

## **SAFETY WARNING**

Disregarding any of the safety precautions and instructions contained in this *Operator's Guide*, the *Safety Handbook* and on *Warning Labels* could cause injury, including the possibility of death.

This *Operator's Guide*, the *Safety Handbook* and video should remain with the watercraft at the time of resale.

AFTER SALES SERVICE BOMBARDIER INC. VALCOURT (QUÉBEC) CANADA JOE 21.0



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SEA-DOO® Bombardier Lube® Sea-Doo Jet Pump Synthetic Oil Sea-Doo Synthetic Grease

Gelcote® is a trademark of Gelcote International

## Doin'it on your new Sea-Doo Watercraft

Congratulations, you are now the proud owner of a Sea-Doo personal watercraft. Whether you are an experienced boater or are new to the sport of boating, we ask you to take the time to view the videocassette provided with the watercraft, to read this *Operator Guide, the safety handbook* and familiarize yourself with the contents. These Guides contain pertinent information which, if followed, will provide you with the necessary knowledge to help you fully enjoy the pleasures of this craft.

We strongly recommend that any watercraft operator complete a safety boating course. Check with your local Coast Guard or Power and Sail Squadron in your area for course availability. More serious boaters may want to obtain "Chapman Piloting" by Elbert S. Maloney, available at most book stores.

When introducing your family or friends to the sport, be sure they fully understand the controls and operation of the watercraft and the importance of courteous, responsible riding.

Each operator has a responsibility to ensure the passenger safety and the safety of other water users. Please follow all safety instruction and drive with care.

We encourage you to have an Annual Safety Inspection of your watercraft. Please, contact your dealer for further details.

Finally, we urge you to visit your dealer regularly for regular and safety maintenance as well as any watercraft accessories you may require.

Have fun and .....Bon Voyage.

## TABLE OF CONTENTS \_\_\_\_\_

FOREWORD	4
♦ SAFETY WARNING	5
LIST OF DISTRIBUTORS	7
THE 1996 BOMBARDIER WATERCRAFT	•
(NORTH AMERICAN) LIMITED WARRANTY	8
WARRANTY QUESTIONS AND ANSWERS	
REGISTRATION NUMBER LOCATION	12
LOCATION OF THE IMPORTANT LABELS	14
WATERCRAFT IDENTIFICATION	18
Hull Identification Number	18
Engine Identification Number	18
COMPONENT FUNCTIONS	19
FUEL AND LUBRICATION	35
Fueling Procedure	
Recommended Fuel	
Recommended Oil	
Oil Injection System	
BREAK-IN PERIOD	37
Engine	
10-Hour Inspection	37
PRE-OPERATION CHECKS	39
Hull	
Jet Pump Water Intake	39 40
Bilge Battery	40
Fuel and Oil Reservoirs	40
Engine Compartment	40
Fire Extinguisher	40
Steering and Throttle Systems	40
Reverse System (GTS and GTI Models)	40
Variable Trim System (SPX and XP Models)	40
Safety Lanyard and Engine Start / Stop Button	40
Clothing	40
OPERATING INSTRUCTIONS	41
Principle of Operation	
Boarding from a Dock or in Shallow Water	
Starting the Engine	
Obstacles	
Boarding in Deep Water	46

	Rough / Choppy Water Operation	
	Crossing WavesStopping / Docking	47 47
,	Beaching	48
	Shutting Off the Engine	48
POS	T-OPERATION CARE	49
	General CareAdditional Care for Foul Water or Salt Water	49 49
SPE	CIAL PROCEDURES	53
	Jet Pump Water Intake and Impeller Cleaning	53 54
-	Submerged Watercraft	54 54 54
	NTENANCE	
	Lubrication Periodic Inspection Periodic Inspection Chart Throttle and Choke Cable Inspection	55 57 58 59
	Carburetor Adjustment	59 59
1	Steering Alignment Reverse Gate Adjustment (GTS and GTI Models) VTS Adjustment (SPX and XP Models)	59 59 60
١	Water Tank Trap Drains (GTS and GTI Models)	60 61 61
	General Inspection and Care	63
;	TransportationStorage	64 64
	Pre-Season Preparation	67
	UBLESHOOTING	69
	CIFICATIONS	72
SI IV	IETRIC INFORMATION GUIDE	80
ACC	ESSORIES AND SERVICE PRODUCTS	81
ОТН	IER PUBLICATIONS AVAILABLE	84

## **FOREWORD**

The Operator's Guide and Safety Handbook have been prepared to acquaint the owner / operator or passenger (if applicable) of this personal watercraft with the various watercraft controls, maintenance and safe riding instructions. Each 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 Guide, or an authorized SEA-DOO dealer.

This Guide 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 and / or 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 and application of the information will promote its correct use.

The information and components / system descriptions contained in this Guide are correct at the 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 may not represent the full detail or exact shape of the parts which have the same or a similar function.

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

A *Shop Manual* can be obtained for complete service, maintenance and more repair information.

WARNING: The engine and the corresponding components identified in this guide should not be utilized on product(s) other than those they were designed for. Maintenance procedures and specified tightening torques must be strictly adhered to. Never attempt repairs unless the appropriate tools are available. These watercraft are designed with parts dimensioned in both the metric and the imperial systems. When replacing fasteners, make sure to use only those recommended by Bombardier Mismatched or incorrect fasteners could cause damage to the watercraft or possible personal injury.

## **◆ SAFETY WARNING**

- ◆ To fully appreciate the pleasures, enjoyment and excitement of boating there are some basic rules that MUST be observed and followed by any boater. Some rules may be new to you while others may be common sense or obvious, irrespective, we ask that you please take a few minutes of your time to read these safety instructions completely before you operate your craft. Failure to follow this safety information and safe boating rules could result in injury, including the possibility of death to you, your passenger(s), or other water users.
- Information in this Guide is limited. It is strongly recommended that you obtain further boating information from the local Coast Guard or Power Squadron. We further recommend you take a boating safety course. Check local and federal boating laws applicable to the waterways where you intend to use the craft. Learn the local rules of the road.
- Become completely familiar with the controls and operation of the craft before taking on a passenger(s) or embarking on a trip. If you have not had the opportunity to do so with your dealer, practice driving solo in a suitable area and feel the response of each control. Be fully familar with all controls before fully advancing the throttle.
- The performance of this craft may significantly exceed that of other craft you may have operated. Therefore, use of this craft by a novice or inexperienced operator is not recommended.
- Observe and follow all on-product warning labels and the content of this Guide.
- Operator and passenger(s) should wear suitable eye and body protection, as well as deck shoes or booties. Long hair or loose clothes should be securely attached to prevent snagging in the water intake.

- Coast Guard approved personal floatation devices (PFD) must be worn when riding the watercraft.
- Operation of this craft by a minor or disabled person is NOT recommended.
- Do not operate the craft after consuming alcohol or drugs.
- Always perform the pre-operation checks as specified in this Guide. This includes:
  - Attaching the safety lanyard.
  - Verification of throttle lever and steering movement.
  - Verification of start / stop button operation.
  - Oil and fuel levels.
  - Adequate water depth.
  - Required boating equipment. (Know how to use each).
- The operator and passenger(s) must be properly seated before starting or moving the craft.
- Wave or wake jumping is dangerous and in many regions illegal.
- Most boating accidents results from the failure of the operator to keep a lookout for other water users or other potential hazards. Keep a safe distance from other boat. Do not attempt to splash others with your wake. Do not ride on the surf line.
- To prevent accidental starting or unauthorized use, always detach the safety lanyard from the boat, especially during maintenance, cleaning of the intake grate, or when swimmers are nearby.
- Ensure that all passengers know how to reboard the craft from the water.
- Always have an observer while towing a skier.
- Know the waters in which the craft is to be operated. Current, tides, rapids, shallow water, hidden obstacles etc., can affect safe operation.

- When boating, apply the principle of 1/3 fuel to destination, 1/3 back and 1/3 reserve fuel supply.
- Maintain the craft and equipment in top condition at all times. Adhere to the prescribed maintenance schedules. Use a protective cover when not in use. After salt or foul water use, the craft should be thoroughly rinsed and protected from corrosion. If you suspect water ingestion into the engine, contact your dealer for proper servicing.
- The bilge must be kept clean of oil, water or other foreign materials. Do not carry spare fuel and inflammable liquids in any of the storage or engine compartments.
- Avoid adding on accessories, carrying equipment or passengers which may alter the craft's configuration or balance.
- Only perform servicing procedures which are detailed in this Guide. Further assistance or information can be obtained from your dealer. In many instances proper tools and training is required for certain servicing or repair procedures.
- Gasoline fumes are inflammable and explosive. Always adhere to the fueling procedure contained in this Guide and those given to you by the marina.
- Always keep in mind that as the throttle lever is released to idle position, less directional control is available. To turn the craft, both steering and throttle are necessary. This craft has the capability of turning more sharply than other boats, however, unless in an emergency, do not negotiate sharp, high speed turns.
- Like any other boat, this craft has no brake. Stopping distance will vary depending on initial speed, load, wind, and water conditions. Practice stopping and docking in a safe area to have an idea of how long it will take to stop the craft under varying conditions.

- Prolonged exposure to the sun, wind, etc., causes fatigue and may affect your reaction time.
- Do not overload the craft or take on more passengers than designated for the intended type of boating. Load and altitude will also affect craft performance.
- Riding with a passenger(s) makes the craft handle differently and requires greater skill.
- Proceed with caution and at very low speeds in shallow water. Grounding or abrupt stops may result, or debris may be picked up and be jettisoned rearward to people or property.
- As the "skipper" of a boat you are responsible for damage to other boats caused by the wake of your craft. Respect no wake zones.
- Respect the rights of other water users and the environment. Allow no one to throw refuse overboard.
- ◆ Do not operate the craft in inclement weather.
- This watercraft is not designed for night-time operation.
- Lifting the craft requires special equipment and experience. Do not attempt to lift the craft without such experience or equipment.
- Respect the safety and comfort of your passenger(s) and persons being towed on skis or other water toys.
- Always carry the regulatory required safety items on board. Check with local regulations or your dealer.
- Due to the close proximity of other racers, it is recommended that an approved personal watercraft helmet be used during racing events. Read and follow all instructions and warnings provided with the helmet.

Drive prudently and have fun.

## LIST OF DISTRIBUTORS

### **NORTH AMERICA**

U.S.A: BOMBARDIER CORPORATION

(Continental U.S.A. 7575 BOMBARDIER COURT

except Puerto Rico) P.O. BOX 8035 WAUSAU, WI 54402-8035

Phone: (715) 842-8886

CANADA BOMBARDIER INC.

Alberta SEA-DOO SERVICE DEPARTMENT

British Columbia VALCOURT, QUEBEC

Manitoba J0E 2L0

North West Territories Phone: (514) 532-2211

Ontario Quebec

Saskatchewan

Yukon

New-Bunswick **BELL-CHARLES R.**Newfoundland **B.O. DOW 1959** 

Nova Scotia P.O. BOX 1050
RIVERSIDE DRIVE

Prince Edward Island CORNER BROOKE, NFLD

A2H 6J3

Phone: (709) 634-3533

NORTHERN CANADA NORTH WEST COMPANY

77 MAIN STREET

WINNIPEG, MANITOBA

R3C 2R1

Phone: (204) 934-0881

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 service manager or owner of the SEA-DOO dealership.

To find the nearest authorized Sea-Doo dealer, dial: 1-800-882-2900.

# THE 1996 BOMBARDIER WATERCRAFT (NORTH AMERICAN) LIMITED WARRANTY

#### 1. WARRANTY COVERAGE PERIOD

BOMBARDIER INC. ("Bombardier"), as manufacturer, warrants FROM THE DATE OF DELIVERY TO THE FIRST CONSUMER that each 1996 SEA-DOO watercraft sold, as NEW and UNUSED and PREDELIVERED by an authorized North American SEA-DOO watercraft dealer, will be free from any defects in material and/or workmanship for a PERIOD of:

TWELVE (12) CONSECUTIVE MONTHS, for private use owners, or FOUR (4) CONSECUTIVE MONTHS for commercial use owners.

The Warranty Coverage Period on all genuine Bombardier accessories installed by an authorized SEA-DOO watercraft dealer at the time of delivery of the new and unused SEA-DOO watercraft, carry the same Warranty Coverage Period as the SEA-DOO watercraft.

#### 2. WHAT BOMBARDIER WILL DO

BOMBARDIER will repair or replace, at its option, all genuine BOMBARDIER part found defective in material and/ or workmanship, under normal use, maintenance and service, with a genuine BOMBARDIER part without charge for parts and labor, at any authorized SEA-DOO watercraft dealer during the Warranty Coverage Period.

#### 3. CONDITION TO HAVE WARRANTY WORK VALIDATED

Whenever warranty work is claimed, the customer must notify an authorized SEA-DOO watercraft dealer within two (2) days of the appearance of the defect in material and/or workmanship and present to the servicing authorized SEA-DOO watercraft dealer the SEA-DOO Warranty Registration Card or a proof of purchase of the NEW and UNUSED 1996 SEA-DOO watercraft. The customer must prior to completion of all warranty work sign the repair/work order. All parts replaced under warranty become the property of BOMBARDIER.

#### 4. EXCLUSIONS - ARE NOT WARRANTED

Normal wear and tear items;

Labor, parts and lubricant costs of all maintenance services:

Damage caused by failure to provide proper maintenance and/or storage, as described in the 1996 SEA-DOO watercraft Operator's Guide:

Damage resulting from improper repairs, modifications or use of non-approved parts or repairs done by a non-authorized SEA-DOO watercraft dealer:

Damage resulting from abuse, misuse, neglect, racing;

Damage resulting from accident, fire, theft, vandalism or any act of God;

Incidental or consequential damages, or damages of any kind as but not limited to towing charges, telephone calls or taxi;

Water damages caused by water ingestion and improper service or maintenance; and

Damage related to gel coat finish including but not limited to cosmetic gel coat finish, blisters or fiberglass delamination caused by blisters, crazing, spyder or hairline cracks.

#### 5. LIMITATIONS OF LIABILITY

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 GIVEN AND ACCEPTED IN LIEU OF ANY AND ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

Neither the distributor, any authorized SEA-DOO watercraft 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.

In no event shall BOMBARDIER be liable for special, consequential or incidental damages, including but not limited to loss of use and transportation costs. Some states or provinces do not allow the exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the above limitation or exclusion may not apply.

BOMBARDIER reserves the right to modify this warranty at any time, being understood that such modification will not alter the warranty conditions applicable to the SEA-DOO watercraft sold while this warranty is in effect.

#### 6. CONSUMER ASSISTANCE

- a) In the event of a controversy or a dispute arising in connection with this BOMBARDIER LIMITED WARRANTY, BOMBARDIER suggests that you try to resolve the issue at the dealership level. We recommend discussing the issue with the authorized dealer's service manager or owner.
- b) If further assistance is required, the DISTRIBUTOR's service department should be contacted in order to resolve the matter.
- c) If the issue has still not been resolved, please submit in writing your complaint to:

In Canada: In USA:

BOMBARDIER INC. SEA-DOO/SKI-DOO Division

Customer Assistance Center

Valcourt, Québec

CANADA JOE 2L0

Tel: 514-532-5000

BOMBARDIER CORPORATION

SEA-DOO/SKI-DOO Division
Customer Assistance Center

P.O. Box 8035

7575 Bombardier Court Wausau. WI 54402-8035

Tel: 715-848-4957

®BOMBARDIER INC.
SEA-DOO/SKI-DOO Division
June 1995

# 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.

The federal government requires each manufacturer and dealer to maintain a complete up-to-date list of all first purchasers in case of a safety-related defect and recall. This list is compiled from the warranty 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 the Change of Address Card in this book or, 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.

- 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 damage.
- Q. What is cavitation?
  - A. This phenomenon is caused by a part travelling at high speed in a fluid (ex.: an impeller in water). The heat / bubbles generated in some areas are enough to draw microscopic particles from the material. Cavitation will increase if there are scratches or dents in the housing / impeller or if the wear ring is worn.
- Q. Does warranty cover the jet drive system components?
  - A. Yes, if components replacement is not due to cavitation or normal wear. Ex.: The impeller has to be considered a wear item since tiny particles and sand contained in the water will eventually cause some wear. This situation occurs most often when the watercraft is driven in shallow water where rocks and debris can be drawn into the pump.

In order to extend the service life of the impeller housing, we have developed a replaceable wear ring around the impeller. It is made of plastic, therefore it may wear with use and should be replaced. This is a convenient feature and inexpensive to replace. This replacement is considered normal maintenance and not covered by warranty.

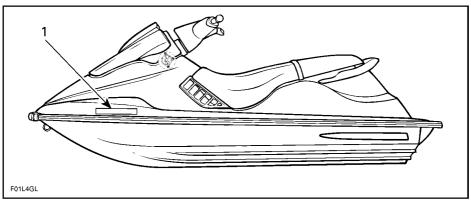
- Q. What are some examples of neglect or abuse?
  - A. These terms are general and overlap each other in areas. Specific examples include; the engine running out of oil, operating the watercraft with a broken or damaged part, which causes another part to fail and so on. If you have any specific questions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

- O. Does the warranty cover incidental costs such as transportation due to a failure?
  - A. No. The warranty is limited to the repair of the SEA-DOO watercraft itself.
- Q. May I perform any or all of the recommended maintenance shown in the *Operator's Guide* instead of having the dealer do them?
  - A. Yes, if you are a qualified mechanic and follow the procedures specified in the Operator's Guide and Shop Manual. We do recommend however that the critical adjustments to timing and carburetion be done by a SEA-DOO dealer.
- Q. Will the warranty be voided or cancelled if I do not operate or maintain my new SEA-DOO exactly as specified in the *Operator's Guide?* 
  - 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 Guide, that failure may not be covered under warranty.
- Q. What responsibility does my dealer have under this warranty?
  - 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 responsible for set-up, service and warranty repair work.

# REGISTRATION NUMBER LOCATION

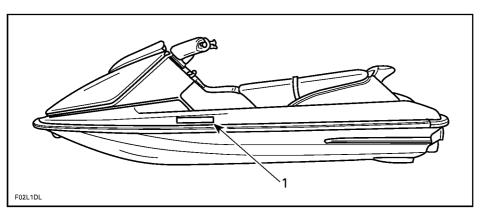
All personal watercraft are required by federal law to be registered and legally numbered.

Due to space availability for proper display of registration number, refer to following illustration for location. The registration number must appear on each side of the watercraft.



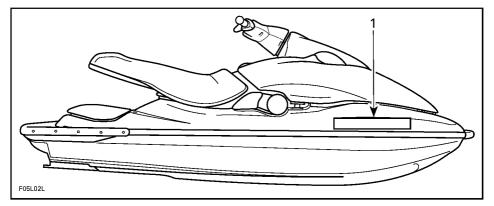
#### SP/XP SERIES

1. Registration number location



#### GTS / GTI MODELS

1. Registration number location

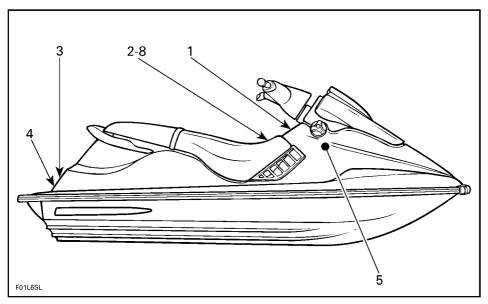


## HX MODEL

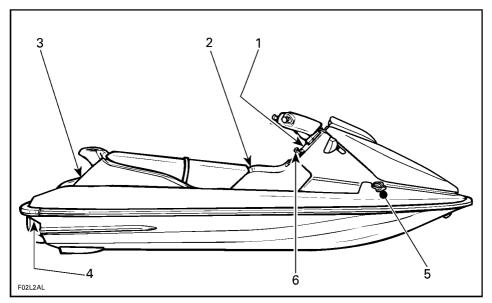
1. Registration number location

# LOCATION OF THE IMPORTANT LABELS \_\_\_\_\_

Please read the following labels carefully before operating this watercraft.

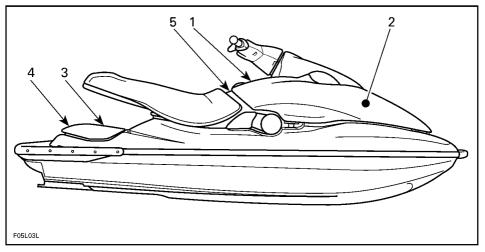


SP/XP SERIES

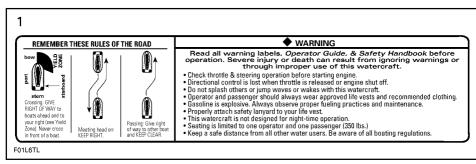


GTS / GTI MODELS

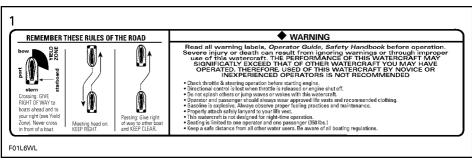
14 \_\_\_\_\_



#### HX MODEL



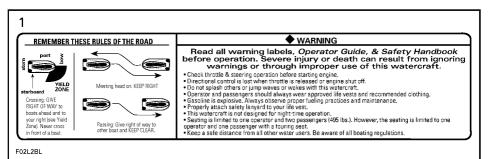
#### SP AND SPI MODELS



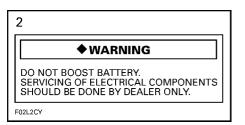
#### SPX AND XP MODELS

1 WARNING REMEMBER THESE RULES OF THE ROAD Read all warning labels, Operator Guide & Safety Handbook before operation Severe injury or death can result from ignoring warnings or through injuroper severe injury or death can result from ignoring warnings or through injuroper SIGNIFICANTIX EXCEED THAT OF OTHER WATERCRAFT YOU MAY HAVE OPERATED. THEREFORE, USE OF THIS WATERCRAFT BY NOTICE OR INEXPERIENCED OPERATORS IS NOT RECOMMENDED. Check throttle & steering operation before starting engine. Directional control is lost when throttle is released or engine shut off Do not splash others or jump waves or wakes with this watercraft stern Operator should always wear an approved life vest and recommended clothing. Crossing : GIVE RIGHT OF WAY Gasoline is explosive. Always observe proper fueling practices and maintenance Properly attach safety lanyard to your life vest. boats ahead and to your right (see Yield Zone). Never cross in front of a boat. This watercraft is not designed for night-time operation. Seating is limited to one operator (250 lbs.) Meeting head on: KEEP RIGHT of way to other I Keep a safe distance from all other water users. Be aware of all boating regulations F01L04L

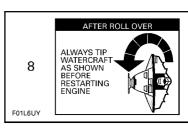
#### HX MODEL

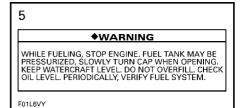


#### GTS / GTI MODELS



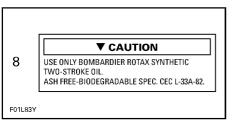












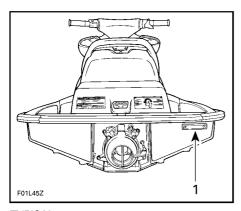
XP MODEL

### WATERCRAFT IDENTIFICATION

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.

### Hull Identification Number

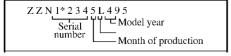
The Hull Identification Number (H.I.N.) is located at right hand rear side of hull.



#### TYPICAL

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

It is composed of 9 digits:

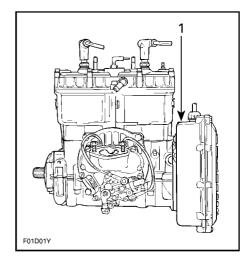


\*This digit may be a number or a letter.

## **Engine Identification Number**

### All engines except the 787

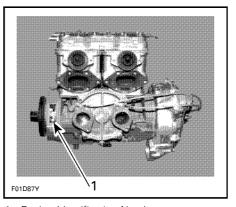
The Engine Identification Number (E.I.N.) is located on the upper side of the magneto housing.



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

## 787 Engine Only

The Engine Identification Number (E.I.N.) is located on the upper crankcase on PTO side.

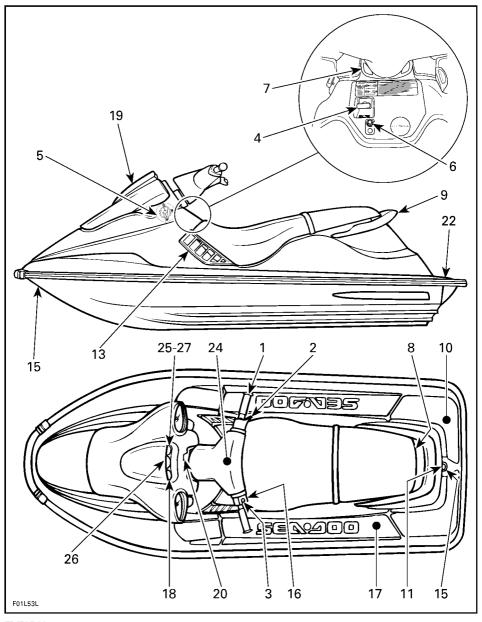


1. Engine Identification Number

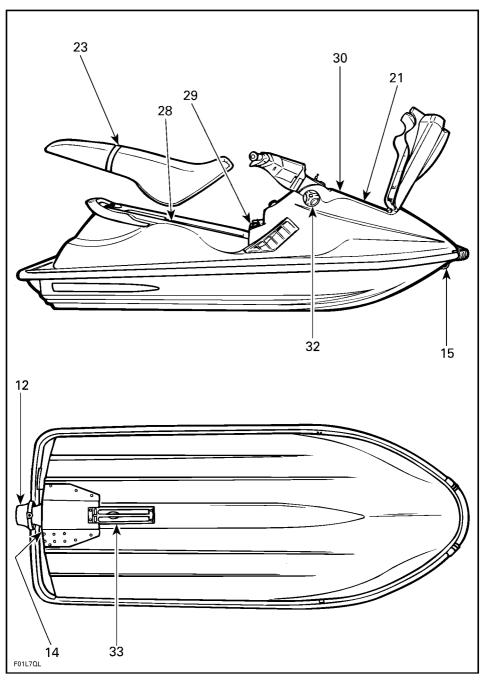
## COMPONENT FUNCTIONS

NOTE: Some components do not apply or are optional on some models.

## SP / XP Series



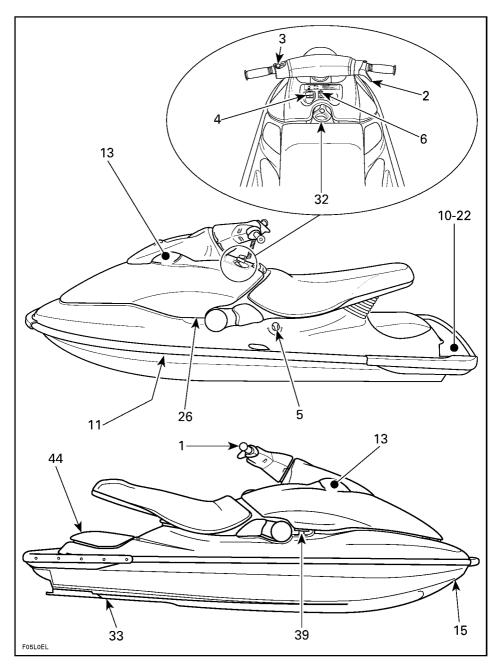
**TYPICAL** 

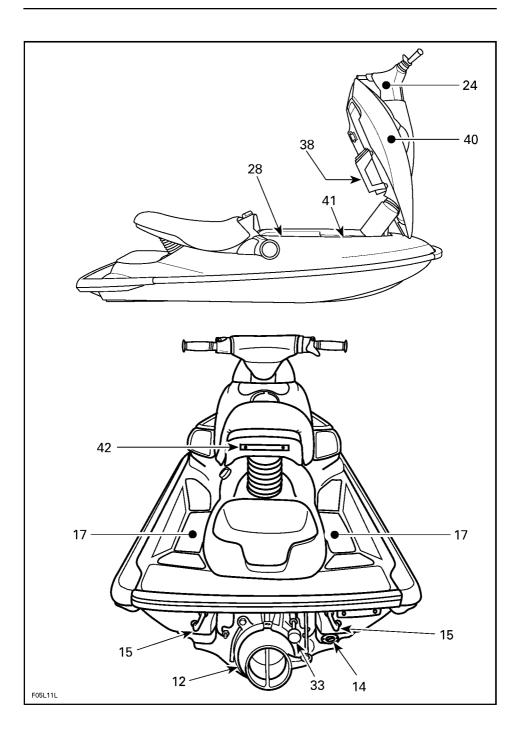


TYPICAL

20 \_\_\_\_\_

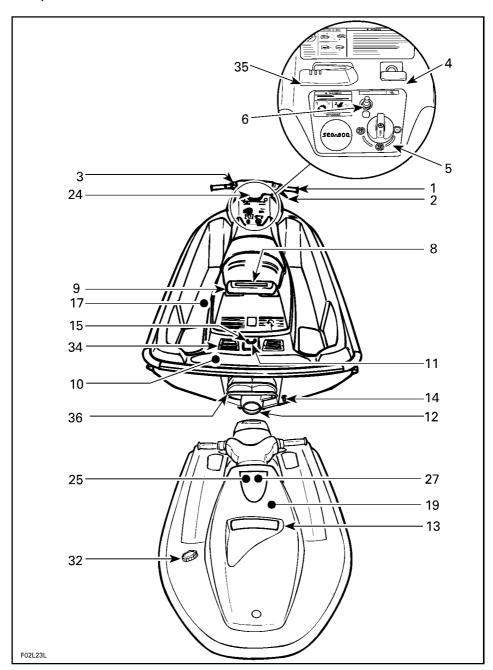
## **HX Model**

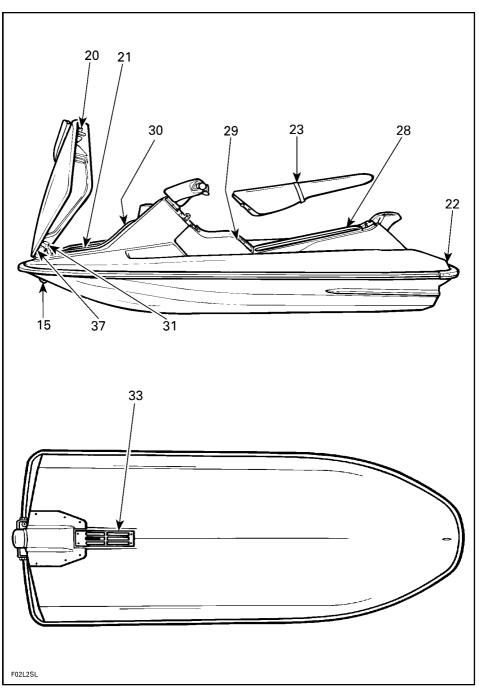




22 \_\_\_\_\_

## GTS / GTI Models





TYPICAL

24 \_\_\_\_\_

#### 1) Handlebar

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

WARNING: Check handlebar and corresponding steering nozzle operation before starting.

#### 2) Throttle Lever

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

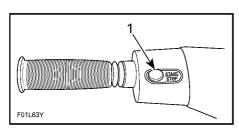
WARNING: Check throttle lever operation before starting the engine.

### 3) Engine Start / Stop Button

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

To stop engine, fully release throttle lever then depress the button and disconnect safety lanyard from the switch.

WARNING: When the engine is stopped, watercraft directional control is not available.



1. Engine start / stop button

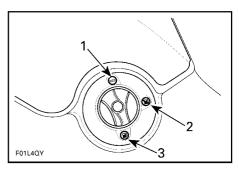
With the Digitally Encoded Security System, leaving the safety lanyard for more than 10 minutes after stopping the engine will require the removal and reinstallation of the safety lanyard on the switch to allow engine starting.

#### 4) Choke Lever

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

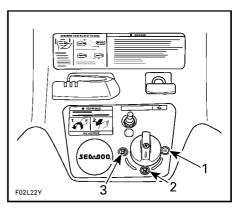
#### 5) Fuel Valve

A 3-position rotating valve : OFF, ON and RESERVE :



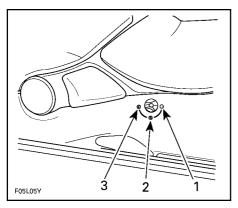
#### SP / XP SERIES

- 1. RES
- 2. OFF
- 3. ON



#### GTS / GTI MODELS

- 1. RES
- 2. OFF
- 3. ON



#### HX

- 1. RES
- OFF
- 3. ON

OFF: Stop fuel supply to carburetor(s).

CAUTION: Turn valve to OFF position when watercraft is not operated.

ON: Allows fuel to flow to carburetor(s). This is the normal position for operation of watercraft.

CAUTION: A partially open fuel valve will lead to fuel starvation and possible engine damage.

RES: Use when the watercraft has run out of fuel in the ON position.

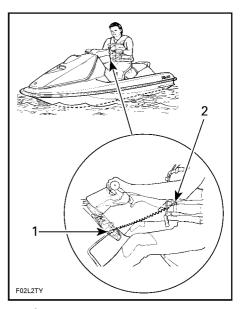
WARNING: Always refill the fuel tank at the first opportunity. After refueling, turn the fuel valve to the ON position for further operation.

## 6) Safety Lanyard Switch

Pulling the safety lanyard from the switch stops the engine operation. Attach the safety lanyard to the operator's Personal Flotation Device and snap the cap to the switch to be able to start the engine.

The safety lanyard cap must be securely snapped onto its switch to be fully operational.

WARNING: Should the safety lanyard cap become loose or fails to remain on its switch, replace it immediatly.



#### **TYPICAL**

- 1. Safety lanyard cap on the switch
- 2. Safety lanyard secured on operator's PFD

WARNING: Should the engine be stopped, watercraft directional control is not available. Always disconnect safety lanyard when leaving watercraft.

## Digitally Encoded Security System (If Equipped)

This system allows an anti-start protection against unauthorized use of the craft. Dealer programmed, the safety lanyard provided with your watercraft is the only one that allows engine starting. The watercraft micro-processor can be programmed to allow the use up to 8 safety lanyards. For your convenience, we recommend the purchase of additional safety lanyards from your authorized dealer. It will prove to be useful in case of loss as well as for additional operators.

With the D.E.S.S., leaving the safety lanyard for more than 10 minutes after stopping the engine will require the removal and reinstallation of the safety lanyard on the switch to allow engine starting.

To find out the meaning of the monitoring beeper coded signals, refer to TROUBLESHOOTING section.

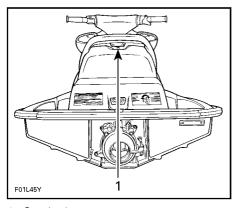
## 7) Docking Eyelets (SP and XP Series)

These eyelets can be temporarily used for docking, while refueling for example.

## 8) Seat Latch (Except HX Model)

Removing the seat allows access to the engine compartment and to oil reservoir cap / dipstick.

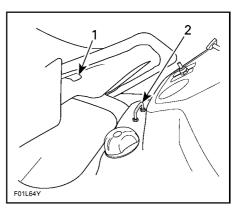
The seat latch is located at the rear end and underneath the seat.



1. Seat latch

To remove seat, pull the latch lever upward and hold. Lift and pull the seat rearward.

When reinstalling the seat, insert seat front tab into body hook.



1. Insert this tab in hook

2. Hook

Pull latch lever to insert it over the rear lock pin. Release latch lever then firmly push on rear of the seat to relatch.

WARNING: Periodically verify the seat lock pin and tighten if needed. Make sure seat is securely latched.

## 9) Rear Grab Handle (Except SP and HX Models)

Provides a handhold for boarding when needed and a handhold for the passenger.

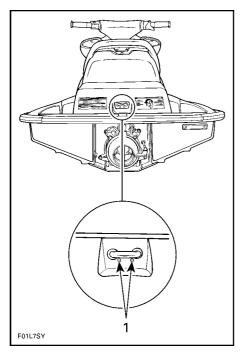
CAUTION: Never use the grab handle to tow anything or to lift the watercraft.

## 10) Boarding Pads

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

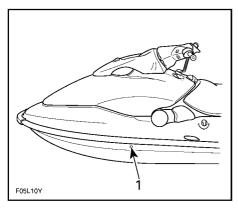
## 11) Cooling System Bleed Outlet(s)

### All Models Except HX



1. Bleed outlet(s)

#### HX Model



1. Bleed outlet

When engine is running, water must flow from the outlet(s). This allows air in engine cooling system to escape. It also indicates that water is circulating in the cooling system.

CAUTION: Should water not flow from outlet(s) a few seconds after engine starts, immediately stop engine and refer to POST-OPERATION CARE and look for cooling system flushing or refer to an authorized dealer for servicing.

#### 12) Jet Pump Nozzle

It is turned from side to side via rider input at the handlebar. This provides watercraft directional control when engine is running.

CAUTION: Never use nozzle as a supporting point to board the watercraft or to lift it, damage to system components may occur.

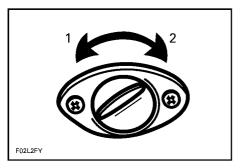
### 13) Air Intake Opening

This is where air enters to supply the engine and ventilate the engine compartment. If the air intake opening is kept under water for a long period water will get inside bilge.

## 14) Bilge Drain Plug

Should water be found in the bilge, it can be easily drained by unscrewing the drain plug.

CAUTION: Remove watercraft from water prior unscrewing the drain plug.



1. Unscrew

2. Tighten

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

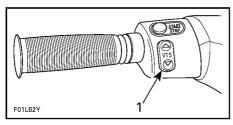
WARNING: Always make sure bilge drain plug is properly tightened.

### 15) Bow and Stern Eyelets

Eyelets can be used for mooring, towing and as a tie-down point during transportation.

# 16) Variable Trim System Button (SPX and XP Models)

Located just below engine start / stop button, this button is used to change pump nozzle position and to adjust ride to suit boat load and water conditions.

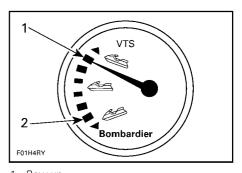


1. VTS button

#### 17) Floorboard

User's feet should rest on the floorboard when riding.

#### 18) Variable Trim System Gauge (SPX and XP Models)



Bow up
 Bow down

The VTS gauge shows the riding angle of the watercraft.

## 19) Storage Compartment Cover (Except HX Model)

It gives access to the storage compartment. Always relatch cover after closing.

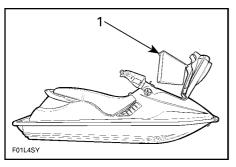
### 20) Cover Latch (Except HX Model)

Pull the latch lever upward in order to open the storage compartment cover. Always relatch.

NOTE: Verify periodically the lock pin tightness of storage cover. Tighten if needed and make sure storage cover latches properly.

## 21) Storage Compartment (Except HX Model)

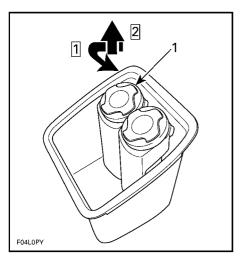
A convenient watertight, removable basket to carry personal articles. Ideal location for spare spark plugs, towrope, first aid kit, etc. Reinstall basket as shown.



#### 1. Removable basket

WARNING: Never leave any heavy or breakable object in the storage basket. Never store or carry anything below basket.

The basket is provided with a holder to store an approved fire extinguisher and tool kit. A second holder contains *Operator's Guide* and can be used to carry personal articles. Fire extinguisher (sold separately) should not be loose in the storage compartment.



Step 1: Turn cover counterclockwise

Step 2 : Lift

1. Extinguisher holder

## 22) Boarding Platform

Provide a large surface for easy boarding from rear of watercraft.

### 23) Seat Strap (Except HX Model)

The seat strap provides a handhold when needed for boarding and is used as a handhold for the passenger.

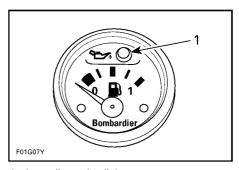
### 24) Monitoring Beeper

In the event the engine overheats, a beeper (continuous sound) will warn the operator. Stop engine and refer to SPECIAL PROCEDURES.

On models equipped with an anti-start protection, the beeper may sends different coded signals whenever a particular situation occurs. Refer to TROUBLESHOOTING section for signal description and their signification.

#### 25) Fuel Gauge / Low Oil Warning Light (SPI and GTS Models)

Analog gauge indicates the amount of fuel in the fuel tank and a warning light when level is low in oil reservoir.

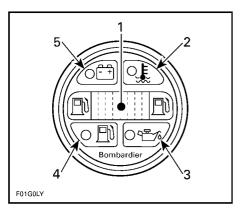


#### 1. Low oil warning light

NOTE: With the safety lanyard disconnected, fuel gauge can be activated for approximately 33 seconds by depressing the engine start / stop button.

## 26) Multifunction Fuel Gauge (SPX, XP and GTI Models)

A LCD gauge indicates the amount of fuel in the fuel tank. Warning lights will indicate a low voltage battery condition, an overheating engine, low fuel level and low oil level.



- 1. Fuel level bar graph
- 2. Engine overheats
- 3. Low oil level
- 4. Low fuel level
- Low voltage

NOTE: With the safety lanyard disconnected, multifunction gauge can be activated for approximately 33 seconds by depressing the engine start / stop button

## 27) Speedometer (XP and GTI Models)

Analog speedometer indicates the speed of watercraft in miles per hour (MPH) and kilometers per hour (km/h).

The speed sensor mounted on the ride shoe sends the signal to the speedometer.

## 28) Engine Compartment

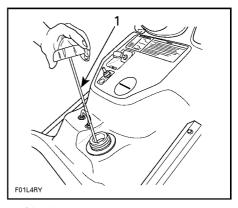
This is where the mechanical, electrical and fuel / oil systems are located.

WARNING: When starting or operating the engine, do not touch any electrical part. Never leave any object, rag, tool, etc., in the engine compartment or in the bilge.

#### 29) Oil Injection Reservoir Cap / Dipstick (Except HX Model)

NOTE: Seat has to be removed to expose oil cap.

Unscrew the cap counterclockwise then pull to expose the dipstick.



#### 1. Dipstick

The dipstick indicates the amount of oil to be added in the reservoir. Oil level should be maintained between FULL and ADD marks. Before checking oil level, place the watercraft level, then wipe the dipstick and insert it in the reservoir neck. Do not screw cap. Remove dipstick and read the level.

#### 30) Tool Kit

Contains tools needed to perform basic watercraft maintenance.

#### 31) Storage Compartment Cover hinge / Locking Mechanism (GTS and GTI Models)

Hinge is provided with a locking mechanism to hold storage compartment cover when fully open. To close cover, pull side pins.

#### 32) Fuel Tank Cap

Unscrew the cap counterclockwise to allow fuel tank filling. Fully tighten when finished.

WARNING: Never use a lit match or open flame to check fuel level.

### 33) Jet Pump Water Intake

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

## 34) Rear Vent Grills (GTS and GTI Models)

Allows air to get in or out depending on engine operation.

CAUTION: If grills are kept below water level for a long period (e.g.: when boarding 2 passengers) water will enter the bilge.

## 35) Selector Lever (GTS and GTI Models)

When pushed in, the watercraft is in forward. To obtain neutral, unlock lever by turning it counterclockwise, then pull lever until neutral mark appears on rod. To engage reverse, repeat same procedure as for neutral, but pull lever until reverse mark appears on rod. Lever locks in forward and in neutral positions only.

WARNING: Selector lever should only be used when the engine is idling. Ensure lever is pushed in and locked. Do not use as a grab handle.

## 36) Reverse Gate (GTS and GTI Models)

It moves from upward to downward position to get forward, neutral, reverse and inversely. These positions are obtained by sliding the selector lever

CAUTION: Never use gate as a supporting point to board the watercraft.

## 37) Water Tank Trap Drains (GTS and GTI Models)

If water enters the air intake opening, a water tank trap with a baffle separates water from the air then evacuates the water through the front of storage cover.

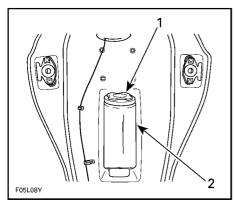
CAUTION: Unusual maneuvers such as circles with the nose of the watercraft under water will fill the bilge.

## 38) Holder (HX Models)

The holder is designed to store an approved fire extinguisher and the tool kit

NOTE: Hood must be opened to access holder.

Turn cover counterclockwise to unlock, then lift it.



#### HX

1. Cover Holder

### 39) Hood Latches (HX Model)

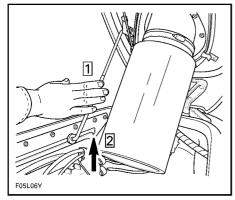
Pull both latch levers upward in order to open the hood. Always relatch hood on both sides.

NOTE : Verify periodically the lock pins tightness. Tighten if needed and make sure hood latches properly.

## 40) Hood (HX Model)

It gives access to the engine compartment.

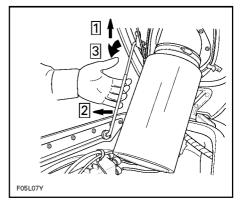
To hold hood opened, lift it and at the same time, push support rod until it is in the detent position of slot.



Step 1 : Push support rod

Step 2: Position rod in detent position

To close hood, push it with your left hand and pull support rod out of the detent position; then, close hood.



Step 1 : Push hood

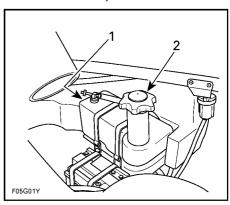
Step 2 : Pull support rod Step 3: Close hood

Always relatch hood after closing.

### 41) Oil Injection Reservoir (HX Model)

Verify oil level through oil reservoir. Unscrew the cap counterclockwise and add appropriate amount of oil.

**NOTE**: Hood must be opened to access oil injection reservoir.



#### HX

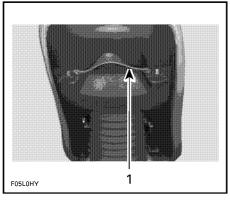
- 1. Oil injection reservoir
- 2. Cap

**•** 

WARNING: Always wipe off any oil spillage.

### 42) Rear Strap (HX Model)

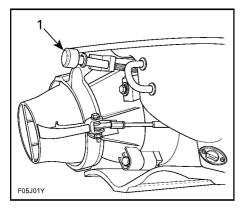
Provides a handhold for boarding when needed.



1. Rear strap

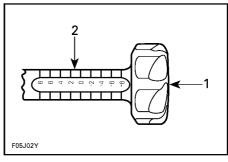
## 43) Trim Knob (HX Model)

This knob is used to change manually pump nozzle position and to adjust ride to suit water conditions and rider perferences.



1. Trim knob

There are some reference marks to indicate nozzle position, easing fine tuning.



- 1. Trim knob
- 2. Reference marks

## 44) Rear Access Cover (HX Model)

It gives access to the drive system, suspension, exhaust system and bailer pick-ups. Always relatch cover.

## **FUEL AND LUBRICATION**

## **Fueling Procedure**

WARNING: Follow these safe boating fueling instructions explicitly.

Make sure the craft is tied securely to the fueling pier.

Do not allow anyone to remain on the watercraft.

Do not smoke or allow open flames in the vicinity.

Have a fire extinguisher close at hand.

Do not insert the spout too far in filler neck.

Pour fuel slowly so that air can escape from the reservoir and prevent fuel flowback.

Do not lean watercraft while fueling. Fill fuel tank to bottom of filler neck. Do not overfill

Fully tighten fuel tank cap and wipe off any fuel spillage.

WARNING : Do not lean the watercraft to allow more fuel to fill the fuel tank. The tank design makes provision for fuel expansion of about 5%. If this area is filled, fuel will expand and may come out through fuel vent hose. Keep watercraft horizontal while fueling. Always stop the engine before refueling. Fuel is inflammable 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 top off the fuel tank and leave watercraft in the sun. As temperature increases, fuel expands and might overflow. Always wipe off any fuel spillage from the watercraft.

### Recommended Fuel

Use regular unleaded gasoline with 87 octane (Ron + Mon / 2) specification.

NOTE: Look on service station pump sticker for octane specification. Do not mix oil with fuel except at engine break-in. Refer to BREAK-IN PERIOD. Always check injection oil reservoir level when refueling.

The use of good quality fuel is necessary. A well known fuel brand is highly recommended.

CAUTION: Never experiment with other fuels or fuel ratios. Never use fuel containing alcohol, methanol or similar products including naphtha. The use of unrecommended fuel can result in watercraft performance deterioration and damage to critical parts in the fuel system and engine components.

## **Recommended Oil**

## All Models Except XP

Use only BOMBARDIER ROTAX IN-JECTION OIL which is 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.

NOTE: High quality low ash API TC injection oil for 2-cycle engines can be used if BOMBARDIER ROTAX INJECTION OIL is not available.

CAUTION: Never use 4-cycle petroleum or synthetic motor oil and never mix these with outboard motor oil. Do not use NMMA TC-W, TC-W2 or TC-W3 outboard motor oils or other ashless type 2-cycle oil. Avoid mixing different brands of API TC oil as resulting chemical reaction may cause severe engine damage.

### XP Model Only

Use only BOMBARDIER ROTAX FORMULA XP-S synthetic injection oil.

This fully synthetic oil will provide outstanding cleanliness, less friction and wear for greater engine performance and durability.

# **Oil Injection System**

This watercraft features an oil injection system which does not require manual fuel / oil mixing.

A sufficient amount of injection oil should be maintained in the reservoir.

NOTE: Always carry 500 mL of BOMBARDIER ROTAX INJECTION OIL.

### All Models Except HX

To check oil level, remove seat to expose oil cap; unscrew cap, wipe dipstick then insert in the reservoir neck. Do not screw cap. Remove dipstick and read the level.

Use a flexible funnel to add the required quantity of injection oil. Wipe off any oil spillage.

# HX Model Only

To check oil level, open hood and verify level through oil reservoir. Unscrew cap to add oil as necessary.

Use a flexible funnel to add the required quantity of injection oil. Wipe off any oil spillage.

#### All Models

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 runs out of oil, severe engine damage will occur. If the oil reservoir is found almost empty, air can enter in the system and it must be bled. Immediately refer to an authorized dealer to have the oil injection system inspected.

## **BREAK-IN PERIOD**

## **Engine**

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 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, BOM-BARDIER ROTAX INJECTION OIL should be added in the fuel tank for the first full fuel tank filling only.

MODELS	QUANTITY
SP / XP Series	700 mL (24 oz)
нх	500 mL (19 oz)
GTS / GTI	900 mL (30 oz)

To add injection oil in the fuel tank, proceed as follows:

Fill fuel tank with approximately 15 liters (4 gal) of gasoline; then, add the required quantity of injection oil in the fuel tank.

Fill up fuel tank with gasoline. Do not overfill.

NOTE: It is important to proceed in this order to allow a proper mixing of the oil in the gasoline.

CAUTION: Remove and clean spark plugs after engine breakin.

# **10-Hour Inspection**

It is highly recommended that after the first 10 hours of operation, the watercraft be checked by an authorized dealer. This inspection will also provide the opportunity to discuss the unanswered questions you 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 LIS	т	<b>/</b>	
Engine ignition timing if required			
Spark plug inspection, cleaning and adjustment			
Fuel system lines and fasteners / pressurization test			
Carburetor adjustment including throt	tle / choke cables if required		
Oil lines and filter			
Oil injection pump adjustment if requi	red		
Engine support and engine rubber mo	unts		
Muffler, battery and reservoir fastening	g devices		
Exhaust system hose clamps			
Carburetor flange nuts (or screws) and	l flame arrester bracket		
Steering system inspection			
Steering cable adjustment if required			
Reverse cable adjustment if required (	GTS / GTI)		
VTS adjustment if required (SPX / XP)	·		
Cooling system hose condition and fasteners			
Bailer pick-ups, check for obstructions			
Safety lanyard switch			
Monitoring beeper			
Electrical connections (starter, battery,	etc.)		
Impeller shaft reservoir oil replacement			
PTO flywheel lubrication			
Inspection of fasteners for tightness			
Inspect / clean engine drain tube			
Hull inspection			
We recommend that this inspection	chart be signed by an authorize	d dealer.	
Date of 10-hour inspection	Authorized dealer signature		

## **PRE-OPERATION CHECKS**

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

# Prior to your daily ride, verify the following:

WARNING: Safety lanyard must always be removed from switch prior to verify any of the following.

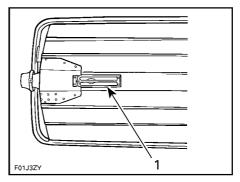
ITEM	OPERATION	✓
Hull	Inspect.	
Jet pump water intake	Inspect / clean.	
Bilge	Drain. Ensure plug is secured.	
Battery	Inspect tightness of cables and retaining straps.	
Fuel and oil reservoirs	Refill.	
Engine compartment	Verify for any fuel leak / odor.	
Fire extinguisher	Inspect condition / mounting.	
Steering and throttle systems	Check operation.	
Reverse system (GTS / GTI)	Check operation.	
VTS (SPX, XP)	Check operation.	
Safety lanyard, engine start / stop button	Check operation.	

### Hull

Inspect hull for cracks or damage.

# **Jet Pump Water Intake**

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



#### **TYPICAL**

1. Inspect this area

Inspect leading edges of the impeller, if they have nicks or bends performance will be greatly reduced.

## **Bilge**

Should water be present in the bilge, tilt the watercraft to the rear and unscrew drain plug to completely empty the bilge.

WARNING: Make sure to take the watercraft out of water prior to unscrew the drain plug.

Secure bilge drain plug.

## **Battery**

WARNING: Verify tightness of battery cables and retaining straps.

### **Fuel and Oil Reservoirs**

With the watercraft horizontal, fill the fuel tank to specified level with fuel.

Check the oil level and refill reservoir as necessary.

# **Engine Compartment**

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

# Fire Extinguisher

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

# Steering and Throttle Systems

Assisted by another person, check steering operation for free movement. When the handlebar is horizontal, the jet pump nozzle should be in the straight ahead position. Ensure the jet pump nozzle pivots easily while handlebar is turned.

Check throttle lever and cable several times for free and smooth operation. It must return to its initial position immediately after released.

# Reverse System (GTS and GTI Models)

Check reverse gate operation for free movement. With the selector lever pushed in and locked, the gate should be in upward position. Ensure the reverse gate moves easily while selector lever is pulled out.

WARNING: Verify the reverse gate locking operation before starting the engine.

# Variable Trim System (SPX and XP Models)

Push on arrows on VTS button to check nozzle movement.

NOTE: With the safety lanyard disconnected, trim can be activated for approximately 30 seconds by depressing the engine start / stop button.

# Safety Lanyard and Engine Start / Stop Button

Ensure that both switches operate properly. Start engine and stop it using each switch individually.

WARNING: If engine does not shut-off when pushing engine start / stop button or by disconnecting the safety lanyard, stop the engine by applying the choke and turning fuel valve to OFF position. Do not operate the watercraft further, see an authorized dealer.

# Clothing

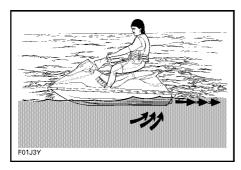
WARNING: Always wear a Coast Guard approved PFD. It is also recommended that gloves, wet suit, deck shoes / booties and protective glasses be worn when operating the watercraft. In some instances, for example high speed operation or racing, an approved helmet or kidney belt should be worn.

## **OPERATING INSTRUCTIONS**

WARNING: Always perform the PRE-OPERATION CHECKS before operating the watercraft. Become thoroughly familiar with all controls and the function of each. Should any control or instruction be not fully understood, refer to an authorized dealer.

# **Principle of Operation Propulsion**

The engine is directly coupled to a drive shaft which, in turn, rotates an impeller. This impeller is accurately adjusted in a housing where the water is drawn up from underneath the watercraft. Then the water flows through the impeller to a venturi. The venturi accelerates the water and produces thrust to move the watercraft. Depressing the throttle lever increases engine speed and therefore watercraft speed.



WARNING: Whenever the engine is to be started, the operator should always be sitting on the watercraft.

# Reverse (GTS and GTI Models)

The selector lever is used for either driving the watercraft forward or backward. With the lever pushed in, the watercraft is in forward position, with the lever fully pulled out, reverse position is obtained. The lever middle position is neutral. These 3 functions are

produced by the mean of a gate, which is installed on jet pump venturi housing. This gate directs the water flow to get the proper function.

WARNING: Selector lever should only be used when the engine is idling. Ensure lever is pushed in and locked.

# Variable Trim System (SPX, XP and HX Models)

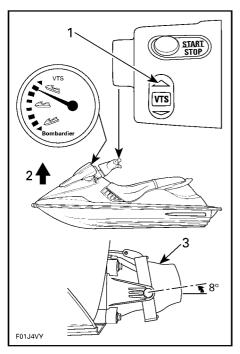
The variable trim system (VTS) changes the angle of the jet pump nozzle to provide the operator with a fast, effective system to compensate for load, thrust, riding position and water conditions. Correctly adjusted, it can improve handling, reduce porpoising, and position the watercraft at its best riding angle to attain maximum performance.

When first using the craft, the operator should become familiar with the use of the variable trim system (VTS) at varying speeds and water conditions. A mid-range trim is generally used when cruising. Experience alone will dictate the best trim for the conditions. During the watercraft break-in period, when lower speeds are recommended, it is an excellent opportunity to gain familiarity of trim adjustment and its effects.

WARNING: Improper use of the variable trim can cause instability at higher speed especially in strong wind or current or while high speed maneuvering. To regain stability, an operator should slow (or stop) the watercraft then re-adjust the trim to the conditions.

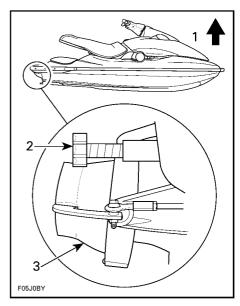
When the nozzle is positioned in an upward angle, the water thrust directs the bow of the watercraft upward. This position is used to optimize high speed.

### SPX and XP Models



- Push on arrow pointing upwards on VTS button
- 2. Bow up
- 3. Nozzle up

### **HX Model**

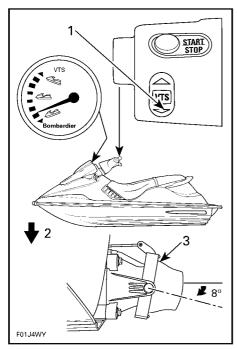


- 1. Bow up
- 2. Knob turned counterclockwise
- 3. Nozzle up

### SPX, XP and HX Models

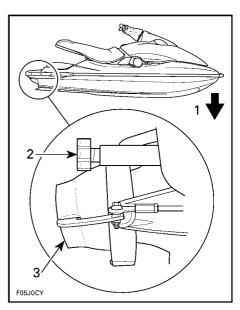
When the nozzle is directed downward, the bow is forced downward and enhances the craft turning capabilities. As with any watercraft, speed and operator body position and movement (body english), will determine the degree and sharpness of the craft turn. Porpoising can be reduced or eliminated if the nozzle is downward and speed adjusted proportionately.

### SPX and XP Models



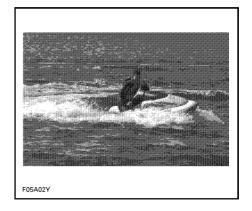
- 1. Push on arrow pointing downwards on VTS button
- Bow down
- 3. Nozzle down

### **HX Model**



- 1. Bow down
- Knob turned clockwise
   Nozzle down

## **Turning**



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. The throttle must be applied to turn the watercraft. WARNING: Directional control is lost when the throttle is closed. Throttle must be applied and handlebar turned to change the direction of the watercraft. Steering efficiency will differ with carrying loads and water conditions.

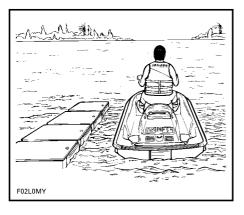
The more the throttle is applied while turning the handlebar, the sharper the turn will be.

The watercraft behaves differently with a passenger and requires greater skill. The passenger should always grip the seat strap or grab handle. Reduce speed and avoid sharp turns. Avoid choppy water conditions when carrying a passenger.

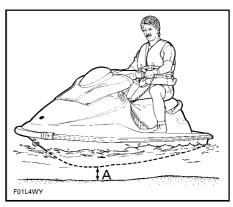
# Boarding from a Dock or in Shallow Water

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

When boarding from a dock, slowly place one foot on the watercraft floor-board nearest 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 floor-board. Push the watercraft away from the dock.



CAUTION: The engine should be started with at least 90 cm (3 ft) of water below the hull.



A. 90 cm (3 ft)

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

WARNING: An inexperienced operator should practice how to get aboard close to the shore to simulate deep water boarding. Refer to **Boarding in Deep Water** in this section.

# Starting the Engine

Before unloading the watercraft from the trailer, it can be started for about 10 seconds to verify proper operation.

WARNING: Do not touch electrical parts or jet pump area when engine is running.

Attach the safety lanyard to the operator's PFD and snap the cap to the switch before starting the engine.

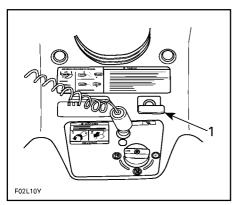
WARNING: Only start the watercraft once all controls have been checked and operate properly. Operator and passenger (if applicable) should be sitting on the watercraft seat prior to starting the engine.

## **Cold Engine**

Turn the fuel valve to ON position.

Firmly grip handlebar with your left hand and place both feet on the floor-board.

Fully pull the choke lever with your right hand and depress the start / stop button.



#### **TYPICAL**

1. Fully pulled

Immediately after engine is started, release start / stop button and release choke lever half way.

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.

A few seconds after, release the choke lever and if necessary, slightly apply throttle to keep engine running.

**Slowly** accelerate to reach deeper water. Do not apply full throttle until the engine is warm.



F05A03Y

WARNING: In shallow water, shells, sand, pebbles or other objects could be drawn up by the jet pump and damage impeller, components or clog the cooling system. Also, debris could be thrown rearward into bystanders.

## Warm Engine

The same procedure as a cold engine applies, except the choke does not need to be applied and throttle lever has to be slightly depressed.

## **Obstacles**

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

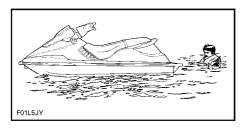


# **Boarding in Deep Water**

WARNING: Inexperienced riders should practice how to get aboard close to shore first before venturing into deep water.

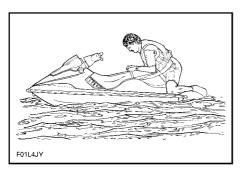
### **Operator Alone**

Swim to the rear of the watercraft.

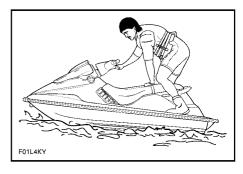


Grip the grab handle (if applicable) and pull yourself upward until your knee can reach the boarding platform then grip the seat strap (Except HX Model).

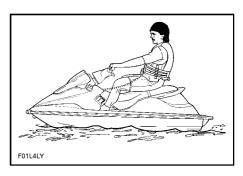
CAUTION: Never use jet pump components as a supporting point to board the watercraft.



Bring your feet on the floorboard while maintaining balance using the handle-bar.



Sit astride the seat.



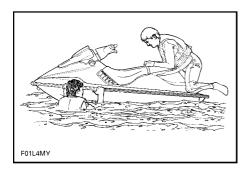
Attach the safety lanyard to the operator's PFD and snap the cap to the switch before starting the engine.

Start the engine.

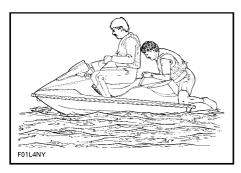
# Operator with a Passenger (Except HX Model)

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

In choppy water, the passenger while in the water, may hold the watercraft to help the operator in climbing aboard.



The passenger then climbs on the watercraft while the operator maintains balance by sitting as close as possible to the console.





Attach the safety lanyard cap to the switch before starting the engine.

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

CAUTION: On GTS / GTI models, if vent grills are kept below water level, water will enter the bilge.

# Rough / Choppy Water Operation

Avoid operation in these conditions. If you must do so, proceed with caution using minimum speed.

## **Crossing Waves**

Reduce speed.

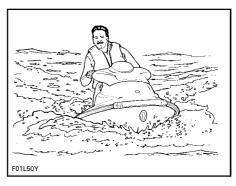
Always be prepared to steer and balance as necessary.

When crossing wakes, always keep a safe distance of boat ahead.

WARNING: When crossing waves, slow down. Operator and passenger(s) can brace themselves by posting.

# Stopping / Docking

The watercraft is slowed by water drag. The stopping distance will vary depending on the watercraft size, carrying weight, water condition, wind and current.



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

Release the throttle at a sufficient distance before the expected landing area, water resistance slows down the watercraft.

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

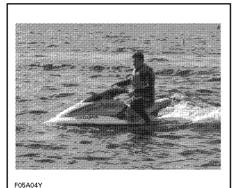
WARNING: No directional control is available when the throttle is closed or engine is shut off. On GTS / GTI, never use the reverse system for stopping the watercraft.

## **Beaching**

CAUTION: It is not recommended to run the watercraft to the beach.

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

Come slowly to the beach and shut off the engine when reaching about 90 cm (3 ft) of water under the hull.



WARNING: In shallow water, shells, sand, pebbles or other objects could be drawn up by the jet pump and damage impeller, components or clog cooling system. Also, debris could be thrown rearward into bystanders.

Get off watercraft and pull it on the beach.

# **Shutting Off the Engine**

To keep watercraft directional control, the engine should be running until the watercraft is at idle.

To shut off the engine, completely release throttle lever and press the engine start / stop button. Remove safety lanyard from watercraft.

WARNING: Should the engine be shut off, watercraft directional control is not available. Never leave the safety lanyard on an unattended watercraft.

## POST-OPERATION CARE

### **General Care**

Should any water be present in the hull, unscrew the drain plug and tilt 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 growth.

Leave the seat partially opened (except HX). This will avoid engine compartment condensation and possible corrosion.

NOTE: When the watercraft is stored with seat partially opened and without a tarpaulin, unscrew the drain plug in order to avoid water build up in the bilge during rainfall.

# Additional Care for Foul Water or Salt Water

When the watercraft is operated in foul water and particularly in salt water, additional care must be taken to protect the watercraft and its components. Rinse bilge area with fresh water.

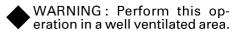
CAUTION: Failure to perform proper care such as: watercraft rinsing, cooling system flushing and anticorrosion treatment, when watercraft is used in salt water, will result in damage to the watercraft and its components. Never leave the watercraft stored in direct sunlight. UV radiation will eventually dull finishes.

## Cooling System Flushing and Engine Internal Lubrication

Flushing the cooling systemwith fresh water is essential to neutralize corroding effects of salt or other chemical products present in water. It will help to clean up sand, salt, shells or other particles in water jackets (engine, exhaust manifold, tuned pipe) and/or hoses.

Engine lubrication and flushing should be performed when the watercraft is not expected to be used further the same day or when the watercraft is stored for any extended time.

Proceed as follows:



Clean jet pump by spraying water in its inlet and outlet and then BOMBARDIER LUBE lubricant.

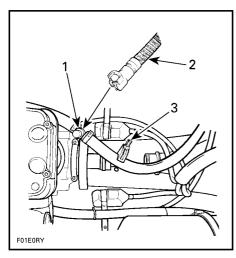
Remove seat to allow access of cooling system (for the HX model, open hood).

## All Models Except HX

Remove dust cap from fitting spigot and attach coupler hose (P/N 295 500 099). Make sure coupler hose is properly locked to fitting spigot.

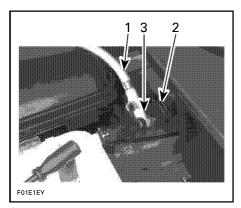
Install a hose pincher on water outlet hose

NOTE: This prevents water from directly exiting cooling system.



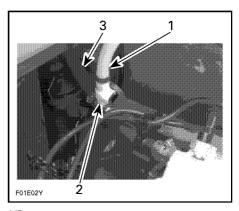
### SP/SPI/GTS

- 1. Fitting spigot
- 2. Coupler hose
- 3. Hose pincher



#### SPX / GTI

- 1. Coupler hose
- 2. Hose pincher
- 3. Fitting spigot



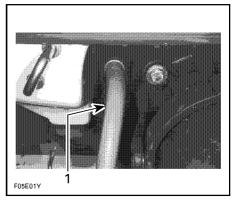
### ΧP

- 1. Coupler hose
- 2. Fitting spigot
- 3. Install a hose pincher here

Attach other end of coupler hose to a garden hose. Do not open water tap yet.

## HX Model Only

Connect a garden hose directly to the adapter located at the rear of the watercraft.



1. Garden hose

NOTE: A quick connect hose adapter can be fixed to ease garden hose installation to watercraft adapter.

### All Models

Start the enginethen immediately open the water tap.

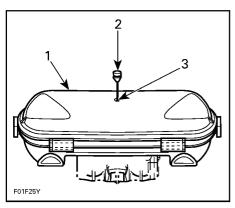
WARNING: Do not touch any electrical part or jet pump area when engine is running.

CAUTION: Never flush a hot engine. Always start the engine before opening the water tap. Open water tap immediately after engine is started to prevent overheating.

Run the engine about 3 minutes at a fast idle around 3500 RPM.

Pull plug from air intake silencer cover.

Spray BOMBARDIER LUBE lubricant through air intake silencer cover keeping engine at fast idle.



- 1. Air intake silencer cover
- 2. Pull plug
- 3. Spray BOMBARDIER LUBE here

NOTE: Lubrication of engine should be done at least for 1 minute. After approximately half a minute, close fuel valve to run engine out of fuel while lubricating.

CAUTION: When engine begins to run irregularly because of fuel starvation, immediately stop water flow before engine dies.

Close the water tap then stop the engine.

CAUTION: Always close the water tap before stopping the engine.

Disconnect the garden hose.

### All Models Except HX

Unlock and remove coupler hose. Reinstall dust cap over fitting spigot.

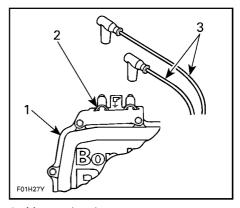
Remove hose pincher from water outlet hose.

#### All Models

Wipe up any residual water from the engine.

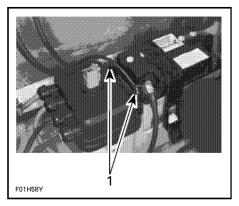
Remove spark plug cables and connect them on the grounding device.

### All Models Except XP



- 1. Magneto housing cover
- 2. Grounding device
- 3. Spark plug cables

### XP Model Only



1. Grounding device

#### All Models

Remove both spark plugs and spray BOMBARDIER LUBE lubricant into each cylinder.

Crank the engine a few turns to distribute the oil onto cylinder wall.

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

Reinstall plug on air intake silencer cover.

### **Anticorrosion Treatment**

To prevent corrosion, spray a corrosion inhibitor (salt water resistant) such as BOMBARDIER LUBE lubricant or equivalent over metallic components in engine compartment.

NOTE: Engine fogging should be done with BOMBARDIER LUBE lubricant whenever the watercraft is to be stored for few days or a long period.

Apply a dielectric grease (salt water resistant) on battery posts and cable connectors.

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

## SPECIAL PROCEDURES

## **Engine Overheat**

If the monitoring beeper sounds continuously, stop engine immediately. Perform the Jet Pump Water Intake and Impeller Cleaning procedure in this section.

Flush cooling system, refer to POST-OPERATION CARE.

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 grate, drive shaft and / or impeller. A clogged water intake may cause troubles such as:

- 1- Cavitation: Engine speed is high but watercraft moves slowly due to reduced jet thrust, jet pump components may be damaged.
- 2- Overheating: Since the jet pump operation controls the flow of water to cool the engine, a clogged intake will cause the engine to overheat and damage engine internal components.

A weed clogged area can be cleaned as follows:

# **In-Water Cleaning**

Rock the watercraft several times while repeatedly pressing start / stop button for short period without starting engine. Most of the time, this will result in letting the weeds falling from the intake area. Start engine and make sure water flows out from bleed outlet(s) and watercraft operates properly.

## GTS / GTI Models Only

If the above method does not work, the following can be performed:

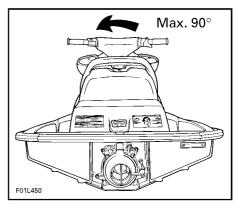
- With engine running, put selector lever in reverse position and vary throttle quickly several times.
- Retry

### **On-Beach Cleaning**

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

WARNING: Always remove safety lanyard cap from switch to prevent accidental engine starting before cleaning the jet pump area. Engine must not be running for this operation.

Rotate the watercraft counterclockwise (seen from rear) to its left side for cleaning. Rotating watercraft counterclockwise eliminates the possibility of residual water in the tuned pipe entering the engine and causing engine damage.



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

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

CAUTION: Avoid watercraft operation in weed areas. If unavoidable, vary watercraft speed. Weeds tend to entangle more at steady speed and at slow speed.

# **Capsized Watercraft**SP and XP Series

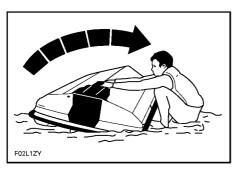
The watercraft is designed so that if it is turned over, it should not remain capsized due to its self-righting capability.

### HX Model, SP and XP Series

After roll over, always tip watercraft counterclockwise (maximum 90°) before restarting engine.

#### GTS and GTI Models

The watercraft is designed so that it should not turn over easily, due to its longer and larger dimensions and its full vee hull. Also two sponsons mounted on the side of the hull assist watercraft stability. If it turns over, it will remain capsized due to its non self-righting capability. To return the watercraft upright rotate it clockwise (seen from rear) by pushing on the right side then handhold the side of water intake HOLE and use your weight to complete the rotation of watercraft.



# **Submerged Watercraft**

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

In the event the engine cannot be serviced within a few hours, remove spark plug cables and connect them on the grounding device.

WARNING: Never crank engine with spark plugs removed unless spark plug cables are connected to the grounding device.

Remove spark plugs and dry them with a clean and dry cloth.

Cover spark plug holes with a rag.

Crank engine to allow water to escape from spark plug.

Spray BOMBARDIER LUBE lubricant into spark plug holes.

Crank engine again.

Reinstall spark plugs.

# **Towing the Watercraft**

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

# Low-Charge Battery Condition

See your dealer to have it charged or replaced.

WARNING: Do not charge or boost the battery in the water-craft

# **MAINTENANCE**

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

### Lubrication

Use SEA-DOO synthetic grease and lubricate every 10 hours. Proceed as follows:

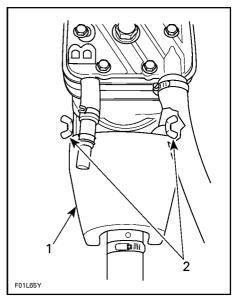
Remove seat to expose engine compartment (for the HX model, open hood).

On SP and XP series, remove vent tube support.

Remove the wing nuts, washers and pull out PTO flywheel guard.

WARNING: Always remove safety lanyard cap from its receptacle to prevent accidental engine starting before removing the PTO flywheel guard.

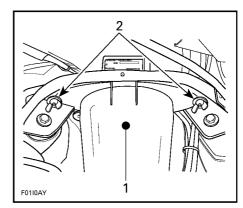
### All Models Except XP



#### **TYPICAL**

- 1. Flywheel guard
- 2. Wing nuts

## XP Model Only

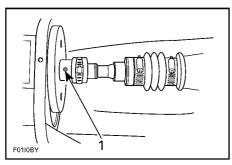


- 1. Flywheel guard
- 2. Wing nuts

### All Models

Using a grease gun, carefully lubricate PTO flywheel at grease fitting until boot is just beginning to expand.

CAUTION: Immediately stop lubricating as soon as boot begins to expand to prevent boot damage or slipping.



1. Grease PTO flywheel

Secure PTO flywheel guard.

On SP and XP series, reinstall vent tube support.

#### **Anticorrosion Protection**

#### Throttle / Choke Cables

Lubricate the throttle and choke cables with BOMBARDIER LUBE lubricant every 25 hours (or every 10 hours in salt water use).

NOTE: A cable luber can be used on cable end to inject BOMBAR-DIER LUBE lubricant.

#### **Electrical Connections**

As necessary, apply anticorrosion product such as a dielectric grease on battery posts and all exposed cable connectors.

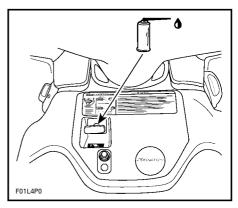
### **Additional Lubrication**

BOMBARDIER LUBE lubricant will help to prevent corrosion and keep proper operation of moving mechanisms.

Lubrication of the following items should be performed every 50 hours in fresh water use but every 10 hours in salt water use.

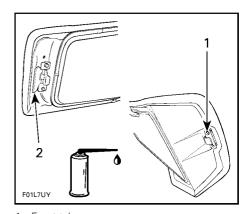
### Choke Lever

Fully pull choke lever and lubricate the metallic portion.

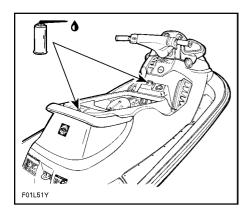


**TYPICAL** 

Seat Opening Mechanism, Tab, Hook and Lock Pin (Except HX)



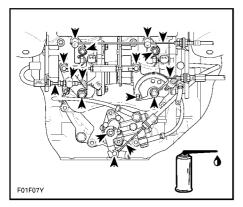
- 1. Front tab
- 2. Rear mechanism



## Carburetor and Oil Injection Pump

Lubricate springs, shafts and exposed portion of cables.

NOTE: Grease carburetor linkage with synthetic grease (twin carbs).

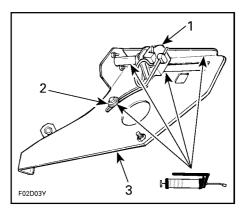


#### **TYPICAL**

### Reverse System (GTS and GTI Models)

Lubricate support plate sliding area of sliding block and triangular lever with synthetic grease.

Also lubricate sliding washer and selector lever stem.



- Sliding block Sliding washer
- Sliding washe
   Support plate

# **Periodic Inspection**

Routine maintenance is necessary for all mechanized products. A periodic inspection contributes to the products life span.

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

IMPORTANT: Schedule for watercraft rental operations or higher number of hour use, will require greater frequency of inspection and maintenance.

# **Periodic Inspection Chart**

	FREQUENCY				
DESCRIPTION	every 10 hours	every 25 hours	every 50 hours	every 100 hours or seasonally	To be performed by
Lubrication / corrosion protection	1		<b>✓</b>		OPERATOR
Engine ignition timing				<b>V</b>	DEALER
Spark plug replacement			<b>✓</b>		DEALER
Throttle / choke cables, inspection / lubrication	1	<b>✓</b>			OPERATOR
Flame arrester inspection			1		DEALER
Carburetor adjustment including choke / throttle cable adjustments				1	DEALER
Oil injection pump adjustment				<b>/</b>	DEALER
Fuel filter and oil filter inspection		✓			DEALER
Oil filter and fuel filter replacement				<b>/</b>	DEALER
Engine head bolts, retorque				<b>V</b>	DEALER
Steering system			<b>✓</b>		DEALER
Reverse system / reverse cable adjustment (GTS / GTI)				<b>v</b>	DEALER
Variable Trim System (SPX / XP)			<b>/</b>		DEALER
Fastener tightening (flame arrester, carburetor(s), engine mount, exhaust system, etc.)			1		DEALER
Muffler, battery and reservoir fastening devices			<b>/</b>		OPERATOR
Fuel lines, check-valve and fuel system pressurization			1		DEALER
Fuel vent line pressure relief valve inspection		<b>✓</b>			DEALER
Inspect / clean engine drain tube	1)	✓			DEALER
Bilge system / water tank trap drains inspection (GTS / GTI)			1		OPERATOR
Battery condition			<b>✓</b>		DEALER
Electrical connections (battery, starter, etc)		<b>✓</b>			DEALER
Monitoring beeper			<b>/</b>		DEALER
Impeller shaft reservoir oil level / oil condition		<b>✓</b>		Replace	DEALER
Impeller condition and impeller / wear ring clearance			<b>√</b> ②		DEALER
Drive shaft boot and spline condition (both ends)			<b>√</b> ②		DEALER
PTO flywheel lubrication	<b>/</b>				OPERATOR
Water intake grate condition			<b>√</b> ②		OPERATOR
Hull condition				<b>V</b>	OPERATOR
Cooling system flushing		<b>√</b> ①			OPERATOR

**ONOTE**: Some items are included in the PRE-OPERATION CHECKS and are not necessarily repeated in this chart.

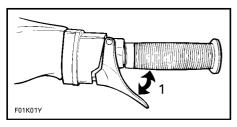
- ① Every 10 hours in salt water use.
- ② These items have to be initially checked after 25 hours. Thereafter, servicing to be made as specified in this chart.
- ③ Daily flushing in salt water or foul water use.

# 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.

WARNING: If throttle lever does not automatically return, do not operate watercraft and see your dealer.



1. Must move freely

## **Choke Cable Inspection**

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

# **Carburetor Adjustment**

Carburetor adjustment is very important to allow good engine operation and therefore watercraft performance. Carburetor adjustment requires technical knowledge and experience to have the correct mixture supplied to the engine. This critical adjustment 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**

These filters should be replaced by an authorized dealer annually. Fuel system pressurization should be conducted at the same time.

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

# **Steering Alignment**

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

Refer to an authorized dealer if an adjustment is necessary.

WARNING: Ensure the handlebar/jet pump nozzle operate freely from side to side and are not stressing the steering cable and / or bracket.

Steering system wear should be inspected every 50 hours by an authorized dealer.

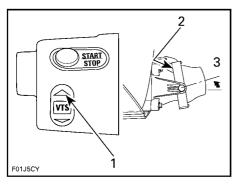
# Reverse Gate Adjustment (GTS and GTI Models)

When selector lever is pushed in and locked, reverse gate should be in upward position. With the lever half way out and locked, reverse gate should be in middle position. When lever is fully pulled out, reverse gate should be in downward position. Refer to an authorized dealer if adjustment is necessary.

WARNING: Ensure the selector lever / reverse gate operate freely and are not stressing the reverse cable. Always make sure selector lever locks in forward.

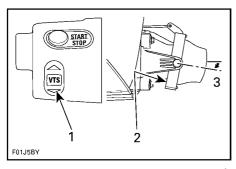
# VTS Adjustment (SPX and XP Models)

Push on arrow pointing upwards on VTS button until the VTS stops. The nozzle should be up (8°) without interfering with venturi housing.



- 1. Push on arrow pointing upwards on VTS button
- 2. No interference
- 3. Nozzle up

Push on arrow pointing downwards on VTS button until VTS stops. The nozzle must be down (10°) and it must not interfere with venturi housing.



- 1. Push on arrow pointing downwards on VTS button
- 2. No interference
- 3. Nozzle down

If VTS needs to be readjusted, refer to an authorized dealer.

CAUTION: Trim ring and / or nozzle must not interfere at any position. Damage will occur if adjustments are not done adequately.

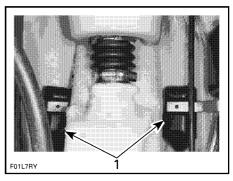
# **Vacuum Bailer Pick-Ups**

They are located each side of the drive shaft tunnel.

Two pick-ups use a low pressure area in the jet pump to syphon the water out of the bilge.

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

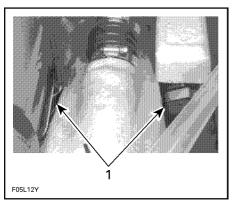
### All Models Except HX



1. Vacuum bailer pick-ups

## HX Model Only

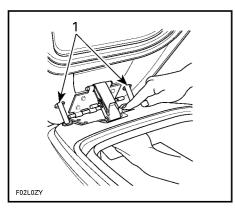
NOTE: Remove the access cover at rear of watercraft to access bailer pick-ups.



1. Vacuum bailer pick-ups location

# Water Tank Trap Drains (GTS and GTI Models)

Open storage cover and check for possible obstructions at drain outlets.



1. Outlets

### **Fuses**

### All Models Except XP

The electrical system is protected with 2 fuses (except the SPX model, which has 3 fuses).

A 15 A fuse protects the charging system. If the battery is regularly discharged, check fuse condition.

A 5 A fuse protects the starting system, accessories and controls. If starter does not operate, check fuse condition.

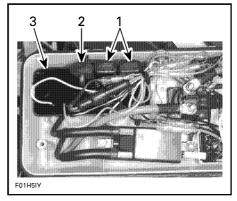
Also, the variable trim system (VTS) on the SPX model is protected by a 7.5 A fuse.

All fuses are located in the electrical box

To access fuses, unclip and move away electrical box from its seat.

Open the electrical box.

Remove fuse caps.



- 1. Fuse caps
- 2. Spare fuse holder
- 3. MPFN

If defective, replace the fuse by one of the same rating. Make sure to properly close the fuse cap.

CAUTION: Do not use a higher rated fuse as this can cause severe damage. Refer to SPECIFICATIONS section for recommended fuse rating. If a fuse is regularly burnt, refer to an authorized dealer.

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

Properly close the electrical box cover making sure its seal is well positioned.

## XP Model Only

The electrical system is protected with 5 fuses.

Two 15 A fuses protect the charging system. One fuse is located in the front electrical box and the other one is in the rear electrical box. If the battery is regularly discharged, check fuses.

Also, the holder relay which prevents the discharged of the battery through the ignition system when the craft is not running, is protected by a 5 A fuse. The holder relay is located in the front electrical box.

A 5 A fuse protects the starting system, accessoires and controls. The fuse is located in the front electrical box. If the starter does not operate, check condition of this fuse and the one of the holder relay.

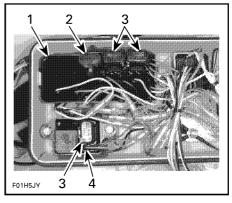
A 7.5 A fuse protects the variable trim system (VTS). The fuse is located in the rear electrical box.

To access fuses in the front electrical box, open storage cover and remove basket.

Unplug connectors of the front electrical box.

Unclip the electrical box from its seat and remove it.

Open the electrical box.



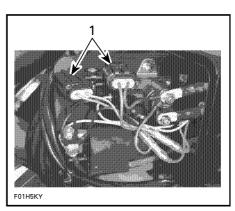
### FRONT ELECTRICAL BOX

- 1. MPEM
- 2. Spare fuse holder
- 3. Fuse caps
- 4. Holder relay

Remove fuse caps to check fuse condition.

To access fuses in the rear electrical box, remove seat and vent tube support.

Unclip cover of rear electrical box and move cover beside box.



REAR ELECTRICAL BOX

1. Fuse holder

Unclip and pull out fuse connector to check fuse condition.

If defective, replace the fuse by one of the same rating.

CAUTION: Do not use a higher rated fuse as this can cause severe damage. Refer to SPECIFICATIONS section for recommended fuse rating. If a fuse is regularly burnt, refer to an authorized dealer.

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

Properly close cover of each electrical box, making sure each seal is well positioned.

# General Inspection and Care

# Inspection

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

WARNING: If any gasoline leak or odor is found, do not start the engine. Have the watercraft serviced by an authorized dealer.

Inspect muffler, battery and fuel/oil reservoir fastening devices. Check electrical connections for corrosion and tightness.

Inspect hull and jet pump water intake grate 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 and mildew.

Occasionally, wash the body with water and soap (only use mild detergent). Remove any marine organisms from engine and/or hull. Apply non-abrasive wax such as silicone wax.

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

# TRANSPORTATION, STORAGE AND PRE-SEASON PREPARATION

# **Transportation**

WARNING: Always turn the fuel valve to OFF position when transporting or docking the water-

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.

Ensure seat and storage cover are properly latched.

A SEA-DOO cover should protect the watercraft, particularly before driving on dirt roads, to prevent dirt entry through the air intake opening(s).

Observe trailering safety precautions.

# Storage

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



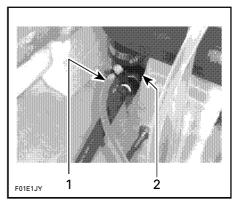
CAUTION: Do not run the engine during the storage period.

# **Engine Draining**

Check engine drain hose. Make sure there is no sand or other particles in it and that it is not obstructed so that water can leave the engine. Clean hose and fitting as necessary.

CAUTION: Water in engine drain hose must be free to flow out, otherwise water could be trapped in engine. Should water freeze in engine, severe damage will occur. Check engine drain hose for obstructions.

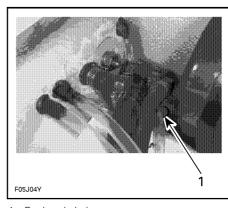
### All Models Except HX



#### **TYPICAL**

- 1. Engine drain hose
- 2. Exhaust outlet

#### HX Model



1. Engine drain hose

## Watercraft Rinsing

Thoroughly rinse the watercraft hull, bilge, engine compartment, with fresh water

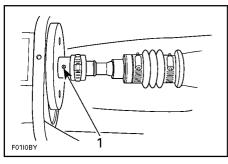
## **Propulsion System**

Lubricant in impeller shaft reservoir should be drained and reservoir cleaned. Refilled with 90 mL (3.0 U.S. oz) of SEA-DOO synthetic polyolester oil (75W90 GL5 type C gear lube). Refer to an authorized dealer for this operation.

CAUTION: Use only SEA-DOO jet pump oil or equivalent synthetic gear oil, otherwise component service life could be reduced. Do not mix oil brands or types.

Lubricate PTO flywheel at grease fitting with synthetic grease.

CAUTION: Do not lubricate excessively. Immediately stop when a slight movement is noticed on rubber boot.



1. Grease PTO flywhell

### **Fuel System**

SEA-DOO fuel stabilizer (or equivalent), can be added in fuel tank to prevent fuel deterioration and carburetor gumming. Follow manufacturer's instructions for proper use.

CAUTION: Fuel stabilizer should be added prior engine lubrication to ensure carburetor protection against varnish deposit.

WARNING: Fuel 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 fuel spillage from the watercraft. Always turn the fuel valve to OFF position when storing the watercraft.

### Cooling System Flushing and Engine Internal Lubrication

Refer to procedure discussed in POST-OPERATION CARE.

### **Battery**

Contact your authorized dealer or refer to the appropriate *Shop Manual* for proper storage procedure.

#### **Anticorrosion Treatment**

Wipe off any residual water in the engine compartment.

Spray BOMBARDIER LUBE lubricant over metallic components in engine compartment.

# Additional Recommended Protection

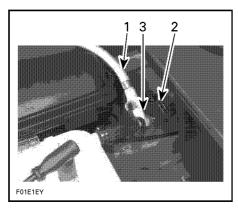
Cooling system may be filled with an equal part of water and antifreeze solution.

CAUTION: Always use ethylene glycol antifreeze containing corrosion inhibitors specifically recommended for aluminum engines.

## All Models Except the HX

Install coupler hose to fitting spigot.

Install a hose pincher to engine water return hose (beside fitting spigot).

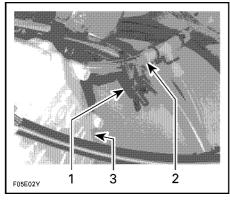


- 1. Coupler hose
- 2. Hose pincher
- 3. Fitting spigot

Pour slowly the antifreeze mixed with water in coupler hose until the colored solution appears in the engine drain hose.

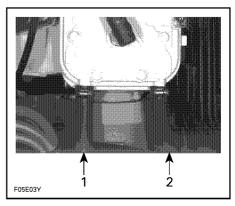
## HX Model Only

Install a hose pincher to engine drain hose.



- 1. Hose pincher (P/N 295 000 076)
- 2. Drain hose
- 3. Magneto housing cover

Disconnect engine water supply hose and engine water return hose.



- 1. Engine water supply hose
- 2. Engine water return hose

Install temporarily one hose to engine water inlet at cylinder head.

Insertafunnelintohoseandpour about 1 liter (1 qt) of antifreeze mixed with water in engine.

Remove temporary hose and reconnect engine water supply hose and engine water return hose.

Remove hose pincher.

#### All Models

The following steps should be performed to provide the watercraft enhanced protection.

Remove muffler and drain out as much water as possible. Reinstall muffler.

**OR**: Disconnect one hose from muffler and pour some antifreeze solution inside muffler. Reconnect hose.

Lubricate the throttle cable with BOM-BARDIER LUBE lubricant.

NOTE: A cable luber can be used on throttle cable end to inject BOMBARDIER LUBE lubricant.

Clean the bilge with hot water and detergent or with bilge cleaner. Rinse thoroughly. Lift front end of watercraft to completely drain bilge. If any repairs are needed to body or to the hull contact your dealer. For paint touch up to mechanical parts use Bombardier spray paint. For small gelcoat repairs, a Bombardier repair kit is available. See ACCESSORIES AND SERVICE PRODUCTS section. Replace damaged labels / decals.

NOTE: Bilge cleaning should be done prior to anticorrosion treatment.

Wash the body with soap and water solution (only use mild detergent). Rinse thoroughly with fresh water. Remove marine organisms from the hull. Apply a nonabrasive wax such as silicone wax.

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

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

CAUTION: The watercraft must never be left in water for storage. Never leave the watercraft stored in direct sunlight. UV radiation will dull finishes.

The seat should be partially left opened during storage (except HX). This will avoid engine compartment condensation and possible corrosion.

NOTE: If the watercraft is stored outside with seat partially opened and without a tarpaulin, unscrew the rear drain plug in order to avoid water build up in the bilge during rainfall. Tilt the watercraft to the rear so that water can flow out of floorboard.

# **Pre-Season Preparation**

Use the following chart.

Since technical skills and special tools are required, some operations should be performed by an authorized dealer.

WARNING: Observe all WARNINGS and CAUTIONS mentioned throughout this guide 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**

NOTE: It is highly recommended that the dealer perform at the same time the annual safety inspection and factory campaigns in addition to the preseason preparation.

OPERATIONS	To be performed by
Lubrication / corrosion protection	OPERATOR
Battery condition / charging and reinstallation	DEALER
Battery, starter connections and routing ②	DEALER
Spark plug replacement ①	OPERATOR
Impeller shaft reservoir oil inspection	DEALER
Propulsion system inspection	DEALER
Oil filter replacement	DEALER
Oil injection reservoir filling	OPERATOR
Flame arrester cleaning / inspection ②	DEALER
Fuel filter replacement	DEALER
Fuel line condition @	DEALER
Filler neck, fuel tank and fuel cap condition @	DEALER
Check valves, fasteners, fuel system pressurization ②	DEALER
Throttle ② and choke cable inspection / adjustment	DEALER
Oil injection pump adjustment and bleeding	DEALER
Engine ignition timing	DEALER
Carburetor adjustment	DEALER
Steering system adjustment / inspection @	DEALER
Reverse cable adjustment (GTS / GTI)	DEALER
Inspection of water tank trap drains (GTS / GTI) / bilge lines / bailer pick-ups	DEALER
Inspection of cooling system hoses	DEALER
Monitoring beeper	DEALER
Digitally encoded security system (if equipped)	DEALER
Fire extinguisher condition / mounting @	OPERATOR

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

WARNING: Only perform this operation in a well ventilated area. Coupler hose must be installed or watercraft must be in water to cool engine. Running the engine without cooling water will damage exhaust hose interior and may damage engine.

68 \_\_\_\_\_

<sup>2</sup> Safety item covered in the annual safety inspection.

# **TROUBLESHOOTING**

The following chart is provided to help in diagnosing the probable source of simple troubles. You may be able to solve many of these problems rather quickly, but others may require the skills of a mechanical technician. In such a case, consult an authorized dealer for servicing.

### **Monitoring Beeper Coded Signals**

### Watercraft Equipped with the Digitally Encoded Security System

CODED SIGNALS	POSSIBLE CAUSE	REMEDY
2 short beeps (while installing safety lanyard on craft switch).	Confirms safety lanyard signal operation.	Engine can be started.
1 long beep (while installing safety lanyard on craft switch or when pressing start/stop button in some cases).	Bad connection.	Reinstall safety lanyard cap correctly over switch.
	Wrong safety lanyard.	Use a safety lanyard that has been programmed for the craft.
	Defective safety lanyard.	Use another progammed safety lanyard.
	<ul> <li>Salt water in safety lanyard cap.</li> </ul>	Clean safety lanyard cap to remove salt water.
	<ul> <li>Improper operation of MPEM or defective wiring harness.</li> </ul>	Refer to an authorized dealer.
4 long beeps (while installing safety lanyard on craft switch).	<ul> <li>No communication between MPEM and DC-CDI module (XP model only).</li> </ul>	Check fuse of holder relay in the main electrical box.
8 short beeps.	Defective MPEM.	Refer to an authorized dealer.

#### All Models

0 :: 1 1	Lei	O ENGINE OVERHEATO
Continuously beeps.	Engine overheats.	See ENGINE OVERHEATS.

### **Engine will not Start**

OTHER OBSERVATION	POSSIBLE CAUSE	REMEDY
Engine does not turn over.	Safety lanyard removed.	Install cap over switch.
_	Burnt fuse.	Check wiring then replace fuse.
	<ul> <li>Discharged battery.</li> </ul>	Refer to an authorized dealer.
	<ul> <li>Battery connections, corroded or loose.</li> </ul>	Refer to an authorized dealer.
	Water flooded engine.	Refer to <b>Submerged Watercraft</b> in SPECIAL PROCEDURES.
Engine slowly turns.	<ul> <li>Discharged or weak battery.</li> </ul>	Refer to an authorized dealer.
Engine turns over.	Fuel tank empty or water- contaminated.	Refill. Syphon and fill with fresh fuel.
	<ul> <li>Fuel filter clogged or water- contaminated.</li> </ul>	Clean, check fuel tank for water.
	Fuel flooded engine :	
	<ul> <li>Fouled / defective spark plugs.</li> </ul>	Replace.
	<ul> <li>Misuse of choke.</li> </ul>	Use only with cold engine. Replace spark plugs.

# **Engine Misfires, Runs Irregularly**

OTHER OBSERVATION	POSSIBLE CAUSE	REMEDY
Weak spark.	<ul> <li>Fouled/defective/worn spark plugs.</li> </ul>	Replace.
	<ul> <li>Faulty rev limiter.</li> </ul>	Refer to an authorized dealer.
	<ul> <li>Too much oil supplied to engine.</li> </ul>	Improper oil pump adjustment, refer to an authorized dealer.
Lean fuel mixture.	<ul> <li>Fuel: Level too low, stale or water-contaminated.</li> </ul>	Syphon and/or refill.
	<ul> <li>Fuel filter, clogged or water-contaminated.</li> </ul>	Refer to an authorized dealer.
	<ul> <li>Fuel valve partially opened.</li> </ul>	Turn fuel valve to ON position.
Rich fuel mixture (high fuel consumption).	<ul> <li>Flame arrester dirty/clogged.</li> </ul>	Clean or replace.
	<ul> <li>Partially closed choke.</li> </ul>	Refer to an authorized dealer.

# **Engine Overheats**

OTHER OBSERVATION	POSSIBLE CAUSE	REMEDY
Monitoring beeper sounds continuously.	<ul> <li>Clogged jet pump water intake.</li> </ul>	Clean.
	<ul> <li>Incorrect type of fuel or oil.</li> </ul>	Syphon and refill.
	Clogged coolant system.	Flush cooling system with coupler hose.

# **Engine Continually Backfires**

OTHER OBSERVATION	POSSIBLE CAUSE	REMEDY
	• Faulty rev limiter.	Refer to an authorized dealer.
Weak spark.	<ul> <li>Fouled/defective/worn spark plugs.</li> </ul>	Replace.
Overheated engine.	• See ENGINE OVERHEATS.	

# **Engine pinging or Knocking**

OTHER OBSERVATION	POSSIBLE CAUSE	REMEDY
	<ul> <li>Poor quality gasoline/low octane.</li> </ul>	Use well known quality and recommended gasoline.
	<ul> <li>Spark plug heat range too high.</li> </ul>	Use recommended spark plugs.
	<ul> <li>Ignition timing.</li> </ul>	Refer to an authorized dealer.

# **Engine Lacks Acceleration or Power**

OTHER OBSERVATION	POSSIBLE CAUSE	REMEDY
	<ul> <li>Weak spark/incorrect fuel mixture.</li> </ul>	Refer to ENGINE MISFIRES, RUNS IRREGULARLY.
	<ul> <li>Water in fuel or injection oil.</li> </ul>	Syphon and replace.
Overheated engine.	• See ENGINE OVERHEATS.	

70 \_\_\_\_\_

## Watercraft can not Reach Top Speed

OTHER OBSERVATION	POSSIBLE CAUSE	REMEDY
Cavitation.	<ul> <li>Jet pump water intake clogged.</li> </ul>	Clean.
	Damaged impeller.	Replace. Refer to an authorized dealer.

## **Abnormal Noise from Propulsion System**

OTHER OBSERVATION	POSSIBLE CAUSE	REMEDY	
Cavitation.	<ul> <li>Weeds or debris jammed around impeller.</li> </ul>	Clean and check for damage.	
	<ul> <li>Damaged impeller shaft or drive shaft.</li> </ul>	Refer to an authorized dealer.	

## SPECIFICATIONS \_\_\_\_\_

ENGINE		SP (5876)	SPI (5878)
Engine type		Rotax 587, 2-stroke	Rotax 587, 2-stroke
Induction typ	е	Rotary valve	Rotary valve
Exhaust syste	em	Water cooled / water injected	Water cooled / water injected
Lubrication	Туре	Oil injection	Oil injection
	Oil type	BOMBARDIER ROTAX INJECTION OIL	BOMBARDIER ROTAX INJECTION OIL
Number of cy	/linders	2	2
Displacemen	t	580 cm <sup>3</sup> (35.43 in <sup>3</sup> )	580 cm <sup>3</sup> (35.43 in <sup>3</sup> )
Rev limiter se	etting	6550 RPM ± 50	6550 RPM ± 50
COOLING			
Type		Water cooled, total loss type.	Water cooled, total loss type.
		Direct flow from propulsion unit.	Direct flow from propulsion unit.
ELECTRICAL			
Magneto gen	erator output	160 W @ 6000 RPM	160 W @ 6000 RPM
Ignition syste	m type	CDI	CDI
Spark plug	Make and type	NGK, BR7ES	NGK, BR7ES
	Gap	0.5 - 0.6 mm (.020024 in)	0.5 - 0.6 mm (.020024 in)
Starting syste	em	Electric starter	Electric starter
Battery		12 V, 19 A	12 V, 19 A
Fuse	Starting system	5 A	5 A
Charging system		15 A	15 A
CARBURETION	ON		
Fuel type		Regular unleaded gasoline	Regular unleaded gasoline
Carburetor		BN 38 Diaphragm Quantity : 1	BN 38 Diaphragm Quantity : 1

PROPULSION		SP (5876)	)	SPI (5878	3)
Propulsion sy	stem	Bombardier Formula pump		Bombardi pump	er Formula
Jet pump typ	е	Axial flow	Axial flow, single stage		, single stage
Transmission		Direct driv	/e	Direct driv	/e
Impeller shaf type	t reservoir oil	SEA-DOC polyoleste GL5	) synthetic er oil 75W90	SEA-DOC polyoleste GL5	) synthetic er oil 75W90
Pivoting angle (nozzle)	e of direction	~ 26°		~ 26°	
Pivoting angle trim system	e of variable	N.A.		N.A.	
Minimum req level for jet p	juired water ump	90 cm	(3 ft)	90 cm	(3 ft)
PERFORMAN	NCE				
Cruising time at full throttle	Fuel tank without reserve	~1 hour 2	0 minutes	~1 hour 1	2 minutes
	Fuel tank reserve	~15 minutes		~14 minutes	
DIMENSIONS					
Number of pa	assengers ①	1 operato passenge		1 operato passenge	
Overall length	1	254 cm	(100 in)	254 cm	(100 in)
Overall width		105 cm	(41.5 in)	105 cm	(41.5 in)
Overall heigh	t	92 cm	(36.2 in)	92 cm	(36.2 in)
Weight		176 kg	(387 lb)	178 kg	(392 lb)
Load limit (passengers -	+ luggage)	160 kg	(352 lb)	160 kg	(352 lb)
Hull material		Composit	e (fiberglass)	Composit	e (fiberglass)
CAPACITIES					
Fuel tank		34 L	(9 U.S. gal)	34 L	(9 U.S. gal)
Impeller shaft reservoir	Capacity	90 mL	(3 U.S. oz)	90 mL	(3 U.S. oz)
Oil level Up		Up to plug	9	Up to plug	9
Oil injection r	eservoir	4.5 L	(1.2 U.S. gal)	4.5 L	(1.2 U.S. gal)

### ① Refer to load limit.

N.A.: Not Applicable.

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ENGINE		SPX (5877)	XP (5858 / 5859)
Engine type		Rotax 717, 2-stroke	Rotax 787, 2-stroke
Induction type		Rotary valve	Rotary valve
Exhaust syst	em	Water cooled / water injected	Water cooled / water injected
Exhaust valve	Э	N.A.	R.A.V.E.
Lubrication	Туре	Oil injection	Oil injection
	Oil type	BOMBARDIER ROTAX Injection Oil	FORMULA XP-S Synthetic Injection Oil
Number of cy	ylinders	2	2
Displacemen	t	718 cm <sup>3</sup> (43.81 in <sup>3</sup> )	782 cm <sup>3</sup> (47.69 in <sup>3</sup> )
Rev limiter se	etting	7000 RPM ± 50	7200 RPM ± 50
COOLING			
Туре		Water cooled, total loss type.	Water cooled, total loss type.
		Direct flow from propulsion unit.	Direct flow from propulsion unit.
ELECTRICAL	-		
Magneto ger	nerator output	160 W @ 6000 RPM	180 W @ 6000 RPM
Ignition syste	em type	CDI	DC-CDI
Spark plug	Make and type	NGK, BR8ES	NGK, BR8ES
	Gap	0.5 - 0.6 mm (.020024 in)	0.5 - 0.6 mm (.020024 in)
Starting syste	em	Electric starter	Electric starter
Battery		12 V, 19 A	12 V, 19 A
Fuse	Starting system	5 A	5 A
	Charging system	15 A	2 x 15 A
VTS system		7.5 A	7.5 A
Holder relay		N.A.	5 A
CARBURETI	ON		
Fuel type		Regular unleaded gasoline	Regular unleaded gasoline
Carburetor		BN 381 Diaphragm Quantity : 2	BN 401 Diaphragm Quantity : 2

N.A.: Not Applicable.

7Δ

Propulsion system	PROPULSION		SPX (587	7)	XP (5858	/ 5859)	
Direct drive   Direct drive   Direct drive   Direct drive   SEA-DOO synthetic polyolester oil 75W90 GL5   SEA-D	Propulsion sy	rstem				ier Formula	
Impeller shaft reservoir oil type	Jet pump typ	е	Axial flow	Axial flow, single stage		Axial flow, single stage	
Privoting angle of direction (nozzle)	Transmission		Direct driv	/e	Direct driv	ve	
Pivoting angle of variable trim system		t reservoir oil	polyoleste	) synthetic er oil 75W90	polyoleste	) synthetic er oil 75VV90	
Minimum required water level for jet pump         90 cm         (3 ft)         90 cm         (3 ft)           PERFORMANCE           Cruising time at full throttle         Fuel tank without reserve         ~45 minutes         ~36 minutes           Fuel tank without reserve         ~9 minutes         ~7 minutes           DIMENSIONS           Number of passengers ①         1 operator and 1 passenger         1 operator and 1 passenger           Overall length         254 cm         (100 in)         254 cm         (100 in)           Overall width         105 cm         (41.5 in)         105 cm         (41.5 in)           Overall height         92 cm         (36.2 in)         92 cm         (36.2 in)           Weight         187 kg         (412 lb)         197 kg         (434 lb)           Load limit (passengers + luggage)         160 kg         (352 lb)         160 kg         (352 lb)           CAPACITIES           Fuel tank         34 L         (9 U.S. gal)         34 L         (9 U.S. gal)           Impeller shaft reservoir         Oil level         Up to plug         Up to plug		e of direction	~ 26°		~ 26°		
PERFORMANCE           Cruising time at full throttle         Fuel tank reserve         ~45 minutes         ~36 minutes           Fuel tank reserve           Fuel tank reserve         ~9 minutes         ~7 minutes           Number of passengers ①           Number of passengers ②         1 operator and 1 passenger           Overall length         254 cm (100 in)         254 cm (100 in)           Overall width         105 cm (41.5 in)         105 cm (41.5 in)           Overall height         92 cm (36.2 in)         92 cm (36.2 in)           Weight         187 kg (412 lb)         197 kg (434 lb)           Load limit (passengers + luggage)         160 kg (352 lb)         160 kg (352 lb)           Hull material         Composite (fiberglass)         Composite (fiberglass)           CAPACITIES           Fuel tank         34 L (9 U.S. gal)         34 L (9 U.S. gal)           Impeller shaft reserve         Oil level         Up to plug         Up to plug		e of variable	~ 8°		~ 8°		
Cruising time at full throttle         Fuel tank reserve         ~45 minutes         ~36 minutes           Fuel tank reserve         ~9 minutes         ~7 minutes           Number of passengers ①         1 operator and 1 passenger         1 operator and 1 passenger           Overall length         254 cm (100 in)         254 cm (100 in)           Overall width         105 cm (41.5 in)         105 cm (41.5 in)           Overall height         92 cm (36.2 in)         92 cm (36.2 in)           Weight         187 kg (412 lb)         197 kg (434 lb)           Load limit (passengers + luggage)         160 kg (352 lb)         160 kg (352 lb)           Hull material         Composite (fiberglass)         Composite (fiberglass)           CAPACITIES           Fuel tank         34 L (9 U.S. gal)         34 L (9 U.S. gal)           Impeller shaft reservoir         Oil level         Up to plug         Up to plug	Minimum red level for jet p	juired water ump	90 cm	(3 ft)	90 cm	(3 ft)	
time at full throttle         without reserve         ~45 minutes         ~36 minutes           Fuel tank reserve         ~9 minutes         ~7 minutes           DIMENSIONS           Number of passengers ①           1 operator and 1 passenger           Doverall length         254 cm (100 in)         254 cm (100 in)           Overall length         105 cm (41.5 in)         105 cm (41.5 in)           Overall height         92 cm (36.2 in)         92 cm (36.2 in)           Weight         187 kg (412 lb)         197 kg (434 lb)           Load limit (passengers + luggage)         160 kg (352 lb)         160 kg (352 lb)           Hull material         Composite (fiberglass)           CAPACITIES           Fuel tank         34 L (9 U.S. gal)         34 L (9 U.S. gal)           Impeller shaft reservoir         Oil level         Up to plug         Up to plug	PERFORMA	NCE					
DIMENSIONS           Number of passengers ①         1 operator and 1 passenger         1 operator and 1 passenger           Overall length         254 cm (100 in)         254 cm (100 in)         (100 in)           Overall width         105 cm (41.5 in)         105 cm (41.5 in)           Overall height         92 cm (36.2 in)         92 cm (36.2 in)           Weight         187 kg (412 lb)         197 kg (434 lb)           Load limit (passengers + luggage)         160 kg (352 lb)         160 kg (352 lb)           Hull material         Composite (fiberglass)         Composite (fiberglass)           CAPACITIES           Fuel tank         34 L (9 U.S. gal)         34 L (9 U.S. gal)           Impeller shaft reservoir         Oil level         Up to plug         Up to plug	time at full	without	~45 minu	~45 minutes		~36 minutes	
Number of passengers ①         1 operator and 1 passenger         1 operator and 1 passenger           Overall length         254 cm (100 in)         254 cm (100 in)           Overall width         105 cm (41.5 in)         105 cm (41.5 in)           Overall height         92 cm (36.2 in)         92 cm (36.2 in)           Weight         187 kg (412 lb)         197 kg (434 lb)           Load limit (passengers + luggage)         160 kg (352 lb)         160 kg (352 lb)           Hull material         Composite (fiberglass)         Composite (fiberglass)           CAPACITIES         34 L (9 U.S. gal)         34 L (9 U.S. gal)           Impeller shaft reservoir         Oil level         Up to plug         Up to plug			~9 minute	es	~7 minute	es	
Display	DIMENSIONS						
Overall width         105 cm (41.5 in)         105 cm (41.5 in)           Overall height         92 cm (36.2 in)         92 cm (36.2 in)           Weight         187 kg (412 lb)         197 kg (434 lb)           Load limit (passengers + luggage)         160 kg (352 lb)         160 kg (352 lb)           Hull material         Composite (fiberglass)         Composite (fiberglass)           CAPACITIES           Fuel tank         34 L (9 U.S. gal)         34 L (9 U.S. gal)           Impeller shaft reservoir         Capacity         90 mL (3 U.S. oz)         90 mL (3 U.S. oz)           Oil level         Up to plug         Up to plug	Number of pa	assengers ①					
Overall height         92 cm         (36.2 in)         92 cm         (36.2 in)           Weight         187 kg         (412 lb)         197 kg         (434 lb)           Load limit (passengers + luggage)         160 kg         (352 lb)         160 kg         (352 lb)           Hull material         Composite (fiberglass)         Composite (fiberglass)           CAPACITIES           Fuel tank         34 L         (9 U.S. gal)         34 L         (9 U.S. gal)           Impeller shaft reservoir         Oil level         Up to plug         Up to plug	Overall length	า	254 cm	(100 in)	254 cm	(100 in)	
Weight         187 kg         (412 lb)         197 kg         (434 lb)           Load limit (passengers + luggage)         160 kg         (352 lb)         160 kg         (352 lb)           Hull material         Composite (fiberglass)         Composite (fiberglass)           CAPACITIES           Fuel tank         34 L         (9 U.S. gal)         34 L         (9 U.S. gal)           Impeller shaft reservoir         Oil level         Up to plug         Up to plug	Overall width		105 cm	(41.5 in)	105 cm	(41.5 in)	
Load limit (passengers + luggage)  Hull material  Composite (fiberglass)  CAPACITIES  Fuel tank  Impeller shaft reservoir  Oil level  160 kg (352 lb)  160 kg (352 lb)  Composite (fiberglass)  Composite (fiberglass)  Composite (fiberglass)  34 L (9 U.S. gal)  34 L (9 U.S. gal)  90 mL (3 U.S. oz)  Up to plug  Up to plug	Overall heigh	t	92 cm	(36.2 in)	92 cm	(36.2 in)	
Capacity   Policy   Polic	Weight		187 kg	(412 lb)	197 kg	(434 lb)	
CAPACITIES           Fuel tank         34 L         (9 U.S. gal)         34 L         (9 U.S. gal)           Impeller shaft reservoir         Capacity         90 mL         (3 U.S. oz)         90 mL         (3 U.S. oz)           Oil level         Up to plug         Up to plug		+ luggage)	160 kg	(352 lb)	160 kg	(352 lb)	
Fuel tank  34 L (9 U.S. gal) 34 L (9 U.S. gal)  Impeller shaft reservoir  Oil level  Up to plug  Up to plug  Up to plug	Hull material		Composit	e (fiberglass)	Composit	te (fiberglass)	
Impeller shaft reservoir  Oil level  Oil vel  Oi	CAPACITIES						
shaft reservoir  Oil level Up to plug Up to plug  On the shaft of the shape of the	Fuel tank		34 L	(9 U.S. gal)	34 L	(9 U.S. gal)	
	shaft	Capacity			90 mL	(3 U.S. oz)	
Oil injection reservoir 4.5 L (1.2 U.S. gal) 4.5 L (1.2 U.S. gal)		Oil level	Up to plug	9	Up to plu	g	
	Oil injection r	eservoir	4.5 L	(1.2 U.S. gal)	4.5 L	(1.2 U.S. gal)	

① Refer to load limit.

N.A.: Not Applicable.

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ENGINE		HX (5881)
Engine type		Rotax 717, 2-stroke
Induction typ	е	Rotary valve
Exhaust syst	em	Water cooled / water injected
Lubrication	Туре	Oil injection
	Oil type	BOMBARDIER ROTAX INJECTION OIL
Number of c	ylinders	2
Displacemen	t	718 cm <sup>3</sup> ( 43.81 in <sup>3</sup> )
Rev limiter s	etting	7000 RPM ± 50
COOLING		
Туре		Water cooled,total loss type. Direct flow from propulsion unit.
ELECTRICAL	_	
Magneto ger	nerator output	160 W @ 6000 RPM
Ignition syste	em type	CDI
Spark plug	Make and type	NGK BR8ES
	Gap	0.5 - 0.6 mm (.020024 po)
Starting syst	em	Electric starter
Battery		12 V, 19 A
Fuse	Starting system	5 A
	Charging system	15 A
VTS system		N.A.
CARBURETI	ON	
Fuel type		Regular unleaded gasoline
Carburetor		BN 38I Diaphragm Quantity : 2

N.A.: Not applicable.

PROPULSION		HX (5881)	
Propulsion system		Bombardier Formula pump	
Jet pump type		Axial flow, single stage	
Transmission		Direct drive / split FR and RR	
Impeller shaft reserv	oir oil type	SEA-DOO synthetic polyolester oil 75W90 GL5	
Pivoting angle of dire	ection (nozzle)	~ 26°	
Pivoting angle of vari	able trim system	± 10°	
Minimum required w level for jet pump	/ater	90 cm (3 ft)	
PERFORMANCE			
Cruising time at full throttle	Fuel tank without reserve	~ 35 minutes	
	Fuel tank reserve	~ 10 minutes	
DIMENSIONS			
Number of passenge	ers	1 operator	
Overall length		273 cm (107.5 in)	
Overall width		85 cm (33.5 in)	
Overall height		97 cm (38.2 in)	
Weight		177 kg (390 lb)	
Load limit (operator + luggage)		110 kg (250 lb)	
Hull material		Composite (fiberglass)	
CAPACITIES			
Fuel tank		27 L (7 U.S. gal)	
Impeller shaft reservoir	Capacity	90 mL (3 U.S. oz)	
	Oil level	Up to plug	
Oil injection reservoi	r	4 L (1 U.S. gal)	

## N.A.: Not applicable.

BOMBARDIER INC. reserves the right to make changes in design and specifications and / or to make additions to, or improvements in its products without imposing any obligation upon itself to install them on its products previously manufactured.

ENGINE		GTS (5817)	GTI (5865 / 5866)
Engine type		Rotax 587, 2-stroke	Rotax 717, 2-stroke
Induction type		Rotary valve	Rotary valve
Exhaust syste	em	Water cooled / water injected	Water cooled / water injected
Lubrication	Туре	Oil injection	Oil injection
	Oil type	BOMBARDIER ROTAX INJECTION OIL	BOMBARDIER ROTAX INJECTION OIL
Number of cy	/linders	2	2
Displacemen	t	580 cm <sup>3</sup> (35.43 in <sup>3</sup> )	718 cm <sup>3</sup> (43.81 in <sup>3</sup> )
Rev limiter se	etting	6550 RPM ± 50	7000 RPM ± 50
COOLING			
Туре		Water cooled, total loss type.	Water cooled, total loss type.
		Direct flow from propulsion unit.	Direct flow from propulsion unit.
ELECTRICAL	•		
Magneto gen	erator output	160 W @ 6000 RPM	160 W @ 6000 RPM
Ignition syste	m type	CDI	CDI
Spark plug	Make and type	NGK, BR7ES	NGK, BR8ES
Gap		0.5 - 0.6 mm (.020024 in)	0.5 - 0.6 mm (.020024 in)
Starting syste	em	Electric starter	Electric starter
Battery		12 V, 19 A	12 V, 19 A
Fuse	Starting system	5 A	5 A
Charging system		15 A	15 A
CARBURETION	ON		
Fuel type		Regular unleaded gasoline	Regular unleaded gasoline
Carburetor		Diaphragm type Quantity : 1	Diaphragm type Quantity : 2

PROPULSION		GTS (581	7)	GTI (5865	5 / 5866)	
Propulsion sy	stem	Bombardier Formula pump		Bombardi pump	er Formula	
Jet pump typ	е	Axial flow	Axial flow, single stage		Axial flow, single stage	
Transmission		Direct driv	ve	Direct driv	/e	
Impeller shaft type	t reservoir oil	SEA-DOC polyoleste GL5	) synthetic er oil 75W90	SEA-DOC polyoleste GL5	synthetic er oil 75W90	
Pivoting angle (nozzle)	e of direction	~ 26°		~ 26°		
Pivoting angle trim system	e of variable	N.A.		N.A.		
Minimum req level for jet p	uired water ump	90 cm	(3 ft)	90 cm	(3 ft)	
PERFORMAN	NCE					
Cruising time at full throttle	Fuel tank without reserve	~1 hour 4	2 minutes	~1 hour 8	minutes	
	Fuel tank reserve	~14 minu	tes	~10 minu	tes	
DIMENSIONS						
Number of pa	Number of passengers ①			3 (5865) 2 (5866)		
Overall length	า	302 cm	(119 in)	302 cm	(119 in)	
Overall width		119 cm	(46.9 in)	119 cm	(46.9 in)	
Overall heigh	t	95 cm	(37.4 in)	95 cm	(37.4 in)	
Weight		210 kg	(465 lb)	220 kg	(484 lb)	
Load limit (passengers -	+ luggage)	225 kg	(496 lb)	225 kg	(496 lb)	
Hull material		Composit	e (fiberglass)	Composit	e (fiberglass)	
CAPACITIES						
Fuel tank		45 L	(12 U.S. gal)	45 L	(12 U.S. gal)	
Impeller shaft reservoir	Capacity	90 mL	(3 U.S. oz)	90 mL	(3 U.S. oz)	
	Oil level	Up to plug	g	Up to plug	9	
Oil injection re	eservoir	4.5 L	(1.2 U.S. gal)	4.5 L	(1.2 U.S. gal)	

① Refer to load limit.

N.A.: Not Applicable.

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# SI\* METRIC INFORMATION GUIDE

	В	ASE UNITS		
DESCRIPTION	UN	IIT	SYMBOL	
length		eter	m	
mass force		ogram wton	kg N	
liquid	lite		L	
temperature		lsius	°C	
pressure		ppascal	kPa N•m	
torque land velocity		wton-meter ometer per hour	km/h	
navigation velocity	kno		kn	
		PREFIXES		
PREFIX	SYMBOL	MEANING	VALUE	
kilo	k	one thousand	1000	
centi milli	c m	one hundredth of one thousandth of	0.01 0.001	
micro	μ	one millionth of	0.000001	
CONVERSION FACTORS				
TO CONVERT	TO	•	MULTIPLY BY	
in	mr		25.4	
in in²	cm cm		2.54 6.45	
in <sup>3</sup>	cm		16.39	
ft	m		0.3	
OZ	g kg		28.35	
lb lbf	kg N		0.45 4.4	
lbf•in	N•	m	0.11	
lbf∙ft	N●	m	1.36	
lbf∙ft	lbf		12	
PSI imp. oz	kPa	a S. oz	6.89 0.96	
imp. oz	mL		28.41	
imp. gal	U.S	S. gal	1.2	
imp. gal	L.		4.55	
U.Š. oz U.S. gal	mL L	-	29.57 3.79	
knot	MF	PH	1.15	
MPH	km	/ h	1.61	
Fahrenheit		lsius	(°F - 32) ÷ 1.8	
Celsius hp	Far kW	nrenheit /	(°C x 1.8) + 32 .75	
пþ	KVV	1	./5	

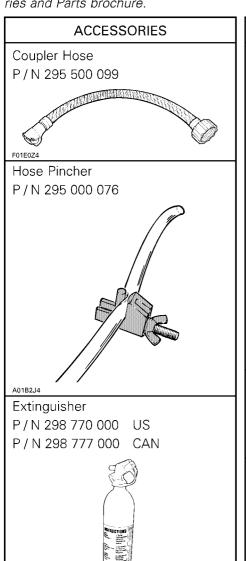
<sup>\*</sup> The international system of units abbreviates SI in all languages.

NOTE: Conversion factors are rounded off to 2 decimals for easier use.

① To obtain the reverse sequence, divide by the given factor. Example: to convert millimeters to inches, divide by 25.4.

## ACCESSORIES AND SERVICE PRODUCTS

These accessories and service products are available at your dealer. Other accessories are available, see your dealer to get a copy of the *Clothing, Accessories and Parts brochure*.



E01B0N4

## ACCESSORIES Sea-Doo Cover P / N 298 592 074 SP / SPI / SPX P/N 298 551 074 XΡ P / N 298 552 074 HX P / N 298 593 074 GTS / GTI P / N 298 550 074 GTI-2 Hull Cover P / N 298 358 040 SP / XP series P/N 298 359 040 GTS / GTI F01B0O4 Lift Kit P/N 295 100 012 SP / XP series

P/N 295 100 013 GTS/GTI

Tie-Down (purple)
Up to 1.50 m (5 ft) long
P/N 298 752 040
Up to 3.60 m (12 ft) long with ratchet
P/N 298 753 040

### **PRODUCTS**

Synthetic Grease P/N 293 550 010



F01B154

Jet Pump Synthetic Oil P/N 293 600 011



F01B0P

Spray Paint for Metallic Parts Only P / N 293 500 020 Purple P / N 293 500 029 White



F01B0Q4

### **PRODUCTS**

Dielectric Grease P/N 293 550 004



F01B164

Anti-seize Lubricant P/N 293 800 023

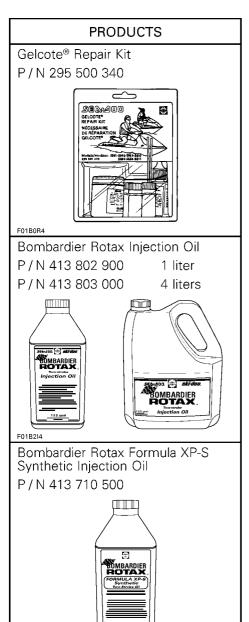


F01B174

BOMBARDIER LUBE Lubricant P/N 293 600 016



F01B0S4



F01B2G4



# OTHER PUBLICATIONS AVAILABLE

PUBLICATION	P/N
Shop Manual	219 100 031
Sea-Doo Racing Handbook	219 000 048
Specification Booklet	219 100 039

WATERCRAFT MODEL NO						
HULL IDENTIFICATION NUMBER (H.I.N.)						
ENGINE IDENTIFICATION NUMBER (E.I.N.)						
Purchase Date						
Warranty Expiry Date						
To be completed by the dealer at the time of the sale						

Please verify with your selling dealer to ensure your SEA-DOO watercraft has been registered with Bombardier.

DEALER IMPRINT AREA

## **CHANGE OF ADDRESS**

If your address has changed, be sure to fill out and mail the card provided on this page.

Such notification is likewise necessary for your own safety even after expiration of the original warranty, since Bombardier will be in a position to contact you if correction to your watercraft becomes necessary.

NOTE: This card is strictly for change of address only.

## CHANGE OF ADDRESS

CHANGE OF ADDRESS $\Box$												
VEHICLE IDENTIFICATION NUMBER	Model Number			Hull Identification					umb	oer (H	T.I.N	]  .)
OLD ADDRESS :				N,	AME							
	NO.			ST	REET	-						—— AP <sup>-</sup>
	CITY		STA	TE /	PRO	VINC			ZII	P / PC	STAL	. CODI
NEW ADDRESS:				N.	AME							
	NO.			ST	REET							—— АР <sup>-</sup>
	CITY		STA	TE /	PRO	VINC	 E		ZII	P / PO	STAL	. CODI
STOLEN UNITS		_										

In the event that your watercraft is stolen, you should notify your area's distributor warranty department of such.

Please provide your name, address, phone number, hull identification number and date it was stolen.

Bombardier will provide a list of stolen units to all watercraft dealers on a monthly basis to aid in recovery of such units to their owners.

STAMP

**BOMBARDIER INC.** SEA-DOO WARRANTY VALCOURT, QUÉBEC

CANADA JOE 2L0

