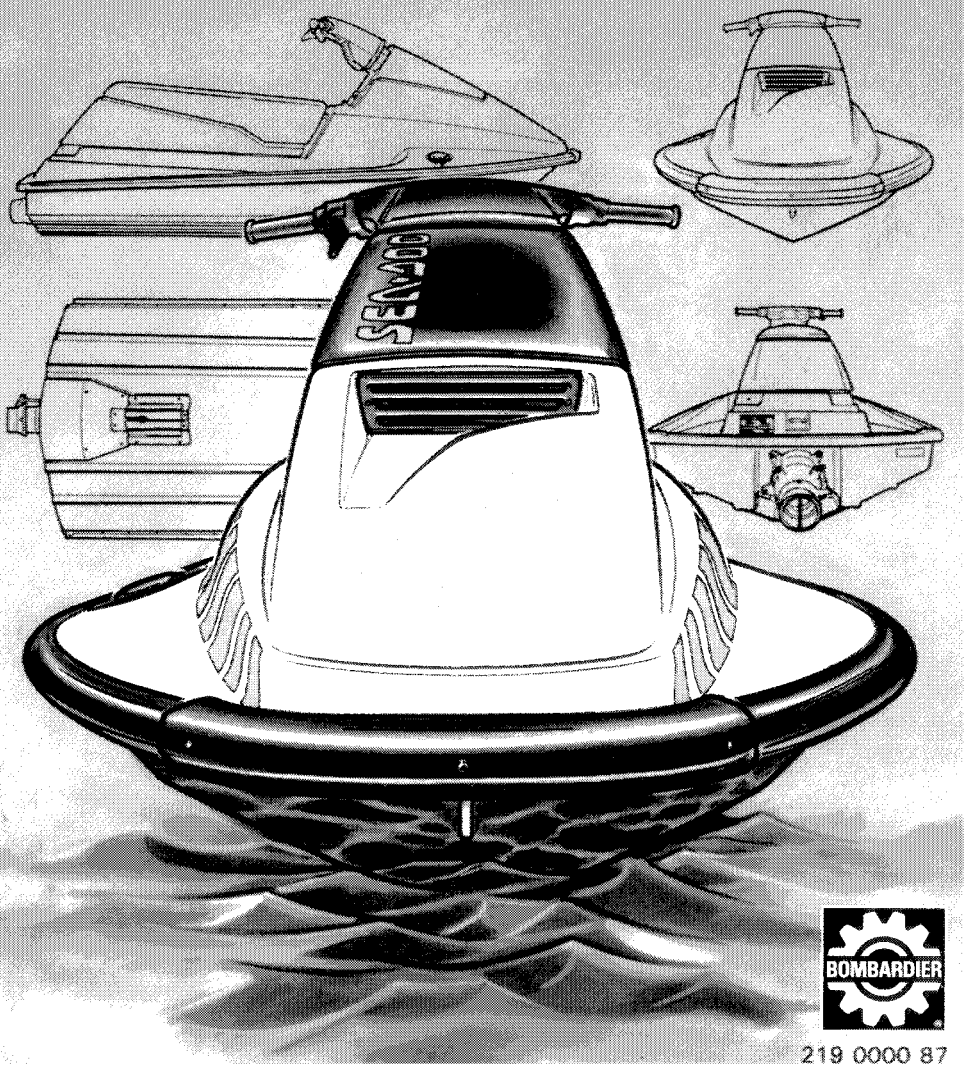
SEA-DOO

operator's manual



BOMBARDIER

219 0000 87

WATERCRAFT MODEL No _____

HULL

IDENTIFICATION NUMBER (H.I.N.) _____

ENGINE

IDENTIFICATION NUMBER (E.I.N.) _____

Purchase Date _____ | | | | | |
y m d

Warranty Expiry Date _____ | | | | | |
y m d

To be completed by the dealer at the time of the sale

DEALER IMPRINT AREA

AFTER SALES SERVICE
BOMBARDIER INC.
VALCOURT, QUEBEC
CANADA, J0E 2L0

Litho'd in Canada

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FOREWORD

The operator manual has been prepared to acquaint the owner/operator or passenger of this personal watercraft with the various watercraft controls, maintenance and safe riding instructions. This manual is indispensable for the proper use of the product, and should be kept in a waterproof bag with the watercraft at all times.

For any questions pertaining to the warranty and its application, please consult the "WARRANTY QUESTIONS AND ANSWERS" section in this manual, or an authorized SEA-DOO dealer.

This manual uses the following symbols to emphasize particular information.

◆ WARNING: Identifies an instruction which, if not followed, might cause serious personal injuries including the possibility of death.

▼ CAUTION: Denotes an instruction which, if not followed, might severely damage the watercraft components.

◯ **NOTE:** Indicates supplementary information needed to fully complete an instruction.

Although the mere reading of such information does not eliminate the hazard, the understanding of the information will promote its correct use.

The information and components/system descriptions contained in this manual are correct at time of publication. Bombardier Inc. however, maintains a policy of continuous improvement of its products without imposing upon itself any obligation to install them on products previously manufactured.

Bombardier Inc. reserves the right at any time to discontinue or change specifications, designs, features, models or equipment without incurring obligation.

The illustrations show the typical construction of the different assemblies and in some cases, may not reproduce the full detail or exact shape of the parts which have the same or similar function.

Specifications are given in the SI metric system with the SAE equivalent in parenthesis. When precise accuracy is not required, some conversions are rounded for easier use.

A shop manual can be obtained for complete service, maintenance and repair information.

◆ WARNING: The engine and the corresponding components identified in this manual should not be utilized on product(s) other than those it is designed for. Maintenance procedures and specified tightening torques must be strictly adhered to, never attempt repairs unless the appropriate tools are available. This watercraft is designed with parts dimensioned in the metric system. All fasteners are metric and must not be replaced by customary SAE fasteners. Mismatched or incorrect fasteners could cause damage to the watercraft or possible personal injury.

THE SEA-DOO* WATERCRAFT LIMITED WARRANTY

1. PERIOD

BOMBARDIER INC. as manufacturer, warrants FROM THE DATE OF SALE TO THE FIRST CUSTOMER, every BOMBARDIER SEA-DOO Watercraft, sold as NEW AND UNUSED, and predelivered by an authorized BOMBARDIER SEA-DOO dealer for a period of:

- 12 consecutive months for private use owners
- 90 consecutive days for commercial use owners

2. WHAT BOMBARDIER WILL DO

BOMBARDIER will repair and/or replace, at its option, components defective in material and/or workmanship (under normal use and service) with a genuine BOMBARDIER component without charge for parts and labor, at any authorized BOMBARDIER SEA-DOO dealer during said warranty period. All parts replaced under warranty become the property of BOMBARDIER INC.

3. CONDITION TO HAVE WARRANTY WORK PERFORMED

Present to the servicing dealer, the hard copy of the BOMBARDIER warranty registration card or proof of purchase, received by the customer from the selling dealer, at time of purchase.

4. WARRANTY TRANSFER

This warranty is transferable to subsequent owner(s) for remainder of the warranty period from date of sale.

5. EXCLUSIONS — ARE NOT WARRANTED

- Normal wear on all items such as, but not limited to:
  - fuel filters
  - impellers
  - spark plugs
- Replacement parts and/or accessories which are not genuine BOMBARDIER parts and/or accessories.
- Damage resulting from the installation of parts other than genuine BOMBARDIER parts.
- Damage caused by failure to provide proper maintenance as detailed in the Operator's Manual. The labor, parts and lubricants costs for all maintenance services, including tune-ups and adjustments will be charged to the owner.
- Watercraft designed and/or used for racing purposes.
- All optional accessories installed on the watercraft. (The normal warranty policy for parts and accessories, if any, applies).
- Damage resulting from running the watercraft engine/impeller when the craft is out of the water.
- Damage resulting from modification to the watercraft not approved in writing by BOMBARDIER.
- Growth of marine organism on engine or hull surfaces.
- Gel coat/paint stress cracks.
- Losses incurred by the watercraft owner other than the parts and labor, such as, but not limited to, transportation, towing, telephone calls, taxis, or any other incidental or consequential damage.
- Damage resulting from accident, fire or other casualty, misuse, abuse or neglect.

6. BATTERY WARRANTY

- 12 consecutive months (pro-rated)

100% warranty coverage for the first 6 months will start on the date the watercraft was delivered. The remainder of the 12 month-period will be pro-rated as follows:

- 60% for the seventh (7) month
- 50% for the eighth (8) month
- 40% for the ninth (9) month
- 30% for the tenth (10) month
- 20% for the eleventh (11) month
- 10% for the twelfth (12) month

7. EXPRESSED OR IMPLIED WARRANTIES

This warranty gives you specific rights, and you may also have other legal rights which may vary from state to state, or province to province. Where applicable this warranty is expressly in lieu of all other expressed or implied warranties of BOMBARDIER, its distributors and the selling dealer, including any warranty of merchantability or fitness for any particular purpose; otherwise the implied warranty is limited to the duration of this warranty. However, some states or provinces do not allow limitations on how long an implied warranty lasts, so the above limitation may not apply.

Neither the distributor, the selling dealer, nor any other person has been authorized to make any affirmation, representation or warranty other than those contained in this warranty, and if made, such affirmation, representation or warranty shall not be enforceable against BOMBARDIER or any other person.

Some states or provinces do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply.

BOMBARDIER INC. reserves the right to modify its warranty policy at any time, being understood that such modification will not alter the warranty conditions applicable to watercraft sold while the above warranty is in effect.

8. CUSTOMER ASSISTANCE

If a servicing problem or other difficulty occurs, we suggest the following:

1- Try to solve the problem at the dealership with the Service Manager or Owner.

2- If this fails, contact us as follows:

For Canadian customers;

BOMBARDIER INC.
SERVICE DEPARTMENT
Marine Products Division
Valcourt (Quebec) Canada JOE 2LO
Tel: 514-532-2211

For American customers;

BOMBARDIER CORPORATION
7575 PACKER DR.
P.O. BOX 8035
WAUSAU, WI.
54402-8035
Tel: 715-842-8886

This warranty policy is applicable starting January 1988.

WARRANTY QUESTIONS AND ANSWERS

Q. Why must my watercraft be registered at the factory? After all I do have my original invoice as proof of when I purchased my watercraft.

A. Your warranty is valid at any authorized dealer of the product. Your registration is the key element in providing the servicing dealer with the necessary data to complete warranty claim forms. This information is also used to notify owners in the event of a safety recall.

Q. What costs are my responsibility during the warranty period?

A. The customer's responsibility includes all costs of normal maintenance services non-warranty repairs, accident and collision damages.

Q. What are some examples of neglect or abuse?

A. These terms are general and overlap each other in areas. Specific examples include; running the engine out of oil, operating the watercraft with a broken or damaged part, which causes another part to fail and so on. If you have any specific questions on operation or maintenance, please contact your SEA-DOO watercraft dealer for advice.

Q. Does the warranty cover incidental costs such as transportation due to a failure?

A. No. The warranty is limited to repair of the SEA-DOO watercraft itself.

Q. May I perform any or all of the recommended maintenance shown in the Operator's Manual instead of having the dealer do them?

A. Yes, if you are a qualified mechanic and follow the procedures specified in the Operator's and Shop Manuals. We do recommend however that the critical adjustments to timing and carburetion be done by a SEA-DOO dealer.

Q. Will the warranty be void or cancelled if I do not operate or maintain my new SEA-DOO exactly as specified in the Operator's Manual?

A. No. The warranty on a new SEA-DOO cannot be "voided" or "cancelled". However, if a particular failure is caused by operation or maintenance other than as shown in the Operator's Manual, that failure may not be covered under warranty.

Q. What responsibility does my dealer have under this warranty?

A. Each SEA-DOO DEALER IS EXPECTED TO:

1- Completely set up every new SEA-DOO watercraft before sale;

2- Explain the operation, maintenance and warranty requirements to your satisfaction at the time of sale. In addition, each SEA-DOO dealer is held responsible for set-up, service and warranty repair work.

Q. Is the warranty transferable to second owners?

A. Yes, the remainder of the existing warranty can be transferred upon request. The craft has to be inspected and re-registered by an authorized SEA-DOO dealer for the policy to remain effective.

Customer Service

If your SEA-DOO requires warranty service, you must take it to any authorized SEA-DOO dealer. Be sure to bring your warranty registration card or other valid proof of the original date of purchase. If a question or problem arises regarding warranty, first contact the owner of the SEA-DOO dealership.

Since all warranty matters are handled at the dealer level, this person is in the best position to help you. If you are still not satisfied and require additional assistance, please write to:

For Canadian customers;

BOMBARDIER INC.
SERVICE DEPARTMENT
Marine Products Division
Valcourt (Quebec) Canada JOE 2LO
Tel: 514-532-2211

For American customers;

BOMBARDIER CORPORATION
7575 PACKER DR.
P.O. BOX 8035
WAUSAU, WI.
54402-8035
Tel: 715-842-8886

The federal government requires each manufacturer to maintain a complete up-to-date list of all first purchasers against the possibility of a safety-related defect and recall. This list is compiled from the purchase registrations sent to BOMBARDIER INC. by the selling dealer at the time of your purchase. If you have a change of address after the purchase of your new SEA-DOO, please advise us of your new address by sending a postcard listing your model number, dealer number (or dealer's name) as it is shown on your warranty card, your name and new mailing address.

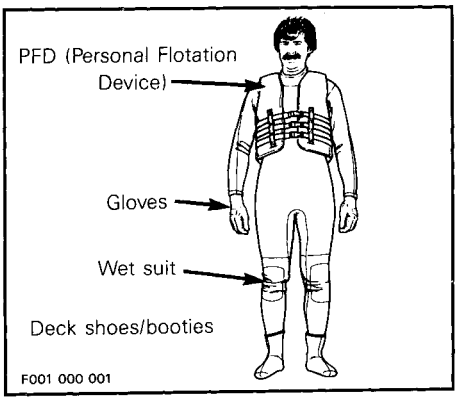
SAFETY INFORMATION

PLEASE READ AND UNDERSTAND ALL WARNINGS AND CAUTIONS IN THIS MANUAL AND ON THE WATERCRAFT.

Prior to operating the watercraft, thouroughly read and understand the operator's manual, it will give necessary knowledge required to adequately operate this personal watercraft.

About the Navigation Laws and Regulations

- This watercraft is a class A inboard boat as defined by the U.S. Coast Guard.
- Check local and federal boating laws and regulations in the area where the watercraft is to be used. Rules can be different pertaining to each state, province or country. It is recommended to follow a boating safety course.
- Operator and passenger must always have a PFD (Personal Flotation Device) approved by Coast Guard with the watercraft when used. It is recommended to use gloves, deck shoes/ booties and a wet suit to help protect users against possible injuries.



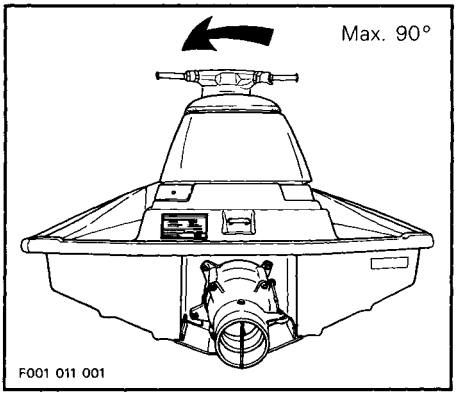
- An approved fire extinguisher must be present in the watercraft (space is provided in storage compartment).
- Operation by an unqualified minor is not recommended. A responsible adult should instruct and supervise a minor operating the watercraft.
- Operate in daytime only. This watercraft is not designed for night-time operation.
- Never operate the watercraft after consuming alcohol and/or drugs.

Watercraft Operation, Safety Guidelines and Warnings

- For safety reasons and proper care, always perform "DAILY PRE-OPERATION CHECKS" as specified in this manual before operating the watercraft.
- Operator should be sitting on the watercraft and firmly holding the handlebar before starting the engine.
- Securely attach the tether cord to the operator's PFD (Personal Flotation Device).
- Throttle and steering mechanisms must be checked for free movement before starting engine.
- Check fuel/oil levels and battery condition before operating the watercraft.
- When starting or operating the engine, do not touch any electrical part.
- The watercraft engine is stopped by pulling the tether cord.

- To prevent accidental engine starting, always remove tether cord. Particularly when cleaning jet pump water intake area.
- When the engine is running, be careful not to have hands, feet or any part of clothing close to the jet pump water intake.
- Never insert any object in the jet pump water intake or outlet.
- An inexperienced operator should practice how to get aboard close to shore to simulate deep water boarding.
- Watercraft should be operated in at least 18 cm (7 in) of water. Otherwise damage may occur to watercraft.
- Watch for dangerous near-surface or underwater obstacles/stones/weeds particularly while riding in shallow water.
- Remove debris from jet pump water intake only when engine is turned off and tether cord is removed.
- It is not recommended to operate the watercraft within break of waves.
- Drive carefully and avoid riding close to swimmers.
- When riding far from the shore it is recommended to be accompanied by another craft. Watch for and keep a safe distance from other craft.
- Be careful before beginning a sharp turn, other craft operators may not expect that this watercraft can turn quickly.
- Always keep in mind that as the throttle lever is released, less directional control will be available. At idle or engine stop, there is no directional control. To turn the watercraft, steering must be turned **and** throttle applied.
- Since the engine cooling is in effect only when the watercraft is in the water, it is not recommended that the engine be allowed to idle for more than one minute without water supply when watercraft is out of water. Prolonged such idling might cause engine damage.
- The operator should practice solo operation prior to giving a ride to a passenger.
- Watercraft carrying capacity is one operator and one passenger. Riding with a passenger make the watercraft handle differently and requires more skill.
- Do not give a ride to a child if feet can not reach the floorboard.
- The operator and passenger should keep their feet on the watercraft floorboard. The passenger should always hold the seat strap.
- A tow-rope should be kept at all time in the watercraft storage basket.
- Always stop engine before refueling. Gasoline is highly flammable and explosive under certain conditions. Refuel in a well ventilated area. Never refuel while smoking or in vicinity of open flame. If gasoline fumes are noticed, the cause should be determined and corrected without delay.
- Always check injection oil reservoir level when refueling.

- When inspecting the hull/jet pump, always rotate watercraft **counterclockwise** (seen from the rear). Otherwise water could leak through the tuned pipe into the engine and cause engine damage.



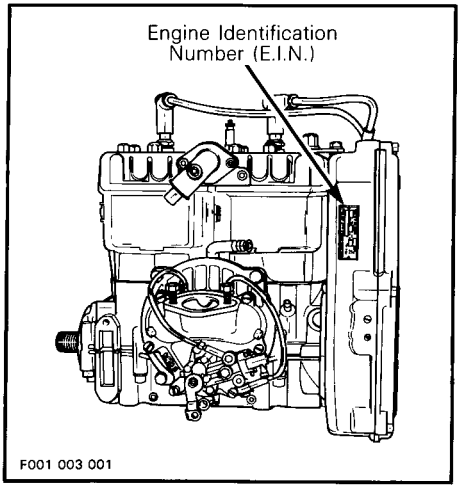
- Should water get into the engine, immediately follow the procedure pertaining to "Submerged Watercraft" in the "SPECIAL PROCEDURES" section as specified in this manual. Should water be left in the engine for more than a few hours, engine internal parts will be damaged.
- Maintain the watercraft in top mechanical condition at all times.
- Installation of parts other than original equipment is not recommended. Avoid adding on accessories that alter the basic watercraft configuration including change in components location, altering vent tubes etc.
- Whenever the watercraft is left outdoor for a long period, it is suggested to protect it against the inclemency of the weather with a tarpaulin.
- Only perform procedures as detailed in this manual. Unless otherwise specified, engine must be turned off and tether cord removed from switch for all maintenance.
- Should removal of a locking device be required when undergoing repairs/disassembly, always replace with new ones. Tighten fasteners as specified in the applicable shop manual.

THIS MANUAL SHOULD REMAIN WITH THE WATERCRAFT AT THE TIME OF RESALE

Identification Numbers

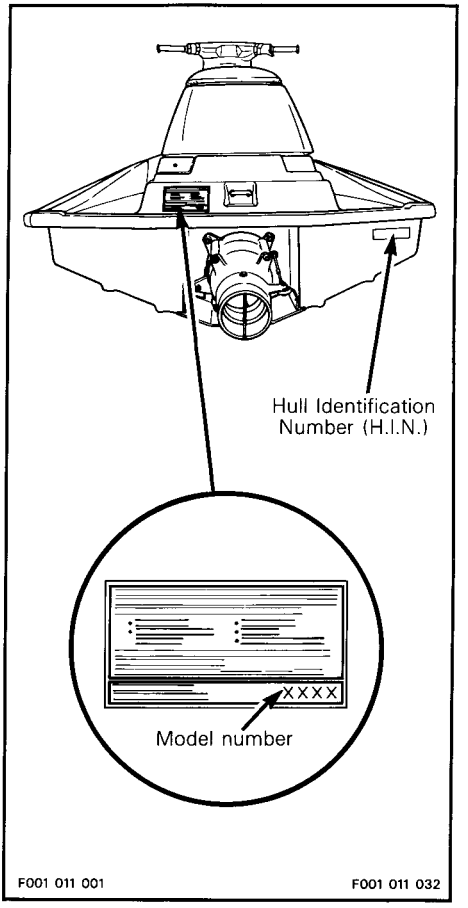
The main components of the watercraft (engine and hull) are identified by different serial numbers. It may sometimes become necessary to locate these numbers for warranty purposes or to trace the watercraft in the event of theft.

The Engine Identification Number (E.I.N) is located on the upper side of the magneto housing.



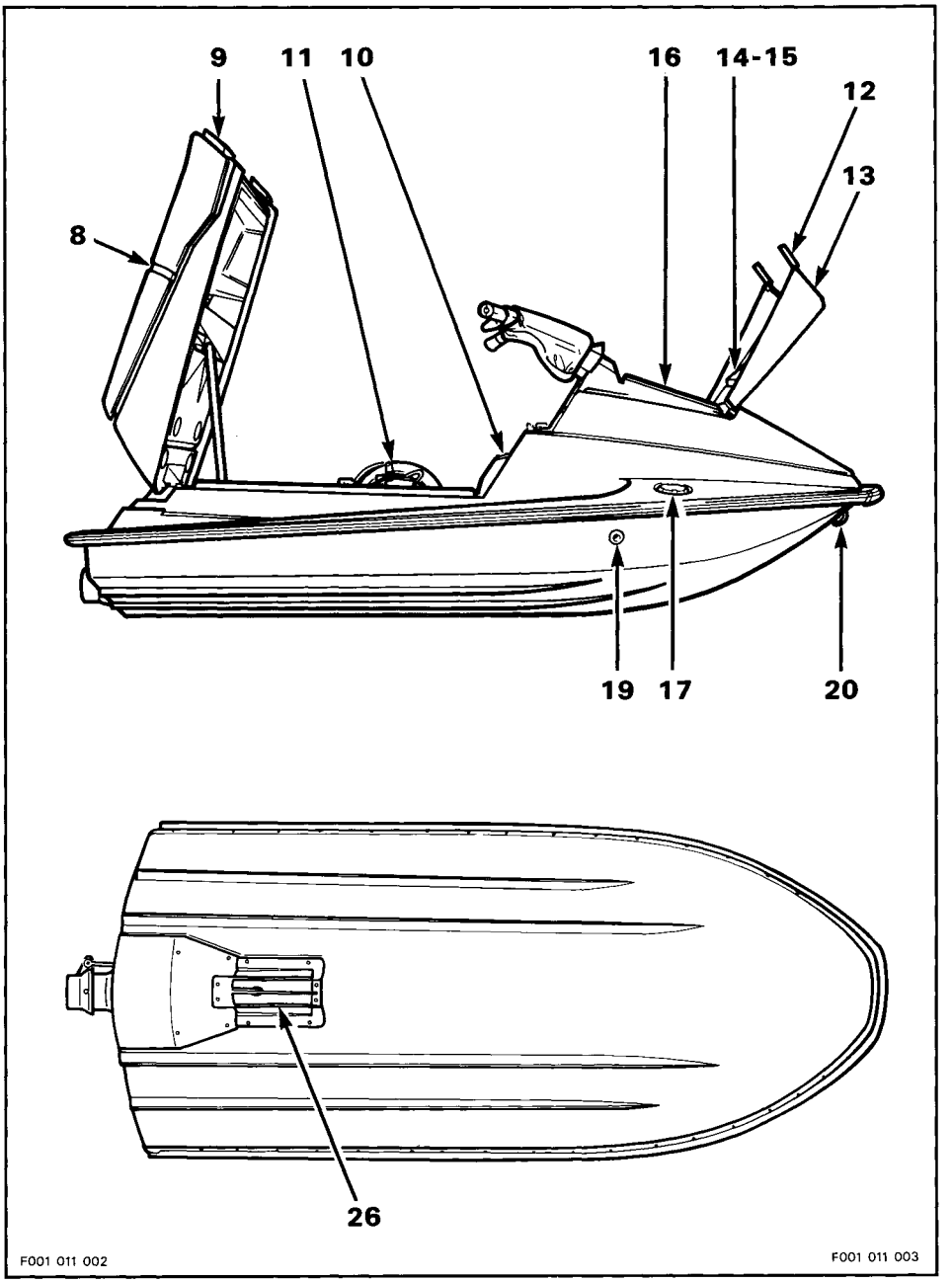
The Hull Identification Number (H.I.N.) is located at R.H. side on hull rear end.

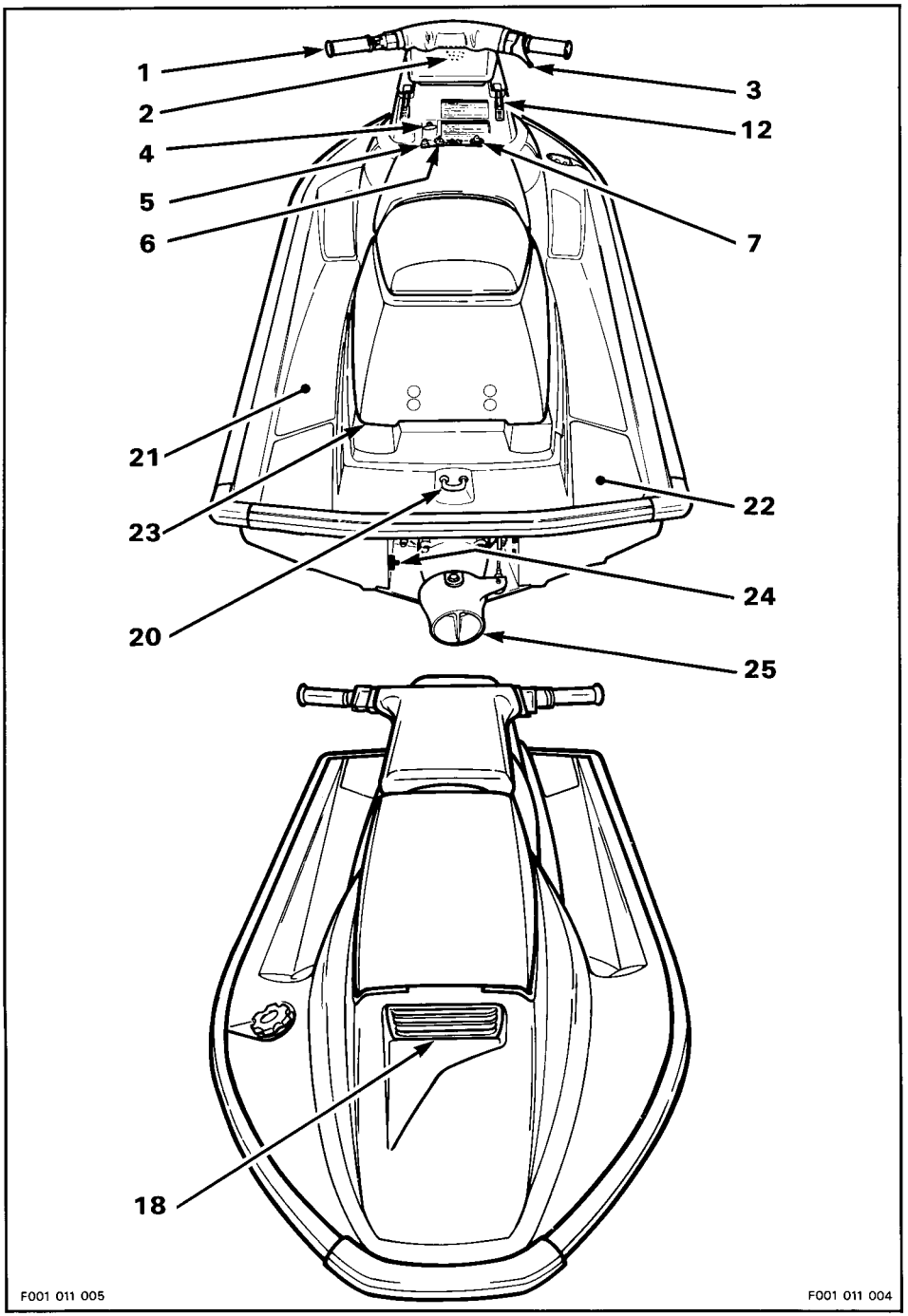
The watercraft model number can be found on U.S Coast Guard approved label located on L.H. side of stern (rear) eyelet.



Controls and Components

CONTROLS AND COMPONENTS LOCATION

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1) Handlebar

The handlebar controls the direction of the watercraft. Turning the handlebar to the right steers the watercraft to the right side and inverserly.

2) Overheating Beeper

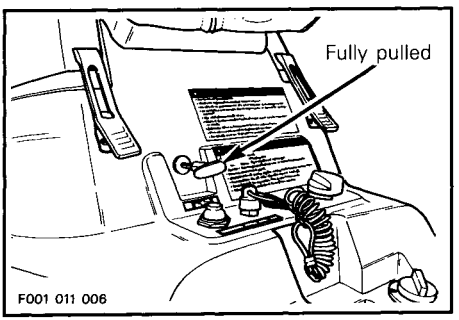
In the event the engine overheats, a beeper (intermittent sound) will warn the operator.

3) Throttle lever

It controls the speed of the engine and therefore, the speed of the watercraft. When squeezed, engine accelerates. When fully released, engine automatically returns to idle speed and watercraft is gradually stopped by water drag.

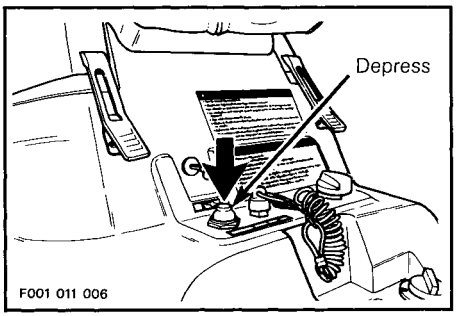
4) Choke Knob

The choke is provided to supply a richer fuel/air mixture needed when starting a **cold** engine. When the knob is completely pulled, the choke is fully applied. The use of the choke is not recommended with a warm engine.



5) Starting Button

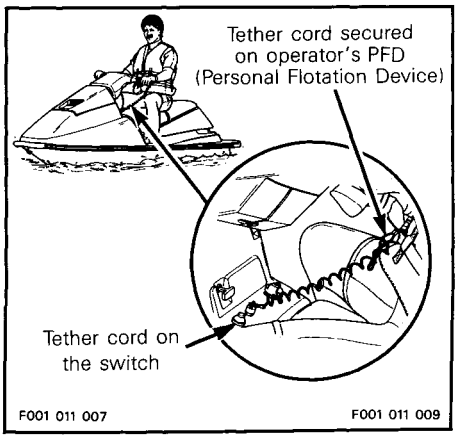
To start engine, depress and hold the button. Release immediately after engine is started.



NOTE: Engine will not run if the tether cord is removed, even if the starter motor turns.

6) Tether Cord

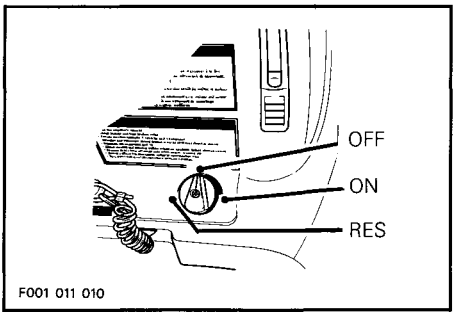
Pulling the tether cord from the switch stops the engine operation. Attach the tether cord to the operator's PFD (Personal Flotation Device) and snap the cap to the switch **before** starting the engine.



WARNING: Should the engine be stopped, watercraft directional control will not be available. To prevent theft or unauthorized use, always remove the tether cord from switch. Should the tether cord be removed in an equipment malfunction, the source of malfunction should be determined and corrected before restarting the engine.

7) Fuel Tank Cock

A three-position rotating valve, OFF, ON, RES:



OFF: Shut-off fuel supply to carburetor. Must be used when watercraft is not operated, for transportation and storage.

ON: Allow fuel to flow to carburetor. Use whenever engine is to be run. With a full fuel tank, the watercraft can run approximatly two hours at full throttle before running out of gas (in the "ON" position).

RES: Use when the watercraft has run out of gas in the "ON" position. Allow about 1/2 hour operation at full throttle before running out of gas.

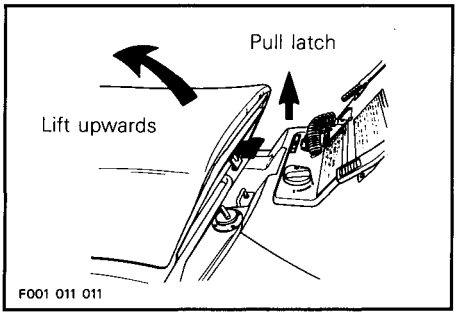
◆ **WARNING: Always refill the fuel tank at the first opportunity. After refueling, turn the fuel cock to the "ON" position for further operation.**

8) Seat strap

The seat strap provide a handgrip when needed for boarding and a handgrip for the passenger.

9) Seat Opening

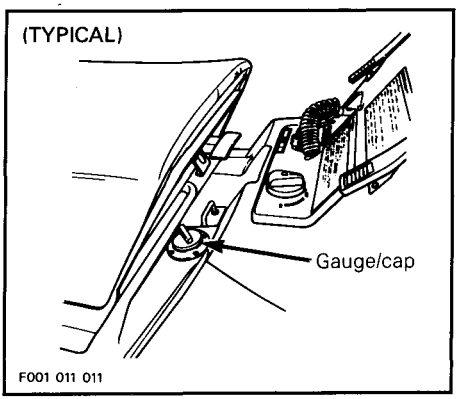
Pull the seat latch in order to unlock the seat. Gently lift the seat upwards until stopped by its restraining device. Opening the seat gives access to the engine compartment.



When closing the seat, gently press on seat until gas spring collapses, firmly push on the front of the seat to re-latch.

10) Oil Injection Reservoir Gauge/Cap

Unscrew the cap counter-clockwise then pull to expose the dipstick.



The dipstick indicates the amount of oil remaining in the reservoir. Oil level should be maintained between FULL and ADD marks. To check, have the watercraft level, wipe the dipstick then insert in the reservoir neck without screwing in. Remove dipstick and read the level.

11) Engine Compartment

Provide access to engine, fuel/oil filters, battery, fuse, jet pump drive shaft, bilge pick-ups etc.

▼ CAUTION: Never leave any object, rags, tools etc in the engine compartment or in the bilge.

◆ WARNING: When starting or operating the engine, do not touch any electrical part.

12) Cover Latches

Pull down the latches in order to open the storage compartment cover. Always re-latch.

13) Storage Compartment Cover

Gently lift cover until stopped by the restraining device. Cover contains the tool kit and the operator's manual. It gives access to the storage compartment. Always secure cover latches after closing.

14) Tool Kit

Contain tools needed to perform basic watercraft maintenance.

15) Operator's Manual

Should be kept in a waterproof bag and remain with the watercraft at all times.

16) Storage Compartment

A convenient water-tight basket to carry personal articles. Ideal location for spare sparks plugs, tow-rope, first aid kit etc.

▼ CAUTION: Never leave any heavy or breakable object in the storage basket.

This space is also provided for an approved extinguisher. Follow fire extinguisher manufacturer's instructions to install the mounting bracket. Fire extinguisher should not be left loose in the storage compartment.

17) Fuel Tank Cap

Unscrew the cap counter-clockwise to allow fuel tank filling. Fully tighten when finished.

◆ WARNING: Never use a lit match or open flame to check fuel level. Remove fuel tank cap slowly. Fuel might be under pressure and be sprayed.

18) Air Intake Opening

This is where air enters to supply the engine and ventilates the engine compartment.

19) Water-trap Drains

If water enters the air intake opening, a water-trap with baffles separates water from the air then evacuates the water through two drain hoses, one each side of the hull.

20) Bow/Stern (front/rear) Eyelets

Eyelets can be used for mooring, towing and tie down point for transportation.

21) Floorboard

It is conveniently covered with anti-skid surface. Users' feet should rest on the floorboard when riding.

22) Boarding Pads

Provide a cushioned surface for the knees when boarding from rear of watercraft.

23) Cooling System Bleed Outlet

When engine is running, water must flow from this hole.

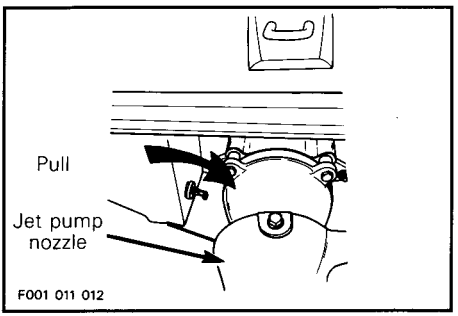
▼ CAUTION: Should water not flow from this outlet a few seconds after engine starts, immediatly stop engine and refer to an authorized dealer for servicing.

24) Bilge Drain Plug

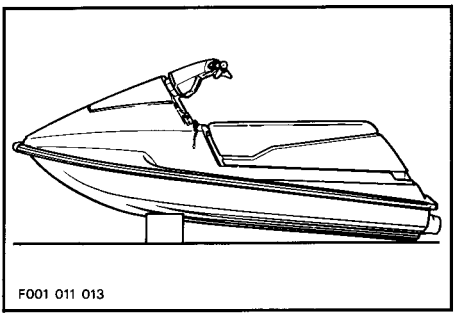
Should water be found in the bilge, it can be easily drained by removing this plug.

◆ WARNING: Remove watercraft from water prior to removing the drain plug.

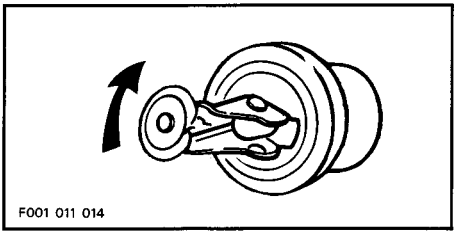
Pull the lever then the plug itself.



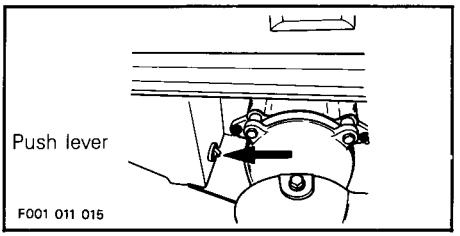
Lean the watercraft slightly to the rear so that the water can completely flow out of the bilge.



◯ NOTE: Should the plug become too loose in its hole, hold an end of the plug then with the lever pulled, turn the lever clockwise to tighten (counter-clockwise to slacken). Adjust to have a water-tight fit.



Reinstall bilge drain plug and fully push the plug lever to lock.



◆ WARNING: Always make sure bilge drain plug is properly installed in the drain hole and its lever safely locked.

25) Jet Pump Nozzle

It is turned under handlebar action and the water output provides watercraft directional control.

26) Jet Pump Water Intake

The water is drawn up by the impeller through this opening. The impeller and drive shaft are protected by a grill.

Recommended Gasoline

Use regular unleaded gasoline.

NOTE: No oil has to be mixed with the gasoline. Always check injection oil reservoir level when refueling.

The use of a small diameter spout or a funnel will ease the fuel tank filling. Pour gasoline slowly so that air can escape from the reservoir and prevent gasoline flowback.

Fill fuel tank to bottom of filler neck. Do not overfill. Fully tighten fuel tank cap and wipe off any gasoline spillage.

WARNING: Always stop the watercraft before refueling. Remove fuel tank cap slowly. Fuel may be under pressure and be sprayed. Gasoline is flammable and explosive under certain conditions. Always work in a well ventilated area. Do not smoke or allow open flames or sparks in the vicinity. Never experiment with other fuels or fuel ratios. The use of gasoline containing alcohol, methanol or similar products including naphta is not recommended. The use of unrecommended fuel can result in watercraft performance deterioration and damage to critical parts in the fuel system and engine components. Never top up the fuel tank and leave watercraft in the sun. As temperature increases, gasoline expands and might overflow. Always wipe off any gasoline spillage from the watercraft.

Recommended Oil

It is highly recommended to use SEA-DOO INJECTION OIL (P/N 293 600 005 - 1L or 293 600 004 - 4L) at all time, available from authorized dealers. It is a blend of specially selected base oils and additives which provides outstanding lubrication, engine cleanliness and minimum spark plug fouling.

CAUTION: Never use straight mineral oil.

Oil Injection System

This watercraft features an oil injection system and does not require manual gasoline/oil mixing.

Oil level should be maintained between FULL and ADD of dipstick marks. To check, lift seat to expose oil cap, remove cap, wipe dipstick then insert in the reservoir neck without screwing. Remove dipstick and read the level. Add oil as necessary.

Use a funnel to pour oil into reservoir. Wipe off any oil spillage.

CAUTION: Always maintain a sufficient amount of injection oil in the oil reservoir. Check and refill every time you refuel. Do not overfill. If the engine is run out of oil, severe engine damage will occur. If the oil tank is found almost empty, immediately refer to an authorized dealer to have the oil injection system inspected.

Engine Break-in

With Bombardier-Rotax watercraft engines, a break-in period is required before operating the engine at full throttle. Engine manufacturer recommendation is about 10 operating hours.

During this period, maximum throttle should not exceed 3/4, however, brief full acceleration and speed variations contribute to a good break-in. Continued wide open throttle accelerations, prolonged cruising speeds and overloading the engine are detrimental during the break-in period.

To assure additional protection during the initial engine break-in, 500 mL of SEA-DOO INJECTION OIL should be added in the fuel tank **for the first full fuel tank filling only.**

▼CAUTION: Remove and clean spark plugs after engine break-in.

10-Hour Inspection

It is suggested that after the first ten hours of operation or two weeks of use, whichever comes first, the watercraft be checked by an authorized dealer. This inspection will also provide the opportunity to discuss the unanswered questions the operator may have encountered during the first hours of operation.

The 10-hour inspection is at the expense of the watercraft owner.

10-HOUR INSPECTION CHECK LIST	✓
Engine ignition timing (verification)	
Spark plug inspection, cleaning and adjustment	
Fuel system lines and fasteners	
Carburetor adjustment including throttle/choke cables	
Oil injection system lines and oil level	
Oil injection pump adjustment	
Cylinder head nuts	
Engine cradle and engine rubber mounts	
Muffler, battery and reservoirs attachements	
Exhaust system hose clamps	
Carburetor flange nuts	
Handlebar clamp nuts	
Steering cable adjustment	
Hoses condition & fasteners	
Bilge lines and filters, check for obstructions	
Battery electrolyte level and posts condition	
Tether cord switch operation, engine overheating beeper	
Electrical connections	
Impeller shaft reservoir oil level	
Impeller condition	
Drive shaft splines condition (both ends) and lubrication	
Water intake grill condition	
Hull condition	
Inspection of fasteners for tightness	

We recommend that this inspection chart be signed by an authorized dealer

Date of 10-hour inspection

Authorized dealer signature

DAILY PRE-OPERATION CHECKS

Some of the following items may not have been previously covered in this manual, however they will be described in the "MAINTENANCE" or "SPECIAL PROCEDURES" section. Please refer to these portions to have more detailed information.

Every day the watercraft is to be operated, perform the following checks.

ITEM	OPERATION	✓
Hull	Inspect	
Jet pump water intake	Inspect/clean	
Fuel/oil reservoirs and filters	Refill/visually inspect	
Fire extinguisher	Inspect condition/mounting	
Engine compartment	Verify fuel/oil system components	
Battery	Inspect electrolyte level/connections	
Bilge	Drain. Ensure plug is secured	
Fasteners	Visually inspect for tightness	
Steering/throttle cables	Check operation	
Tether cord switch	Check operation	

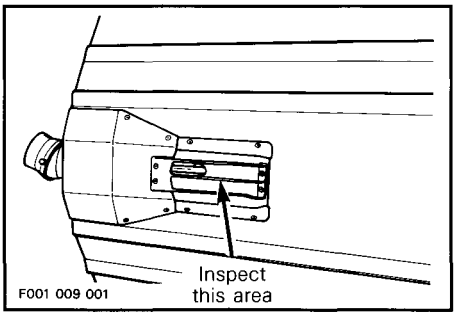
Hull

Inspect hull for cracks or damage.

Jet Pump Water Intake

◆ **WARNING: Tether cord must always be removed from switch prior to performing the following operation.**

Remove weeds, shells, debris or anything else that could restrict the flow of water and harm cooling system or propulsion unit . Clean as necessary. If any obstruction can not be removed, refer to an authorized dealer for servicing.



Fuel/Oil Reservoirs and Filters

Fill the fuel tank with gas.

Clean the fuel filter as necessary to remove any possible water or foreign particles.

Check the oil injection level and refill reservoir as necessary.

Visually inspect oil filter for foreign particules or water.

Fire Extinguisher

Make sure it is full, in good condition and well secured.

Engine Compartment

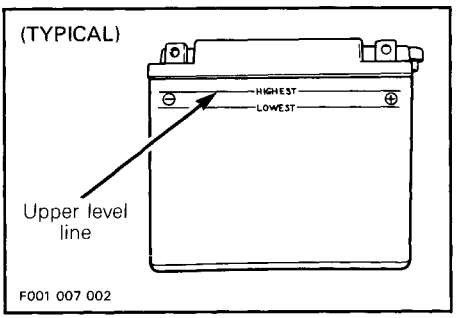
Check condition of fuel/oil system components.

◆ **WARNING: Should any leak be present, do not start the engine or operate the watercraft. Immediately refer to an authorized dealer.**

Battery

Make sure electrolyte level is at the upper level line, that battery connections are not loose and there are no leaks.

◯ NOTE: Ensure the watercraft is level before checking battery electrolyte level.



Bilge

Should water be present in the bilge, have the watercraft leaned to the rear and remove drain plug to completely empty the bilge.

◆ **WARNING: Make sure to take the watercraft out of water prior to removing the drain plug.**

Reinstall bilge drain plug and fully push the plug lever to lock.

Fasteners

Retighten fasteners as necessary. Ensure all latches are securely-locked.

Steering/Throttle Cables

Check steering operation for free movement. When the steering is horizontal, the jet pump nozzle should be in the straight ahead position. Ensure the jet pump nozzle pivots while handlebar is turned.

Check throttle lever several times for free and smooth operation without any hesitation through all its stroke. It must return to its initial position immediately after released.

◆ **WARNING: Perform this check before starting the engine.**

Tether Cord Switch

To check switch operation, start the engine then remove the tether cord. Engine should stop.

◆ **WARNING: If engine does not stop after the tether cord is removed, fully pull the choke knob to flood the engine. If it does not work, turn the fuel cock to "OFF". Do not operate the watercraf, refer to an authorized dealer.**

◆ **WARNING: Should the engine slowly rotate when cranking, it probably indicates a poor battery. Do not operate the watercraft with a low-charged battery.**

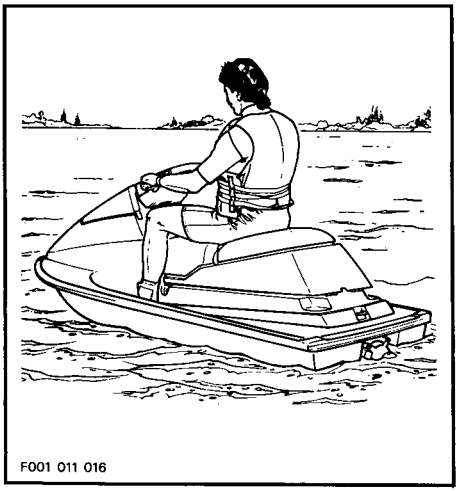
Clothing

Ensure to wear a Coast Guard approved PFD (Personal Flotation Device). It is also recommended that gloves, wet suit and deck shoes/booties be worn.

Obstacles

Verify that the path ahead of the watercraft is clear of craft or obstacles. Avoid riding close to swimmers. Always check local boating laws for safe operation.

◆ **WARNING: Only start the watercraft once all items have been checked, operate properly and are free of damage.**



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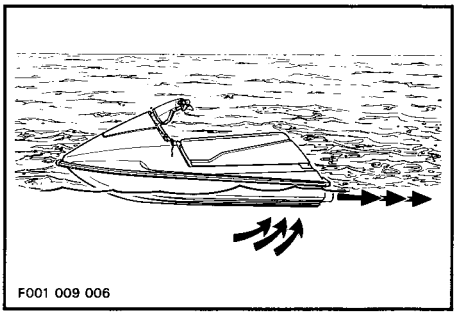
◆ WARNING: Always perform "DAILY PRE-OPERATION CHECKS" before operating the watercraft and become throroughly familiar with all controls and the function of each. Should any control or instruction be not fully understood, refer to an authorized dealer to get complete information.

Principle of Operation

Propulsion

The engine is directly coupled to a drive shaft which, in turn, rotates an impeller. The impeller is accurately adjusted in a housing. The water is drawn up by the impeller from underneath the watercraft. The water flows through the impeller to the venturi. This accelerates the water and produces thrust to move the watercraft. Depressing the throttle lever increases engine speed and therefore watercraft speed.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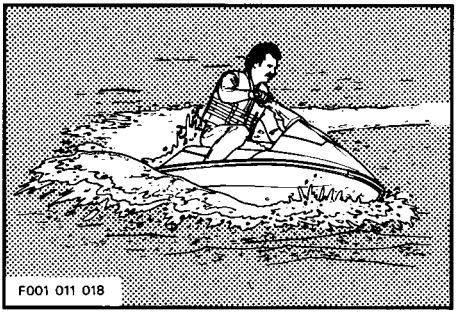
◆ WARNING: It is important to keep in mind that as soon as the engine is running the jet pump is constantly producing a thrust causing the watercraft to move forward. Therefore, whenever the engine is to be started, the operator should always be sitting on the watercraft.

Turning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Turning the handlebar pivots the jet pump nozzle which controls the watercraft direction. Turning the handlebar to the right will turn the watercraft to the right and inversely. However, the throttle must be applied to turn the watercraft.

Watercraft turning is commanded by the combined action of the handlebar **and** the throttle. When the throttle is closed, no directional control is available even with the handlebar turned.

◆ WARNING: When operating the watercraft, it is important to always keep in mind that directional control is lost when the throttle is closed. Throttle must be applied and handlebar turned to change the direction of the watercraft.

The more the throttle is applied while turning the handlebar, the sharper the turn will be.

Practice these maneuvers to have a good feel of the watercraft operation.

This watercraft is designed for one operator and one passenger. The watercraft behaves differently with a passenger and requires more skill. The passenger should always grip the seat strap. Reduce the operation speed and avoid sharp turns. Avoid choppy water conditions when carrying a passenger.

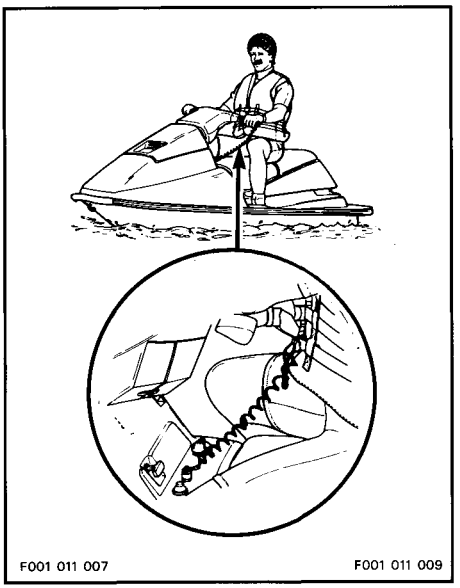
Starting from a Dock or in Shallow Water

Perform "DAILY PRE-OPERATION CHECKS" procedures.

Launch the watercraft.

WARNING: Since the engine is directly coupled to the jet pump, the watercraft moves forward even with the throttle closed when the engine is running.

Attach the tether cord to the operator's PFD (Personal Flotation Device) and snap the cap to the switch before starting the engine.



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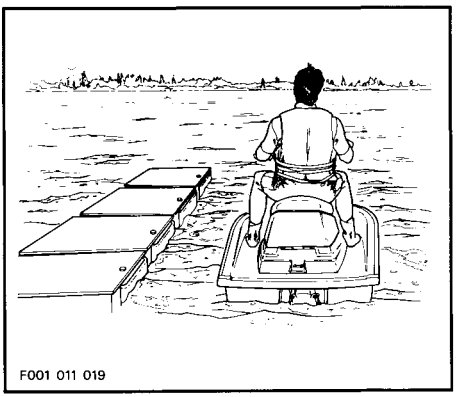
As with any craft, getting aboard should be done carefully.

When boarding from a dock, slowly place one foot on the watercraft side along the dock and, at the same time, transfer the body weight to the other side in order to balance the watercraft while holding the handlebar, then bring the other foot over the seat and put it on the other side of the floorboard. Push the watercraft away from the dock.



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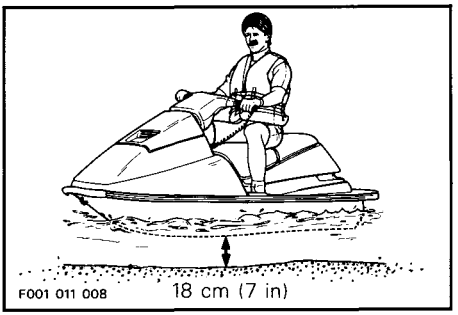
CAUTION: The engine should be started with at least 18 cm (7 in) of water below the hull.



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In shallow water, board the watercraft either from the side or the rear.

NOTE: An inexperienced operator should practice how to get aboard close to shore to simulate deep water boarding.

Slowly accelerate to reach deeper water.

Starting the Engine

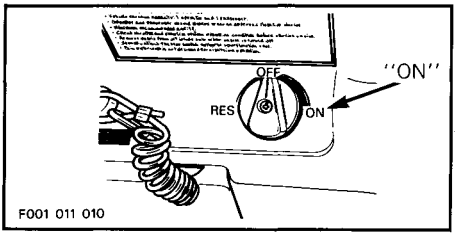
▼ CAUTION: Engine should always be started with the watercraft in water. At least 18 cm (7 in) of water should be present below the hull.

◆ WARNING: Since the engine is directly coupled to the jet pump, the watercraft moves forward even with the throttle closed when the engine is running.

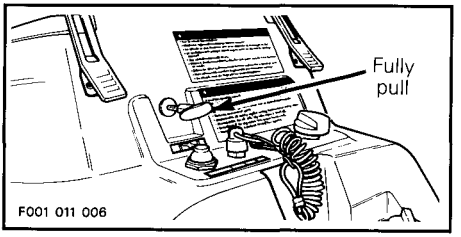
Cold engine

Operator (and passenger) should be sitting on the watercraft prior to starting the engine.

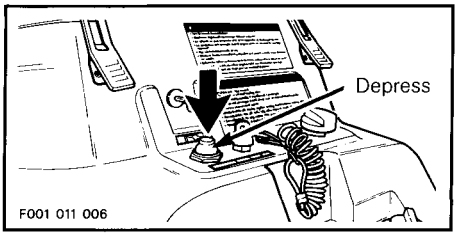
Turn the fuel cock to "ON".



Fully pull the choke knob.



Firmly grip handlebar and place both feet on the floorboard. Depress the starting button.



○ NOTE: Do not depress the throttle lever while starting a cold engine.

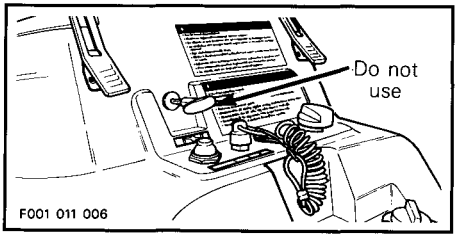
▼ CAUTION: To avoid starter motor overheating, the cranking period should not exceed 5-10 seconds and a rest period should be observed between cranking cycles to let the starter cool down and its mechanism disengage. Never depress the starting button when the engine is running.

Immediately after engine is started, release starting button.

A few seconds after, push the choke knob and if necessary, slightly apply throttle to keep engine running. Do not apply full throttle until the engine is warm.

Warm Engine

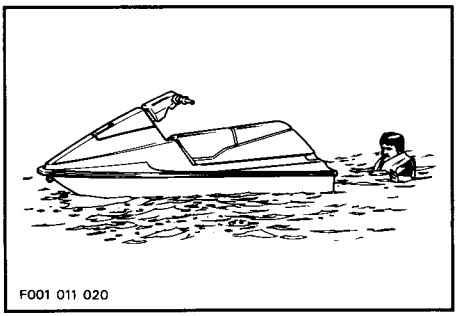
The same procedure as a cold engine applies except do not apply the choke.



Starting in Deep Water

Operator Alone

Swim to the rear of the watercraft.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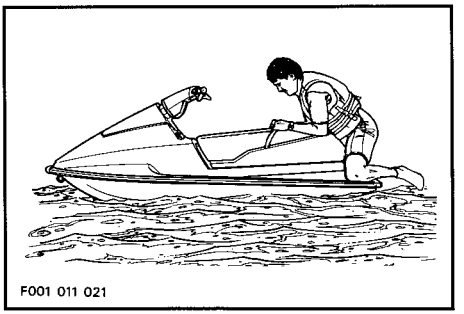
Grip the seat strap and pull yourself upward until your knee can reach the boarding pad.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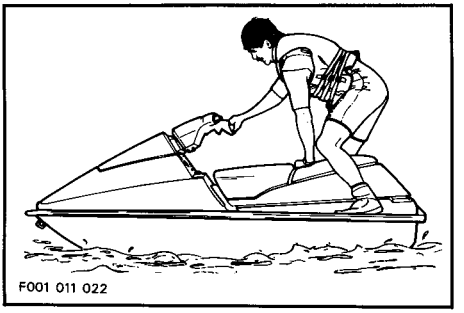
Bring your feet on the floorboard while maintaining balance using the handlebar.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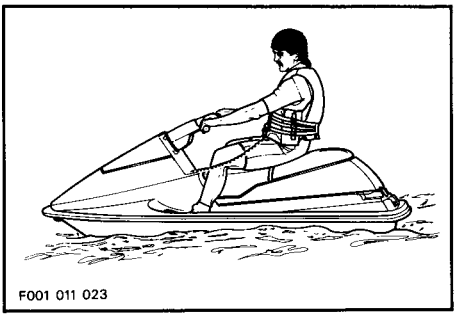
Sit astride the seat.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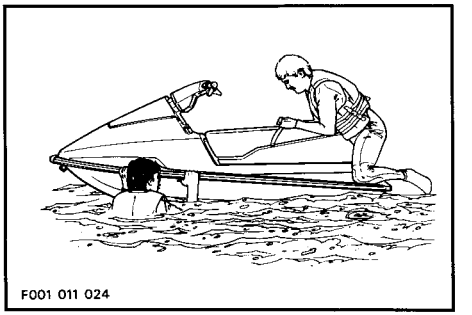
Attach the tether cord to the operator's PFD (Personal Flotation Device) and snap the cap to the switch receptacle before starting the engine.

Start the engine.

Operator with a Passenger

The operator climbs on the watercraft the same way as explained previously.

In choppy water, the passenger while in the water, may maintain the watercraft's balance to help the operator while climbing aboard.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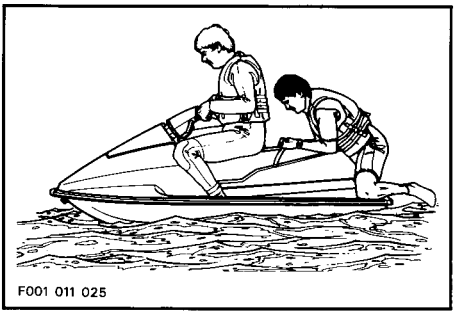
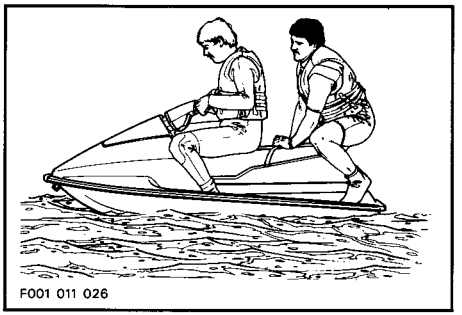
Attach the tether cord to the operator's PFD (Personal Flotation Device) and the snap cap to the switch before starting the engine.

The passenger then climbs on the watercraft while the operator maintains the balance.

◆ WARNING: Do not start engine until the passenger is properly seated.





Rough Water Operation

Avoid riding in rough water and/or adverse weather conditions.

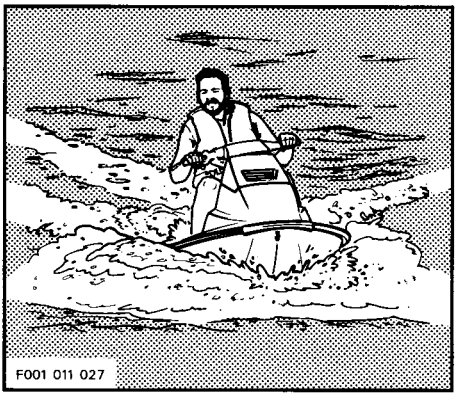
It is not recommended to operate the watercraft within break of waves.

If the watercraft is operated on rough water, the engine may have a misfiring sound. This is caused by a speed limiter which is intended to prevent the unloaded engine exceeding a predefined RPM.

◆ WARNING: Wave jumping is not recommended.

Docking

The watercraft is slowed by water drag. The stopping distance will vary depending on the watercraft mass, carrying weight, water surface condition, presence and direction of wind and current.



The operator should experiment to familiarize himself with the stopping distance under different conditions.

Ensure no craft, swimmer, underwater, near-surface or surface obstacles are nearby.

Release the throttle a sufficient distance before the expected landing area thus having the water resistance slowing the watercraft. Remembering no directional control is available with the throttle closed.

Do not stop engine until the watercraft is completely stopped (except when beaching).

Reduce speed when approaching a dock then stop the engine just before coming alongside.

◆ WARNING: No directional control is available when the throttle is closed or engine is stopped.

Beaching

Proceed the same way as for docking except for the following:

Come slowly to the beach and stop the engine when reaching about 18 cm (7 in) of water.

▼ CAUTION: The engine should be stopped before less than 18 cm (7 in) of water be underneath the hull. Otherwise shells, sand or pebbles might be drawn up by the jet pump, damage impeller, components or clog cooling system as well as jamming. Do not run the watercraft to the shore.

As necessary, cooling system should be flushed before re-starting to remove sand accumulation which eventually might clog the water passages.

Get off the watercraft and pull it on the beach.

Stopping the Engine

To keep watercraft directional control, the engine should be running until the watercraft is stopped assuming at least 18 cm (7 in) of water be present underneath the hull.

To stop the engine, completely release throttle lever and pull tether cord.

◆ WARNING: Never leave the tether cord on an unattended watercraft.

POST-OPERATION CARE

General Care

Should any water be present in the hull, remove the drain plug and lean the watercraft to the rear in order to allow water to flow out.

Wipe up any remaining liquid in the engine compartment (bilge, engine, battery, etc) with clean dry rags (this is particularly important in salt water use).

Remove the watercraft from the water every day to prevent marine organisms from sticking to the hull.

Additional Care for Unclean Water or Salt Water

When the watercraft is operated in such conditions, additional care must be taken as described in the following lines.

Thoroughly rinse the watercraft (body, seat, etc) and the engine compartment (engine, components, battery, etc) with tap water.

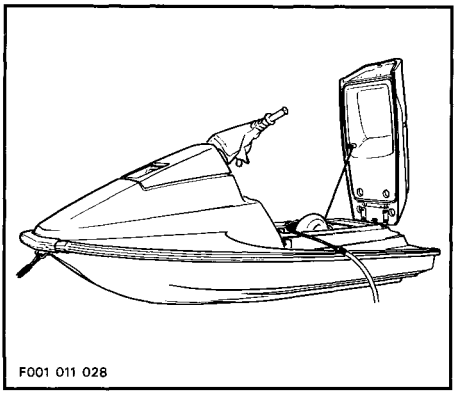
Cooling System Flushing

When the watercraft is operated in salt water, unclean water or beached in sandy or shell underwater ground, cooling system must be flushed with tap water to prevent salt, sand or dirt accumulation which eventually might clog water passages.

A convenient flush kit can permanently be installed on the engine to ease cooling system flushing. Refer to an authorized dealer for additional information and installation.

Proceed as follows:

1- Connect hoses as explained in the flush kit instruction sheet. **Do not open the water tap yet.**



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2- Start the engine **then** immediately open the water tap.

▼CAUTION: Always start the engine before opening the water tap. Otherwise, water will back flow through the tuned pipe into the engine and may cause damage to internal parts. Open water tap immediately after engine is started to prevent overheating.

3- Run the engine about 5 minutes at a fast idle.

4- Close the water tap **then** stop the engine.

▼CAUTION: Always close the water tap before stopping the engine. Otherwise, water will back flow through the tuned pipe into the engine and may cause damage to internal parts. After closing water tap, immediately stop the engine to prevent overheating.

5- Disconnect hose from engine.

6- Wipe off any residual water on the engine.

Anti-Corrosion Threatment

To prevent corrosion, spray a corrosion inhibitor (salt water resistant) such as SEA-DOO LUBE (P/N 293 600 006) or the equivalent all over metallic components in engine compartment.

Apply Jet-Lube SS-30 or similar anti-corrosion product (salt water resistant) on battery posts.

▼ CAUTION: Never leave rags or tools in the engine compartment or in the bilge.

Overheating engine

If the engine overheating beeper sounds, **stop engine immediately.**

Perform the "Jet Pump Water Intake and Impeller Cleaning" procedure.

If engine still overheats, refer to an authorized dealer for servicing.

Jet Pump Water Intake and Impeller Cleaning

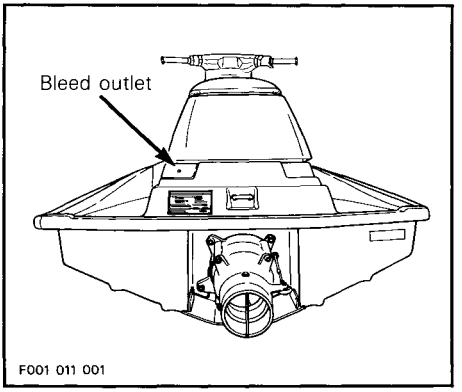
Weeds, shells or debris can get caught on the intake grill, drive shaft or impeller. A clogged water intake may cause two main troubles:

1- **Cavitation:** Engine speed is high but watercraft moves rather slowly due to reduced jet thrust. Jet pump components can be damaged.

2- **Overheating:** Since the jet pump operation controls the flow of water to cool the engine, a clogged intake might cause the engine to overheat and damage engine internal components.

The clogged area can be cleaned two different ways as follows:

In-water cleaning: Remove tether cord and rock the watercraft several times while repeatedly pressing starter button for short period. Most of the time, it gives satisfactory results letting the weeds fall from the intake area. Re-install tether cord on switch, start engine and make sure water flows out from bleed outlet and watercraft operates properly.

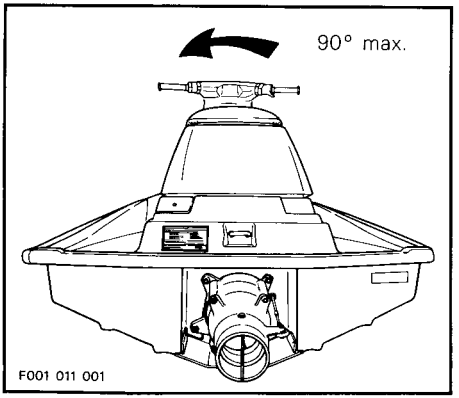


On-beach cleaning: Place a cardboard or a carpet beside the watercraft to prevent scratching when turning the watercraft for cleaning.

◆ WARNING: Always remove tether cord cap from switch to prevent accidental engine starting before cleaning the jet pump area. Engine must not be running for this operation. Do not press starter button when cleaning pump intake area.

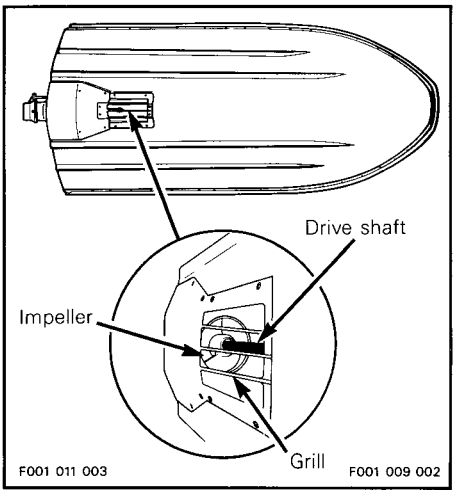
Rotate the watercraft **counter-clockwise** (seen from rear) to its left side for cleaning.

▼ CAUTION: Always turn the watercraft counter-clockwise (seen from rear). Otherwise cooling water could leak through the tuned pipe into the engine and cause engine damage.



Clean the water intake area. If the system is still clogged, refer to an authorized dealer for servicing.

▼ CAUTION: Inspect water intake grill for damage. Refer to an authorized dealer for repair as necessary.



▼ CAUTION: Avoid watercraft operation in weeded areas. In the event it is unavoidable, vary watercraft speed. Weeds tend to entangle more at steady speed and at slow speed.

Capsized Watercraft

The watercraft is designed so that if it is turned over, it should not remain capsized due to its self-righting capacity.

▼ CAUTION: In the event engine is water-flooded, it must have proper treatment to prevent damage to engine internal parts. Refer to an authorized dealer immediatly.

Submerged Watercraft

This watercraft is designed so that even filled with water, it does not sink.

If the watercraft is submerged and engine is water-flooded, it is strongly recommended that the watercraft be serviced by an authorized dealer immediately.

▼ CAUTION: A water-flooded engine must have proper treatment to prevent damage to engine internal parts. Refer to an authorized dealer immediatly.

Towing the Watercraft

In the event the watercraft becomes inoperative, tie a tow-rope in the bow (front) eyelet and have the watercraft towed to the shore at moderate speed.

Low-Battery Condition

◆ WARNING: Do not boost battery. Connecting jumping cables could produce a spark into the engine compartment and possibly cause an explosion if fuel or electrolyte vapors are present.

Following the recommended procedure in the "MAINTENANCE" section, remove the battery. Have it charged or replaced.

◆ **WARNING: Only perform procedures as detailed in this manual. It is recommended that an authorized dealer assistance be periodically obtained on other components/systems not covered in this manual. Unless otherwise specified, engine must not be running and the tether cord must be removed for all maintenance procedures.**

Lubrication

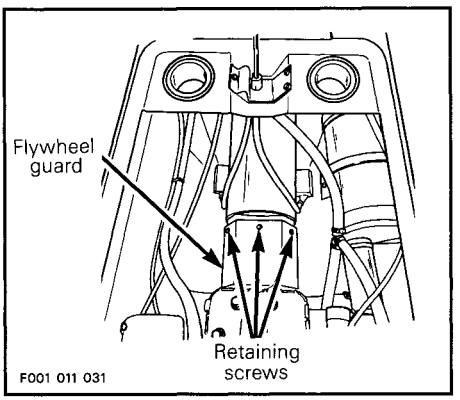
Flywheel Grease Fitting

Use lithium base grease for marine application and lubricate once a month. Proceed as follows:

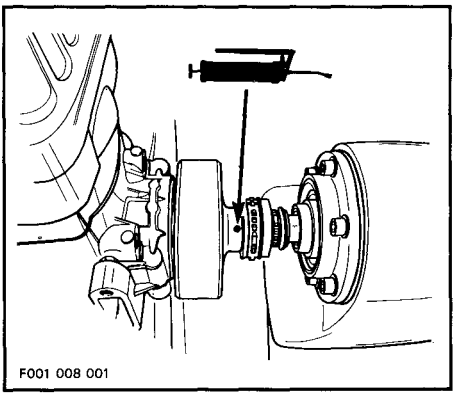
Lift seat to expose engine compartment.

◆ **WARNING: Always remove tether cord cap from its receptacle to prevent accidental engine starting before removing the flywheel guard. Do not press starter button while working in this area.**

Remove the retaining screws and pull flywheel guard.



Using a grease gun, carefully lubricate at grease fitting until drive shaft boot **is just beginning** to expand. From this point, immediately stop.



▼ **CAUTION: Immediatly stop lubricating as soon as boot begins to expand to prevent boot damage or slipping.**

Secure flywheel guard.

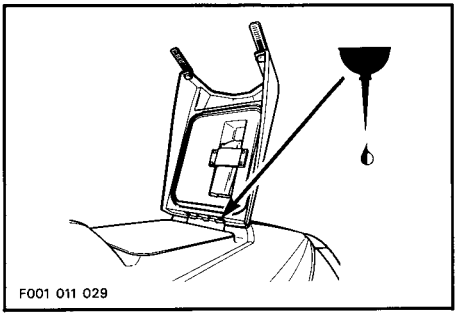
Anti-Corrosion Protection

Possible rust can be prevented on moving mechanisms. In salt water operation, lubricant should be applied once a month and every six months in fresh water use.

Lubricate the following items with spray oil such as LPS #3 or the equivalent.

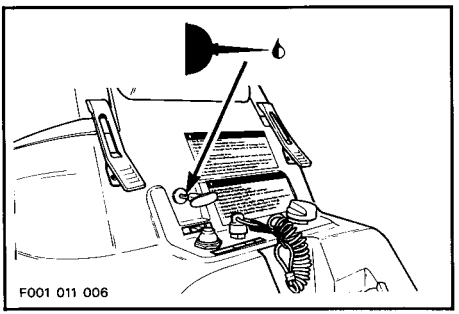
◯ **NOTE:** Throttle/choke and steering cables are pre-lubricated and sealed from the manufacturer. Therefore, do not lubricate them.

Hinge of Storage Compartment Cover

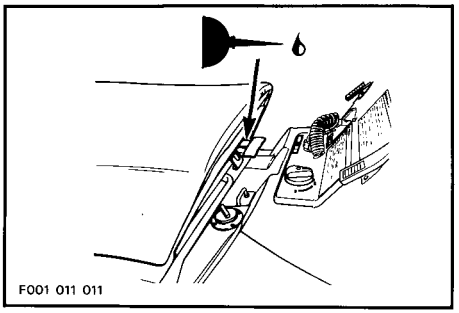


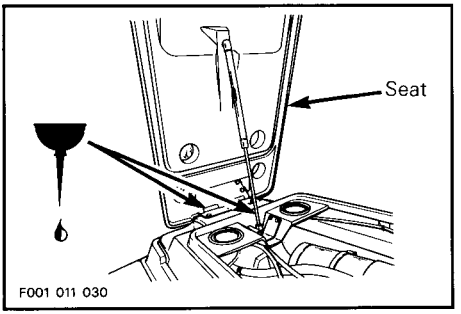
Choke Knob Lever

Pull choke knob and lubricate the metallic portion.



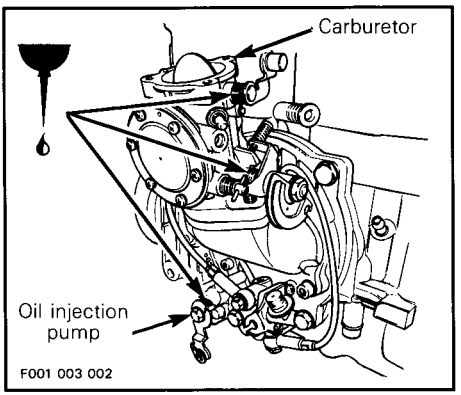
Seat opening mechanisms, hinge and seat strut cylinder.





Carburetor and Oil Injection Pump

Lubricate springs, shafts and exposed portion of cables.



Periodic Inspection

Routine maintenance is necessary for all mechanized products, and this watercraft is no exception. A periodic inspection contributes to the life span of the watercraft.

The following maintenance chart gives guidelines for regular servicing schedule to be performed by the operator or by an authorized dealer. The schedule can be adjusted according to operating conditions and use.

IMPORTANT: Schedule for watercraft rental operations may require greater frequency of inspection and maintenance.

Periodic Inspection Chart

DESCRIPTION	FREQUENCY				
	Monthly	3 Months	6 Months	Yearly	To be performed by
Lubrication	①		■		OPERATOR
Engine ignition timing				■	DEALER
Spark plugs, cleaning/adjustment		■			OPERATOR
Throttle/choke cables, inspection		■			OPERATOR
Flame arrester element, inspection/ cleaning			■		DEALER
Carburetor adjustment including choke/throttle cable adjustments				■	DEALER
Oil injection pump adjustment				■	DEALER
Fuel filter cleaning, oil filter inspection	■				OPERATOR
Oil filter, replacement				■	DEALER
Engine head nuts tightening				■	DEALER
Steering column wear/steering cable adjustment				■	DEALER ③
Fastener tightening (handlebar clamp nuts, carburetor mount nuts, engine mount nuts, exhaust system, etc)				■	DEALER
Muffler, battery and reservoirs attachments			■		OPERATOR
Fuel/oil lines, check-valves and hoses inspection			■		DEALER
Bilge system/water-trap drains, inspection			■		OPERATOR
Battery condition			■		DEALER
Engine overheating beeper/electrical connections			■		DEALER
Impeller shaft reservoir oil level		②	■		DEALER
Impeller condition and clearance		②	■		DEALER
Drive shaft boot/splines condition (both ends)		②	■		DEALER
Drive shaft, lubricate at flywheel grease fitting	■				OPERATOR
Water intake grill condition		②	■		DEALER
Hull condition				■	DEALER

NOTE: Some items are included in the " DAILY PRE-OPERATION CHECKS" and are not necessarily repeated in this chart.

① Every month in salt water use.

② These items have to be initially checked after three months. Thereafter, servicing to be made as specified in this chart.

③ Minor steering adjustment can be performed by the operator.

Spark Plug Cleaning and Adjustment

Spark plugs indicate the engine general condition and are easy to inspect. The tip condition of each spark plug should be checked for wear, cracks in porcelain, carbon or other deposits and color. A worn spark plug should be replaced by a new one. Abnormal deposits or tip color should be diagnosed by an authorized dealer.

◆ **WARNING: High tension voltage is generated in the spark plug wires when engine is cranked or running. Never touch wires in such conditions.**

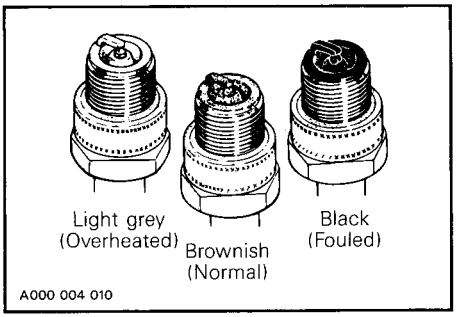
Remove spark plug and check condition.

The following gives guidelines about spark plug tip color:

— A brownish tip reflects ideal conditions.
  - Correct carburetor adjustments, spark plug heat range, etc.

— A black insulator tip indicates fouling, possibly caused by:
  - Carburetor idle speed mixture and/or high speed mixture too rich.
  - Incorrect oil pump adjustment (too rich).
  - Wrong spark plug type and/or heat range.
  - Excessive idling.
  - RPM limiter malfunction.

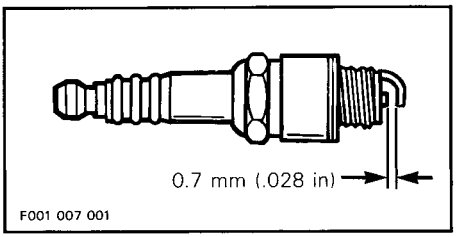
— A light grey insulator tip indicates a lean mixture, possibly caused by:
  - Carburetor high speed mixture too lean.
  - Wrong spark plug heat range.
  - Incorrect oil pump adjustment (too lean).
  - Leaking engine seal or gasket.



▼ **CAUTION: If spark plug condition is not ideal, contact an authorized dealer.**

◯ **NOTE:** Refer to "SPECIFICATIONS" section for recommended spark plug number.

Clean spark plug and adjust gap to 0.7 mm (.028 in) using a wire feeler gauge.



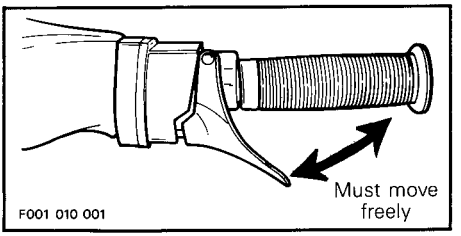
Reinstall spark plugs, properly tighten then reconnect wires.

▼ **CAUTION: When installing or removing spark plugs, be careful not to damage the porcelain insulator.**

Throttle and Choke Cable Inspection

Throttle Cable

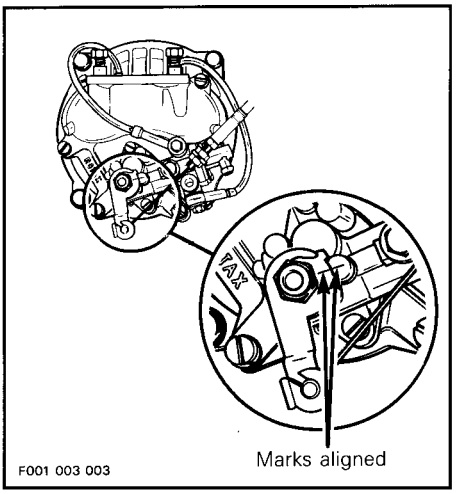
Depress and release the throttle lever several times. It must operate smoothly and return to its initial position without any hesitation. Refer to an authorized dealer if necessary.



Verification of Oil Injection Pump Alignment Marks

The throttle cable also activates the oil injection pump and therefore marks should be checked for alignment. Proper amount of oil delivered to the engine is critical. Any delay in the opening of the pump can result in serious engine damage.

Eliminate the throttle free-play by pressing the throttle lever until a slight resistance is felt then hold in place. The alignment marks on the pump body and lever must perfectly align. If not, do not attempt to adjust, contact an authorized dealer for adjustment.



Choke Cable inspection

Ensure it operates smoothly and without any hesitation from fully open to fully close. When the choke knob is fully pulled, choke must be fully applied. Refer to an authorized dealer if necessary.

Carburetor Adjustment

Carburetor ajustment is very important to allow good engine operation and therefore watercraft performance. Carburetor adjustments require technical knowledge and experience to have the correct mixture supplied to the engine. These critical adjustments must be performed by an authorized dealer once a year or more often if necessary.

▼ **CAUTION: Serious engine damage can occur with improper carburetor adjustment.**

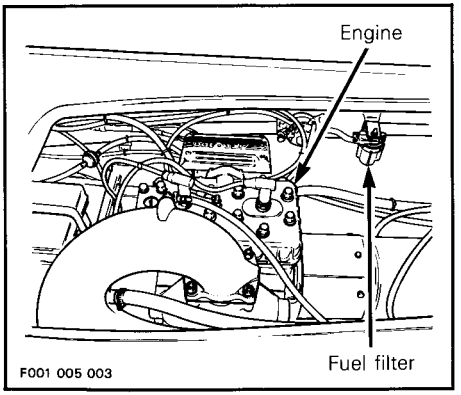
Fuel and Oil Filters

Fuel Filter

Turn the fuel cock to "OFF".

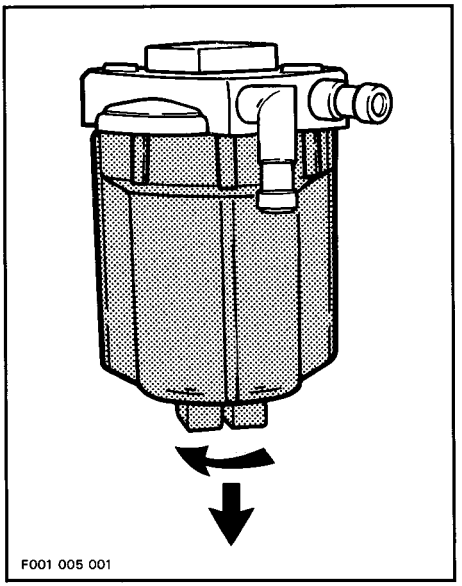
◆ **WARNING: The engine must not be running and fuel cock must be set to "OFF". Gasoline is flammable and explosive under certain conditions. Always work in a well ventilated area. Do not smoke or allow open flames or sparks in the vicinity.**

The fuel filter is located at the right hand side of the engine.



Before opening fuel filter, hold the bowl in a dry rag and proceed carefully to avoid gas spillage.

Unscrew the fuel filter bowl counter-clockwise then pull toward the bottom.



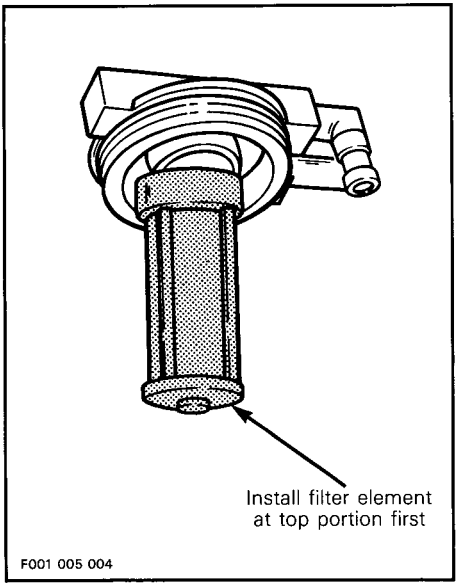
Pull the filter element toward the bottom.

Clean filter element and blow carefully with compressed air (low pressure) if available.

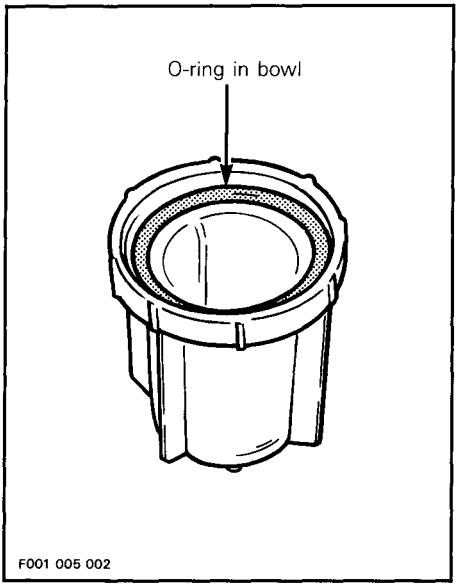
Be careful not to have filter components falling in water or sand.

Replace filter element if permanently clogged or damaged.

Install the filter element first in the top portion.



Inspect O-ring for damage, replace if necessary. Ensure the O-ring is well positioned into the filter bowl.



Install filter bowl and firmly hand tighten.

Temporarily turn the fuel cock to "ON" and check for leaks.

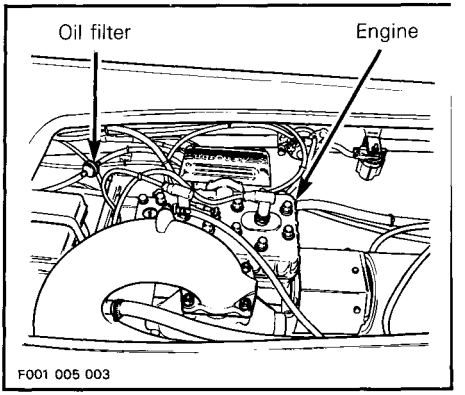
◆ **WARNING: Ensure that there is no leak from the fuel filter. Wipe off any gas spillage.**

◯ **NOTE:** Should any water be found in the fuel tank, refer to an authorized dealer for servicing.

Return the fuel cock to "OFF".

Oil Filter Inspection

The in-line oil filter is located close to the engine.



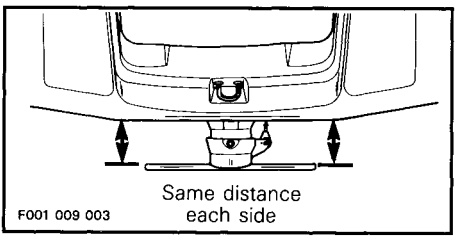
Visually inspect the oil filter at least once a month. Ensure that it is free of water, clean and no foreign particles are present, if so, refer to an authorized dealer for replacement.

▼ **CAUTION: An obstructed injection oil filter will cause oil starvation resulting in serious engine damage.**

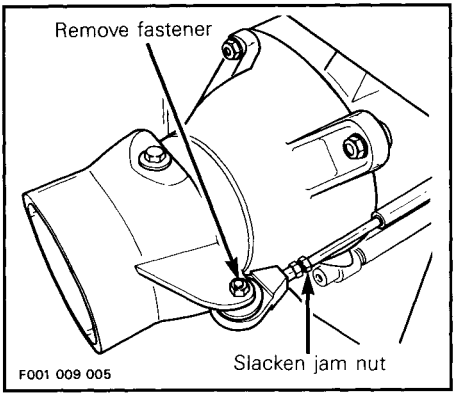
Steering/Jet Pump Nozzle Adjustment

When the handlebar is aimed in straight ahead position, the jet pump nozzle should be in the same direction to allow the watercraft running in straight line.

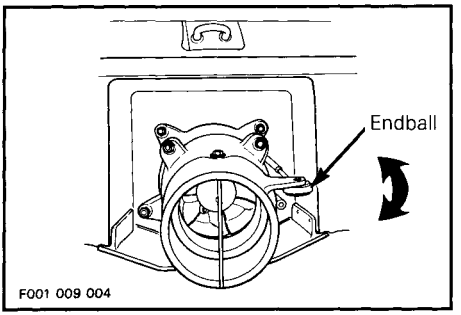
To perform a minor adjustment, place the handlebar in straight ahead position and check the jet pump nozzle with a straight edge on its end. The straight edge should be parallel to the hull rear end. The same distance should be read each side of the nozzle.



To adjust, slacken the jam nut and remove nut and screw from the steering cable endball at the nozzle.



Turn the endball accordingly to have the nozzle properly oriented.



Secure the endball and tighten the jam nut. Ensure not to overtighten the endball fasteners.

◆ **WARNING: Ensure the handlebar/ jet pump nozzle operate freely.**

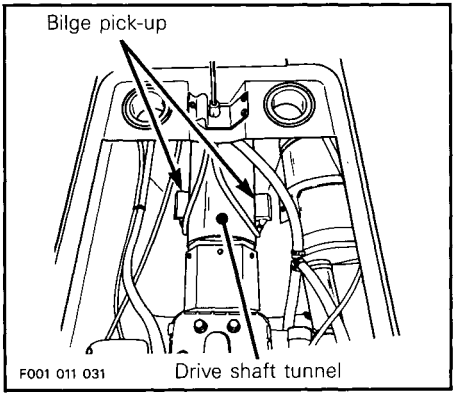
◯ **NOTE:** If insufficient threads are available on the steering cable, refer to an authorized dealer.

Steering column wear should be inspected once a year by an authorized dealer.

Bilge Draining Pick-Ups and Water-Trap Drains

Bilge Draining Pick-Ups

They are located each side of the drive shaft tunnel.

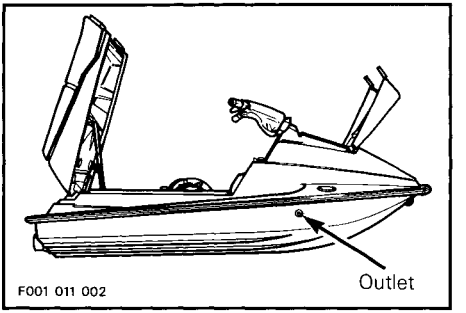


This watercraft features a vacuum-driven syphon. Two pick-ups use a low pressure area in the jet pump to siphon the water out of the bilge.

Inspect each pick-up screen for obstructions, clean as necessary.

Water-Trap Drains

Check for possible obstructions at drain outlets each side of the hull at the front.



Fuse Holder

Electrical system is protected with a fuse. If starter does not operate, check fuse condition. The fuse holder is located in the electrical box over the battery. Unhook electrical box strap then pull cover to expose fuse holder.

Pull apart fuse holder to expose the fuse. Replace the fuse by one of the same rating. Make sure to properly close the fuse holder.

NOTE: Refer to "SPECIFICATIONS" section for recommended fuse rating.

WARNING: If any water is found in the electrical box, immediately refer to an authorized dealer before operating the watercraft.

Carefully check retaining strap of electrical box for cracks and damage. Replace as necessary.

Properly close electrical box making sure its seal is well positioned. Secure with the rubber strap.

Battery

WARNING: For any battery maintenance, the battery must be removed from the watercraft.

Battery Removal

Proceed as follows:

1- Remove nuts from battery retaining rods.

2- Remove electrical box from top of battery.

3- Disconnect the **black** negative cable **first**.

WARNING: Always disconnect battery cables exactly in the specified order, black negative cable first. Electrolyte or fuel vapors can be present in the engine compartment and a spark might ignite them and possibly cause personal injuries.

4- **Then** disconnect the **red** cable last.

5- Remove the vent tube from the battery.

6- Remove battery from the watercraft being carefull not to have it leaned so that electrolyte can flow out of vent fitting.

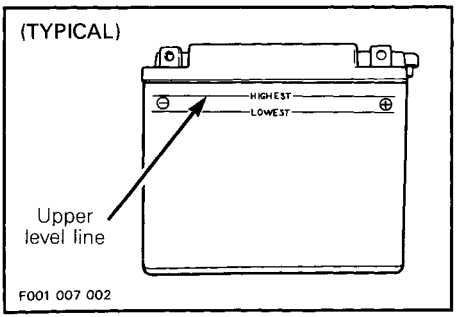
CAUTION: Should any electrolyte spillage occur, immediately wipe it off to prevent damage to watercraft components.

WARNING: Electrolyte is poisonous, dangerous and explosive. It contains sulfuric acid and can cause severe burns. Avoid contact with eyes, skin and clothing. Read and observe battery instructions found in other sections of this manual.

Battery Maintenance

WARNING: Battery must be kept in good condition. Without battery, the watercraft can not be started. Inspect battery electrolyte level regularly. Have its condition checked by an authorized dealer every three months.

Check electrolyte level when performing the "DAILY PRE-OPERATION CHECKS". It should be maintained at the upper level line of the battery casing.



Add distilled water as necessary.

Battery posts and connections must be free of corrosion. If cleaning is necessary, remove corrosion with a stiff wire brush then clean with a solution of baking soda. Rinse with clear tap water and dry well.

▼ CAUTION: Do not allow cleaning solution to enter the battery. It will destroy the chemical properties of the electrolyte.

Fully charge the battery at a maximum rate of 2.0 Amperes.

◆ WARNING: Gases given off by a battery being charged are highly explosive. Always charge in a well ventilated area. Keep battery away from sparks, cigarettes or open flames. Avoid skin contact with electrolyte.

◯ NOTE: If the battery is not to be used for a month or more, refer to "STORAGE" section for proper maintenance.

Battery Installation

◆ WARNING: Always connect battery cables exactly in the specified order, red positive cable first. Electrolyte or fuel vapors may be present in the engine compartment and a spark might ignite them producing an explosion and possibly cause personal injuries.

Proceed as follows:

1- Install battery in its emplacement.

2- Secure vent tube to the battery. Ensure vent tube is not kinked or obstructed.

▼ CAUTION: Battery vent tube must be free, open and securely installed. If not, it will restrict ventilation and create gas accumulation that might result in an explosion. Avoid skin contact with electrolyte.

3- Connect **red** positive cable **first**.

4- **Then** connect **black** negative cable last.

5- Apply anti-corrosion product (salt water resistant) such as Jet-Lube SS-30 or the equivalent on battery posts.

6- Install the electrical box over the battery then properly tighten nuts of retaining rods.

General Inspection and Care

Inspection

Check engine compartment for fuel and oil injection systems for leaks. Also check battery vent tube for electrolyte leaks. Ensure all hose clips/clamps are properly secured and no hose is cracked, kinked or presenting any other damage.

◆ WARNING: If any leak is found, do not start the engine and have the watercraft serviced by an authorized dealer. Failure to correct a leak might lead to an explosion.

Inspect muffler, battery and reservoir attachements. Check electrical connections for corrosion.

Inspect hull and jet pump water intake grill for damage. Replace or have damaged parts repaired. It is recommended that an authorized dealer annually inspect the hull condition.

Care

Twice a year, the bilge should be cleaned with hot water and detergent or bilge cleaner to remove any possible fuel/oil/electrolyte deposits.

Occasionnally, wash the body with hot water and soap (only use mild detergent). Remove any marine organisms from engine and/or hull. Apply non-abrasive wax such as silicon wax. Protect the seat with vinyl protectant such as Armor All or equivalent.

▼ CAUTION: Never clean apparent fiberglass and plastic parts with strong detergent, degreasing agent, paint thinner, acetone etc.

◆ WARNING: Always turn the fuel cock to "OFF" when transporting or storing the watercraft.

Transportation

Tie the watercraft to both bow and stern (front/rear) eyelets so that it is firmly retained on the trailer. Use additional cables if necessary.

▼ CAUTION: Do not route ropes or tie-downs over the seat as they could produce permanent damage. Wrap ropes or tie-downs with rags or similar protectors where they can touch the watercraft body.

A tarpaulin should cover the watercraft, particularly before driving on dirt roads, to prevent dirt entry through the air intake opening and clogging the water-trap drains.

Observe trailering safety precautions.

Storage

It is during winter or when the watercraft is not to be in use for prolonged time that a proper storage is a necessity. Storage during long period of inactivity consist of checking and replacing missing, broken or worn parts.

Proper lubrication and treatment should be performed to insure that parts do not become rusted; cleaning or treating items such as carburetor to prevent gum and varnish formation inside the carburetor and in general, preparing the watercraft so that when the time comes to use the watercraft again, it will be in top condition.

It is recommended that the watercraft be serviced by an authorized dealer for storage but the following operations can be performed by the operator with a minimum of tools.

Fuel System

Siphon all gas from the fuel tank then run the engine out of gas to dry the carburetor out.

▼ CAUTION: The watercraft must be anchored or have the flush kit installed and supplying water to prevent engine overheating.

◆ WARNING: Remove fuel tank cap slowly. Fuel may be under pressure and be sprayed. Gasoline is flammable and explosive under certain conditions. Always work in a well ventilated area. Do not smoke or allow open flames or sparks in the vicinity. Always wipe off any gasoline spillage from the watercraft.

Cooling System Flushing

It is essential to have the cooling system free of salt, sand or dirt to prevent corrosion or clogging.

Refer to the "POST-OPERATION CARE" section under "Cooling System Flushing" and follow the specified procedure.

Engine Internal Lubrication

Engine internal parts must be lubricated to protect them from possible rust formation during the storage period. Proceed as follows:

▼ CAUTION: The watercraft must be anchored or have the flush kit connected and supplying water to prevent engine overheating.

1- Start the engine, warm it up then bring it at a fast idle.

2- Spray SEA-DOO LUBE (P/N 293 600 006) through the flame arrester opening until the engine dies.

NOTE: Refer to an authorized dealer for SEA-DOO LUBE.

WARNING: Perform this operation in a well ventilated area.

3- Remove both spark plugs and spray SEA-DOO LUBE into each cylinder.

4- Crank the engine a few turns to distribute the oil on cylinder wall.

5- Apply anti-seize lubricant on spark plug threads then reinstall them.

CAUTION: Do not run the engine during the storage period.

Battery

Refering to the "MAINTENANCE" section under "Battery", remove and clean the battery. Apply anti-corrosion product such as Jet-Lube SS-30 or the equivalent for marine products (salt water resistant), on battery posts and cables connectors.

Add distilled water if necessary then give the battery a full charge at a maximum rate of 2 Amperes.

Store the battery on a shelf in a dry cool place away from sun rays.

To prevent battery sulphating and discharging, have it charged every month.

General Inspection and Care

Refer to "MAINTENANCE" section under "General Inspection and Care" and follow described procedures. Clean and treat seat and body. Clean the bilge and spray anti-corrosion product such as SEA-DOO LUBE (P/N 293 600 006) or equivalent for marine products (salt water resistant), on the engine and components as specified in the "POST-OPERATION CARE" section.

If for some reason the watercraft is to be stored outside, it is necessary to cover it with an opaque tarpaulin to prevent sun rays and grime affecting the plastic components, watercraft finish as well as preventing dust accumulation.

CAUTION: The watercraft must never be left in water for storage.

Pre-season Preparation

Here is a suggested chart to follow. Notice that some operation should be performed by an authorized dealer as technical skills and special tools are required.

WARNING: Observe all Warnings and Cautions mentioned throughout this manual which are pertinent to the item being checked. When component conditions seem less than satisfactory, replace with genuine BOMBARDIER parts or approved equivalents.

Pre-Season Preparation Chart

OPERATIONS	To be performed by
Lubrication	OPERATOR
Battery condition/charging and reinstallation	OPERATOR
Spark plugs replacement (new ones) ①	OPERATOR
Impeller shaft reservoir oil replacement	DEALER
Propulsion system inspection	DEALER
New oil filter installation and bleeding	DEALER
Oil injection tank filling	OPERATOR
Flame arrester cleaning/inspection	DEALER
Fuel filter cleaning	OPERATOR
Throttle/choke cables inspection/adjustment	DEALER
Oil injection pump adjustment	DEALER
Engine ignition timing	DEALER
Carburetor adjustment	DEALER
Steering column play/steering cable adjustment	DEALER
Water-trap drains/bilge lines/pick-ups inspection (animals nest)	DEALER
Cooling system inlet/outlet hoses (animals nest), engine overheating beeper	DEALER
General inspection (hull, check valves, leaks, fasteners, attachements)	DEALER
Fire extinguisher condition	OPERATOR

① Before installing new spark plugs, it is suggested to burn the excess SEA-DOO LUBE by starting the engine using the old spark plugs.

◆ **WARNING: Only perform this operation in a well ventilated area. Flush kit must be installed or watercraft must be in water to cool engine.**

TROUBLESHOOTING

The following chart is provided to help in diagnosing the probable source of simple troubles. Many problems can be quickly solved by the operator but other complicated ones require skilled mechanical technicians. In such cases, refer to an authorized dealer for servicing.

ENGINE WILL NOT START

OTHER OBSERVATION	POSSIBLE CAUSE	REMEDY
Engine does not turn over	• Fuse burnt out	Check wiring then replace fuse
	• Battery discharged	Charge/replace
	• Battery connections, corroded/ loose	Clean and tighten
	• Water in engine	Refer to an authorized dealer
	• Starter or solenoid	Refer to an authorized dealer
	• Seized engine	Refer to an authorized dealer
Engine slowly turns	• Discharged or weak battery	Charge/replace (have it checked)
Engine turns over	• Tether cord removed	Install cap over switch
	• Fuel tank, empty or water-contaminated	Refill. Siphon & fill with fresh gas
	• Fuel filter, clogged or water-contaminated	Clean
	• Flooded engine:	Replace
	— Fouled/defective spark plugs	
	— Misuse of choke	Use only with cold engine. Clean/ replace spark plugs
	• Water in engine	Refer to an authorized dealer
	• Carburetion/ignition	Refer to an authorized dealer

ENGINE MISFIRES, RUNS IRREGULARLY

OTHER OBSERVATION	POSSIBLE CAUSE	REMEDY
Weak spark	• Fouled/defective/ worn spark plugs	Clean/verify spark plug and heat range. Replace as required
	• Faulty RPM limiter	Refer to an authorized dealer
	• Too much oil supplied in engine	Improper oil pump adjustment, refer to an authorized dealer
Lean fuel mixture	• Fuel: Level too low, stale or water-contaminated	Siphon and/or refill
	• Fuel filter, clogged or water-contaminated	Clean
	• Carburetor adjustment	Refer to an authorized dealer
Rich fuel mixture (high fuel consumption)	• Partially closed choke	Refer to an authorized dealer
	• Flame arrestor dirty/clogged	Clean or replace
	• Carburator adjustment	Refer to an authorized dealer

ENGINE OVERHEATS

OTHER OBSERVATION	POSSIBLE CAUSE	REMEDY
Overheating beeper sounds	• Clogged jet pump water intake • Cooling system clogged • Carburetor adjustment • Incorrect type of gas or oil • Ignition timing	Clean Refer to an authorized dealer Refer to an authorized dealer Siphon and refill Refer to an authorized dealer

ENGINE CONTINUALLY BACKFIRES

OTHER OBSERVATION	POSSIBLE CAUSE	REMEDY
Weak spark	• Fouled/defective/ worn spark plugs	Clean/verify spark plug and heat range. Replace as required
Overheated engine	• See "ENGINE OVERHEATS"	
Ignition timing	• Incorrectly set	Refer to an authorized dealer

ENGINE PINGING OR KNOCKING

OTHER OBSERVATION	POSSIBLE CAUSE	REMEDY
	• Poor quality gasoline/low octane • Spark plug heat range too high • Ignition timing too advanced	Use well known quality gasoline Use recommended spark plug number Refer to an authorized dealer

ENGINE LACKS ACCELERATION OR POWER

OTHER OBSERVATION	POSSIBLE CAUSE	REMEDY
	• Weak spark/incorrect fuel mixture • Throttle does not reach wide open position • Exhaust system clogged • Water in gas or injection oil	Refer to "ENGINE MISFIRES..." Refer to an authorized dealer Refer to an authorized dealer Siphon and replace
Overheated engine	• See "ENGINE OVERHEATS"	

ENGINE RUNS TOO FAST

OTHER OBSERVATION	POSSIBLE CAUSE	REMEDY
	• Faulty engine RPM limiter	Refer to an authorized dealer
Watercraft can not reach top speed	• Cavitation, jet pump water intake clogged • Cavitation, damaged/worn impeller	Clean Refer to an authorized dealer

ABNORMAL NOISE FROM PROPULSION SYSTEM

OTHER OBSERVATION	POSSIBLE CAUSE	REMEDY
	• Weeds or debris jammed around impeller • Lack of oil in impeller shaft reservoir/damaged bearing	Clean and check for damage Refer to an authorized dealer

SPECIFICATIONS

ENGINE		
Engine Type		Rotax 2-stoke, type 587
Induction Type		Rotary valve
Exhaust System		Water cooled/water injected
Lubrication	Type	Oil injection
	Oil type	SEA-DOO INJECTION OIL
Number of Cylinders		2
Bore		76.0 mm (2.992 in)
Stroke		64.0 mm (2.520 in)
Displacement		580 cm^3 (35.3 in^3)
Compression Ratio (Uncorrected)		11.5 : 1
Maximum Power (approximately)		41 kW (56 HP) @ 5750 RPM
Maximum Torque (approximately)		67 N•m (49 lbf•ft) @ 5500 RPM
RPM Limiter Operation @		6800 RPM
COOLING		
Type		Water cooled, total loss type. Direct flow from propulsion unit
Overheating Beeper, Switch On @		96-99 °C (205-210 °F)
ELECTRICAL		
Magneto Generator Output		160 W @ 5500 RPM
Ignition System Type		Capacitor Discharge Ignition (Breakerless)
Spark Plug	Make and Type	Champion, RN4C or RN7YC
	Gap	0.7 mm (.028 in)
Starting System		Electric starter
Ignition Timing	BTDC	2.18 mm (.086 in)
	Note	Checked with engine cold. Marks must align @ 6000 RPM
Battery		12 V, 20 A
Starting System Fuse		8 A
CARBURATION		
Gas Type		Regular unleaded
Carburetor	Type and Number	Diaphragm type BN-38-34
Carburetor Adjustment	Low-speed Mixture Screw	~ 1 1/2 - 2 turns
	Idle Speed	1200 RPM

PROPULSION		
Propulsion System		Bombardier Formula Pump
Jet Pump Type		Axial flow, single stage
Impeller Rotation (seen from rear)		Counter-clockwise
Transmission		Direct drive
Coupling Type		Crown Splines
Impeller Shaft Reservoir, Oil Type		Motor oil 30W or equivalent marine
Pivoting Angle of Direction (nozzle)		~ 24°
Minimum Required Water Level for Jet Pump		18 cm (7 in)
Impeller Diameter		140 mm (5 1/2 in)
PERFORMANCE		
Cruising Range at Full Throttle	Fuel Tank without Reserve	~ 2 hours
	Fuel Tank Reserve	~ 30 minutes
Maximum Speed ①		64 Kmh (40 mph) (35 knots)
DIMENSIONS		
Number of Passengers		1 operator and 1 passenger
Length, Overall		244 cm (96 in)
Width, Overall		105 cm (41.5 in)
Height, Overall		92 cm (36.2 in)
Mass		166 kg (365 lb)
Load Limit		1 operator and 1 passenger
Hull Material		Composite (fiberglass)
CAPACITIES		
Fuel Tank		29.1 L (7.7 US gal)
Impeller Shaft Reservoir	Capacity	80 mL (2.7 US oz)
	Oil level	To lower plug
Injection Oil Reservoir		2.8 L (95 US fl oz)

① Top speed may vary depending on operator and passenger weight, water conditions, wind, current, altitude, etc.

BOMBARDIER INC. reserves the right to make changes in design and specifications and/or to make additions to, or improvements in its products whithout imposing any obligation upon itself to install them on its products previously manufactured.

SI* METRIC INFORMATION GUIDE

BASE UNITS

DESCRIPTION	UNIT	SYMBOL
length	meter	m
mass	kilogram	kg
force	Newton	N
liquid	liter	L
temperature	Celsius	°C
pressure	kilopascal	kPa
torque	Newton•meter	N•m
land velocity	kilometer per hour	km/h
navigation velocity	knot	kn

PREFIXES

PREFIX	SYMBOL	MEANING	VALUE
kilo	k	one thousand	1000
centi	c	one hundredth of	0.01
milli	m	one thousandth of	0.001
micro	μ	one millionth of	0.000 001

CONVERSION FACTORS

TO CONVERT	TO ①	MULTIPLY BY
in	mm	25.4
in	cm	2.54
in^2	cm^2	6.45
in^3	cm^3	16.39
ft	m	0.3
oz	g	28.35
lb	kg	0.45
lbf	N	4.4
lbf•**in**	N•m	0.11
lbf•ft	N•m	1.36
lbf•ft	lbf•**in**	12
PSI	kPa	6.89
imp. oz	U.S. oz	0.96
imp. oz	mL	28.41
imp. gal.	U.S. gal.	1.2
imp. gal.	L	4.55
U.S. oz	mL	29.57
U.S. gal.	L	3.79
knot	MPH	1.15
MPH	km/h	1.61
Fahrenheit	Celsius	(°F − 32) × 5/9
Celsius	Fahrenheit	(°C × 9/5) + 32

* The international system of units abbreviates "SI" in all languages.

① To obtain the reverse sequence, divide by the given factor. To convert "milimiters" to "inches", divide by 25.4.

CHANGE OF ADDRESS OR OWNERSHIP

Any change in address or ownership should be brought to the attention of the manufacturer by completing and sending out the card supplied below.

NOTICE TO ALL NEW OWNERS: Make sure to receive the warranty registration card from the previous owner at the time the ownership is transferred. Also enclose a photocopy of this registration card when informing of a change of ownership.

CHANGE OF ADDRESS

Watercraft Model No _____

Hull Identification Number (H.I.N.) _____

Engine Identification Number (E.I.N.) _____

OLD ADDRESS:

_____
NAME

_____
NO STREET APT.

_____
CITY STATE/PROVINCE ZIP/POSTAL CODE

NEW ADDRESS:

_____
NAME

_____
NO STREET APT.

_____
CITY STATE/PROVINCE ZIP/POSTAL CODE

CHANGE OF OWNERSHIP

Watercraft Model No _____

Hull Identification Number (H.I.N.) _____

Engine Identification Number (E.I.N.) _____

The watercraft is transferred

FROM:

_____
NAME

_____
NO STREET APT.

_____
CITY STATE/PROVINCE ZIP/POSTAL CODE

TO:

_____
NAME

_____
NO STREET APT.

_____
CITY STATE/PROVINCE ZIP/POSTAL CODE

AFFIX
PROPER
POSTAGE

BOMBARDIER INC.
WARRANTY DEPARTMENT
VALCOURT (QUEBEC)
CANADA J0E 2L0

AFFIX
PROPER
POSTAGE

BOMBARDIER INC.
WARRANTY DEPARTMENT
VALCOURT (QUEBEC)
CANADA J0E 2L0