc. reserves the right to make changes in prices, color, specifications, equipment, options, materials, hull, decks, and/or discontinue models at any time (without notice) and shall be under no obligation to equip or modify boats built prior to such changes.

Correct Craft, Inc., 6100 South Orange Avenue, Orlando, Florida 32809, 407/855-4141, FAX 407/851-7844. E-mail address: ski@skinautique.com Effective 1998 Model Boats.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Chapter 8

Engine Maintenance

The engine in your Nautique will need to be checked and serviced at regular intervals. You may be able to do some of the maintenance while a Correct Craft dealer or PCM certified mechanic should be used for the more intensive work.

WARNING: The maintenance instructions given in this manual are to be performed with extreme caution. Improper or careless actions on the part of the person performing maintenance on your boat or engine could result in severe personal injury, property damage and or death. Before performing any operating or maintenance procedure covered in this manual, be certain to read the entire manual to be certain you fully understand the procedure. Proceed only when you determine that you may do so in complete safety. Contact your Correct Craft/PCM dealer for any maintenance service which you are unable to perform in complete safety.

This manual includes operational instructions and maintenance schedules that are usually required in normal service. Do not attempt any repairs that are not specifically covered in this manual. Strict compliance to the recommendations for lubrication, maintenance, operation etc., will provide you superior performance and dependable service. Improper maintenance or use of unsuitable products will affect your warranty coverage.

PCM Delivery Inspection Before you pick up your boat from your dealer, speak with them to make certain the following items have been checked. Items to be checked include, but are not limited to:

- Engine oil level
- Engine timing
- Tension of all belts
- Idle speed
- Drain plugs
- Water lines
- Throttle control operation
- Alternator output
- All lubrication points
- Prop shaft alignment
- Battery charge
- Prop Size
- All fuel/oil lines
- Exhaust hoses/clamps
- Water/exhaust leaks

Service For Your PCM Engine Your PCM engine was manufactured by PCM from the finest materials available and distributed through your Correct Craft dealer who is in the best position to provide you with proper service. Your Correct Craft dealer is your direct contact with PCM authorized service. Your dealer has the necessary tools and training to properly handle your normal service requirements as well as supply you with the parts, service and information you may require.

If your Correct Craft dealer is unable to provide you with the parts, service or information you require, they will contact PCM directly on your behalf. The PCM Service Department depends on specific and accurate information in order to aid your dealer to respond to your service and parts needs. Your dealer has been trained to provide this information.

PCM facilities are dedicated to the manufacturing and distributing of the finest marine engines available. PCM does not repair engines or engine components at their locations.

If you are anticipating a trip to an area where you are not aware of the location of a PCM servicing dealer, contact PCM customer service department prior to leaving for the location of a PCM dealer where you may be traveling.

For service and/or parts literature, contact your Correct Craft dealer or:

PCM
P.O. Drawer 369
Little Mountain, SC 29075

Service Information Request When you contact your dealer or PCM for service or parts information, please include the following:

- Your name, address and phone number.
- Engine and transmission serial and model numbers.
- Date purchased.
- Name of selling or servicing dealer.
- Hull number.
- Number of hours on the hour meter.
- Date of previous correspondence.
- All other pertinent information necessary to allow them to respond properly.

Engine / Transmission Identification
The engine model number and serial number is in different locations, but can be found on one of these locations:

- On a plate bolted to the intake manifold.
- On the port valve cover attached to the inside vertical surface at the front.
- On the top and at the front of the port valve cover.
- On a plate bolted on the intake manifold on the port side, slightly ahead of the carburetor.
- On the port valve cover just aft of the flame arrestor.

Selecting Engine Oil The engine crankcase oil should be selected to give the best performance in your climate and operating conditions. During the hot summer months, use an oil that has adequate lubrication under high operation temperatures. In cooler weather, use an oil that will allow easy starting at the lowest temperature you are likely to encounter. Make note of this when you are changing oil so you select the right oil for your conditions.

We recommend SAE 40W40 of any good grade automotive oil of correct viscosity which has an A.P.I. classification of "SH" for use in all PCM engines. Multiple viscosity oils such as 20W40 and 20W50 which meet the A.P.I. classification "SH" can be used during cold weather operation. Use the following air temperature guidelines:

Above 50 degrees F.....40W40
32 - 50 degrees F.....30W30
Below 32 degrees F.....20W50

Engine oil and filter must be changed after the 25 hour break-in period. After this initial oil change, you should change the oil after every fifty hours of operation.

Changing The Engine Oil These instructions are for changing the oil while the boat is on a trailer.

CAUTION: All engine waste fluids are considered to be hazardous wastes. Be certain these waste fluids are properly and legally disposed of in order to avoid polluting and or possible citation by the authorities.

CAUTION: Do not operate the engine without cooling water flowing through the water pump or the neoprene water pump impeller will be damaged. Attach a water hose to the water pump inlet and run engine slowly (650-700 RPM) in neutral to circulate the water. Watch the water temperature gauge to prevent overheating.

Use extreme caution when starting the engine with the engine box open.

- Start engine and allow engine to warm up to normal operating temperature. Turn the engine off.
- Remove the bilge drain plug and insert the oil drain hose down through the drain hole.
- Remove the fastener at the end of the hose and drain the oil into a suitable container.
- Position a suitable container under the oil filter in the bilge and remove the oil filter from the engine. Be careful not to spill oil into the bilge. Spilled oil must be cleaned up and disposed of in a safe and legal manner.
- Fill a new oil filter 3/4 full by carefully pouring oil into the threaded hole in the center of the filter. This initial filling of the filter reduces the time the

engine operates without oil flowing through the oil passages when you start the engine.

- Lubricate the oil filter gasket with engine oil and install the filter until the gasket lightly contacts the block surface. Tighten the filter an additional 1/4 turn from this point.
- Fill the engine with the proper type and grade of oil for your operating conditions. This should be about 4 quarts.
- Check to determine that you can safely proceed without causing harm to any person, property or the engine. Start the engine and carefully watch for oil leaks.
- If leaks are present, shut off the engine immediately and repair any leaks. Repeat the previous step.
- Recheck oil level. If oil level is low, bring up to full mark by adding oil in small amounts.
- Dispose of oil, filter and cleaning materials in accordance with the applicable laws.

Engine Crankcase Capacity/Level

CAUTION: The dipstick should be considered the device that insures the proper oil level. Unless a major variation between oil capacity listed in the specifications and dipstick readings exist, always use the dipstick to determine the proper oil level of your engine.

Make sure the boat is level when you check the oil level.

NOTE: BE CERTAIN THE PROPER AMOUNT OF OIL IS IN THE CRANKCASE AT ALL TIMES. IF THERE IS ANY QUESTION, CONACT YOUR CORRECT CRAFT DEALER.

Water Strainer

It must be emphasized that every engine, particularly during the break-in period, uses a certain amount of oil to act as a lubricating and cooling agent. The initial rate of consumption will gradually decrease until it stabilizes after approximately 100 hours operation.

The engine oil level should be checked frequently and oil added when necessary.

When you check the oil level, the engine should be warm. After you shut the engine off, wait one minute to allow oil to drain down from the upper engine cavities to the pan or you will get a false reading. Make sure the dipstick is all the way down before you pull it out to read the oil level.

The space between the "Full" and "Add" marks represents one U.S. quart. It is not necessary to add oil unless the level is near the "Add" mark. DO NOT

ALLOW THE OIL LEVEL TO FALL BELOW THE ADD MARK!

Raw Water Strainer Cooling water comes through the bottom of the boat via a through-hull fitting. This water passes through the strainer, transmission oil cooler, the engine and then out the exhaust. It is important to always check this filter visually before you use the boat. This can be done during the four (4) minute blower operation. There is a fine wire screen inside the bowl that collects lake grass and other debris. If you see this sort of trash in the strainer, unscrew and remove the bottom of the strainer. **Be careful not to lose the O-ring seal.** Lift the screen out and clean the trash off the screen. Dump out the trash that may be in the bottom of the strainer bowl. Replace the screen AND THE O-RING gasket and re-install the bowl. Do not tighten more than hand tight. Remember to close the engine box before you start the engine.

IMPORTANT: This should always be done before you use your boat. Debris in the strainer restricts the normal flow of cooling water to your engine, and may cause overheating and possible engine damage. The strainer bowl retains water, even when the raw water system has been drained. This water needs to be dumped out to properly winterize the boat. If the water is not dumped out, the bowl could be damaged by freezing water. The damaged bowl could cause overheating during the next season and possible engine damage.

Transmission Cooler Periodically check the transmission oil cooler water inlet. To remove the hose, loosen the hose clamp and twist the hose off. Look at the honeycomb-like filter for any debris that may have gotten past the raw water strainer. Use needle nose pliers to remove any debris before reassembly.

Replacing Fuel Filter

WARNING: Be careful not to spill fuel; Do not proceed if fuel is spilled. Gas vapor built up is explosive and could cause severe personal injury, property damage or even death. Do not smoke while servicing fuel filters or other fuel system components. Contact your Correct Craft/PCM dealer for further assistance.

The fuel filter for carbureted engines is located under the engine box on the port side of the engine frame. Put a suitable container under the filter to catch any spilled fuel. Unscrew the filter and remove.

Fuel filters are standard on all PCM electronic fuel injection engines as a part of the Fuel Control Cell. The FCC has instructions on the bowl. Follow these instructions and cautions when replacing the fuel filter element.

Prolonged Storage If you need to store your boat for an extended period of time we suggest you use a fuel stabilizer such as STA-BIL to prevent the formation of gum and varnish in the fuel system. Add the recommended amount to the fuel and run the engine for a minimum of ten minutes to allow the mixture to enter the fuel system. The following season should be trouble free. Call (800) 621-1251 for more information.

NOTE: DO NOT re-use old fuel filter components; always replace with a new fuel filter and gasket.

Exhaust System The exhaust system should be periodically inspected for leaks to prevent water and/or exhaust gases from getting into the boat. Check to make sure the exhaust "flapper" at the transom is securely attached and working properly. All defects discovered must be fixed right when they are discovered to insure safe operation.

WARNING: Removing hoses from the engine while the boat is in the water may allow water to enter the bilge. This could sink the boat. Remove hoses only if you have determined you are doing so safely.

Never use your Nautique without the boarding platform attached. The boarding platform is instrumental in channeling engine exhaust gasses, including carbon monoxide, away from the stern. Failure to have the boarding platform properly installed could result in excessive carbon monoxide levels in the boat. Excessive carbon monoxide levels can cause injury or death. Never operate this boat without this specially designed platform in place.

PCM Transmissions The transmission fluid level should be checked frequently and fluid added if necessary. The fluid must measure between the two marks (FULL & LOW) on the dipstick.

Fluid type All PCM transmissions use DEXRON type transmission fluid This fluid should be changed once every year. The transmission holds approximately 2 quarts of fluid.

CAUTION: Do not operate the engine without cooling water flowing through the water pump or the neoprene water pump impeller will become damaged. IF YOU MUST RUN THE ENGINE WITH THE BOAT OUT OF THE WATER, attach a water hose to the water pump inlet and run engine slowly (650-700 RPM) in neutral to circulate the water. When you run the boat in the water, run the engine at 1,000 to 1,500 RPM. Watch the water temperature gauge to prevent overheating.

Maintaining Transmission Fluid Level

- The boat must be sitting level.
- Open the engine box and pull the dipstick straight up and out of the transmission case.
- Wipe the fluid off of the dipstick with a clean cloth.
- Start the engine to fill all the cavities in the transmission and cooler. Make certain there is cooling water flowing to the water pump. Run the engine for thirty seconds.
- Shut the engine off and push the dipstick all the way down into the transmission case opening. This step should be performed as quickly as safety will permit.
- Remove dipstick and note level indicated. Add fluid to bring the level up to

the top mark if necessary.
- If it was necessary to add oil, repeat the previous steps until the level is up to the top mark. Don't forget to replace the dipstick when you have finished.

Add oil in small amounts to prevent overfilling. If the transmission is over filled, the excess will have to be removed to prevent leakage or damage to the transmission.

Adjusting Water Pump Belt Tension(Ford Engines Only)
- Check the belt tension by pushing down on the upper strand of the belt at a point midway between the raw water and circulation pump pulleys.
- Belt should depress 1/4" (6.35mm). If it depresses more than 1/4", adjust the tension by loosening the water pump mounting bolts and pivoting pump to obtain correct tension.
- After correct tension has been set, tighten mounting bolts.

Adjusting Alternator Drive Belt Tension
- Check belt tension by pushing down on the upper strand of the belt at a point midway between the alternator pulley and the circulating water pump pulley.
- Belt should depress 1/4" (6.35mm). If it depresses more than 1/4", adjust the tension by loosening alternator mounting bolts and pivoting the alternator to obtain correct tension.
- After correct tension has been set, tighten mounting bolts.

If at any time you are unsure of the proper checking or adjusting procedures consult your Correct Craft dealer for guidance.

Fuel Pumps There are three different types of fuel pumps currently used on PCM engines. The three types are:

1) Mechanical
2) High Volume Low Pressure Electrical (Feed)
3) Low Volume High Pressure Electrical (Injection)

Mechanical and low pressure electrical pumps operate at 5 to 7 PSI, while high pressure pumps operate at 30to 45 PSI, depending on the engine model.

Mechanical Fuel Pumps on Carbureted Ford Engines Mechanical fuel pumps are on all Ford carbureted engines. All mechanical fuel pumps used on PCM engines are special marine fuel pumps sealed against leakage at the attaching flange area to prevent the possibility of fuel getting into the engine crankcase. In the event that the fuel pump diaphragm ruptures, fuel will appear in the sight tube attached to the fuel pump and the carburetor. When fuel appears in the sight tube it will be necessary to replace the fuel pump immediately to correct the problem. REBUILDING OF THE PUMP IS NOT RECOMMENDED!

Electrical Fuel Pump The electric fuel feed pump used on all PCM engines is a high volume, low pressure, constant flow, rotary vane pump. It is a fully sealed marine approved fuel pump. The power source is 12 volt negative (-)

ground and the pump operates at less than 5 amps.

When the ignition switch is turned to the start position, the ECM closes the fuel pump relay causing the fuel pump to run.

If the ECM does not receive ignition reference pulses (engine cranking or running), it shuts "off" the fuel pump relay, causing the fuel pump to stop.

An inoperative fuel pump relay will result in an "Engine Cranks But Won't Run" condition.

Problems Corrected by the PCM Fuel Control Cell An inboard marine engine with electronic fuel injection can encounter several problems with fuel delivery which can cause poor performance or even result in an engine that will not run. A few of the problems which can occur due to an improperly designed fuel delivery system are:

1.) Vapor lock
2.) Debris in the Fuel
3.) Water Ingestion
4.) Air Ingestion

The FCC addresses these problems by eliminating vapor lock and air ingestion caused by fuel tank slosh and provides the necessary EFI filtration and water separation.

PCM Fuel Control Cell The PCM FCC is designed to properly deliver fuel to your electronically fuel injected (EFI) PCM marine engine under various operating conditions. The FCC is the first unit to combine a submersible high pressure electric fuel pump, fuel filter and water separator element in one unit. All fuel passes through the filter and water separator before being pumped to the fuel rail.

The system has been coupled with the proper sized feed pump to address the different problems encountered by a marine inboard electronically fuel injected engine. The FCC addresses and corrects all fuel delivery system problems we are currently aware of and does so with a minimum of electro-mechanical components.

To insure reliable maintenance-free operation, the FCC does not use floats, electric switches or other devices to regulate the fuel flow or level of the fuel. Moving components, electronic switches or contacts submerged in gasoline will eventually corrode, varnish or wear out and will require future maintenance. The design goal for the FCC was to provide maximum reliability while eliminating unnecessary components.

Principals of Operations The FCC incorporates two fuel pumps to provide an uninterrupted flow of fuel to your PCM engine.

Fuel is fed into the FCC by a low pressure, high volume electric fuel pump and also through the fuel pressure regulator that recirculates unused fuel from

the fuel rail. This low pressure pump pushes fuel at a volume that is greater than the engine can use at maximum throttle.

The high pressure pump inside the FCC bowl provides the necessary injector fuel pressure and volume to maintain proper engine performance and always has enough fuel to meet the maximum fuel requirements of the engine.

The fuel pressure regulator on the engine controls fuel pressure and maintains a constant pressure across the fuel delivery system. Fuel not used by the engine is returned to the FCC canister.

Fuel exits the FCC bowl at two points. The high pressure output pump sends fuel to the fuel injection system. All excess fuel in the FCC canister is routed back to the tank via the return line.

Battery

WARNING! Hydrogen and oxygen are produced during normal battery operation or charging. Sparks or flames near the vent openings can cause this mixture to ignite and explode. Sulfuric acid in the battery can cause serious burns if spilled on the skin or in the eyes. Proper eye protection and protective clothing should be worn when performing battery maintenance. Flush away acid spills immediately with clear water. Contact a physician for medical treatment if acid comes in contact with your body.

A fully charged battery is your best insurance that your boat will start each time to want to go skiing. Batteries tend to discharge when not in use. The rate of discharge varies with the condition of the battery and/or the entire electrical system.

When checking the battery condition after a reasonable period of disuse, you may get a reading of 10 - 11 1/2 volts on a voltmeter. If the reading is 10 volts or below, the battery should be charged by either a charging device or by running the boat. If you start the boat, the voltage should immediately rise. Within one or two minutes the reading on the voltmeter should begin to level off at 13 - 14 volts. If the voltage does not rise or rises and stays above 15 volts, have the charging system checked out at your Correct Craft dealer.

SPECIFICATIONS

Battery: Your battery should have 350 amps cold cranking @ zero degrees F (-18 c), 170 amps for a load test and 80 minutes of 25 amp rate reserve capacity. Do not reverse the battery cables on battery terminals. Do not spark battery cables against the terminals to check polarity. Damage to the charging system components may result if these precautions are not observed.

Important: The engine electrical system is negative ground. Failure to connect battery leads accordingly will damage the electrical system.

Fuel Use any good grade of automotive regular or premium gasoline with a minimum average octane rating of 89. An 87 average octane gasoline may be used if 89 octane is not available, but the ignition must be retarded four (4) degrees on carburetor equipped engines to prevent harmful detonation. Check the specification chart at the end of this section.

New U.S. regulation requires posting average of research and motor octane: (R+M)/2.

Fuel will deteriorate during prolonged storage, causing damage to the fuel system gaskets, plastic parts and clogging the passages of the carburetor. Using a fuel stabilizer can help prevent this.

Do not use fuel that contains methanol alcohol or more than 10% ethanol alcohol. If pinging and/or other pre-ignition or detonation signs are present, a mechanical problem may exist which requires immediate attention by a qualified marine technician.

PCM reserves the right to refuse warranty on parts that are damaged from using an improper gasoline or engines improperly stored.

Engine Component Specifications All these parts are marine approved and are required by law to insure the safety of the public. Repair or replacement in a manner inconsistent with its original configuration or replacement with a non-approved part is dangerous and could be a violation of the law.

CAUTION: Your Nautique comes equipped with a safety switch located next to the throttle that has a lanyard. This switch must be operational or the engine will not start or run.

Engine Circuit Breakers on Carbureted Boats The electrical system of all PCM engines is protected by at least one 50 amp circuit breaker under the electrical panel cover at the rear of all carbureted engines. This breaker is designed and assembled to disconnect ALL systems from the battery if an electrical overload occurs.

In the event that all electrical systems are "dead", turn off all accessories and push the red breaker labeled "50" until it resets. After the breaker is reset, you should be able to start the engine.

If any breaker disconnects again, or if resetting does not resolve the problem, take your boat to your Correct Craft dealer or an authorized PCM technician.

WARNING! DO NOT bypass breakers or fuses under any circumstances short of an emergency. Severe damage to the electrical system and/or personal danger to the operator and other occupants of the boat could occur.

Engine Circuit Breakers on EFI Engines

The entire electrical system of the EFI engines is protected by a 50 amp

circuit breaker. The ignition system and fuel pump circuits are protected by a 12 1/2 amp and a 15 amp breaker (or fuse), respectively. All protective devices are located on a panel at the rear of the engine.

In the event that all electrical systems are "dead", turn off all accessories and push the red breaker labeled "50" until it resets. After the breaker is reset, you should be able to start the engine.

If any breaker disconnects again, or if resetting does not resolve the problem, take your boat to your Correct Craft dealer or an authorized PCM technician.

If the engine quits or will not start, turn off all accessories. If the battery has enough power to crank the engine using the starter, the breakers should be reset as follows: Push firmly on the red button of each breaker or replace any bad fuse. After the breaker is reset or the fuse is replaced, you should be able the start the engine.

If any breaker again disconnects or fuse again blows or if resetting does not solve the problem, have a qualified marine mechanic inspect the engine to determine the cause of the problem.

If the engine quits or will not start, turn off all accessories. If the battery has enough power to crank the engine using the starter, the breakers should be reset as follows. Push firmly on the red button of each breaker or replace any bad fuse. After the breaker is reset or the fuse is replaced, you should be able to start the engine.

If any breaker disconnects or fuse again blows or if resetting does not resolve the problem, have a qualified marine mechanic inspect the engine to determine the cause of the problem.

PCM engines have three fuses and a 50 amp breaker located at the rear of the engine behind the fuel injection ECM. The 50 amp breaker protects the entire electrical system. The fuses protect the following EFI circuits.

A. Fuel Pump Fuse - 15 amp

B. Injector/ ECM Fuse - 10 amp

C. ECM/ Battery Fuse - 15 amp

Alternator is Rated for 50 Amps Regulator is integral solid state.

Ignition Distributor Carburetor Equipped Engines.

WARNING: Distributors on all PCM engines are marine approved and must meet specifications. Use only PCM replacement parts that are manufactured to the same marine approved standards as the original equipment parts on your engine when manufactured.

WARNING: To remove the distributor cap, loosen the two screws on top of the cap. Rotate the clips away from the cap and lift up on the cap. Do not pry on the cap, as this will damage the cap and seal, and cause the distributor to be- come vented and vulnerable to possible ignition of fuel fumes.

Carbureted engines are equipped with Prestolite Breakerless Distributors. This distributor requires lubrication with a drop of 30W engine oil on the wick under the rotor every 100 hours of engine operation.

EFI Engines Fuel injected engines are equipped with maintenance free distributors. No lubrication or maintenance is necessary for the life of your PCM engine.

Cooling System The cooling system of each PCM engine incorporates a full circulation bypass system, permitting a full flow of water through the engine, even during warmup.

Two heavy-duty marine-type pumps are used to pump the water. A flexible impeller supply pump is used to keep the system full and to cool the exhaust system. A high volume circulation pump maintains full water circulation in the engine to prevent steam pockets and hot spots. This assures longer valve and piston ring life. A heavy-duty thermostat is used to control the amount of water which is discharged from the engine after the desired operating temperature is reached. The discharged water is automatically replaced by cool raw water from the supply side, maintaining a stable engine temperature through an exceptionally simple system. The hot water is discharged into the exhaust manifold water jackets.

If the engine begins to overheat, stop the boat immediately. Check the water intake on the bottom of the boat, water strainer, and the transmission oil cooler for obstructions. Check the water pump drive belts for proper tension and possible slippage. Look at the water lines for possible kinks.

WARNING: Removal of hoses from the engine while the boat is in the water may allow water to enter the bilge and could sink the boat. Remove hoses only if you have determined you can do so in complete safety.

On a Ford engine, a partial inspection of the flexible impeller of the supply pump can be made. Remove the top hose and drive belt from the supply pump and look into the pump chamber while slowly turning the pump pulley. A badly damaged impeller may be detected by doing this.

If a problem is found and corrected, do not attempt to restart the engine until it has cooled down to normal temperature. This is important to prevent engine damage due to thermal shock.

Fresh Water Cooling Engines manufactured with an optional fresh water

cooling system are identified with an "X" in the second position from the left in the model identifier on the engine identification tag.

The PCM freshwater cooling system consists of two (2) sections. The raw water section and the self contained fresh water section which is filled with a fifty-fifty mixture of anti-freeze and water.

The coolant in the freshwater section circulates through the engine block, heads and the intake manifold absorbing the heat created by the engine operation. When the engine is at operating temperature, the thermostat allows coolant to flow around the sides of the tubes in a heat exchanger where heat is transferred to the raw water flowing through the center of the heat exchanger tubes. The raw water is then directed into the manifolds and risers where it mixes with the exhaust.

If your engine begins to overheat, you should inspect this heat exchanger as well as the previously mentioned areas.

Checking Coolant Level

WARNING: Reservoir is equipped with a 14 lb. (6.35kg) pressure cap. DO NOT remove the pressure cap when the engine is hot. This could cause personal injury. ALWAYS ALLOW THE ENGINE TO COOL OFF BEFORE ATTEMPTING TO REMOVE THE PRESSURE CAP. To remove the pressure cap, turn it a quarter of a turn to the left and allow pressure in the cooling system to escape. After the pressure is released, turn the cap all the way off.

The fresh water section of the heat exchanger should be checked each time you use the boat for proper coolant level. Coolant should be maintained at least one (1) inch (2.54cm) below the pressure cap seat in the expansion tank to allow room for coolant expansion.

If the coolant is escaping from the system, inspect the system components for leakage and correct as necessary. Pressure test the cap to insure proper operation. A defective cap may allow coolant to escape through the overflow during engine operation and be extremely difficult to detect. Contact your Correct Craft dealer at once if this problem can not be resolved by the above procedures.

Winterization Instructions

Long periods of storage can adversely affect the internal parts of the engine and fuel systems unless proper methods of preservation are used. Most Correct Craft dealers offer proper winterization services. If such service is not available or not utilized, the following procedures should be followed:

IMPORTANT: The following information is a guide to aid you in preparing your engine for prolonged storage. It is not intended to be an all inclusive instruction manual. After reading the guide completely, if you realize you do not have the proper tools or feel you do not understand any instructions, DO NOT attempt to begin this process. To proceed without a complete understanding of these instructions could result in severe engine damage. See your authorized PCM dealer. If you elect to proceed with the procedures outlined here, you agree to hold Correct Craft Inc. and PCM harmless should the engine be damaged or personal injury occur as a result of your actions.

WARNING: In order to prevent personal injury to you or others in the boat, whenever the engine is running, the engine box must be closed. Never operate the engine with the engine box open or while someone is in the proximity of the moving parts of the engine or transmission. Never open the engine box unless the engine is shut off and the engines rotating parts are stationary and remain in a stationary position. Rotating machinery can cause injury and even death if an accident should occur.

THE FOLLOWING INSTRUCTIONS SHOULD BE COMPLETED PRIOR TO REMOVING THE BOAT FROM THE WATER AND APPLY TO ALL PCM ENGINES.

Treat the fuel remaining in the tank with twice the recommended amount of STA BIL or equivalent and run the engine a sufficient length of time to insure the fuel is properly mixed in the fuel tank and fills the engine fuel system.

WARNING: Before starting your engine, always ventilate the engine compartment by running a properly operating bilge blower for at least four (4) minutes.

Before starting your engine, always ventilate the engine compartment by opening the hatch or engine box top or operate the bilge blower four (4) minutes to remove any gas fumes from the engine compartment. It is important to check for fuel spillage or leaks after repairing or refueling. Warm engine up to normal operating temperature. Turn engine off.

Change crankcase oil and oil filter.

Start engine and allow to idle for five (5) minutes. Turn off engine.

CAUTION ! Allow the engine to cool down to avoid burning yourself on hot engine parts before continuing with the following steps.

Remove all the spark plugs wires from the spark plugs, being very careful to mark each one. Remove all the spark plugs. Pour approximately 1 teaspoon of preservative oil into each spark plug hole. This oil will drain down into the cylinder. Turn the crankshaft several revolutions **by hand** to spread the oil evenly through the cylinders.

CAUTION! Do not use the starter to turn the engine over.

Install spark plugs and connect the proper spark plug wires. *It will be necessary to remove spark plugs and spin engine to eliminate all possible oil prior to restarting after winterization period.*

THE FOLLOWING INSTRUCTIONS SHOULD BE DONE AFTER THE BOAT IS REMOVED FROM THE WATER AND APPLY TO ALL PCM ENGINES

Remove, empty and clean the fuel filter shell. Reinstall with a new fuel filter and gasket. On carburetor equipped engines, drain the remaining fuel from the carburetor bowl.

NOTE: DO NOT re-use old fuel filter components; always replace with a new fuel filter and gasket.

Remove plug from the transmission oil cooler and the elbow between the thermostat housing and the circulating pump or remove hose from the water pump on engine block of engines without elbows.

Remove drain plugs and / or hoses from rear or lower end of both exhaust manifolds. Using a garden hose, flush both manifolds by removing the plugs at the front or the two hoses feeding water from the thermostat housing to the manifolds.

Disconnect the hose from the inlet fittings of the raw water supply pump and lower the end to drain any water that may be trapped.

Remove the raw water supply pump and remove the impeller. If inspection proves the impeller is in good condition, store it in an accessible spot for reinstallation at the end of the storage period. A damaged or badly worn impeller should be discarded and a new one installed at the end of the storage period. Removing the impeller during storage will prevent the impeller vanes from drying and taking a permanent "set."

Loosen water pump and alternator drive belts. Re-tighten to proper tension before starting engine.

FRESH WATER COOLED ENGINES ONLY

On fresh water cooled engines with antifreeze in the cooling system, remove hoses from the rear of the manifolds for draining. Drain raw water from the heat exchanger and oil coolers by removing drain plugs and all raw water hoses (1" or 1 1/4" ID hoses only) by removing them from their fitting. Test the antifreeze solution to be sure it is strong enough to offer full protection against freezing. Antifreeze should be changed after winterization each year.

RAW WATER COOLED ENGINES ONLY

Remove drain plugs on both sides of the engine block and engine oil cooler. Probe holes with a short piece of wire to make certain all the water has drained from the engine.

CAUTION! THE GM 5.7 KNOCK SENSOR IS LOCATED IN THE DRAIN HOLE FOR THE RIGHT SIDE OF THE ENGINE BLOCK. DO NOT DROP THE SENSOR OR IT MAY BE DAMAGED. WHEN REINSTALLING THE SENSOR, MAKE SURE THE THREADS ARE CLEAN AND TORQUE THE SENSOR 11 - 16 LB. FT.

When draining is completed, flush the block using a garden hose to flush salt water or water with high silt content from the engine.

Allow to drain completely.

Install the block drain plugs and securely install the plug in the water pump elbow, **if equipped,** reinstall any hoses removed and reinstall manifold plugs.

Remove the block feed hose from the connection on the raw water supply pump. Elevate the end of the hose to a level higher than the top of the thermostat housing. Through the hose, fill the engine with a solution of 50% clean water and 50% permanent antifreeze such as Zerex or Prestone.

This helps prevent drying out the seals and gaskets, preventing the formation of hard dry scale in the water jackets and prevents freezing damage due to isolated pockets of trapped water that remains in the block.

When the system has been filled with the antifreeze mixture, reconnect and tighten the water hose to the water pump.

<u>Exhaust pipes and engine air intakes should be closed off during prolonged storage periods to minimize condensation inside the engine.</u>

Remove the battery and store in an area where above-freezing temperatures are maintained.

CAUTION: WHEN REINSTALLING THE BATTERY AFTER WINTERIZATION, BE SURE IT IS FULLY CHARGED. MAKE CERTAIN TO CONNECT THE POSITIVE CABLE TO THE POSITIVE BATTERY TERMINAL AND THE NEGATIVE CABLE TO THE NEGATIVE BATTERY TERMINAL. DO NOT REVERSE THE CONNECTIONS.

Winter Storage of Batteries

Battery companies are not responsible for battery damage either in winter storage or in dealer stock if the following instruction are not complied with:

Remove battery from its installation as soon as possible. Be sure vent caps are tight. Wash the battery with a diluted ammonia or soda solution to neutralize any acid present. Flush with clean water to remove grease, sulfate and dirt from the top surface. Wipe off all excess water with clean rags. Check water level, making sure that the battery plates are covered with water.

When adding distilled water to the battery, be extremely careful not to fill more than 3/16" (4.8mm) above the perforated baffles inside the battery. Battery solution or electrolyte expands from the heat caused by charging. If the water level is more than the 3/16" (4.8mm), the electrolyte will overflow during charging.

Grease terminal posts well with cup grease or Multipurpose lubricant and store the battery in a **cool, dry** place. Remove battery from storage every 30 - 45 days, check water level and put on charge for 5 - 6 hours at 6 amperes. DO NOT FAST CHARGE !

RECOMMISSIONING

Assemble water pump and reinstall on engine

Remove spark plugs and rotate engine by hand several times to remove oil from the cylinders. Do not use the starter to rotate the engine.

Install battery, making sure it is fully charged. Clean and lubricate terminals.

Check cooling system to be sure all hoses are the water pump are properly attached.

Re-adjust alternator drive belt and water pump drive belt tension.

Check engine alignment.

Check engine and transmission oil levels.

Check engine mount fasteners.

Before starting engine, refer to the instructions for starting in this manual.

Flushing Instruction

IMPORTANT: Drain the raw water section of the cooling system as part of the winterizing process for proper freeze protection. Failure to drain this water could damage the heat exchanger and possibly damage the engine during subsequent use.

When the boat is operated in salt water, flush the engine with fresh water periodically and before storage. If the engine is flushed while the boat is in the water, the water intake must have a sea cock installed between the water pickup and the water pump inlet.

CAUTION: Do not operate the engine without cooling water flowing through the water pump or the neoprene water pump impeller will become damaged. If you must run the engine with the boat **out of the water**, attach a water hose to the pump inlet and run the engine slowly (650 - 700 RPM) in neutral to circulate the water. DO NOT increase engine speed above 1,000 RPM or water pump damage may occur. If running the engine with the boat **in the water**, run the engine at 1,000 to 1,500 RPM. Watch the water temperature gauge to prevent overheating.

WARNING: The maintenance instructions given in this manual are to be performed with extreme caution. Improper or careless actions on the part of the person performing maintenance on your boat or engine could result in severe personal injury, property damage and or death. Before performing any operating or maintenance procedure covered in this manual, be certain to read the entire manual in be certain you fully understand the procedure. Proceed only when you determine that you may do so in complete safety. Contact your Correct Craft/PCM dealer for any maintenance service which you are unable to perform in complete safety.

Maintenance Chart This chart indicates the intervals at which maintenance should be performed by a qualified person. Maintenance operations require caution to prevent personal injury and/or property damage. Proceed only after you have determined you may do so in complete safety or contact your Correct Craft dealer to perform this maintenance.

We recommend checking and servicing your boat at the most frequent interval listed below.

The inspection and maintenance schedule is based on average operating conditions and utility service. Under severe operation, the intervals should be shortened.

CAUTION: All engine waste fluids are considered to be hazardous wastes. Be certain these waste fluids are properly and legally disposed of in order to avoid polluting and or possible citation by authorities.

Service or check at the most frequent interval is recommended	Before each use	At the first 25 hours	Every 50 hours	Every 100 hours	Once each year
Engine oil level	x	x			
Change engine oil and filter		x	x	x	x
Transmission oil level	x				
Raw water strainer...sand or weeds	x	1	1	1	1
Water pump and alternator belt tension	x				
Fuel system hoses and connections for leaks	x	x	x	x	x
Cooling system hoses/connections for leaks	x				
Look for loose, damaged or missing parts	x				
The following should be done by a qualified technician					
Propeller shaft alignment		x	x		x
Change transmission fluid				x	
Clean the flame arrestor			x		x
Clean crankcase ventilating system			x		x
Change fuel filter					x
Check the condition of spark plugs			x		x
Check battery electrolyte level			x	x	x
Check all electrical connections			x		x
Lubricate throttle and shift linkage pivot points			2		2

1) If the engine overheats, visually check the raw water strainer. If there are weeds, sand or debris, clean it out as described previously.

2) 30w engine oil.

Engine Troubleshooting

IMPORTANT: The following chart is a guide to aid you find and correct minor engine malfunctions. If the problem has not been corrected after following this guide, DO NOT attempt further repairs. See your Correct Craft dealer.

WARNING: Before attempting any checks or repairs, the battery cables MUST BE REMOVED from the battery to prevent possible personal injury or damage to equipment.

Trouble	Cause	What you can do
Starter will not turn the engine over	Control lever not in neutral	Put control lever into neutral (straight up)
	Loose or corroded battery connections	Clean and tighten the cables on the battery
	Weak battery	Check electrolyte level /hydrometer
	Emergency cut-off switch not connected or bad connection	Attach lanyard and check electrical connections
Engine will not start or is hard to start	Empty fuel tank	Add fuel to the tank
	Fuel tank vent clogged	Return the boat to dealer for service
	Clogged fuel filter if necessary	Inspect fuel filter, replace
	Choke not operating properly linkage	Inspect carburetor choke
	Flooded engine	Do not attempt to restart engine for five(5)minutes. See instructions for starting flooded engine.
	Faulty spark plugs	Inspect plugs; clean and gap or replace
	Cracked or dirty distributor contacts and surfaces.	Clean or replace/inspect
	Poor connections or damaged connections	Check wires for wear and tighten all loose connections
	Emergency cut-off switch not connected or bad connection	Attach lanyard and check electrical connections
Poor engine idling or misses when idling	Choke not operating properly	Inspect carburetor choke linkage
	Corroded spark plug wire ends or corroded distributor cap towers	Check wire ends and distributor cap towers

Trouble	Cause	What you can do
	Fouled spark plugs or wrong gap on plugs	Inspect plugs; clean and gap or replace
	Weak battery	Check electrolyte level/hydrometer
	Cracked or dirty distributor	Inspect contacts and surfaces. Clean or replace/inspect contacts
	Fuel tank vent clogged	Return the boat to dealer for service
	Clogged fuel filter	Inspect fuel filter, replace if necessary
	Faulty spark plugs	Inspect plugs; clean and gap or replace
Engine misses when accelerating or misses at high speed (loss of power)	Faulty spark plugs	Inspect plugs; clean and gap or replace.
	Cracked or dirty distributor cap or rotor	Inspect contacts and surfaces Clean or replace.
Oil pressure drops	Low oil level	Check oil level in the engine
	Clogged oil filter	Drain oil and replace oil filter
Engine backfires	Spark plug wires installed wrong	Make certain the correct wire is connecting the spark plug to the tower on the distributor cap
Alternator will not charge the battery	Alternator belt is too loose Electrical connections loose or dirty	Tighten the alternator belt Check wires for wear, clean and tighten all loose connections
	Poor battery condition	Check the level of electrolyte
Performance loss and poor acceleration	Throttle is not completely open	Inspect cable and linkages for binding or obstructions
	Water in the bilge	Pump/drain water out of the bilge
	Boat is overloaded	Reduce the number of people or weight in the boat
	Clogged fuel filter	Inspect fuel filter, replace if necessary

Service Record

Date	Hours	Service Performed

PCM Engines

PCM Chevrolet APEX Engine

Displacement CID/liter	350/5.7	
Bore (inches)	4.000"	
Stroke (inches)	3.480"	
Compression Ratio	9.4:1	
Horsepower @ 4,400 RPM	320	
Battery Recommended Min. CCA	350	5
Fuel Injection (Multi Point)	8 (30#)	1
Spark Plug Number 14 mm	MR 43LTS (AC)	
MAXIMUM (Intermittent) RPM	5,000	8
Continuous Cruise RPM's (Max)	4,000	2
Idle Speed (in forward gear)	650 - 700	ECM Controlled
Distributor (Marine Approved)	Delco Electronic	ECM Controlled 1
Ignition Timing @ 1,000 RPM	10 degrees BTDC	10 and 4
Spark Plug Gap	.045"	
Firing Order	1-8-4-3-6-5-7-2	
Fuel Pump (Low Pressure Feed)	5 - 6 PSI	1
Fuel Pump (High Pressure Injector)	43	9
Oil Pan Capacity	6 quarts	6
*Refer to number codes below:		

PCM Ford GT-40 Engine

Displacement CID / liter	351/5.8	
Bore (inches)	4.000"	
Stroke (inches)	3.50"	
Compression Ratio	8.3:1	
Horsepower @ 5,000 RPM	310	
Battery Recommended Min. CCA	350	5
Fuel Injection (Multi Point)	8 (24#)	
Spark Plug Number 14 mm	AWSF22 (Motorcraft)	7
MAXIMUM (Intermittent) RPM	4,800	8
Continuous Cruise RPM's (Max)	4,000 - 4,200	2
Idle Speed (in forward gear)	650 - 700	ECM Controlled
Distributor (Marine Approved)	Motorcraft Electronic	1
Ignition Timing @ 2,000 RPM	5 degrees BTDC	3 and 4
Spark Plug Gap	.045"	
Firing Order	1-3-7-2-6-5-4-8	
Fuel Pump (Low Pressure Feed)	5 - 6 PSI	1
Fuel Pump (High Pressure Injector)	39 (+/- 3) PSI	9
Oil Pan Capacity	4 quarts	6

Carbureted Ford-Standard Engine

Displacement CID / liter	351/5.8	
Bore (inches)	4.000"	
Stroke (inches)	3.50"	
Compression Ratio	8.3:1	
Horsepower @ 5,000 RPM	260	
Battery Recommended Min. CCA	350	5
Carburetor (Marine Approved)	Holley 4V	1
Spark Plug Number 14 mm	ASF32M	7
MAXIMUM (Intermittent) RPM	4,400	
Continuous Cruise RPM's (Max)	3,600	2
Idle Speed (in forward gear)	650 - 700	
Distributor (Marine Approved)	Prestolite Breakerless 1	
Ignition Timing at Idle	10 degrees BTDC	3 and 4
Spark Plug Gap	.045"	
Firing Order	1-3-7-2-6-5-4-8	
Fuel Pump Operating Pressure	5 - 6 PSI	1
Oil Pan Capacity	4 quarts	6

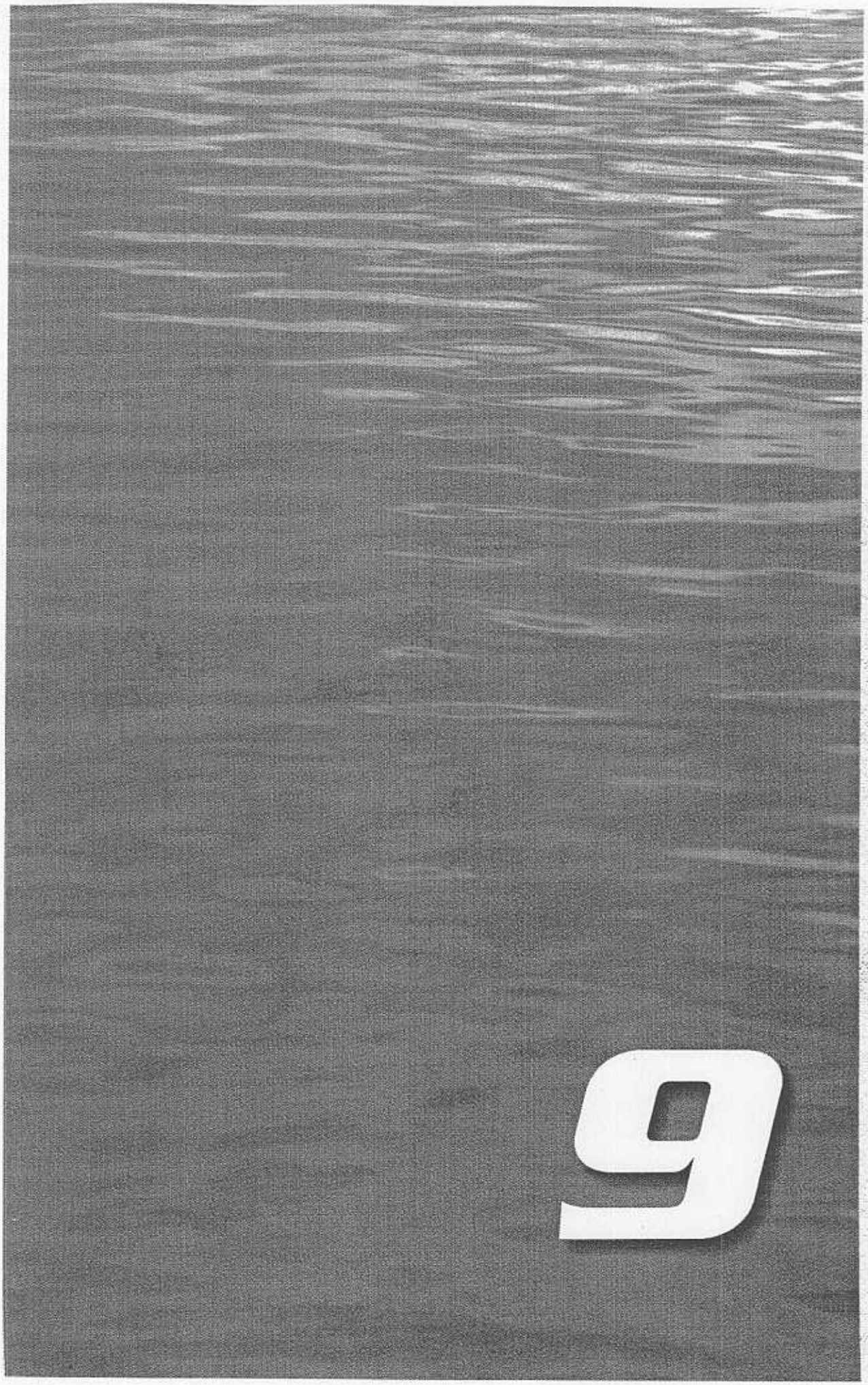
Carbureted Ford High Output

Displacement CID / liter	351/5.8	
Bore (inches)	4.000"	
Stroke (inches)	3.50"	
Compression Ratio	8.3:1	
Horsepower @ 5,000 RPM	285	
Battery Recommended Min. CCA	350	5
Carburetor (Marine Approved)	Holley 4V	1
Spark Plug Number 14 mm	AWSF22 (Motorcraft)8	
MAXIMUM (Intermittent) RPM	4,800	
Continuous Cruise RPM's (Max)	4,000 - 4,200	2
Idle Speed (in forward gear)	650 - 700	
Distributor (Marine Approved)	Prestolite Breakerless1	
Ignition Timing @ 1,000 RPM	10 degrees BTDC	3 and 4
Spark Plug Gap	.045"	
Firing Order	1-3-7-2-6-5-4-8	
Fuel Pump Pressure	5-6 PSI	1
Oil Pan Capacity	4 quarts	6

1. This part is a special "Marine Approved" part and is required by law to insure the safety of the public. Repair or replacement in a manner inconsistent with its original configuration or replacement with a non-approved part is not only dangerous, but could be in violation of the law.
2. Before you run the engine at 4,000 RPM or above for a long time, make certain the prop on the boat allows the engine to turn around 4,800 RPM at full throttle.
3. Before setting ignition timing of the Ford GT-40 EFI engine, the spout connector located near the engine oil full must be disconnected. This is a plastic clip on the end of a wire. Pull the plastic clip out during the timing process. Reconnect after setting timing.
4. Unleaded fuel of proper octane is recommended. Do not use fuels that contain methanol alcohol or more than 10% ethanol alcohol. If pinging and/or other pre-ignition or detonation signs are present, a mechanical problem may exist which requires immediate attention by a qualified marine technician.
5. CCA Ratings are absolute minimums. Larger batteries are better suited for longer life and owner satisfaction.
WARNING: Do not reverse battery cables on battery terminals. Do not spark battery cables against the terminals to check polarity. Damage to the charging system components may result if these precautions are not observed.
6. When changing oil filter, run the engine and add only enough oil to bring the level back to the full mark on the dipstick and to replace the amount used by the filter.
7. Numbers listed are MOTORCRAFT numbers AUTOLITE equivalents are AUTOLITE #303 OR 3303 to replace MOTORCRAFT #ASF32M and AUTOLITE #763 to replace MOTORCRAFT #AWSF22
8. This PCM engine has electronic spark and RPM limiting control incorporated into the Electronic Control Module (ECM) Reduction in engine performance will be noted if excessive mechanical noise, detonation or spark knock is present
9. Fuel pressure reading listed for multi point fuel injection is checked with the key on and the engine not running or with the engine running with the vacuum hose removed from the fuel pressure regulator.
10. See your Correct Craft dealer to set the ignition timing

PCM Chevrolet\305		
Displacement CID / liter	305	
Bore (inch/mm)	3.75	
Stroke (inch/mm)	3.48	
Compression Ratio	9.4:1	
Horsepower @ 5,000 RPM	275	
Battery Recommended Min. CCA	350	5
Fuel Injection (Multi Point)	TBI	1
Spark Plug Number 14mm	MR43LTS (AC)	
MAXIMUM (Intermittent) RPM	4,800	8
Continuous Cruise RPM's (Max)	4,000	2
Idle Speed (in forward gear)	650 - 700	ECM Controlled
Distributor (Marine Approved)	Delco Electronic	ECM Controlled 1
Ignition Timing @ 700 RPM	10 degrees BTDC	10 and 4
Spark Plug Gap	.045"	
Firing Order	1-8-4-3-6-5-7-2	
Fuel Pump (Low Pressure Feed)	5-6 PSI	1
Fuel Pump (High Pressure Injector)	32 PSI	9
Oil Pan Capacity	6 quarts	6

PCM Chevrolet\502		
Displacement CID / liter	502/8.2	
Bore (inch/mm)	4.47"/113.54	
Stroke (inch/mm)	4.00"/101.60	
Compression Ratio	8.75:1	
Horsepower @ 5,000 RPM	435	
Battery Recommended Min. CCA	500	5
Fuel Injection (Multi Point)	8 (37#)	1
Spark Plug Number 14mm	MR43T (AC)	
MAXIMUM (Intermittent) RPM	5,000	8
Continuous Cruise RPM's (Max)	4,000	2
Idle Speed (in forward gear)	650 - 700	ECM Controlled
Distributor (Marine Approved)	Delco Electronic	ECM Controlled 1
Ignition Timing @ 700 RPM	10 degrees BTDC	4 and 11
Spark Plug Gap	.045"	
Firing Order	1-8-4-3-6-5-7-2	
Fuel Pump (Low Pressure Feed)	5-6 PSI	1 and 10
Fuel Pump (High Pressure Injector)	40-45 PSI	9
Oil Pan Capacity	8 quarts	6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Chapter 9

SERVICE RECORDS

IMPORTANT: Ownership Change Information

If you are the owner of a Pleasurecraft Marine engine which is out of warranty and would like to notify us of your ownership, please fill out this OWNERSHIP CHANGE FORM and return it to:

Pleasurecraft Marine Engine Company
P.O. Drawer 369
Little Mountain, SC 29075

Name _____

Address _____

City_____State _____Zip_____

2. I am the new owner of a Pleasurecraft Marine Engine with the following identification numbers: (for location of numbers see your Owner's Manual)

Engine model _____

Serial Number _____

Gear Model _____

Serial Number _____

3.Previous Owner:

Name _____

Address _____

City_____State _____Zip_____

Purchased From _____Date_____

PROBLEM NOTIFICATION FORM

Important: All blanks must be completed to insure proper identification of your engine which is necessary to properly understand your request.

When completed mail this form to:

Pleasurecraft Marine
P.O. Drawer 369
Little Mountain, SC 29075

Engine Model _____

Engine/Drive _____

Serial Number _____

Owner Information

Name _____

Address _____

City _____ State _____ Zip _____

Phone Daytime _____ Evening _____

Selling Dealer _____

Dealer's Address _____

_____

_____

Date of Purchase _____ Boat Model _____

Gentlemen: I would like to inform you of a problem I have experienced with the above engine. My problem is:

_____

_____

_____

_____

_____

My boat is located at:

Address _____

Telephone(____)_____

City _____ State _____ Zip _____

Requesters Signature _____ Date _____

Warranty Transfer

The PCM Limited warranty is transferable to a subsequent purchaser, but only for the remainder of the unused portion of the warranty term. This will not apply to products used in commercial applications.

DIRECT SALE BY OWNER

The second purchaser can be registered as the owner and retain the unused portion of the warranty term by sending in the original owner's plastic Warranty Registration Card, a copy of the bill of sale showing the date sold to the second owner, as well as a completed Warranty Transfer Application.

A new Warranty Registration Card will be issued to the second owner and the factory computer will reflect the change.

There is a transfer fee which must be submitted via certified check with the Transfer Application to PCM, P.O. Drawer 369, Little Mountain SC, 29075. The amount of the transfer fee (currently $100.00) is the fee amount in effect at the time of actual transfer of the warranty. Contact your PCM dealer or PCM to determine that amount prior to submitting this application.

OUTSIDE THE UNITED STATES AND CANADA, PLEASE CONTACT YOUR LOCAL PCM DEALER OR THE PCM WARRANTY SERVICES AT (803) 345-1337 FOR INFORMATION ON HOW TO APPLY FOR THIS PROGRAM.

WARRANTY TRANSFER APPLICATION

IMPORTANT! PURCHASER PLEASE NOTE: The checks listed below are designed to insure the safety and satisfaction of you, the owner. Therefore, we require that the following checks be performed at your expense by a qualified technician prior to delivery. By signing the check list, the technician certifies that he has checked the installation and operation of the engine and finds it to be performing properly. The owner or his agent should perform similar inspections periodically to identify any potential problems before they occur and to have any suspected defects checked and corrected immediately.

PRE DELIVERY CHECK LIST

Technician: Please check off all points and sign below.

- ❍ Engine oil, check
- ❍ Check timing
- ❍ Check control adjustments
- ❍ Check battery charge
- ❍ Check alternator for charge and level
- ❍ Tighten all drain plugs
- ❍ Check belts for tension
- ❍ Check for leaks, water, oil and exhaust
- ❍ Check shaft alignment
- ❍ Drive lube, check
- ❍ Check exhaust hoses & clamps
- ❍ Check control travel
- ❍ Tighten all water lines
- ❍ Check all lube points
- ❍ Set idle speed
- ❍ Check prop size and rotation

Engine Model: _____ Engine Serial: _____

Trans. Serial: _____ # of Engine Hours:

Date sold to 1st owner: _____

Date sold to 2nd owner: _____

I hereby certify that I have completed the pre-delivery checklist on engine

_____ and I have corrected any

discrepancies or inconsistencies revealed by these checks. _____

Technician's signature _____ Date: _____

Company Name _____

Purchaser's signature _____ Date : _____

Supplemental Correct Craft/ PCM Customer Protection Addendum

In accordance with a special agreement between PCM and Correct Craft, Inc., all 1999 PCM Engines installed in 1999 Correct Craft Boats will be protected, subject to the terms of the PCM warranty, for a period of three (3) years. This addendum does not modify the PCM warranty as printed in the PCM operators manual, which states;

"No distributor, dealer, agent or employee of PCM is authorized to grant any other or further warranty or incur any additional warranty obligation on PCM's behalf, in connection with the sale of its products."

This agreement is for the 1998 model year only and affects PCM engines based on GM base engines only.

This addendum is a separate agreement for additional consideration received by PCM from Correct Craft for the 1998 model year.

This agreement is for the benefit of, and is notification to Correct Craft customers who purchase GM based PCM engines, that the PCM warranty department will honor claims for engine problems experienced by the owners of 1998 Correct Craft Boats for three (3) years as if those claims were made during the published term of the standard PCM warranty.

Claims outside warranty standard provisions will not be considered either during the normal warranty period or under this agreement.

This Addendum is to be inserted following the standard PCM warranty statement in the Operators manual and is to become a part of the PCM Operators manual supplied to Correct Craft and sent with each boat to the owner.

This Addendum contains the full agreement and no distributor, dealer, agent or employee of PCM is authorized to grant any other or further warranty or incur any additional warranty obligation on PCM's behalf, in connection with the sale of its products.

If you find that the information contained in this owners manual does not answer your specific question, then we invite you to contact your nearest dealer or your Correct Craft regional Warehouse for answers or necessary service. A list of the Correct Craft warehouses is given below, with the areas that they service.

CORRECT CRAFT LOCATIONS

MID-ATLANTIC CORRECT CRAFT
P.O. Box 403
Route 173
Bloomsbury, NJ 08804
908/479-6810
Maryland
New Jersey
New York
Pennsylvania (Eastern)
Virginia
Delaware
District of Columbia

MID-WEST CORRECT CRAFT
P.O. Box 216
Angola, IN 46703
219/833-2226
Illinois
Indiana
Iowa
Kentucky
Michigan
Minnesota
Missouri
Nebraska
North Dakota
Ohio
Pennsylvania (Western)
South Dakota
West Virginia
Wisconsin

SOUTHWEST CORRECT CRAFT
22450 FM RD 1995
Lindale, TX 75771
903/882-8593
Arkansas
Kansas
Louisiana
Oklahoma
Texas

NEW ENGLAND CORRECT CRAFT
142 Flagg Road
Rochester, NH 03839
603/332-5739
Connecticut
Maine
Massachusetts
New Hampshire
Rhode Island
Vermont

SOUTHEAST CORRECT CRAFT
7576 South Orange Ave.
Orlando, FL 32809
407/851-1965
Alabama
Florida
Georgia
Mississippi
North Carolina
South Carolina
Tennessee

WEST COAST CORRECT CRAFT
3 Auto Plaza Drive, Bldg. B
Folsom, CA 95630
916/985-4343
Alaska
Arizona
California
Colorado
Hawaii
Idaho
Montana
Nevada
New Mexico
Oregon
Utah
Washington
Wyoming

If, for any reason your nearest dealer or the warehouse servicing your territory cannot satisfactorily resolve your problem or answer your questions, then please feel free to contact our Customer Service Department at the main offices of Correct Craft, Inc., either by telephone or by mail.

NAUTIQUE FRIEND PROGRAM

It has been proven that experience and word-of-mouth are important promotional tools. Enthusiastic boat owners talk to their friends. Our statistics reveal that a high percentage of our Nautique owners learned about Correct Craft through a friend. We want to show our appreciation to these friends.

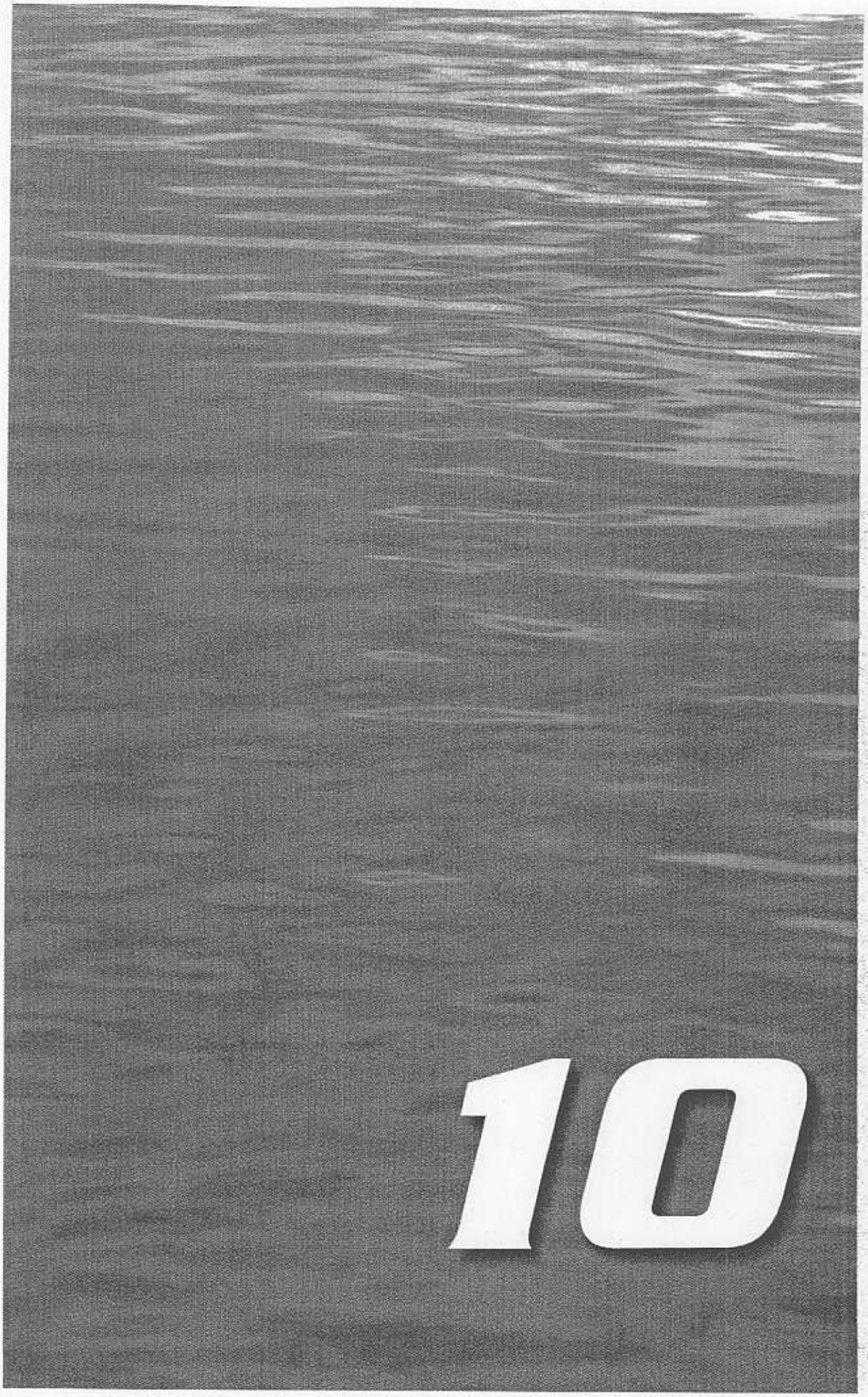
One year after the purchase date listed on an owner's warranty card, we send a "NEW OWNER SATISFACTION SURVEY". For the completion and return of this form, we offer a first anniversary gift of a Fashion Nautique T-shirt. It is our desire to keep in touch with our Correct Craft family of boat owners. We value our owners' comments and want to hear about the things we do right and/or the things we need to improve. One of the questions asked is, "How did you learn of Correct Craft?" This section adds a statement, "If a friend influenced you, please list his/her name and address." From this information, the President of Correct Craft sends that "Friend" a letter of thanks and a Fashion Nautique hat.

When a "Friend" appears on our list the second time, indicating success in encouraging another person to purchase a Nautique, this person receives a personal thank you letter from the President of Correct Craft with a certificate to return with the appropriate size indicated, and receive a Correct Craft T-shirt.

When a "Friend's" name is presented for the third time, this person will receive a personal letter from the President of Correct Craft with a certificate for a Correct Craft polo shirt.

For the fourth and succeeding times a "Friend' is listed, a personal letter will be mailed as well as a certificate for $50 retail value of Fashion Nautique item(s).

Tell the story of your experiences with your boat, your dealer, and Correct Craft. When you are responsible for convincing a non-Correct Craft owner to buy a Nautique, encourage that new owner to give you credit for that introduction on his first anniversary survey form.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Glossary of Terms:

Aft: Towards the back of the boat.
Clockwise: Rotation in the same direction of the hands on a clock
Counter Clockwise: Rotation opposite the directions of the hands on a clock.
EFI: Electronic Fuel Injection
Forward: Towards the front of the boat.
LH or Left Hand: Refers to Left Hand engine rotation.
Model Number: A series of letters and numbers on the Serial Plate that describes the engine and transmission.
PCM: Pleasure Craft Marine Engine Company Inc.
Port: The left side of the boat while looking forward
Raw water: Lake or river water
Serial Number: The unique six (6) digit number on the Serial Plate that is specific to one engine.
Starboard (stbd): The right side of the boat while looking forward.

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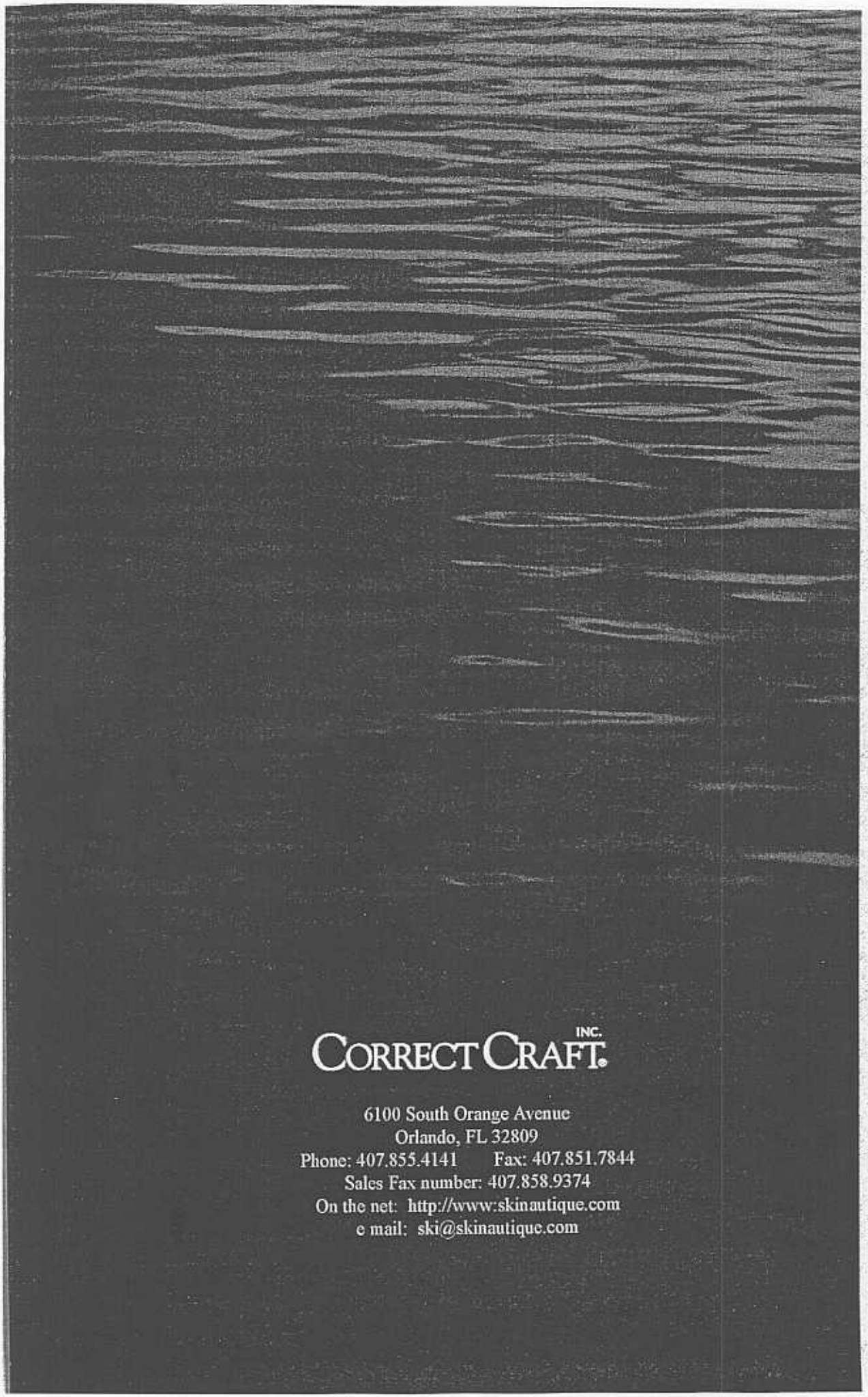

CORRECT CRAFT INC.

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Orlando, FL 32809
Phone: 407.855.4141 Fax: 407.851.7844
Sales Fax number: 407.858.9374
On the net: http://www:skinautique.com
e mail: ski@skinautique.com