

JET SKI® SX-R

Watercraft

OWNER'S MANUAL

 Read this manual carefully. It contains safety information.

Kawasaki

Read This First!

Congratulations on purchasing a new Kawasaki JET SKI watercraft.

Your safety and the safety of other people is very important. The operator of the JET SKI watercraft is responsible for operating it safely.

This Owner's Manual explains how to operate the JET SKI watercraft properly to protect you and other people from injury. **The first part of this manual, and the instructions under “ DANGER” and “ WARNING” in the main text are particularly important for ensuring safety. Please read them carefully and be sure to follow the warnings and instructions.**

Safety alert symbols



These safety symbols alert the user to a possible human risk.

Be sure to follow all safety instructions that follow these symbols to avoid accidents that could result in personal injury or death.

Precautionary statements

These warnings indicate situations that could result in death or serious injury of the rider or other persons involved, or damage to the watercraft, and instructions on how to avoid them. The following symbols are used to indicate the seriousness of the danger.

DANGER

DANGER indicates a hazardous situation which, if not avoided, will result in death or serious injury.

WARNING

WARNING indicates a hazardous situation which, if not avoided, could result in death or serious injury.

NOTICE

NOTICE is used to address practices not related to personal injury.

NOTE

○ *NOTE* indicates information that may help or guide you in the operation or service of the vehicle.

About This Manual

Please keep this Owner's Manual for future reference. If you resell or transfer your JET SKI watercraft, be sure to provide this manual with the product.

Keep this Owner's Manual aboard your JET SKI watercraft in a waterproof bag at all times so that you can refer to it whenever necessary.

The information in this Owner's Manual may not completely match the actual product due to changes in the specifications.

Design Category

This craft is an inboard boat less than 4.8 m (16 ft) in length and, as such, is subject to all federal rules and regulations especially pertaining to boating safety and operation as enforced by the U.S. Coast Guard. States and local jurisdictions may have additional requirements for operation of powerboats in waters under their control. Additionally, other countries may have their own standards and regulations.

Please check your local boating laws and regulations before riding the watercraft.

WARNING

Engine exhaust, some of its constituents, and certain product components contain or emit chemicals known to the State of California to cause cancer and birth defects or other reproductive harm.



is a trademark of Kawasaki Heavy Industries, Ltd. registered in U.S.A., Japan, Austria, Benelux, Sweden, Denmark, Switzerland, France, Canada, Finland, Norway, Greece, Italy, U.K., Portugal, Thailand, and Taiwan.

KAWASAKI JET SKI is a trademark of Kawasaki Heavy Industries, Ltd. registered in Australia.

All rights reserved. No part of this publication may be reproduced without our prior written permission.

Quick Reference Guide

This Quick Reference Guide will assist you in finding the information you're looking for.

A Table of Contents is included after the Foreword.



SAFETY INFORMATION

PREVENT MAJOR DAMAGE

GENERAL INFORMATION

PRE-RIDE CHECK

OPERATING INSTRUCTIONS

TRANSPORTING AND STORAGE

MAINTENANCE AND ADJUSTMENTS



IN AN EMERGENCY

APPENDIX

MAINTENANCE RECORD

TABLE OF CONTENTS

 SAFETY INFORMATION	7	Shallow Water	25
Read Owner's Manual Thoroughly before		Wave Jumping.....	25
Operation.....	7	After Daily Riding.....	26
Wear PFD, Protective Clothing and Gear.....	7	Jet Pump Bearings and Seals Periodic	
Personal Flotation Device (PFD).....	7	Maintenance.....	26
Wet Suit Bottoms or Other Protective		GENERAL INFORMATION	27
Clothing.....	8	Parts Location	27
Other Protective Gear	8	Indicator Lights	29
Know Boating Laws	9	Fuel Level Warning Indicator Light (Amber)	29
Occupants and Load Limit.....	9	Engine Warning Indicator Light (Red)	30
Attach Engine Shut-Off Cord (Lanyard).....	10	Fuel	30
Ride within Your Limits	10	Fuel Requirements	30
Do not Jump Wakes or Waves	11	Filling the Tank	32
Never Ride after Consuming Drugs or		Ignition Switch	34
Alcohol.....	11	Controls	35
Do not Apply Throttle when Anyone is		Stop Button.....	36
Behind	12	Engine Shut-off Lanyard Key	36
Keep Away from Intake Grate	12	Starter Interlock Switch	37
Avoid Forceful Jet Thrust and Limited		Start Button	37
Visibility while Reboarding.....	13	Throttle Lever	38
Avoid Collision.....	13	Storage Cover	39
Ventilate Engine Compartment.....	15	Engine Cover.....	39
Keep Your Watercraft in Safe Condition.....	15	Tool Kit.....	44
Pre-Ride Check	15	Bilge Systems.....	44
Regular Maintenance/Modification	15	Drain Screws	45
Never Operate after Dark	16	Loading/Accessories/Modifications	45
Follow Rules.....	17	Maximum load	45
Label Location	17	Towing	46
PREVENT MAJOR DAMAGE	23	Towing a personal watercraft.....	46
Tilting the Watercraft.....	24	PRE-RIDE CHECK	48
Righting Capsized Watercraft.....	24	OPERATING INSTRUCTIONS	50

Basic Knowledge for Operation	50	EMISSION CONTROL INFORMATION	87
Operation by unskilled riders	50	Periodic Maintenance Chart	89
Operator Swimming Ability	50	Control Cables	92
Maximum Number of Person	50	Fuel System	95
Safe Riding Rules	50	Throttle Adjustments	95
Personal Flotation Device and Safety Gear	50	Fuel Vent Check Valve	95
Watercraft Helmet..... Something You		Fuel Pump Screen	95
Should Know	53	Fuel Hose	95
Fire Extinguisher	53	Engine Oil	96
Weather condition	54	Oil Requirements	96
Basic Operating and Riding	55	Oil Level Inspection	97
Posture on the Riding Platform	55	Oil Change	99
Standing Up	55	Spark Plugs	101
Break-In	55	Battery	104
Stopping the Engine	56	Lubrication	117
Starting the Engine	57	Cooling System Flushing	119
Launching	60	Bilge System Flushing	121
Launching/Start	60	Jet Pump Bearings/Seals	122
Stopping the JET SKI Watercraft	63	Fuses	123
Turning the JET SKI Watercraft	65	 IN AN EMERGENCY	124
Docking the JET SKI Watercraft	67	Troubleshooting Guide	124
Fall Recovery	68	In the Case of Emergency	128
Righting the Capsized Watercraft	68	Towing the JET SKI watercraft	128
After Submerging	70	Jump Starting	128
End of the Day Checklist	73	APPENDIX	130
Drain the Exhaust System	73	YOUR WARRANTY/OWNER	
Clean the Engine Compartment	74	SATISFACTION	130
Clearing Clogged Impeller	75	REPORTING SAFETY DEFECTS	133
TRANSPORTING AND STORAGE	77	ENVIRONMENTAL PROTECTION	134
Transporting	77	Environmental Hang Tag	135
STORAGE	78	SPECIFICATIONS	137
Preparation for Storage	78	Serial Numbers	140
Removal from Storage	83	Registration Numbers	141
MAINTENANCE AND ADJUSTMENTS	86		

MAINTENANCE RECORD	143
---------------------------------	------------

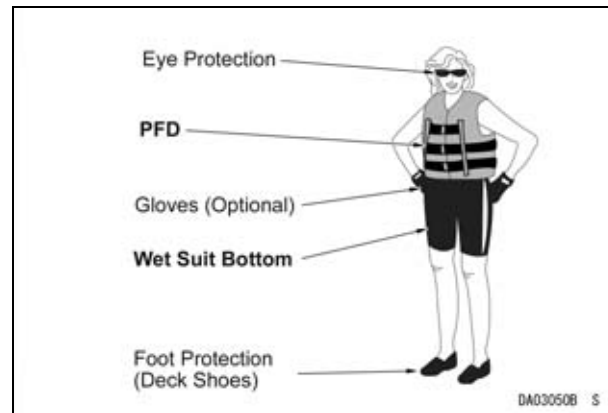
⚠ SAFETY INFORMATION

⚠ WARNING

Read Owner's Manual Thoroughly before Operation

- Carefully read the instructions in every WARNING message in the owner's manual and on every warning label on your JET SKI watercraft before operating. Be sure to observe these instructions.
- The owner's manual and the warning labels provide important safety information.

Wear PFD, Protective Clothing and Gear



Personal Flotation Device (PFD)

- All riders must wear a personal flotation device (PFD) that is suitable for personal watercraft (PWC) use. Kawasaki recommends a vest-type PFD.

Hard impact with the water can result in loss of consciousness and drowning.

- Make sure that your PFD fits correctly so that it does not come off in the water. Never use an adult size PFD for children.

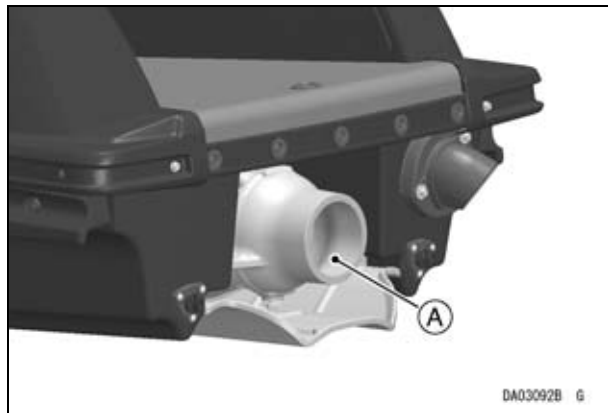
8 SAFETY INFORMATION

Wet Suit Bottoms or Other Protective Clothing

- All riders must wear wet suit bottoms (neoprene shorts) or clothing that provides equivalent protection against possible injury to body cavities.
- Normal swimwear will not provide adequate protection.

Injury from Forced Injection of Water into Body Cavities (Rectum or Vagina)

- As a result of falling into water or being near the jet thrust nozzle, water can be forced into body cavities such as the rectum or vagina. This could cause damage to abdominal organs, possibly resulting in death or severe injury.



A. Jet Thrust Nozzle

 Important. Read this carefully.

- Wet suit bottoms are made of a thick material (neoprene) that significantly retards the velocity of water passing through it.
- In addition to wet suit bottoms, some other aquatic wear may protect against body cavity injuries.
- If wet suit bottoms are not available, you should select clothing that will maximize your protection. Materials that are thicker, have a tighter weave, are water repellent, or that are tighter fitting tend to provide more protection.
- Clothing that may be displaced by the force of water will not provide adequate protection.

Other Protective Gear

- Wear protective footwear, gloves and goggles (glasses).
- Wear suitable eye protection such as goggles while operating the watercraft. Water spray can damage your eyes, or momentarily interfere with your vision, which may lead to an accident. Floatable goggles are recommended.
- Wear foot protection such as deck shoes or tennis shoes. Submerged shells, rocks or other objects can injure your feet.

 Important. Read this carefully.

Know Boating Laws

- Kawasaki recommends a minimum operator age of 16 years old. Know the operator age and training requirements for your state or region. A boating safety course is recommended and may be required in your state or region.

Boat Smart from the Start

Take a boating safety course and get a free vessel safety check annually for your boat.

For more information contact: United States Coast Guard Auxiliary, www.cgaux.org / United States Power Squadrons, 888-for-usps, www.usps.org.

SAFETY INFORMATION 9

Occupants and Load Limit

Occupants limit	1 person
Load limit	75 kg (165 lb) including rider and luggage

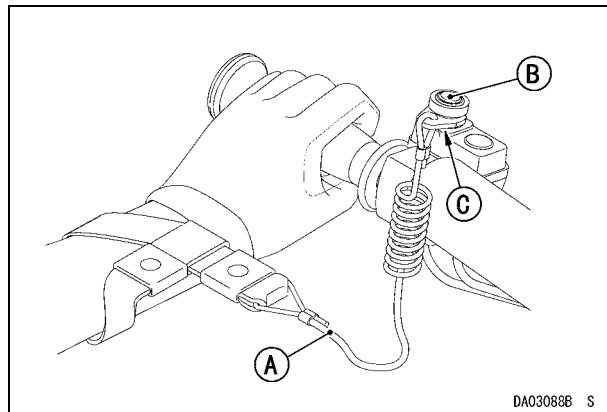
- Exceeding the maximum number of occupant or the load limit can adversely affect the handling and stability of this watercraft, which can lead to an accident. Do not exceed the maximum capacity.

10 SAFETY INFORMATION

 Important. Read this carefully.

Attach Engine Shut-Off Cord (Lanyard)

- Attach the engine shut-off cord (lanyard) to your wrist whenever operating this watercraft so that the engine stops if the operator falls off.
- Keep the lanyard free from the handlebars or other objects.
- After riding, remove the lanyard from the watercraft to avoid unauthorized use by children or others.



- A. Engine Shut-Off Cord
- B. Engine Stop Button
- C. Lanyard Key

Ride within Your Limits

- Ride within your limits and avoid aggressive maneuvers to reduce the risk of loss of control, ejection, and collision.
- The JET SKI watercraft is a high-performance boat - not a toy.

 Important. Read this carefully.

Do not Jump Wakes or Waves

- Sharp turns or jumping wakes or waves can increase the risk of back/spinal injury (paralysis), facial injuries, and broken legs, ankles and other bones.

 SAFETY INFORMATION 11

Never Ride after Consuming Drugs or Alcohol

- Never ride under the influence of or after consuming drugs or alcohol.

12 SAFETY INFORMATION

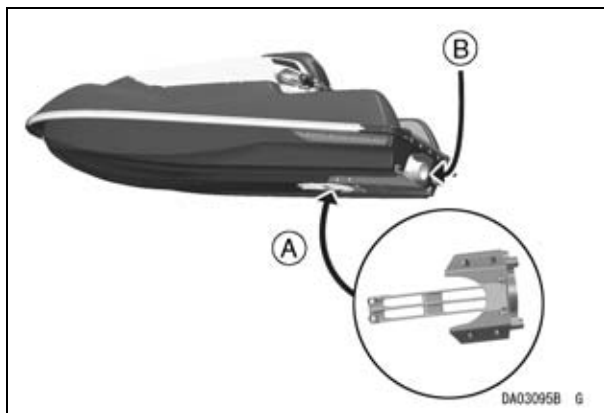
Do not Apply Throttle when Anyone is Behind

- Do not apply throttle when anyone is behind the JET SKI watercraft.
- Turn the engine off or keep it at idle. Water and/or debris ejected from the jet thrust nozzle can cause severe injury.

 Important. Read this carefully.

Keep Away from Intake Grate

- Keep away from the intake grate while the engine is on.
- Items such as long hair, loose clothing, or PFD (personal flotation device) straps can become entangled in moving parts, resulting in severe injury or drowning.



A. Intake Grate
B. Jet Thrust Nozzle

 Important. Read this carefully.

Avoid Forceful Jet Thrust and Limited Visibility while Reboarding

- Get to a standing or kneeling position quickly, but do not expose yourself to forceful jet thrust.

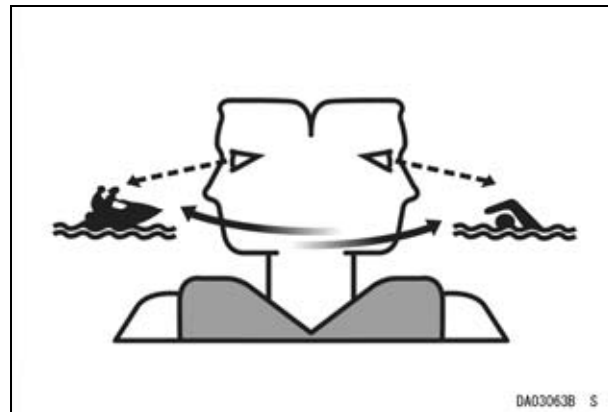
SAFETY INFORMATION 13

Avoid Collision

Collisions cause more injuries and deaths than any other type of personal watercraft accident.

To avoid collisions, know the characteristics of your watercraft and observe all warnings.

- Scan constantly for people, objects, and other watercraft.
- Be alert for conditions that limit your visibility or block your vision of others.

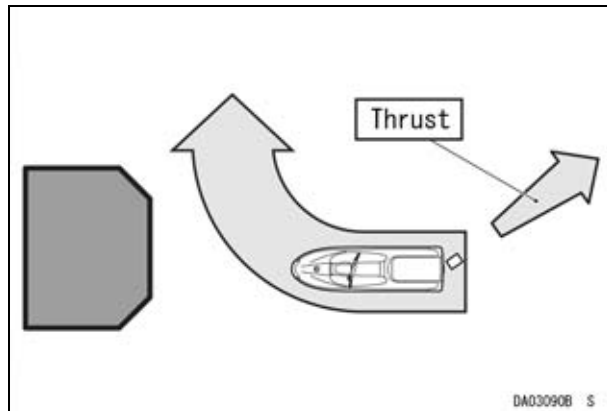


- Ride in safe water areas.
Operate defensively at safe speeds and keep a safe distance away from people, objects and other watercraft.
- Do not follow directly behind other watercraft or boats.

14 SAFETY INFORMATION

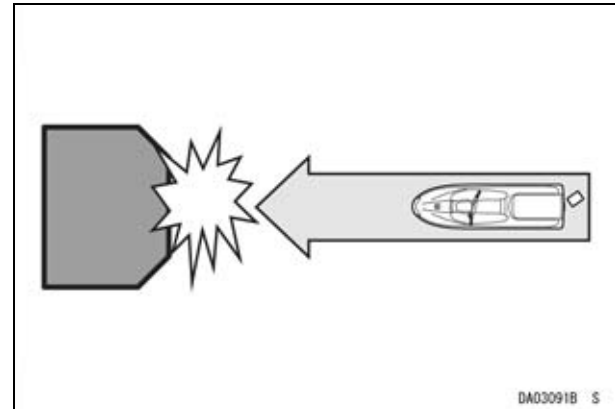
- Do not go near people or others to spray or splash them with water.
- Avoid sharp turns or other maneuvers that make it hard for others to avoid you or understand where you are going.
- Avoid areas with submerged objects or shallow waters.
- Take early action to avoid collisions. Remember personal watercraft and other boats do not have brakes.
- Do not release the throttle when trying to steer away from objects. You need throttle to steer.
- To avoid collisions you must have thrust to turn.

Turn with Thrust



 Important. Read this carefully.

No Thrust = No Turn

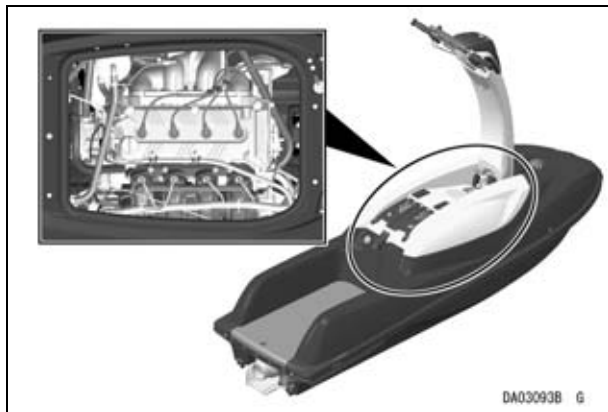


- Do not stop the engine to avoid a collision.
- If you push the stop button or remove the engine shut-off cord (lanyard) key and the engine stops, you will no longer be able to steer the watercraft.
- Ride within your skill limits. Riding too fast for your skills is one of the major causes of collisions.
- Overspeed is one of the major causes of collisions.

 Important. Read this carefully.

Ventilate Engine Compartment

- Open the engine compartment to ventilate it before starting the engine. A concentration of gasoline fumes can cause a fire or explosion. Do not start the engine if there is a fuel leak or gasoline fumes.
- Before each ride, and after refueling or transportation, ventilate the engine compartment for several minutes with the engine cover removed.

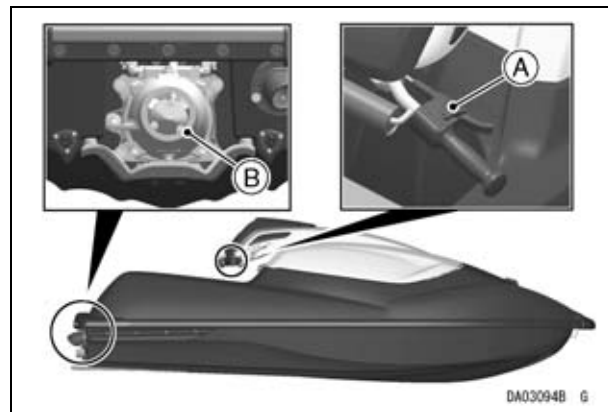


SAFETY INFORMATION 15

Keep Your Watercraft in Safe Condition

Pre-Ride Check

- Check the throttle lever and steering system (Handlebars and Steering Nozzle) for proper operation before riding the watercraft.



A. Throttle Lever

B. Steering Nozzle (Jet Thrust Nozzle)

- Check the battery, fuel, oil and other items in the Pre-Ride Checklist of this owner's manual.

Regular Maintenance/Modification

- Maintain your watercraft for safe operation by carrying out all maintenance items in the MAINTENANCE AND ADJUSTMENTS section of this owner's manual.

16 SAFETY INFORMATION

- Modifications to your watercraft may affect its stability or handling, and result in an unsafe riding condition or illegal condition for use. Do not use non-Kawasaki Parts and Accessories on your watercraft.

 Important. Read this carefully.

Never Operate after Dark

- Do not operate the watercraft after dark. It is not designed for night use, and has no lighting equipment.

 Important. Read this carefully.

Follow Rules

- Follow all navigation rules and state and local laws that apply to PWCs.

SAFETY INFORMATION 17

Label Location

All warning labels on the vehicle are repeated here. Read the labels and understand them thoroughly. They contain information that is important for your safety and the safety of anyone else who may operate your vehicle. Therefore, it is very important that all warning labels be on your vehicle in the locations shown. If any label is missing, damaged, or worn, get a replacement from your Kawasaki dealer and install it in the correct position.

NOTE

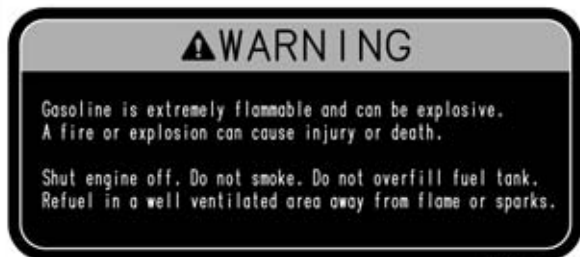
- *The sample warning labels in this section have part numbers to help you obtain the correct replacement.*
- *Refer to the actual vehicle label for model specific data shaded in the illustration.*

18 SAFETY INFORMATION

 Important. Read this carefully.

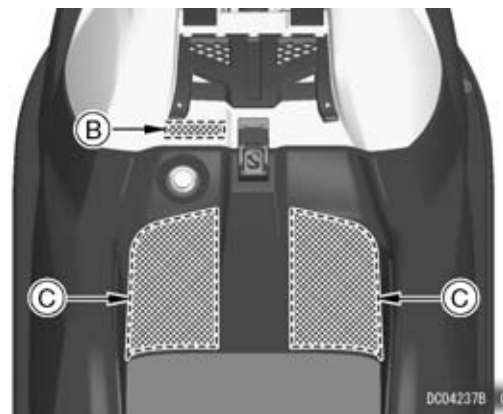


(A)

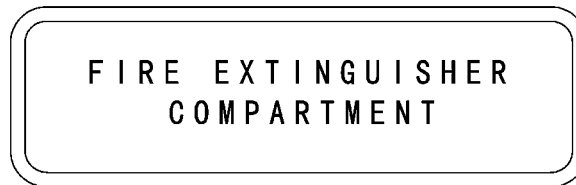


56071-0424

DC05713B S



(B)



56030-3755

DC05029BM2 C

(C)

⚠ WARNING

To reduce the risk of SEVERE INJURY or DEATH:

WEAR A PERSONAL FLOTATION DEVICE (PFD).
All riders must wear a Coast Guard approved PFD that is suitable for personal watercraft (PWC) use.

WEAR PROTECTIVE CLOTHING. Severe internal injuries can occur if water is forced into body cavities as a result of falling into water or being near jet thrust nozzle. Normal swimwear does not adequately protect against forceful water entry into rectum or vagina. All riders must wear a wet suit bottom or clothing that provides equivalent protection (see Owner's Manual). Footwear, gloves, and goggles/glasses are recommended.

KNOW BOATING LAWS. Kawasaki recommends a minimum operator age of 16 years old. Know the operator age and training requirements for your state. A boating safety course is recommended and may be required in your state.

ATTACH ENGINE SHUT-OFF CORD (LANYARD) to wrist and keep it free from handbars so that engine stops if operator falls off. After riding, remove cord from PWC to avoid unauthorized use by children or others.

RIDE WITHIN YOUR LIMITS AND AVOID AGGRESSIVE MANEUVERS to reduce the risk of loss of control, ejection, and collision. This is a high performance boat - not a toy. Sharp turns or jumping wakes or waves can increase the risk of back/spinal injury (paralysis), facial injuries, and broken legs, ankles, and other bones.
Do not jump wakes or waves.

DO NOT APPLY THROTTLE WHEN ANYONE IS AT REAR OF PWC - turn engine off or keep engine at idle. Water and/or debris exiting jet thrust nozzle can cause severe injury.

KEEP AWAY FROM INTAKE GRATE while engine is on. Items such as long hair, loose clothing, or PFD straps can become entangled in moving parts resulting in severe injury or drowning.

AVOID FORCEFUL JET THRUST AND LIMITED VISIBILITY WHILE REBOARDING. Get to a standing or kneeling position quickly, but do not expose yourself to forceful jet thrust.

NEVER RIDE AFTER CONSUMING DRUGS OR ALCOHOL.

READ AND FOLLOW OWNER'S MANUAL.



56071-0658

⚠ WARNING

Collisions result in more INJURIES AND DEATHS than any other type of accident for personal watercraft (PWC).

TO AVOID COLLISIONS:

SCAN CONSTANTLY for people, objects, and other watercraft. Be alert for conditions that limit your visibility or block your vision of others.

OPERATE DEFENSIVELY at safe speeds and keep a safe distance away from people, objects, and other watercraft.

- Do not follow directly behind PWCs or other boats.
- Do not go near others to spray or splash them with water.
- Avoid sharp turns or other maneuvers that make it hard for others to avoid you or understand where you are going.
- Avoid areas with submerged objects or shallow water.

TAKE EARLY ACTION to avoid collisions. Remember, PWCs and other boats do not have brakes.

DO NOT RELEASE THROTTLE WHEN TRYING TO STEER away from objects - you need throttle to steer. Always check throttle and steering controls for proper operation before starting PWC.

Follow navigation rules and state and local laws that apply to PWCs. See Owner's Manual for more information.

⚠ WARNING

To reduce the risk of SEVERE INJURY or DEATH:
READ AND FOLLOW OWNER'S MANUAL

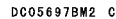
- **BE SURE AND DO PRE-RIDE CHECK** in Owner's Manual, each day before using watercraft for safety.
- **OPEN ENGINE COMPARTMENT BEFORE STARTING ENGINE** for ventilation. A concentration of gasoline fumes can cause a fire or explosion. Do not start engine if there is a fuel leak or gasoline fumes.

NOTICE

• When rolling the craft onto its side, turn it in this  direction only.

56071-0665

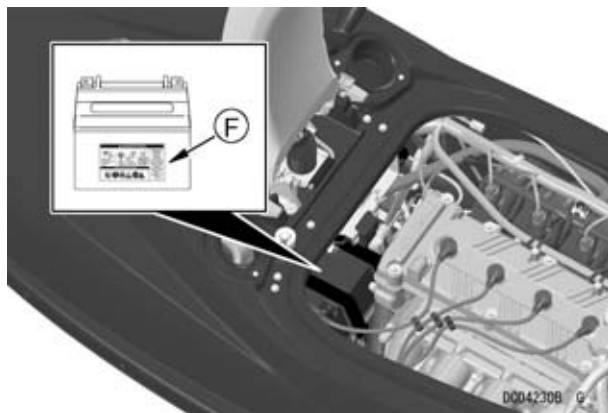
10



(E)

DC05761B G

 Important. Read this carefully.

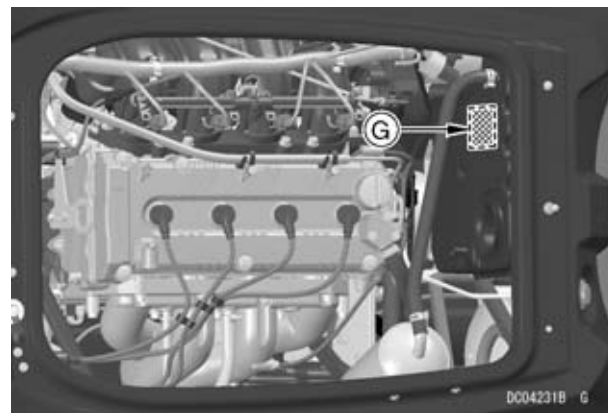


(F) Battery Danger/Poison

 DANGER/POISON			
 SHIELD EYES EXPLOSIVE GASES CAN CAUSE BLINDNESS OR INJURY.	 NO SPARKS • SPARKS • FLAMES • SMOKING	 SULFURIC ACID CAN CAUSE BLINDNESS OR SEVERE BURNS.	 FLUSH EYES IMMEDIATELY WITH WATER. GET MEDICAL HELP FAST.
PROPOSITION 65 WARNING BATTERY POSTS, TERMINALS, AND RELATED ACCESSORIES CONTAIN LEAD AND LEAD COMPOUNDS, CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER AND REPRODUCTIVE HARM. BATTERIES ALSO CONTAIN OTHER CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER. WASH HANDS AFTER HANDLING.			
KEEP OUT OF REACH OF CHILDREN			
     			
SPSYMBWPD			

BD03107C S

SAFETY INFORMATION 21



(G)

EMISSION CONTROL INFORMATION	
ENGINE FAMILY	-----
MODEL	-----
EXHAUST EMISSION CONTROL SYSTEM	-----
FAMILY EMISSION LIMIT - HC+NOX	-----
FAMILY EMISSION LIMIT - CO	-----
DATE OF MANUFACTURE	-----
ENGINE DISPLACEMENT	-----
MAXIMUM HORSEPOWER	-----
ENGINE TUNE UP SPECIFICATIONS	-----
SPARK PLUG: ----- GAP: -----	-----
IDLE SPEED: -----	-----
THIS ENGINE CONFORMS TO  MODEL YEAR U.S. EPA EXH/EVP AND CALIFORNIA EMISSIONS REGULATIONS FOR SPARK-IGNITION MARINE ENGINES. REFER TO THE OWNER'S MANUAL FOR MAINTENANCE SPECIFICATIONS AND ADJUSTMENTS.	
KAWASAKI HEAVY INDUSTRIES, LTD. 	

DC05563BM2 C

22 SAFETY INFORMATION



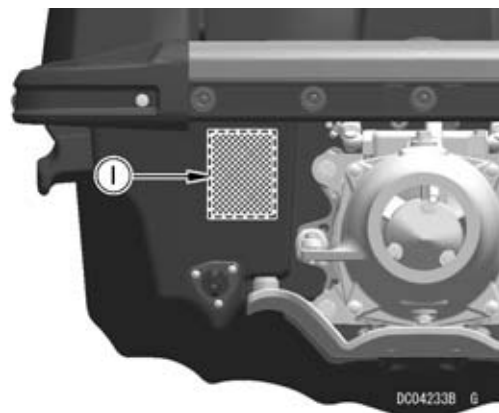
DC04232B G

(H) For detail explanation see APPENDIX (page 135)



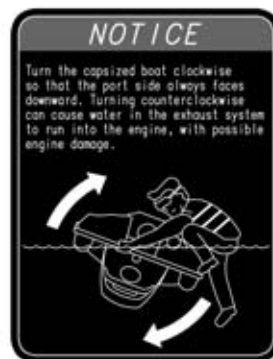
DC05572B S

 Important. Read this carefully.



DC04233B G

(I)



56071-0398

DC05715B S

PREVENT MAJOR DAMAGE

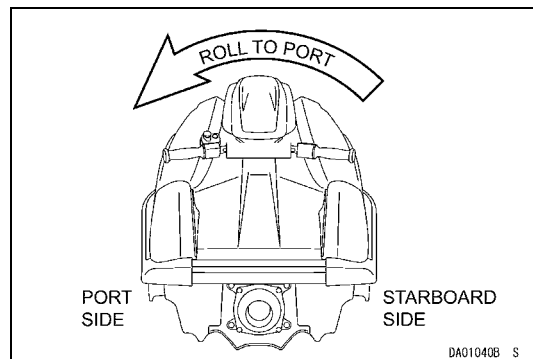
<i>NOTICE</i>

Certain conditions can cause major damage to your watercraft that is costly to repair. To avoid these conditions carefully read the following section and follow the recommendations to help prevent major damage to your watercraft.

24 PREVENT MAJOR DAMAGE

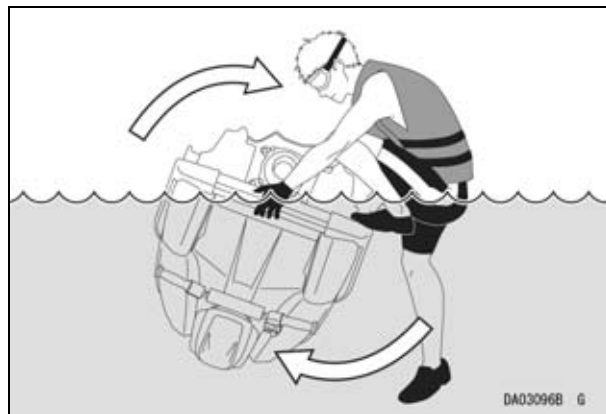
Tilting the Watercraft

- Tilting the watercraft to its STARBOARD side can cause water in the exhaust system to run into the engine, with possible engine damage. Always tilt the boat on its PORT side if it is necessary to inspect the bottom of the craft.



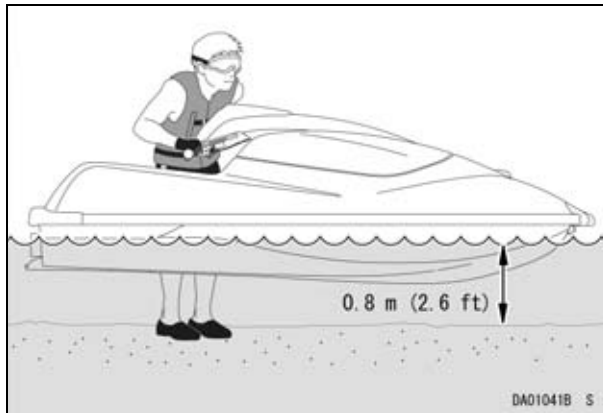
Righting Capsized Watercraft

- Rolling the capsized watercraft counterclockwise (to its STARBOARD side) can cause water in the exhaust system to run into the engine, with possible engine damage. Always turn the capsized boat clockwise so that the PORT side always faces downward.
- For details on righting, refer to Righting the Capsized Watercraft section in the OPERATING INSTRUCTIONS chapter.



Shallow Water

- When starting the engine or riding, the watercraft must be in water at least 0.8 m (2.6 ft) deep. Sand or debris from the bottom may be drawn into the jet pump and damage the pump and impeller, and possibly clog cooling lines.



- If operating in shallow or debris-laden water, objects or sand from the bottom can get sucked in damaging the impeller and possibly clogging cooling hoses which can cause severe engine damage from overheating.
- Avoid beaching the watercraft. Stones and sand can scratch the hull and be drawn into the jet pump, causing damage to the impeller.

Wave Jumping

- Jumping waves can overstress the watercraft hull and cause it to crack. To prevent hull cracks, do not jump waves.

26 PREVENT MAJOR DAMAGE

After Daily Riding

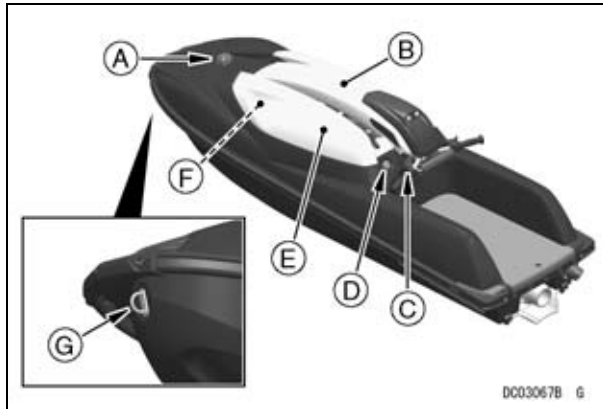
- Remove JET SKI watercraft from the water at the end of each day's use.
- Since JET SKI watercraft are not designed to be docked in water for extended periods, prolonged immersion will cause the hull paint to bubble and peel, as well as electrolytic erosion of some metal parts in the jet pump. To prevent this damage and electrolytic erosion, remove your JET SKI watercraft from the water at the end of each day's use; do not leave it in the water overnight. Your JET SKI watercraft will last longer and look better if you do this.

Jet Pump Bearings and Seals Periodic Maintenance

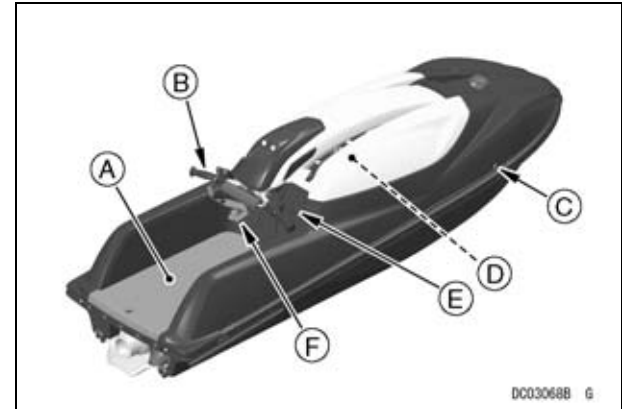
- The jet pump bearings and seals require periodic service. Major engine damage can occur if the jet pump bearings fail due to lack of maintenance. Have your Kawasaki dealer inspect the jet pump bearings and seals after the first 25 hours of use or after one year, whichever comes first; and then every 50 hours or every year, whichever comes first. The jet pump bearings should also be serviced before any prolonged storage to prevent any water that may be left in the pump from corroding the bearings and causing premature failure.

GENERAL INFORMATION

Parts Location

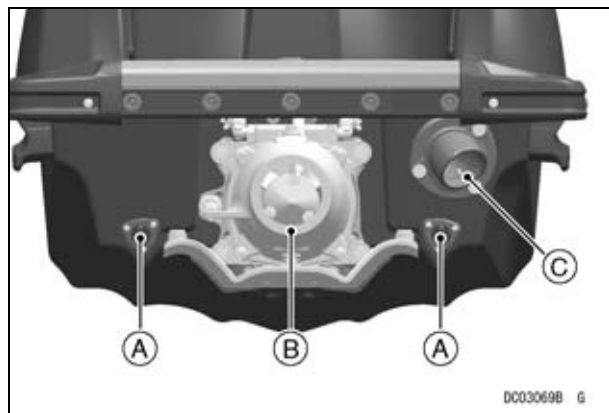


- A. Fuel Filler Cap
- B. Handle Pole
- C. Left Handlebar Switch Housing
 - Engine Start Button
 - Engine Stop Button
 - Starter Interlock Switch
- D. Ignition Switch
- E. Engine Cover
- F. Engine Flushing Port
- G. Bow Eye

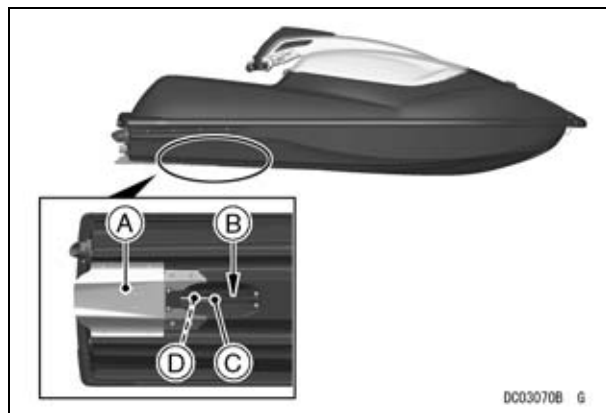


- A. Riding Platform
- B. Handlebars
- C. Bypass Outlet
- D. Engine Compartment
- E. Throttle Lever
- F. Engine Shut-off Lanyard

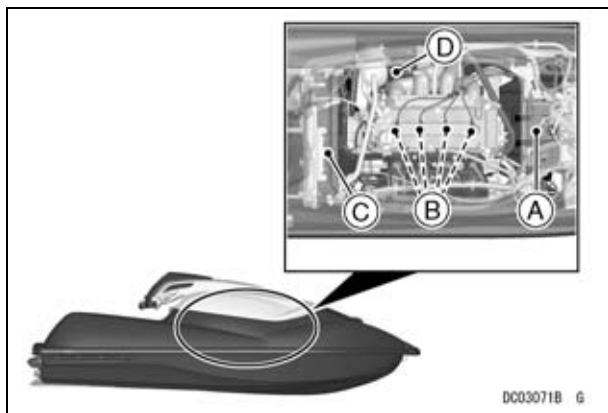
28 GENERAL INFORMATION



- A. Drain Screws**
- B. Steering Nozzle**
- C. Exhaust Outlet**

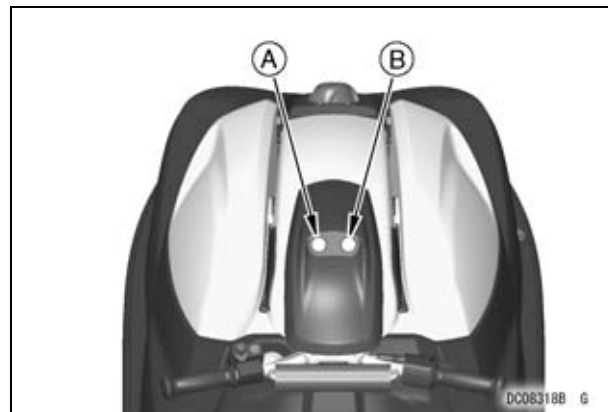


- A. Jet Pump Cover**
- B. Water Intake**
- C. Grate**
- D. Drive Shaft**



- A. Battery
- B. Spark Plugs
- C. Air Box
- D. Exhaust Pipe

Indicator Lights



- A. Fuel Level Warning Indicator Light (Amber)
- B. Engine Warning Indicator Light (Red)

Fuel Level Warning Indicator Light (Amber)

The fuel level warning indicator light goes on when the ignition switch is turned to "ON" and goes off soon after ensuring that its circuit functions properly.

The warning indicator light also goes on when approximately 5.0 L (1.3 US gal) of fuel remains. Reduce speed to less than half-throttle and fill the fuel tank as soon as possible because there is no reserve tank in this watercraft.

30 GENERAL INFORMATION

Engine Warning Indicator Light (Red)

The engine warning indicator light goes on when the ignition switch is turned to “ON” and goes off soon after ensuring that its circuit functions properly.

The engine warning indicator light also blinks when the DFI system has malfunctioned. Return to shore immediately and have an authorized Kawasaki JET SKI watercraft dealer check your watercraft to determine the problem.

Fuel

NOTICE

This watercraft has not been tested and certified for use with racing fuels or fuel additives. Their use may damage the engine and fuel system. Do not use race gas or fuel additives.

Fuel Requirements

Fuel Type

Use clean, fresh unleaded gasoline with a minimum Antiknock Index shown in the table. The Antiknock Index is posted on service station pumps in the U.S.A. The octane rating of a gasoline is a measure of its resistance to detonation or “knocking.” The Antiknock Index is an average of the Research Octane Number (RON) and the Motor Octane Number (MON) as shown in the table below.

Octane Rating Method		Minimum Rating
Antiknock Index	$\frac{(RON + MON)}{2}$	87

NOTICE

Engine “knocking” or “pinging” can lead to severe engine damage. If engine “knocking” or “pinging” occurs, use a different brand of gasoline of a higher octane rating. Gasoline quality is important. Fuels of low quality or not meeting standard industry specifications may result in unsatisfactory performance. Operating problems that result from the use of poor quality or nonrecommended fuel may not be covered under your warranty.

Fuels Containing Oxygenates

Gasoline frequently contains oxygenates (alcohols and ethers) especially in areas of the U.S. and Canada which are required to sell such reformulated fuels as part of a strategy to reduce exhaust emissions.

The types and volume of fuel oxygenates approved for use in unleaded gasoline by the U.S. Environmental Protection Agency include a broad range of alcohols and ethers, but only two components have seen any significant level of commercial use.

Gasoline/Alcohol Blends - Gasoline containing up to 10% ethanol (alcohol produced from agricultural products such as corn), also known as “gasohol” is approved for use.

NOTICE

Using blends of unleaded gasoline and methanol (wood alcohol) can damage the fuel system and result in poor engine performance. Avoid using methanol whenever possible, and never use “gasohol” containing more than 5% methanol.

Gasoline/Ether Blends - The most common ether is methyl tertiary butyl ether (MTBE). You may use gasoline containing up to 15% MTBE.

NOTE

- *Other oxygenates approved for use in unleaded gasoline include TAME (up to 16.7%) and ETBE (up to 17.2%). Fuel containing these oxygenates can also be used in your Kawasaki.*

32 GENERAL INFORMATION

NOTICE

Using gasoline with an insufficient octane rating may damage the engine. To avoid engine damage, never use gasoline with an octane rating lower than the minimum specified by Kawasaki. Never use “gasohol” with more than 10% ethanol, or more than 5% methanol.

Gasoline containing methanol must also be blended with cosolvents and corrosion inhibitors.

Certain ingredients of gasoline may cause paint fading or damage. Be extra careful not to spill gasoline or gasoline oxygenate blends during refueling.

When not operating your Kawasaki for 30 to 60 days, mix a fuel stabilizer (such as STA-BIL) with the gasoline in the fuel tank. Fuel stabilizer additives inhibit oxidation of the fuel which minimizes gummy deposits.

Never store this product with “gasohol” in the fuel system. Before storage it is recommended that you drain all fuel from the fuel tank and fuel system. See the Storage section in this manual.

Filling the Tank

WARNING

Gasoline is extremely flammable and can be explosive under certain conditions. To avoid a possible fire or explosion, pull the lanyard key off the stop button. Do not smoke. Make sure the area is well ventilated and free from any source of flame or sparks; this includes any appliance with a pilot light.

Avoid filling the tank in the rain or where heavy dust is blowing so that the fuel does not get contaminated.

The fuel tank and the fuel filler cap are located at the front end of the engine compartment. Turn the cap counterclockwise and remove it.



A. Fuel Filler Cap

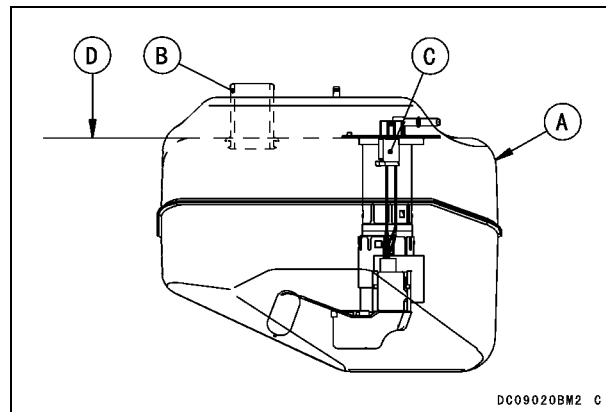
Fill the tank with the recommended octane rating gasoline. The use of a small diameter pour spout (or funnel) will make filling easier. Pour slowly to avoid “spit back” and allow air to escape from the tank.

⚠ WARNING

Gasoline is extremely flammable and can be explosive under certain conditions. To avoid a possible fire or explosion, never fill the tank completely to the top. As the fuel expands in a warm tank, it may overflow from the vent tube. After refueling, make sure the filler cap is closed securely.

NOTICE

Gasoline spilled on the watercraft may cause paint fading or damage. To prevent damaging the finish, be extra careful not to spill fuel during refueling.



DC09020BM2 C

- A. Fuel Tank
- B. Filler Neck
- C. Fuel Pump
- D. Top Level

After transporting or refueling and before starting the engine, remove the engine cover and keep open for several minutes to ventilate the engine compartment.

⚠ WARNING

A concentration of gasoline fumes in the engine compartment can cause a fire or explosion. To prevent a fire or explosion, remove the engine cover to vent the engine compartment.

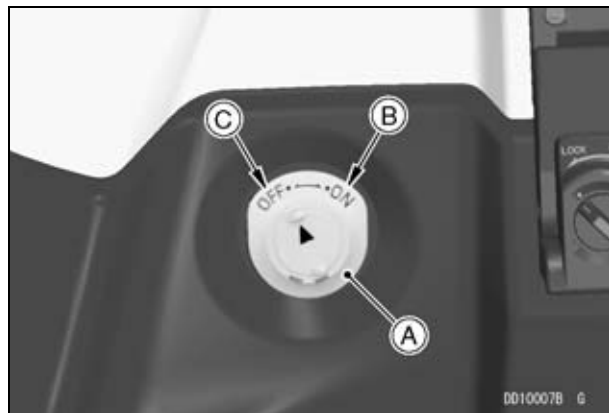
34 GENERAL INFORMATION

Ignition Switch

The ignition switch is located on the left side of the deck under the handlebars. It is a 2-position, key operated switch. The key can be removed when in the "OFF" and "ON" positions.

Remove the key immediately after turning the ignition switch on and store it in the storage cover under the handle pole.

Be sure to turn the ignition switch off after stopping the engine to prevent the battery from discharging. Whenever the watercraft is not in use, turn the key "OFF" and remove it to prevent unauthorized use.



- A. Ignition Switch
- B. ON Position
- C. OFF Position

NOTICE

After turning the ignition switch "ON," remove the key. Stow it in a secure place on the watercraft or with you while riding. Always turn the ignition switch "OFF" after stopping the engine to prevent the battery from discharging.



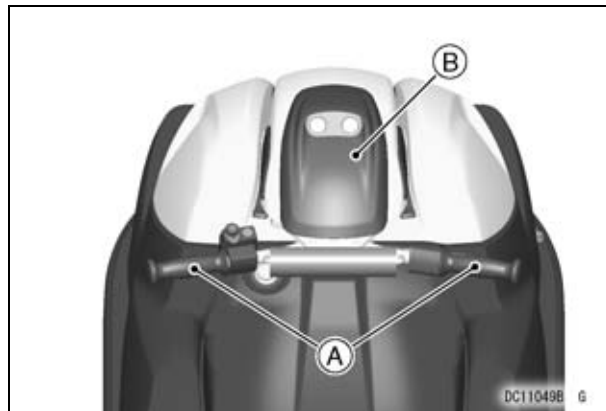
- A. Key
- B. Key Number

Record your ignition key number. In the event of loss of the key, ask your dealer to get the same key number.

Write your key number here.

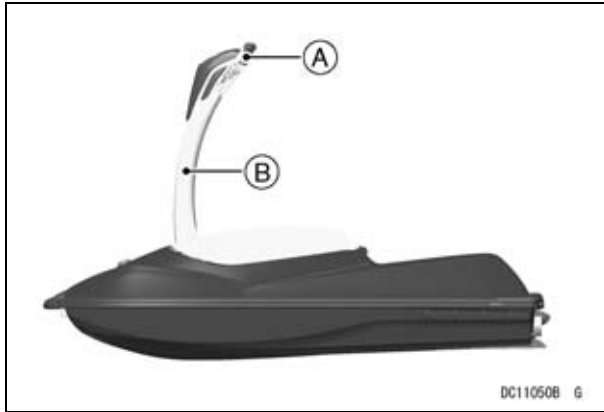
Controls

Handlebars



- A. Handlebars**
- B. Handle Pole**

36 GENERAL INFORMATION



A. Handlebars

B. Handle Pole (Upright Position)

The handlebars allow the rider to steer the watercraft. It will turn **ONLY WHEN THE ENGINE IS RUNNING AND ONLY WHEN THE THROTTLE IS APPLIED**. The handlebars are connected by a control cable to the jet pump steering nozzle at the rear of the boat.

Stop Button

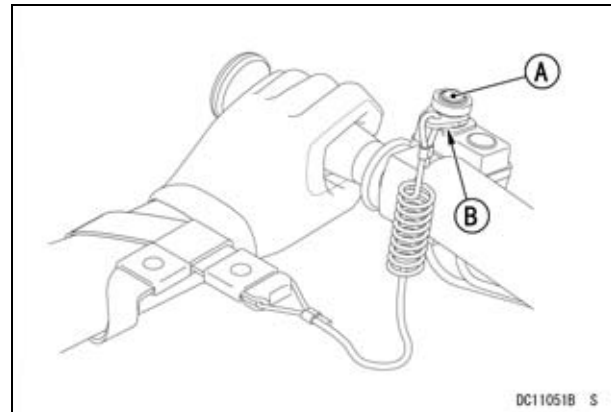
The stop button is in the case on the left hand side of the handlebars. It is red and marked "STOP." Pushing the stop button turns off the engine.

The engine is also stopped by pulling the engine shut-off lanyard key off the stop button.

After riding, remove the engine shut-off lanyard key from the watercraft to avoid unauthorized use by children or others.

Engine Shut-off Lanyard Key

- Keep the engine shut-off lanyard key attached to the operator's left wrist.
- Insert the engine shut-off lanyard key to the stop button before starting the engine.
- The engine stops automatically when the lanyard is removed.



A. Stop Button

B. Lanyard Key

- After riding, remove the engine shut-off lanyard key from the watercraft to avoid unauthorized use by children or others.

NOTE

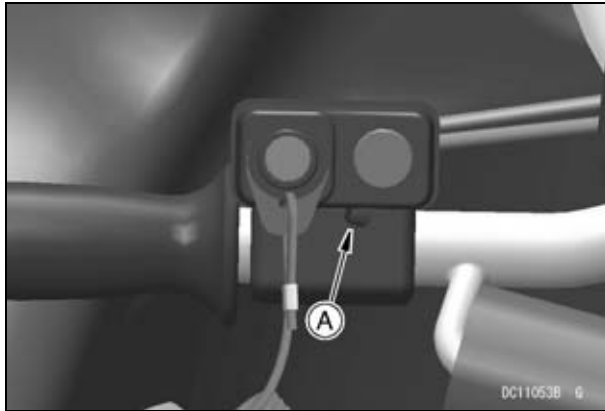
- *For the engine to start, the starter interlock switch must be unlocked and the engine shut-off lanyard key must be pushed under the stop button.*

Starter Interlock Switch

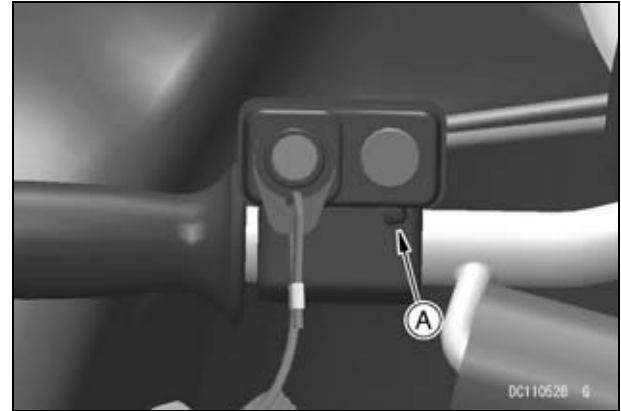
The purpose of the starter interlock switch is to prevent accidental starting. Only when the starter interlock switch is positioned to the right, pushing the green start button will crank the engine. The engine will not crank when the starter interlock switch is positioned to the left.

WARNING

To prevent accidental rotation of the engine and possible injury, always keep the starter interlock switch positioned to the left when the engine is not running.



A. Starter Interlock Switch in Locked Position



A. Starter Interlock Switch in Unlocked Position

Start Button

The start button is in the case on the left hand side of the handlebars. It is green and marked “START.” Pushing the start button with the engine shut-off lanyard key pushed under the stop button starts the engine. Release it when the engine starts.

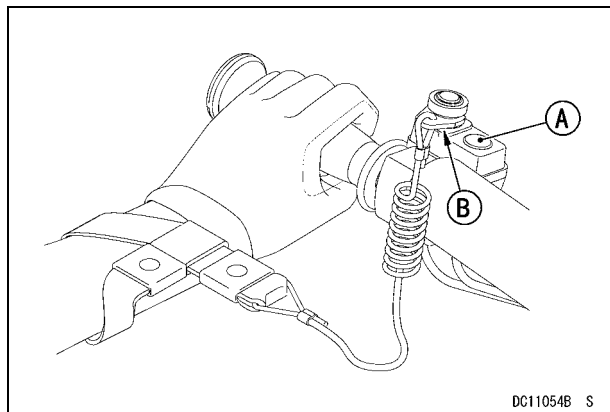
NOTICE

Pushing the “START” button while the engine is running or while the starter is still spinning causes premature starter wear and may cause it to jam. To prevent premature wear and jamming, do not push the “START” button while the engine is running or while the starter is still spinning.

38 GENERAL INFORMATION

NOTE

- *For the engine to start, the starter interlock switch must be unlocked and the engine shut-off lanyard key must be pushed under the stop button.*
- *Refer to the Starting the Engine section in the OPERATING INSTRUCTIONS chapter.*

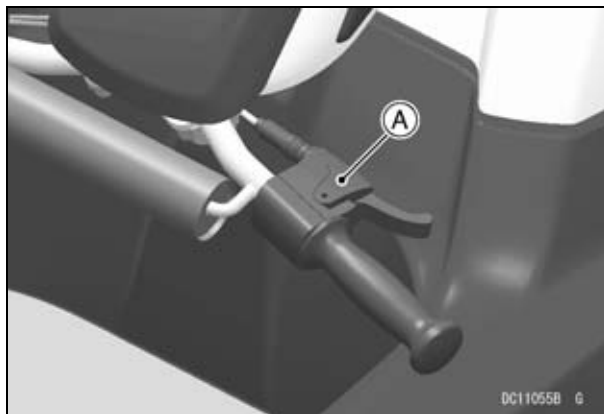


- A. Start Button**
- B. Lanyard Key**

Throttle Lever

The throttle lever is located on the right handle-bar grip. Squeezing the lever towards the handle-bar grip increases engine speed. When released, spring pressure returns the lever to the idle position.

Always check that the throttle lever returns normally before starting the engine. In addition, there must be adequate throttle cable play. Refer to the MAINTENANCE AND ADJUSTMENTS chapter for the throttle cable adjustment procedure.



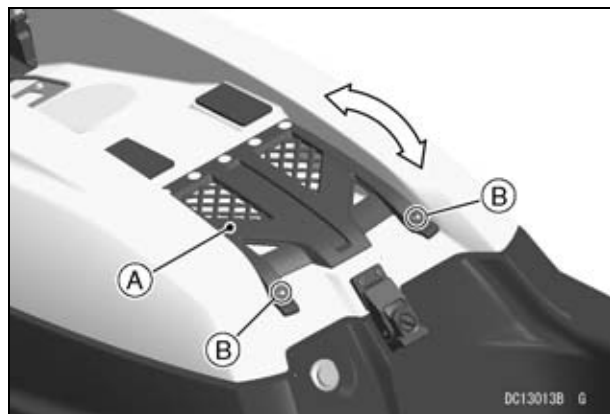
A. Throttle Lever

Storage Cover

The storage cover is located on the engine cover. Store this Owner's Manual there in a waterproof bag.

To open the storage cover, remove the storage cover from the stopper pins and raise it.

To close the storage cover, fit the storage cover to the stopper pins securely.



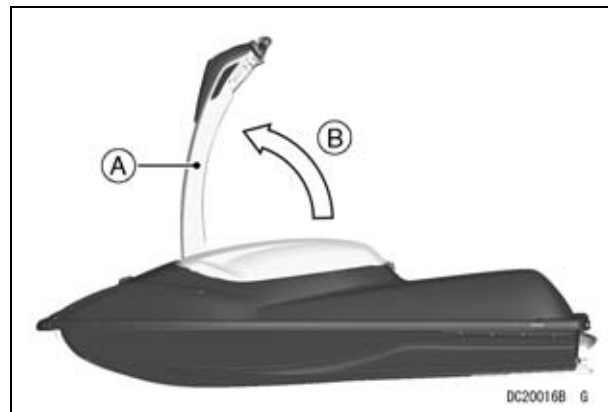
A. Storage Cover
B. Stopper Pins

Engine Cover

The engine cover is held in place by a latch.

Removing the Engine Cover

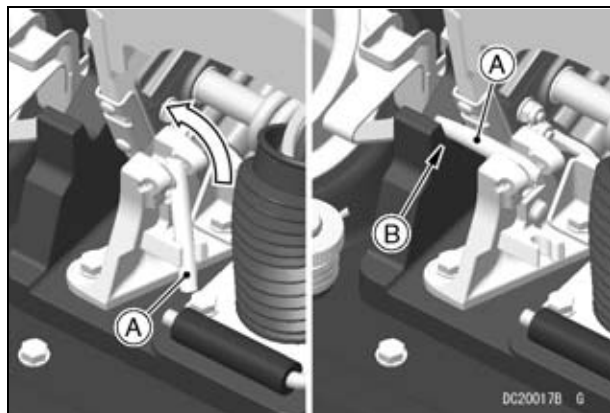
- Raise the handle pole all the way up.



A. Handle Pole
B. Raise

40 GENERAL INFORMATION

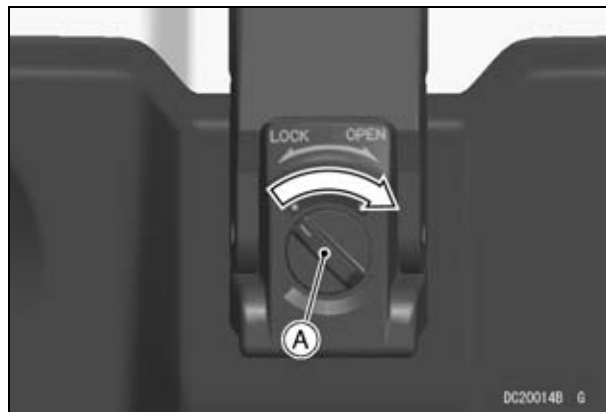
- Holding the handle pole and swing up the handle pole stopper pin and hook its end into the groove of the handle pole bracket.



A. Handle Pole Stopper Pin
B. Groove

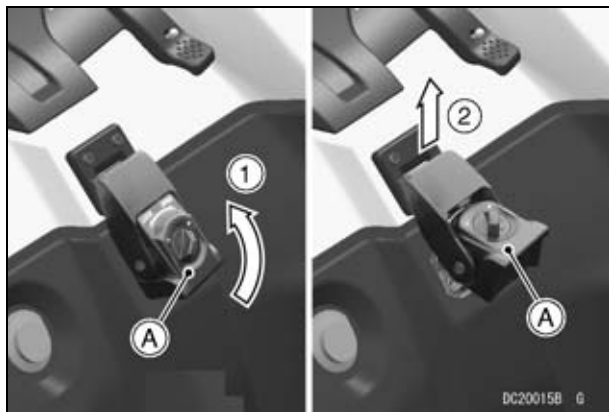
NOTE

- *Make sure that the stopper pin has been hooked into the groove completely.*
- Turn the latch lock knob clockwise.



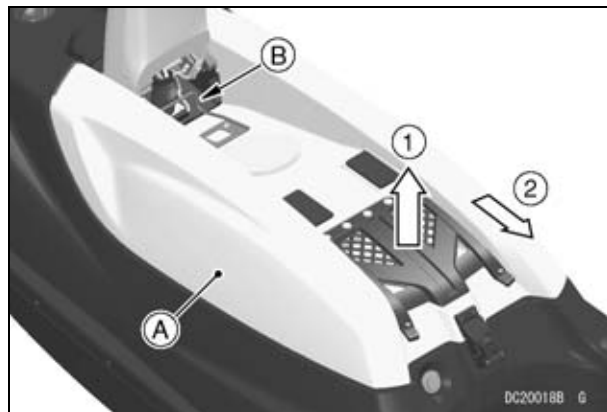
A. Latch Lock Knob

- Pull the latch all the way up and unhook its upper portion.



- A. Latch**
1. Pull
2. Unhook

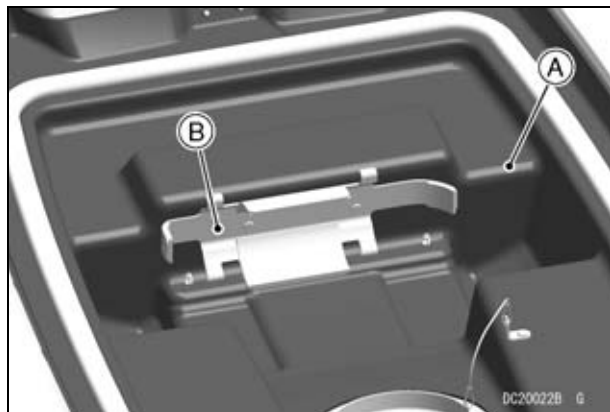
- Lift the rear of the engine cover.
- Remove the engine cover backward by holding the handgrip.



- A. Engine Cover**
B. Handgrip
1. Lift
2. Backward

42 GENERAL INFORMATION

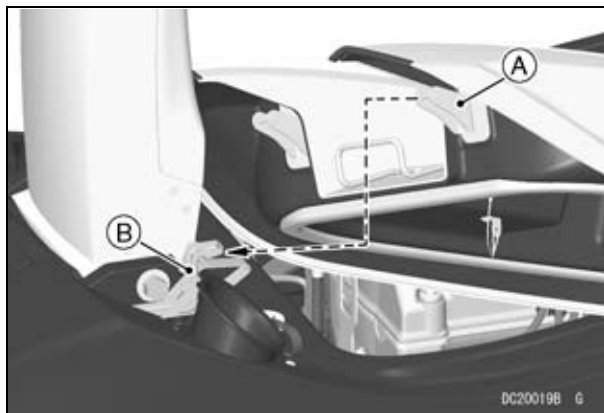
At the back of the engine cover, a fire extinguisher holder is provided.



A. Engine Cover
B. Fire Extinguisher Holder

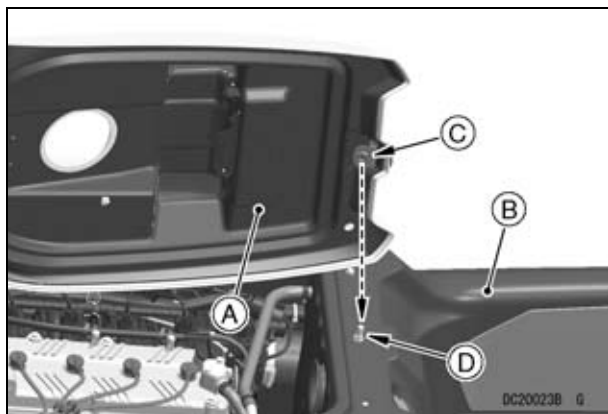
Installing the Engine Cover

- Insert the hook of the engine cover to the bracket at the handle pole pivot on both sides.



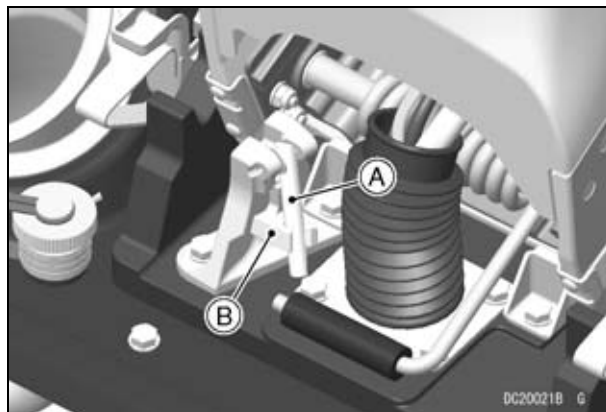
A. Hook
B. Bracket

- Fit the grommet of the engine cover to the projection of the deck.



- A. Engine Cover
- B. Deck
- C. Grommet
- D. Projection

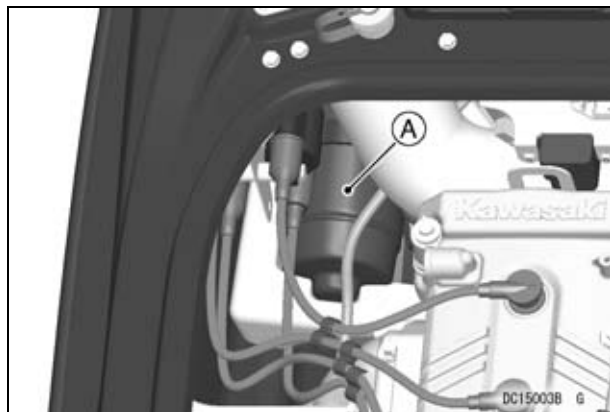
- Push the latch down and turn the latch lock knob counterclockwise.
- While holding the handle pole, pull up the handle pole stopper pin and push it back into the holder.



- A. Handle Pole Stopper Pin
- B. Holder

Tool Kit

The tool kit container is located in the engine room.



A. Tool Kit Container

Bilge Systems

This watercraft has a jet vacuum drainage system at the rear end of the engine compartment. This system utilizes the water jet for propulsion to drain the bilge in the engine compartment. This system only works when the engine is running on the water.

NOTICE

Check the bilge system is working at regular intervals according to the Periodic Maintenance Chart. Refer to the MAINTENANCE AND ADJUSTMENTS chapter. Clear debris from the pump intakes.

⚠ WARNING

Damage to the hull may cause a leak and the capacity of the bilge pumping system is not designed to drain the hull in such instances. To avoid sinking the watercraft, immediately return to shore if the hull is damaged in any way.

NOTE

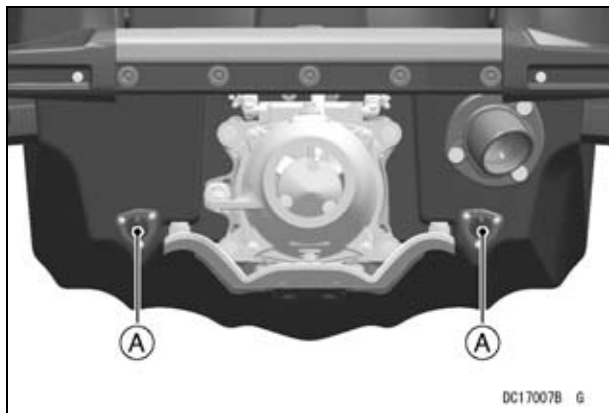
- *To drain any water remaining in the bilge, remove the drain screws in the stern when the craft is out of the water.*

Drain Screws

There are two drain screws in the stern to drain water accumulated in the engine compartment. Open them only when the craft is out of the water.

NOTICE

If the screws come loose the craft may flood or become swamped, with the possibility of sinking or severe engine damage. To prevent swamping, be sure the screws are securely tightened before launching.



A. Drain Screws

Loading/Accessories/Modifications

⚠ WARNING

Incorrect loading, overloading, use of accessories and/or modification of your watercraft may affect its stability and handling and result in an unsafe riding condition. Before you ride the watercraft, make sure that it is not overloaded and that you have followed these instructions.

Maximum load

75 kg (165 lb) including rider and luggage

- Ensure the total weight of rider and luggage aboard the watercraft does not exceed the maximum load.

Important Information

Accessories: Kawasaki has no control over the design or application of accessories. In some cases, improper installation or use of accessories, or watercraft modification, will void the warranty.

Using non-genuine accessories or modifying your watercraft may threaten your own safety and the safety of others.

NOTE

○ *Kawasaki Parts and Accessories have been specially designed for use on Kawasaki watercraft.*

46 GENERAL INFORMATION

We strongly recommend that all parts and accessories you add to your watercraft be genuine Kawasaki components.

Because a personal watercraft is sensitive to changes in weight distribution, you must take extreme care in the fitting of additional accessories. The following general guidelines have been prepared to assist you in making your determinations.

- This watercraft is designed for the operator only - no passengers. Carrying a passenger can adversely affect the handling and stability which can lead to an accident. Also, do not carry animals on your watercraft.
- Do not install accessories that impair the performance of the watercraft.

Towing

Towing a personal watercraft

If your watercraft runs out of fuel or develops engine problems, tie a tow rope to the following location. Use a rope which is long enough to keep 6 m (20 ft) or more distance between towing and towed boats. Towing must be slow, not exceeding 8 km/h (5 mph). Be extra careful when towing; towing can affect the steering of your watercraft and create a hazardous situation.

Being towed by a watercraft

- Attach the tow rope to the bow eye.



A. Bow Eye

- After towing, drain any water in the engine compartment and check that no water enters the engine following the procedure described in the After Submerging section in the OPERATING INSTRUCTIONS chapter.

PRE-RIDE CHECK

Each day before using the watercraft, check the following items:

WARNING

BE SURE TO PERFORM A PRE-RIDE CHECK each day before using watercraft for safety.

Check Outside Craft

- ☐ CLEAN PUMP - Clear the water intake, jet pump, and drive shaft of foreign objects.
- ☐ PUMP COVER TIGHT - Check the jet pump cover and intake grate for looseness. Tighten the mounting bolts if necessary.
- ☐ HULL DAMAGE - Inspect the hull for damage.
- ☐ DRAIN SCREWS - Check that the drain screws in the stern are securely installed.

Check Inside Craft

- ☐ STEERING - Check the operation of the steering for binding, rough spots, or excessive play. Adjust the cable if needed (see Control Cables section in the MAINTENANCE AND ADJUSTMENTS chapter). The steering cable is sealed at both ends and does not need lubrication. If the seals are damaged, the cable must be replaced. Turn the handlebars and make sure the steering nozzle moves in response to the turn.
- ☐ THROTTLE CONTROL - Check the operation of the throttle for binding, rough spots or excessive

play. Adjust the cable if needed (see Control Cables section in the MAINTENANCE AND ADJUSTMENTS chapter). The throttle lever must return to the fully closed position when released.

WARNING

A stuck throttle can cause loss of control and an accident resulting in injury or death. If the throttle does not return freely and completely, do not ride and have it inspected by your Kawasaki dealer.

- ☐ VENTILATE ENGINE COMPARTMENT - Remove the engine cover and keep open for several minutes to purge gasoline fumes from the engine compartment.

WARNING

A concentration of gasoline fumes in the engine compartment can cause a fire or explosion. To prevent a fire or explosion, remove the engine cover to vent the engine compartment.

- ☐ BATTERY TERMINALS - Check the battery terminal screws for tightness, and make sure terminal covers are in place.

WARNING

Loose battery cables can create sparks which can cause a fire or explosion resulting in injury or death. Make sure the battery terminal screws are tightened securely and the covers are installed over the terminals.

- ☐ FIRE EXTINGUISHER - Check the fire extinguisher is fully charged.
- ☐ FUEL PRESSURE - Loosen the fuel filler cap to relieve any pressure, then tighten the cap securely.
- ☐ FUEL LEVEL - Turn the watercraft upright and check the fuel level. Refill if necessary.
- ☐ ENGINE OIL LEVEL - Check the oil level in the engine. Refill if necessary. Refer to the Engine Oil section in the MAINTENANCE AND ADJUSTMENTS chapter.
- ☐ FUEL LEAKS - Check the engine compartment for fuel leaks.
- ☐ OIL LEAKS - Check the engine compartment for oil leaks.
- ☐ FASTENERS - Check and tighten any loose bolts, nuts, or clamps.
- ☐ HOSE CONNECTIONS - Be sure all hose connections are secure and that all hose clamps are tight. Check all hoses for cracks or deterioration and replace if necessary.
- ☐ DRAIN BILGE - Drain any water out of the engine compartment by removing the drain screws. Install the drain screws securely when all the water has been drained.

- ☐ ENGINE SHUT-OFF LANYARD KEY - Start the engine and run it for a few seconds (see Starting the Engine section in the OPERATING INSTRUCTIONS chapter). Pull the lanyard key off the stop button to check that the engine stops immediately.

DANGER

Exhaust gas contains carbon monoxide, a colorless, odorless poisonous gas. Inhaling carbon monoxide can cause serious brain injury or death. DO NOT run the engine in enclosed areas. Operate only in a well-ventilated area.

NOTICE

To prevent overheating resulting in engine and exhaust system damage, do not run the engine with the watercraft out of the water for more than 15 seconds at a time. Never operate the engine at maximum speed out of the water.

- ☐ STOP BUTTON - Again start the engine, run it for a few seconds, and then check that the engine "STOP" button works.
- ☐ ENGINE COVER - Install the engine cover, and check that the engine cover latch is secure.
- ☐ RIDER PROTECTION - Always wear the proper flotation device and protective gear.

OPERATING INSTRUCTIONS

Basic Knowledge for Operation

Read "SAFETY INFORMATION" and "PREVENT MAJOR DAMAGE" without fail. Please be sure to conduct the PRE-RIDE CHECK before boarding.

Operation by unskilled riders

- On your first ride, familiarize yourself with the handling of the craft. Vary the engine speed with the throttle lever to get the feel of throttle influence on steering.

Operator Swimming Ability

- Riders of personal watercraft can fall into the water and experience exposure. Operator must be a competent swimmer and never travel farther from shore than they can swim.

Maximum Number of Person

This watercraft is designed to carry only the operator. Never exceed the maximum load limit 75 kg (165 lb) (see Loading/Accessories/Modifications section in the GENERAL INFORMATION chapter).

WARNING

Overloading this watercraft can adversely affect handling and stability which can lead to an accident. To reduce the risk of having an accident, do not exceed the maximum recommended number of people.

The total weight including luggage must never exceed the load capacity limit.

Safe Riding Rules

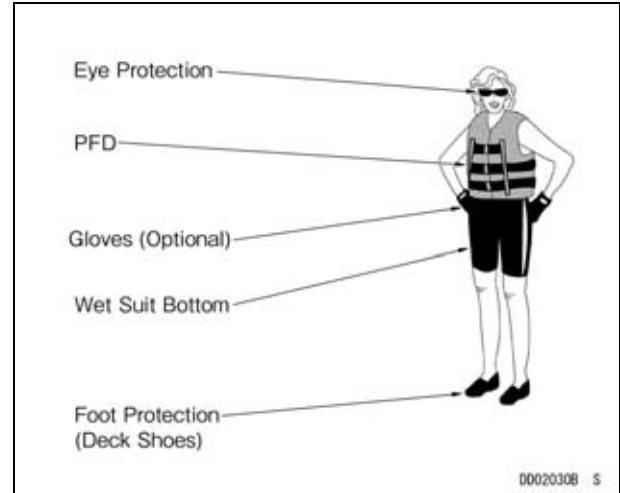
- Always follow these rules when operating your watercraft, for your own safety and that of others.
- Always comply with any Navigation Rules in effect in your area. The Coast Guard office or state boating authority nearest you can usually furnish you with the applicable rules. Check local and state regulations before operating. Kawasaki recommends that all operators complete an approved boating safety course.

Personal Flotation Device and Safety Gear

U.S. federal regulations require that one U.S. Coast Guard approved personal flotation device (PFD) be carried when operating on the water under Coast Guard jurisdiction. In some state waters not under federal jurisdiction, other flotation devices are permissible in addition to those specified by federal law. Other countries may have their own standards and regulations; be sure to follow them. As a rule,

waist-type ski belts do not qualify as adequate flotation devices. The full vest type is recommended. Check local regulations to see what type of personal flotation device may be required in your area.

Drowning Hazard: a personal flotation device (PFD) must be worn by the operator. Kawasaki recommends that the operator wear a vest-type PFD (type 1, 2 or 3) at all times.



WARNING

- All riders must wear a Coast Guard approved personal flotation device (PFD) that is suitable for personal watercraft (PWC) use. Kawasaki recommends a vest-type PFD. Hard impact with the water can result in unconsciousness and/or drowning. Make sure that your PFD fits correctly and tightly so that it does not come off in the water. Never use an adult size PFD for children.
- Severe internal injuries can occur if water is forced into body cavities as a result of falling into water or being near the jet thrust nozzle. Normal swimwear does not adequately protect against forceful water entry into the rectum or vagina. All riders must wear a wet suit bottom or clothing that provides equivalent protection. Wet suits are made of a thick material (neoprene) that significantly retards the velocity of water passing through it. Normal swimwear will not adequately protect you but some other aquatic wear may protect against this injury. Swimsuits that may be displaced by the force of the water will not provide that protection. Materials that are thicker, materials that are a tighter weave, materials that are water repellant, and materials that are closer fitting will tend to provide more protection. In the absence of wearing a wet suit bottom, you should select a clothing design that will maximize your protection.
- Wear protective footwear, gloves and goggles (glasses).

Watercraft Helmet..... Something You Should Know

A helmet helps protect your head, but could contribute to neck injuries.

Before wearing a helmet on a personal watercraft you must weigh the benefits and risks.

Benefits: Helmets offer some head protection from impacts with hard objects.

Risks: Helmets could reduce peripheral vision and increase fatigue; both of which could lead to a collision. Helmets could also increase loads on the neck and throat if you fall into the water, which could result in severe injuries.

You must decide.

If you plan to ride under conditions in which you believe there is a higher chance that your head may be hit by a hard object, such as falling during a race, you may choose to wear a helmet and accept the risks. On the other hand, if head impact with the water is more likely, you may choose to not wear a helmet.

Fire Extinguisher

A charged and functional fire extinguisher must be carried on board, and may be stored in the holder of the engine cover (see Engine Cover section in the GENERAL INFORMATION chapter). Be sure to install the fire extinguisher securely.

Because the watercraft is an inboard boat less than 4.8 m (16 ft) in length, federal regulations require that a fire extinguisher rated "B-1" (minimum 1 kg or 2 pound capacity) be aboard when operating on navigable waters under Coast Guard Jurisdiction. In addition, most states, parks, and wildlife departments require that a U.S.C.G. approved fire extinguisher be carried aboard, even on waters not under federal jurisdiction.

Other countries may have their own standards and regulations; be sure to follow them.

WARNING

A fire aboard the watercraft may cause burns, melt the hull and cause it to sink, leaving the operator stranded. To prevent any fire from consuming the watercraft, always carry a fire extinguisher.

Standard equipment does not include a fire extinguisher. Many owners prefer to provide their own fire extinguishers. If you wish, your dealer can furnish you with an approved Kawasaki accessory fire extinguisher (P/N. W99997-101A).



Weather condition

- Before operating your watercraft, check with local weather reports.

NOTE

- *Generally, weather can change more suddenly over the sea than over the land, so pay close attention to the weather when using the watercraft. If you notice any signs of strong wind or fog, immediately return to shore.*

WARNING

- **Do not operate the watercraft in adverse weather condition or in wild waves. It could lead marine peril.**
 - **Slow down before crossing waves. Crossing wild waves at high speeds could increase the risk of back/spinal injury (paralysis), facial injuries, and broken legs, ankles, and other bones.**
- The operator must judge what is a safe speed taking into consideration visibility, traffic, weather conditions, waves, etc. Water conditions such as converging waves can have considerable influence on the ride characteristics of a personal watercraft and can cause the operator to fall off. Additionally, attempting to achieve maximum speed in adverse conditions can cause abrupt movement of the boat causing possible injury to the riders.

Basic Operating and Riding

Posture on the Riding Platform

When riding the watercraft, stand on the riding platform.

WARNING

Rough water can cause the watercraft to suddenly rise, creating the potential for the handlebars to strike and injure a rider who is positioned too close. To avoid injury, never ride with any part of your body immediately above the handlebars.

If porpoising occurs, that is, the front of the craft rises and falls rapidly, move your body weight further forward.

Standing Up

- Maintaining a steady speed, raise the handlebars slightly and place one foot near the front of the riding platform.
- Balance yourself and slowly rise to a standing position, bringing the handlebars up with you as you rise.



- Again keep your body perpendicular to the water and steer with the handlebars. As you become proficient, you can experiment with the effects of “body english” and leaning while turning the watercraft.

Break-In

A new watercraft should be ridden with care during the break-in period to allow mechanical components to “bed-in” and produce smooth, long wearing surfaces.

Do not exceed the engine speeds listed below during the break-in period.

During the first five minutes: Maximum 2 500 rpm

During the next hour: Maximum 4 000 rpm

During the next 30 minutes: Maximum 6 000 rpm

56 OPERATING INSTRUCTIONS

Careful treatment of the craft during the break-in period will result in more efficient, reliable performance and a longer life for the craft.

In addition to the break-in described above, we recommend that the owner take his watercraft to an authorized Kawasaki JET SKI watercraft dealer after the first ten hours of operation for initial maintenance service. See the Periodic Maintenance Chart in the MAINTENANCE AND ADJUSTMENTS chapter.

Stopping the Engine

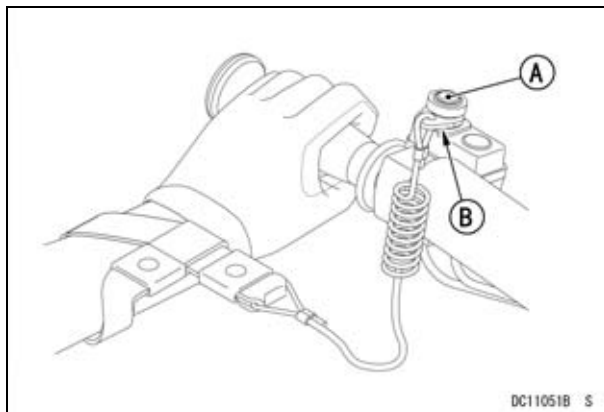
The engine can be stopped in one of the following two ways.

- Push the red “STOP” button. It is not necessary to hold the button in to stop the engine. After the engine stops, the “STOP” button resets itself and the engine is ready to start.
- Pull the engine shut-off lanyard key off the stop button. To start the engine the lanyard key must be pushed under the stop button.

Turn the ignition switch off after stopping the engine in either case.

WARNING

A JET SKI watercraft requires throttle (thrust) to steer and help you to avoid objects - you have no directional control when the engine is stopped. To avoid objects the engine must be running and throttle applied to steer away from objects. Always check the throttle and steering controls for proper operation before starting the watercraft.



- A. Stop Button**
B. Lanyard Key

If the engine must be stopped immediately in an emergency, push the red “STOP” button or pull the engine shut-off lanyard key off the stop button.

Some possible “EMERGENCY” situations are:

- The engine speeds out of control.

- The throttle lever does not release completely.

⚠ WARNING

A JET SKI watercraft requires throttle (thrust) to steer and help you to avoid objects - you have no directional control when the engine is stopped. If the throttle fails, do not operate the watercraft until the source of the problem is found and corrected.

⚠ WARNING

After riding, remove the engine shut-off lanyard key from watercraft to avoid unauthorized use by children or others.

NOTICE

A discharged battery will not provide power to start the engine. To prevent the battery from discharging, always turn the ignition switch "OFF" after stopping the engine.

Starting the Engine

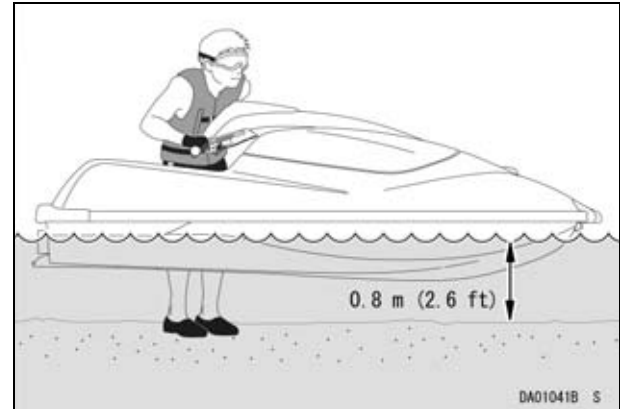
- Read the PRE-RIDE CHECK chapter in this manual and follow its instructions before putting the watercraft in the water.
- After transporting or refueling and before starting the engine, remove the engine cover and keep

open for several minutes to ventilate the engine compartment.

⚠ WARNING

A concentration of gasoline fumes in the engine compartment can cause a fire or explosion. To prevent a fire or explosion, remove the engine cover to vent the engine compartment.

- Place the watercraft in at least 0.8 m (2.6 ft) of water which is clear of weeds and debris. Make sure the area ahead of the watercraft is clear of swimmers, boats, and obstacles.



58 OPERATING INSTRUCTIONS

NOTICE

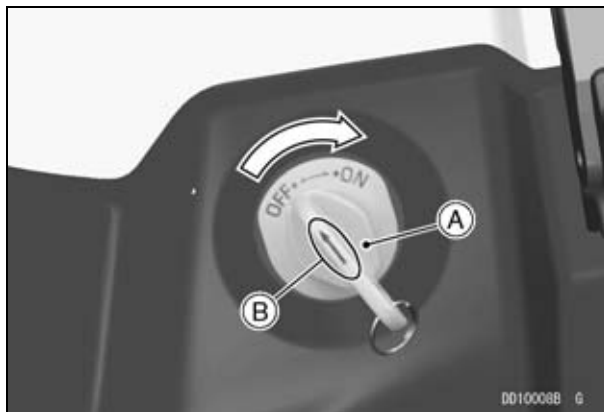
- When starting the engine or riding, the watercraft must be in water at least 0.8 m (2.6 ft) deep. Sand or debris from the bottom may be drawn into the jet pump and damage the pump and impeller, and possibly clog cooling lines.
- If operating in shallow or debris-laden water, objects or sand from the bottom can get sucked in damaging the impeller and possibly clogging cooling hoses which can cause severe engine damage from overheating.
- Avoid beaching the watercraft. Stones and sand can scratch the hull and be drawn into the jet pump, causing damage to the impeller.

- Move to the rear of the watercraft and stand on the riding platform.
- Push the lanyard key under the stop button and put your left hand through the other end of the lanyard to attach it to your wrist. Pull the lanyard to make sure it is securely attached and keep it free from the handlebars so that the engine stops if the driver falls off.

NOTE

- The engine does not start with the lanyard key removed from the stop button.
- Attach the ignition key to the switch with the arrow upward and while pushing the key turn it to

the “ON” position. Be sure to remove the key immediately and store it in the storage cover.



A. Ignition Key
B. Arrow

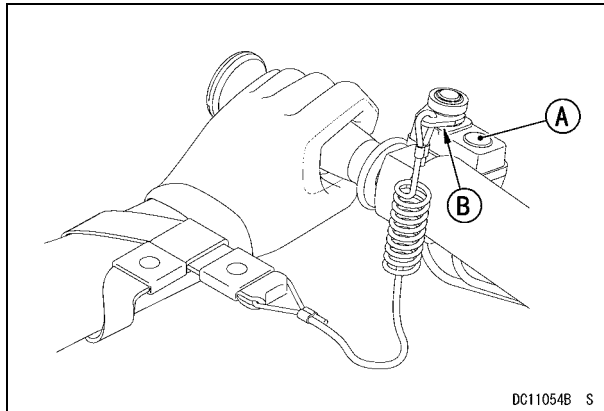
NOTICE

After turning the ignition switch “ON,” remove the key. Stow it in a secure place on the watercraft or with you while riding.

NOTE

- The watercraft is equipped with a vehicle-down sensor which causes the engine to stop automatically if the watercraft has capsized. After righting the watercraft, first turn the ignition key to “OFF” and then back to “ON” and push the start button to start the engine.

- Check that the starter interlock switch is positioned to the right.
- Scan for people, objects, and other watercraft.
- With your left hand, push the green start button and release it when the engine starts. If the engine does not start within 5 seconds, release the button. Wait 15 seconds before trying again. If the engine does not start after several attempts, see the IN AN EMERGENCY chapter.



A. Start Button
B. Lanyard Key

NOTE

- Wait 15 seconds between each operation of the starter. This will extend battery and starter life significantly.

NOTICE

Do not push the “START” button while the engine is running or while the starter is still spinning as this causes premature starter wear and may cause it to jam.

- After the engine has started, allow it to warm up for about 1 minute. Apply a little throttle occasionally. Excessive idling can foul the spark plugs.
- Check that water comes out of the bypass outlet in the right side of the hull when the throttle is applied. This indicates that cooling water is circulating. If there is none, shut off the engine and find the source of the problem. When the exhaust system is dry, it can take up to 15 seconds for water to appear at the bypass outlet.



A. Bypass Outlet

Launching

Launching/Start

Launching

- Before putting the watercraft in the water, be sure you have followed the Pre-ride Checklist.
- Before launching, check the ramp for suitable surface conditions, inclination and width for both the trailer and tow vehicle.

NOTICE

Ensure the drain screws are securely tightened before launching to prevent flooding which may cause sinking or severe engine damage.

- Attach a bow line to the watercraft and detach the trailer tie-downs.
- Wait until it's your turn then back the trailer to the water.
- Unlock the winch and push the craft slowly off the trailer into the water.
- Move your watercraft to a docking or loading area and park your tow vehicle. Do not block the ramp.

Deep Water Start

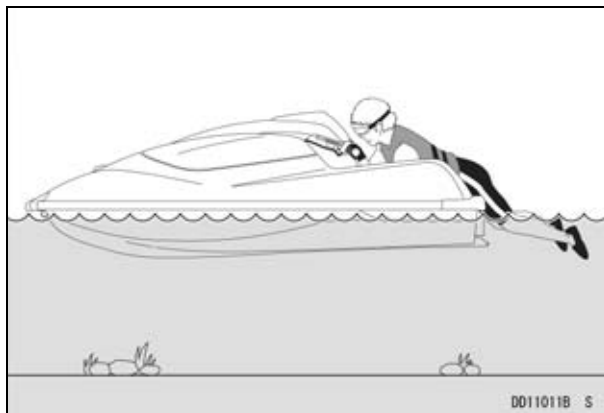
Deep water starting is the primary means of starting the watercraft. It is not necessarily the easiest way to start, but it must be mastered so that you can

get going again after the inevitable spill in deep water.

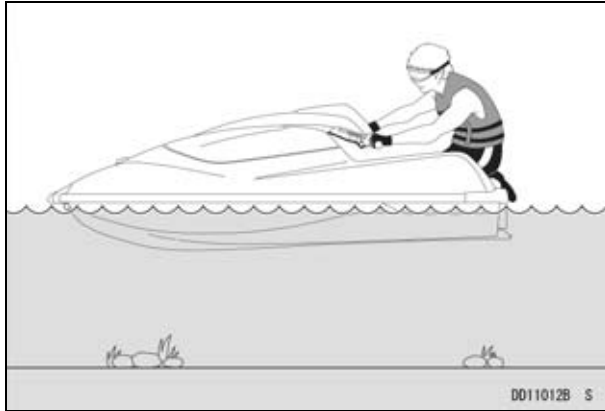
⚠ WARNING

Avoid forceful jet thrust and limited visibility while reboarding. Get to a standing or kneeling position quickly, but do not expose yourself to forceful jet thrust.

- Move to the rear of the watercraft.
- Assume a prone position behind the watercraft with your hands grasping the handlebars and your forearms resting on the tail fins.



- Pull your body up onto the riding platform and onto your knees, using your elbows on the fins for leverage.



- Scan for people, objects, and other watercraft.
- Start the engine.
- Apply the throttle to produce enough thrust from the jet pump to allow directional control over the watercraft.
- Accelerate gradually as you proceed into open water. Remember to observe “No Wake” zones and speed limits.
- As speed increases the watercraft will level out in the water. This is called planing.
- Once the watercraft is planing, you can back off the throttle and select your desired speed.
- Keep alert for other watercrafts, swimmers, or obstructions in your path.

Shallow Water Start

This is the easiest way to launch a watercraft, but it shouldn't be relied upon merely because it's easy.

The deep water start is still the most important launch to a beginner.

Whenever possible, anchor the watercraft in shallow water instead of beaching it. This will reduce scratches to the hull and prevent sand and rocks from entering into the jet pump causing damage to the pump when restarting the engine.

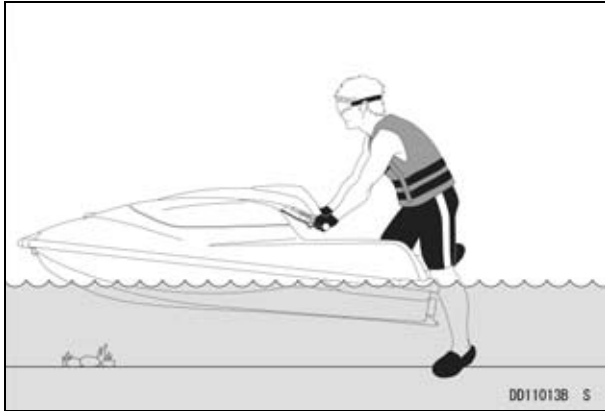
If the watercraft is beached, sand and rocks which are pushed into the jet pump by natural wave action can be flushed out by pushing down on the stern vigorously many times.

NOTICE

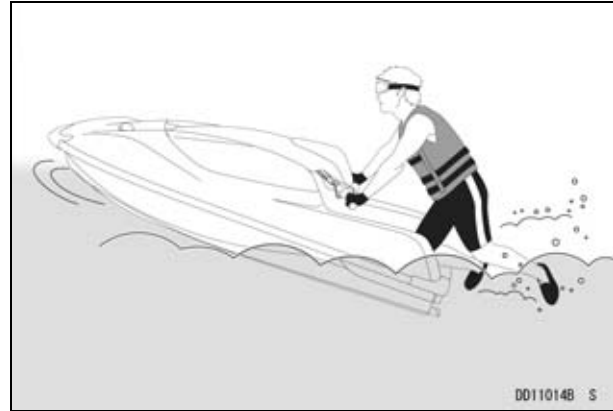
- **When starting the engine or riding, the watercraft must be in water at least 0.8 m (2.6 ft) deep. Sand or debris from the bottom may be drawn into the jet pump and damage the pump and impeller, and possibly clog cooling lines.**
- **If operating in shallow or debris-laden water, objects or sand from the bottom can get sucked in damaging the impeller and possibly clogging cooling hoses which can cause severe engine damage from overheating.**

- Move to the rear of the watercraft.
- Grasp both handlebar grips and put one knee up onto the riding platform, balancing on your other foot.

62 OPERATING INSTRUCTIONS



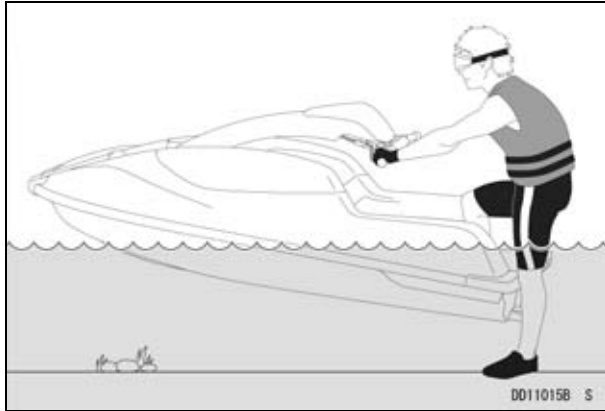
- Check that the water ahead of you is clear and point the handlebars straight ahead.
- Start the engine.
- Apply the throttle to produce enough thrust from the jet pump to allow directional control over the watercraft.
- Keep alert for other watercrafts, swimmers, or obstructions in your path.
- As the watercraft accelerates, pull your other knee up onto the riding platform and move as far forward as possible, without interfering with handlebars movement. Keep your body perpendicular to the water with your weight forward and low.



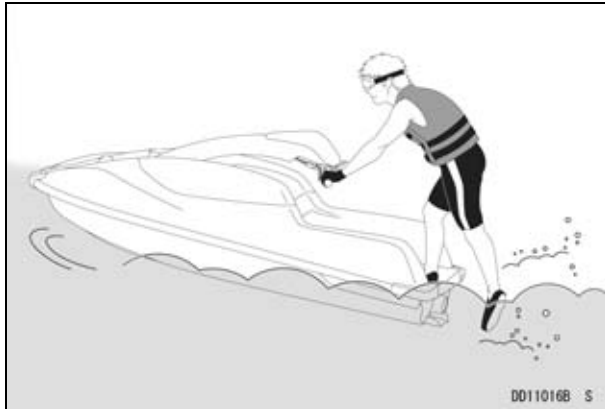
Standing Start

This method can be used by the more experienced watercraft rider.

- Start the engine in at least 0.8 m (2.6 ft) of water.
- Put one foot in the riding platform, balancing yourself with the other foot on the beach bottom.

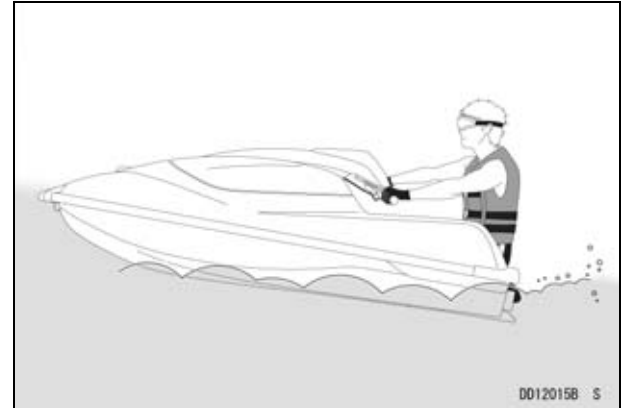


- Accelerate to planing speed, and place your other foot on the rear section of the riding platform.
- Keep alert for other watercrafts, swimmers, or obstructions in your path.



Stopping the JET SKI Watercraft

The watercraft depends on forward motion to keep it planing (level), so the rear of the boat will usually submerge on stopping, depending on rider weight. Be prepared to get off the boat when it stops.



⚠ WARNING

This high-performance watercraft is capable of high speeds that can be hazardous when directly approaching any moving or stationary object. To avoid an accident, never directly approach any moving or stationary object closer than 100 meters (328 feet) when traveling at high speed. Always throttle down before approaching your intended stopping area.

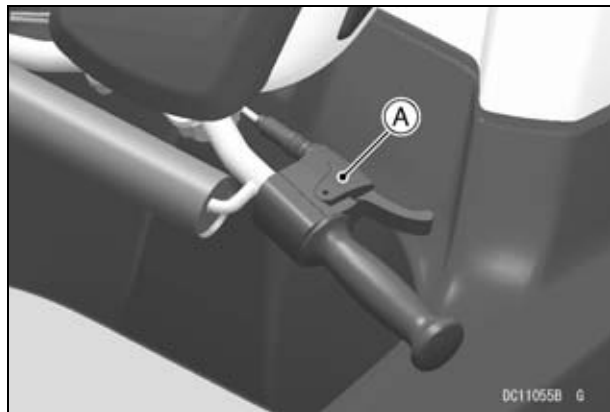
64 OPERATING INSTRUCTIONS

This watercraft stops by using natural water drag to bring the craft to a halt.

- Release the throttle before you reach your intended stopping area.
- Coast towards the stopping area with the engine idling.

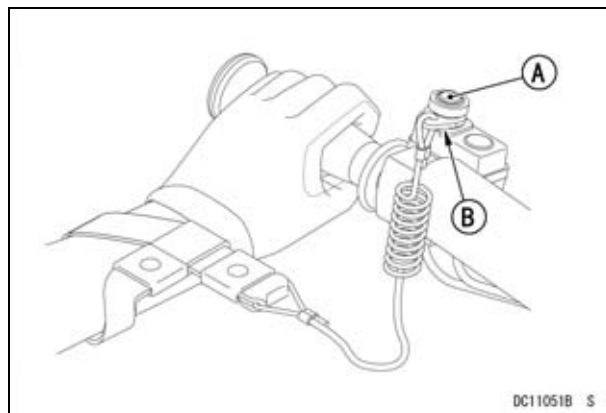
NOTICE

Avoid beaching the watercraft. Stones and sand can scratch the hull and be drawn into the jet pump, causing damage to the impeller.



A. Throttle Lever

- Press the stop button or pull the lanyard key off the stop button to stop the engine.



**A. Stop Button
B. Lanyard Key**

Releasing the throttle slows forward motion but the engine will still be running, so you can steer the boat after reapplying the throttle. In this manner you can turn and move away from any obstacles.

Push the stop button when you are approaching the shore and intend to stop. The engine stops immediately, so it prevents sand or debris from entering and damaging the jet pump. Never run the engine in water less than 0.8 m (2.6 ft) deep.

Stopping Skills

Stopping distance depends partially on rider weight and position, idle set speed, and operating speed. Experienced operators can usually shorten stopping distance by using various riding techniques. Turning the boat sharply (using the throttle)

while stopping is a method which can be used to decrease stopping distance.

Minimum Stopping Distances

The minimum stopping distance of this watercraft with the operator from maximum speed is 75 m (246 ft). (Obtained under controlled conditions, actual stopping distances may vary depending on vehicle load and water conditions.)

Turning the JET SKI Watercraft

Turning the watercraft requires a combination of three actions:

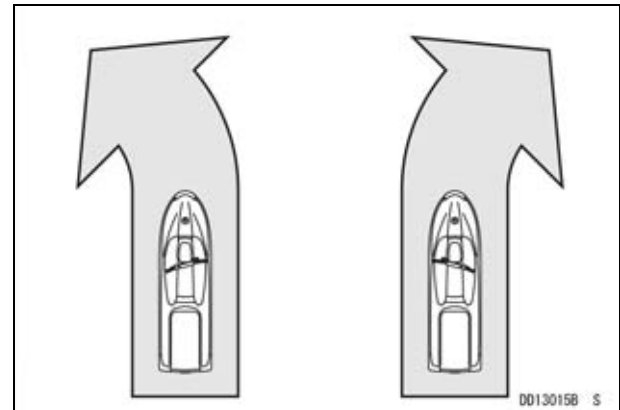
- Turning the handlebars
- Leaning into the turn
- Using the throttle

⚠ WARNING

A JET SKI watercraft requires throttle (thrust) to steer. Releasing the throttle completely reduces the ability to steer and stopping the engine eliminates the ability to steer. Either operation may cause you to hit an object you are trying to avoid, causing injury or death. To avoid collisions do not stop the engine while riding; maintain or apply throttle as needed to maintain thrust at the jet nozzle to initiate a turn.

Point the handlebars to the left for a left turn

Point the handlebars to the right for a right turn



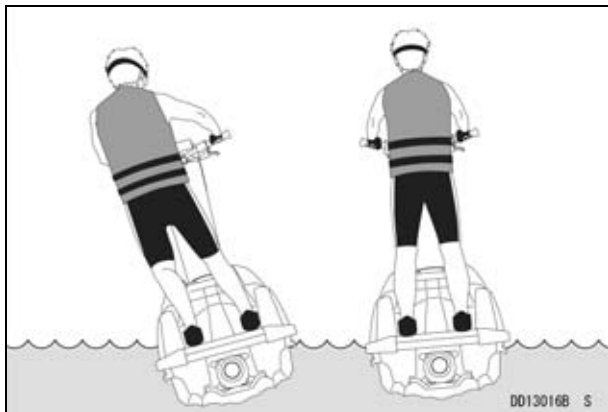
LEFT

RIGHT

Lean into the turn to maintain your balance. How much you lean depends on the tightness of the turn

66 OPERATING INSTRUCTIONS

and your travelling speed. In general, the higher the speed or the sharper the turn, the more you lean.

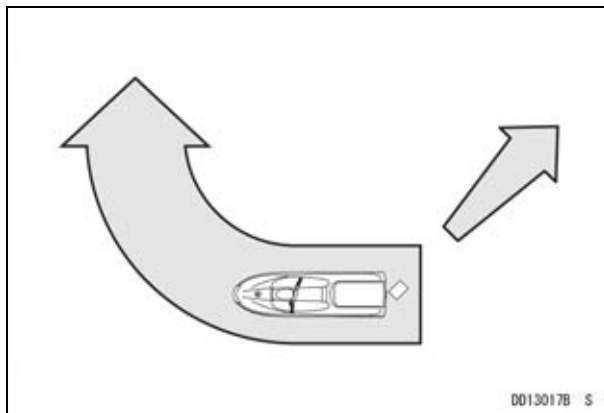


SHARP TURNS HIGH
SPEED TURNS

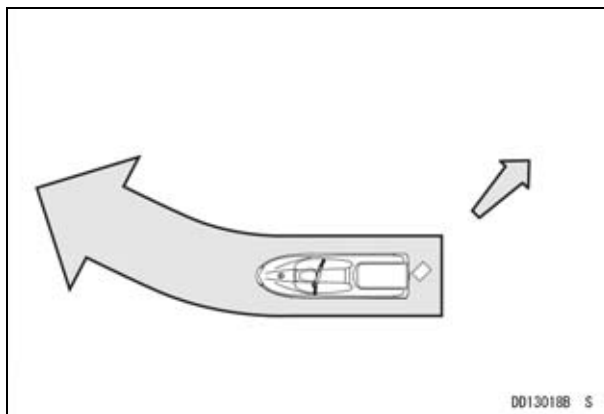
WIDE TURNS SLOW
TURNS

Using the throttle is another important part of turning maneuvers. Applying the throttle produces thrust from the jet pump giving you directional control over the watercraft.

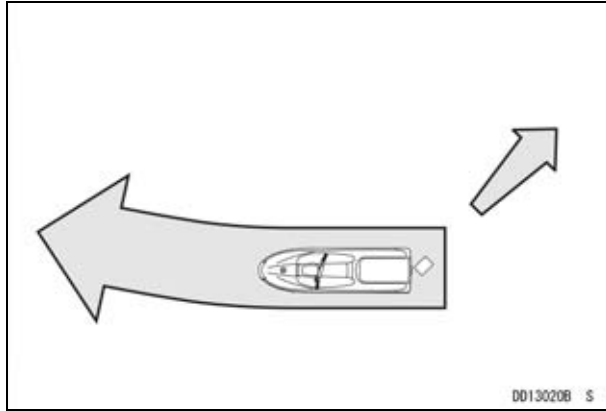
High thrust from the jet pump makes the boat turn more sharply.



Less thrust from the jet pump makes the boat turn less sharply.

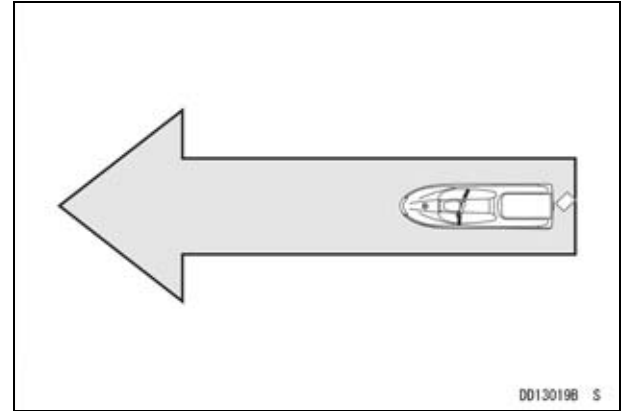


If you release the throttle completely, there is little thrust from the jet pump. The boat turns slowly and steering ability is reduced.



IDLE = SLOW, GRADUAL TURN

If you stop the engine while riding, there is no thrust from the jet pump. The boat will go straight ahead even though the handlebars is turned.



NO THRUST = NO TURN

This is one characteristic of jet drive boats which is important to remember when you make an emergency maneuver: **YOU MUST HAVE THRUST TO TURN**, so keep the throttle on or apply throttle as needed to maintain thrust at the jet nozzle.

- Throttle down before entering a turn.

Before making a turn, always look over your shoulder to make sure no other watercraft is coming from behind.

Docking the JET SKI Watercraft

- When docking, use the throttle efficiently both to control the craft's speed and to keep directional control over the craft.
- When you are approaching the shore where you intend to land, push the stop button to prevent sand from entering the jet pump and the impeller.

68 OPERATING INSTRUCTIONS

Do not operate the engine in water shallower than 0.8 m (2.6 ft).

NOTICE

- When starting the engine or riding, the watercraft must be in water at least 0.8 m (2.6 ft) deep. Sand or debris from the bottom may be drawn into the jet pump and damage the pump and impeller, and possibly clog cooling lines.
 - If operating in shallow or debris-laden water, objects or sand from the bottom can get sucked in damaging the impeller and possibly clogging cooling hoses which can cause severe engine damage from overheating.
 - Avoid beaching the watercraft. Stones and sand can scratch the hull and be drawn into the jet pump, causing damage to the impeller.
- Remember that stopping the engine causes you to lose steering control, so cut the engine only after you have reduced speed and maneuvered into your final approaching position. You cannot make any emergency maneuvers with the engine stopped.

Fall Recovery

If the operator falls off the craft, the lanyard key is pulled off the stop button and the engine is stopped immediately.

WARNING

Maintaining hold of the handlebars during a fall may cause you strike the watercraft, resulting in injury. To avoid injury during a fall, release your grip on the handlebars.

NOTICE

Hanging onto the handlebars during a fall can cause misalignment of the handle pole which can cause damage to the handle pole and engine cover.

- Reboard from the rear of the craft. Push the lanyard key under the stop button, and push the start button to start the engine.

Righting the Capsized Watercraft

If the watercraft should capsize, the engine is stopped by the lanyard key being pulled off the stop button by the operator. Use the following procedure immediately to right the craft.

WARNING

This watercraft will not self-right if capsized, leaving the operator stranded. To avoid being stranded in the case of capsizing, be sure you know the proper righting procedure.

- Make sure the engine is stopped. If it is not stopped, immediately pull the lanyard key off the

stop button or push the stop button to stop the engine.

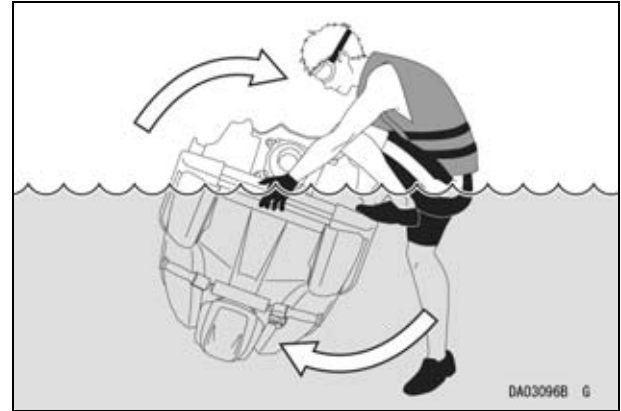
NOTICE

To prevent severe engine damage, immediately stop the engine if the craft capsizes. If it continues running whilst capsized, water can enter the throttle body and engine, locking the engine and causing severe and immediate damage to internal engine parts.

Do not operate the watercraft with water in the engine.

Do not try to start the engine until it is completely empty of water; internal engine parts could be severely and immediately damaged. If water gets into the engine, follow the procedure described in the After Submerging section.

- Swim to the rear corner of the capsized craft.
- Push down on the port side of the craft with one hand and reach across the hull and grasp the rear of the deck with the other, as though trying to pull yourself up onto the bottom of the hull.



- Now, push down on the rear corner of the hull with one foot, using your body weight to roll the capsized craft toward you.
- As the craft rolls over toward you, reach for the far side of the hull, if needed, and pull it on over.

NOTICE

Rolling the capsized watercraft counter-clockwise (to its STARBOARD side) can cause water in the exhaust system to run into the engine, with possible engine damage. Always turn the capsized boat clockwise so that the PORT side always faces downward.

- After the watercraft has capsized and been righted, it may have water in the engine compartment. Carefully go back aboard from the

70 OPERATING INSTRUCTIONS

rear, trying not to let more water into the engine compartment under the engine cover.

- Push the lanyard key under the stop button, and push the start button to start the engine.
- Tow the watercraft slowly to shore, beach it, and drain the water out of the engine compartment. This will help prevent getting water in the engine, which could cause severe and immediate damage to internal engine parts.

After Submerging

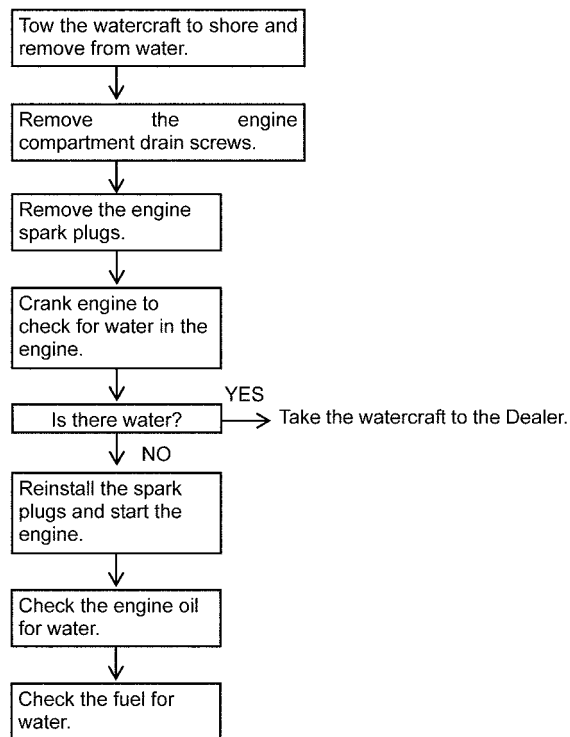
NOTICE

If water enters the engine it will cause severe damage. Do not operate the watercraft with water in the engine. Do not try to start the engine until it is completely empty of water. If water gets into the engine, follow this procedure immediately! If water is left in the engine more than a few hours, it will damage internal engine parts.

If the watercraft is swamped, water may enter the engine through the throttle body. Water also may enter the fuel tank.

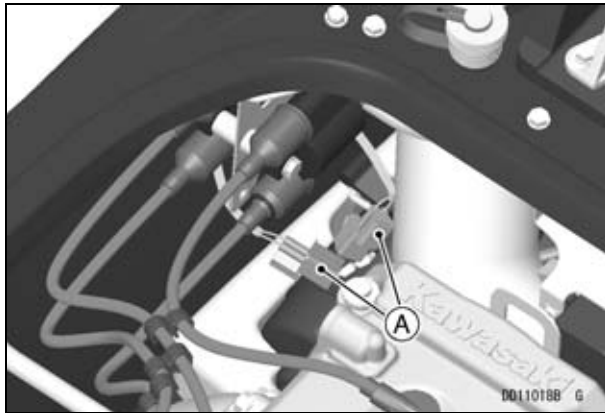
You need systematic inspections and remedies for a swamped watercraft. The following procedure explains the necessary steps you must take. Carefully read the summary of the procedure first, and then the detailed steps.

Summary of the procedure



Details of the steps

1. Remove the craft from the water, and remove the engine cover.
2. Remove the drain screws in the stern to drain water out of the engine compartment.
3. Disconnect the two ignition coil connectors on the primary ignition cables located at the left front of the engine.



A. Ignition Coil Connectors

4. Remove all the spark plug caps.
5. Remove all spark plugs.
6. Turn the ignition switch on, push the lanyard key under the stop button, and push the start button.
7. If there is water in the engine, it will be pumped out from the plug holes. Discharge the water and take the watercraft to your authorized

dealer for service immediately. Do not operate the starter for longer than 5 seconds. Wait 15 seconds before using it again.

⚠ WARNING

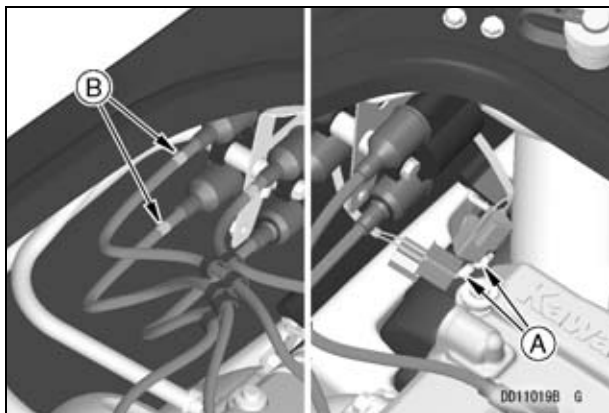
A water and gasoline mixture will be forcibly ejected from the spark plug holes and could injure your eyes. To prevent eye injury, do not lean over the engine when performing this procedure. If gas does get in your eyes, immediately wash them with plenty of clean, fresh water and consult a physician as soon as possible.

8. If there is no water coming out of the engine, spray the spark plugs clean with air and then refit their plug caps.
9. Reconnect the ignition coil connectors.

NOTE

- *Be sure to make correct connections (the connector of the spark plug cables marked 2 & 3 with the connector of the leads marked 2 & 3). Then, reconnect the other connector.*
- *Before reconnecting, apply a high quality waterproof marine grease to the connectors.*

72 OPERATING INSTRUCTIONS



A. 2 & 3 Marks (Leads)

B. 2 & 3 Marks (Spark Plug Cables)

10. Start the engine by pressing the start button and run for less than 15 seconds.

NOTICE

To prevent overheating resulting in engine and exhaust system damage, do not run the engine with the watercraft out of the water for more than 15 seconds at a time.
Never operate the engine at maximum speed out of the water.

11. Remove the dipstick and check for the presence of water in the engine oil. (If there is water, oil looks milky.)

12. If the oil looks milky, then change the oil and repeat items 10 & 11 until the oil no longer appears milky.
13. If the engine does not start, there may be water in the fuel system.
14. If the fuel tank has water in it, it must be emptied with a pump or siphon. Refill the tank with fresh fuel. Dispose of the contaminated fuel at an appropriate hazardous waste site.

⚠ WARNING

Gasoline is extremely flammable and can be explosive under certain conditions. To avoid a possible fire or explosion, pull the lanyard key off the stop button. Do not smoke. Make sure the area is well ventilated and free from any source of flame or sparks; this includes any appliance with a pilot light.

⚠ WARNING

Gasoline is toxic and pollutes the environment. To protect the environment, do not discard gasoline; always return it to an authorized recycling center.

15. Continued problems may require cleaning of the fuel line to drain water.
16. Reinstall the engine cover and secure it.
17. Reinstall the drain screws in the stern.
18. Finally run the watercraft IN WATER for at least 10 minutes to dry any remaining water and blow

any foreign matter (like salt) out through the exhaust.

NOTE

- *If this procedure seems difficult and beyond your mechanical abilities, see your authorized Kawasaki dealer.*

End of the Day Checklist

NOTICE

Since JET SKI personal watercraft are not designed to be docked in the water for extended periods, prolonged immersion in water will cause the hull paint to bubble and peel, as well as electrolytic erosion of some metal parts in the jet pump. To prevent this, remove your JET SKI watercraft from the water at the end of each day's use; do not leave it in the water overnight. Your JET SKI watercraft will last longer and look better.

Drain the Exhaust System

To prevent major engine damage, you must perform the following procedure to expel excess water from the exhaust system. This helps prevent premature wear due to internal engine corrosion and the build up of salt or other mineral deposits that can lead to cooling system blockage and overheating.

- After each use in fresh water, remove the watercraft from the water.
- Start the engine and run it for several seconds to purge the exhaust system of excess water. Rev the engine repeatedly, until water stops coming out of the exhaust at the stern.

74 OPERATING INSTRUCTIONS

NOTICE

To prevent overheating resulting in engine and exhaust system damage, do not run the engine with the watercraft out of the water for more than 15 seconds at a time. Never operate the engine at maximum speed out of the water.

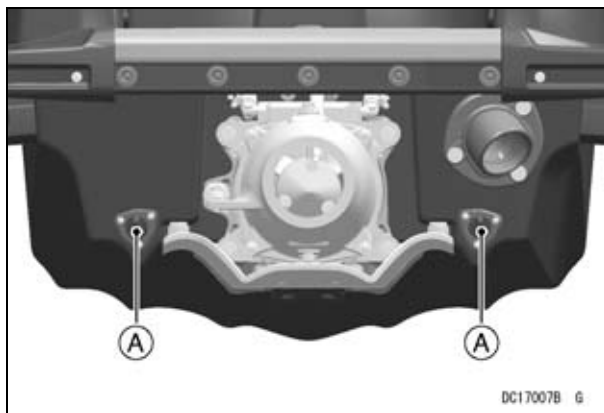
- After each use in salt water, flush the cooling system with fresh water (see Cooling System Flushing section in the MAINTENANCE AND ADJUSTMENTS chapter). This will help prevent build up of salt deposits and eventual cooling system blockage.

Clean the Engine Compartment

- Remove the engine cover.
- If water has accumulated in the engine compartment, remove the drain screws in the stern to drain water out of the compartment.
- When the watercraft has been used at sea, rinse the engine compartment with fresh water.

NOTICE

Water can enter the engine through the air box and cause severe engine damage, and shorts in electrical equipment. To prevent water damage, cover the air intake hole and do not spray electrical equipment.



A. Drain Screws

- Be sure to reinstall the drain screws after draining.
- If you won't be using the watercraft for more than a week, lubricate the internal engine components to help prevent corrosion.
- If you won't be using the watercraft for more than two weeks, remove the battery and keep fully charged using a maintenance charger (see Battery section in the MAINTENANCE AND ADJUSTMENTS chapter).
- Wipe the engine compartment dry, and install the engine cover.
- When the watercraft is ready for storage, install the engine cover loosely, and block it with 10 mm (one half inch) spacers to aid air circulation and prevent condensation from forming.

Clean the Outside Hull

- Wash the hull, deck, water intake, and propulsion system with fresh water.

Clearing Clogged Impeller

Occasionally, weeds or other debris may lodge in the impeller/jet pump, severely impairing performance. This foreign matter must be completely cleaned out for the jet pump to function properly.

- Shut off the engine, and beach the craft.

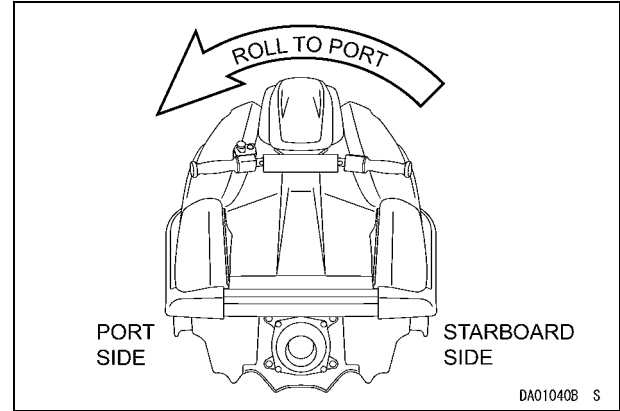
WARNING

The jet pump contains moving parts that can cause severe injury. To prevent injury, never attempt to clear the jet pump of debris while the engine is running. Stop the engine and pull the lanyard key off the stop button before checking the pump for debris.

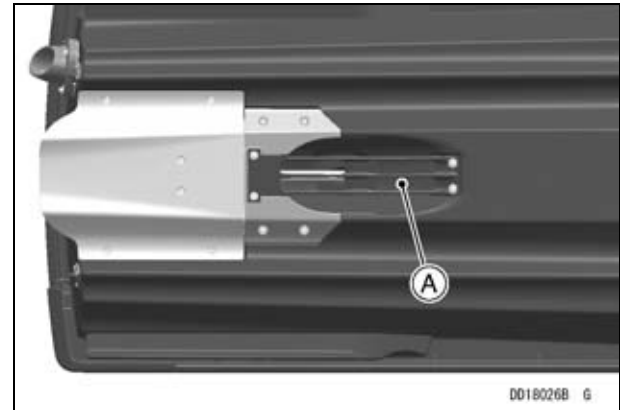
- Turn the ignition switch off and remove it.
- Position the starter interlock switch to the left to prevent accidental rotation of the engine and possible injury.
- Place a protective pad next to the boat.
- Tip the boat on its **port side**.

NOTICE

Rolling the watercraft to its STARBOARD side can cause water in the exhaust system to run into the engine, with possible engine damage. Always turn the boat on its PORT side.



- Clean the water intake, drive shaft, impeller, jet pump housing, outlet, and steering nozzle of any seaweed, grass, or other debris.



A. Water Intake

76 OPERATING INSTRUCTIONS

NOTICE

Engine cooling water is supplied by the jet pump, and any loss of pump performance may cause overheating resulting in severe engine damage. To prevent overheating, be sure the pump area and all its components are completely clear.

TRANSPORTING AND STORAGE

Transporting

- When transporting the watercraft on a trailer, observe the trailer laws and regulations in your area.
- Be sure the trailer matches with the craft's weight and hull design.
- Securely fasten the watercraft to prevent movement between the craft and trailer.
- Make sure the engine cover is secured to prevent it from becoming dislodged and damaged. Also, be sure to tie down the handle pole. If not secured, a handle pole can be damaged from bouncing up and down. An unsecured handle pole can also damage the engine cover.

NOTICE

Only use the bow eye when fastening the watercraft to the trailer.



A. Bow Eye

- After transporting and before starting the engine, remove the engine cover and keep open for several minutes to ventilate the engine compartment.

⚠ WARNING

A concentration of gasoline fumes in the engine compartment can cause a fire or explosion. To prevent a fire or explosion, remove the engine cover to vent the engine compartment.

STORAGE

During the winter, or whenever your watercraft will not be in use for more than 30 days, proper storage is essential. It consists of checking and replacing missing or worn parts; lubricating parts to ensure that they do not corrode and, in general, preparing the watercraft so that when the time comes to use it again, it will be in top condition. See your Kawasaki JET SKI watercraft dealer for this service or do the following.

NOTICE

Since JET SKI personal watercraft are not designed to be docked in the water for extended periods, prolonged immersion in water will cause the hull paint to bubble and peel, as well as electrolytic erosion of some metal parts in the jet pump. To prevent this, remove your JET SKI watercraft from the water at the end of each day's use; do not leave it in the water overnight. Your JET SKI watercraft will last longer and look better.

Preparation for Storage

Cooling System

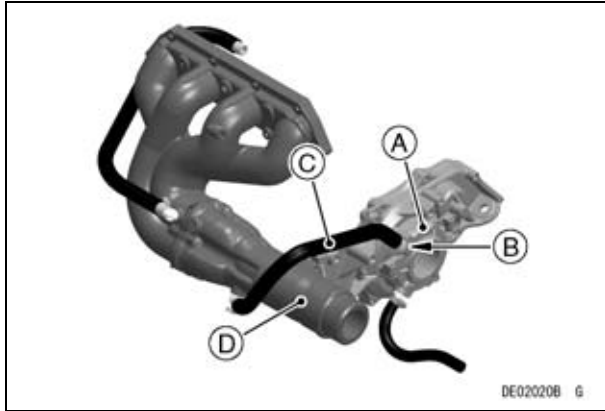
- Clean the cooling system (see Cooling System Flushing section in the MAINTENANCE AND ADJUSTMENTS chapter).
- When storing the watercraft in an area where the temperature drops below freezing, perform the following.

Discharging water in the exhaust system

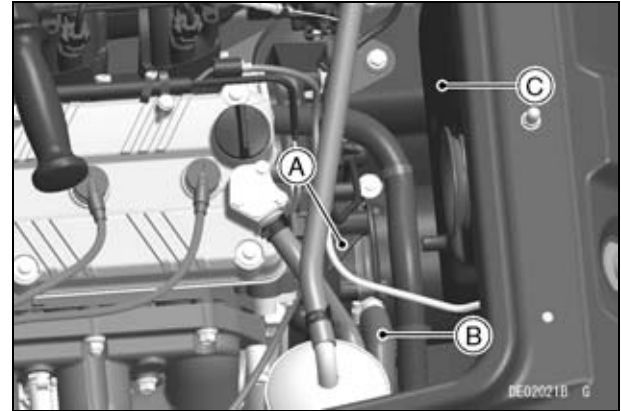
NOTICE

Water remaining in the exhaust system during cold weather could freeze and damage the exhaust pipe. To prevent exhaust system damage, discharge water from the exhaust system after flushing the cooling system.

- After flushing, disconnect the cooling water hose from the fitting on the engine output cover at the rear of the engine. Lead the hose to the lowest level in the engine compartment so that water remaining in the exhaust pipe drains out.



- A. Engine Output Cover
- B. Fitting
- C. Cooling Water Hose
- D. Exhaust Pipe



- A. Engine Output Cover
- B. Cooling Water Hose
- C. Air Box

- Connect the hose to the fitting on the engine output cover and tighten the clamp securely.

NOTICE

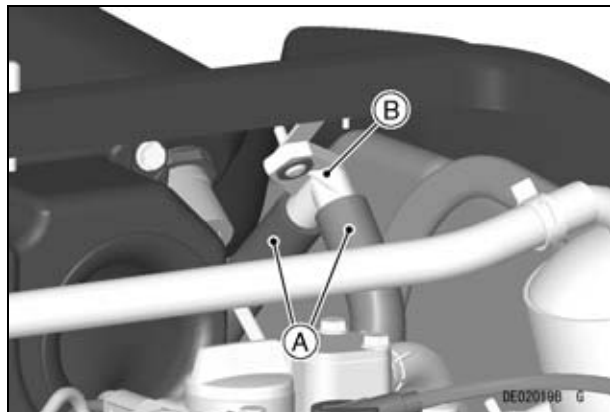
If the cooling water hose comes off during operation, water could swamp the boat, causing it to sink or severe engine damage. Connect the hose securely to the fitting. If you are not confident you can perform storage procedures, ask your Kawasaki JET SKI watercraft dealer for this service.

Bilge System

- Remove the engine cover.

80 TRANSPORTING AND STORAGE

- Clean the bilge system (see Bilge System Flushing section in the MAINTENANCE AND ADJUSTMENTS chapter), and before reconnecting the hoses to the plastic breather fitting, blow air through the hoses to force all water out of the bilge system.



- A. Blow air through both hoses.**
B. Breather Fitting

Engine Oil

- Change the engine oil. See MAINTENANCE AND ADJUSTMENTS chapter for detailed information.

Fuel System and Engine

- Wash the engine compartment with fresh water and remove the drain screws in the stern to drain the water. Wipe up any water left in the compartment.

⚠ WARNING

Gasoline is extremely flammable and can be explosive under certain conditions. To avoid a possible fire or explosion, pull the lanyard key off the stop button. Do not smoke. Make sure the area is well ventilated and free from any source of flame or sparks; this includes any appliance with a pilot light.

- Lift the stern upward a little so that fuel and water in the bottom of the fuel tank flow toward the fuel filler so you can completely drain the fuel tank. This should be done with a siphon or pump.

⚠ WARNING

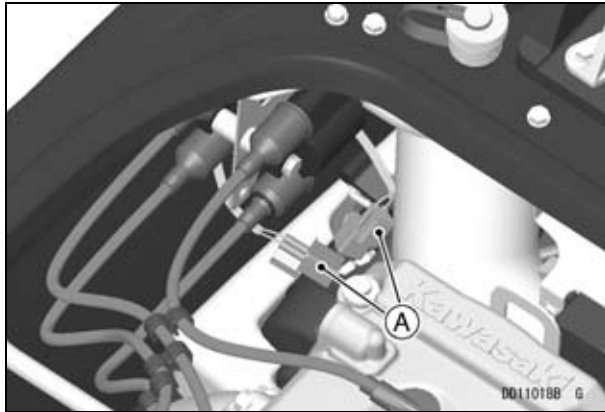
Gasoline is toxic and pollutes the environment. To protect the environment, do not discard gasoline; always return it to an authorized recycling center.

- Refill the fuel tank with fresh fuel approximately 10 L (2.6 US gal).
- Turn the ignition switch on.
- Push the lanyard key under the stop button, start the engine, and run it in fifteen second bursts until the fuel in the fuel system is replaced with the fresh fuel. Wait five minutes between each 15 second burst.

NOTICE

To prevent overheating resulting in engine and exhaust system damage, do not run the engine with the watercraft out of the water for more than 15 seconds at a time. Never operate the engine at maximum speed out of the water.

- Drain the fuel tank as previously described.
- Leave the fuel filler cap loose to prevent condensation in the tank.
- Disconnect the two ignition coil connectors on the primary ignition cables located at the left front of the engine.



A. Ignition Coil Connectors

- Remove all the spark plug caps.

- Remove all spark plugs.
- Spray fogging oil directly into each cylinder.
- Turn the engine over several times with the start button to coat the cylinder walls.

⚠ WARNING

An air/oil mist will be forcibly ejected from the spark plug holes and could injure your eyes. To prevent eye injury, do not lean over the engine when performing this procedure. If gas does get in your eyes, immediately wash them with plenty of clean, fresh water and consult a physician as soon as possible.

- Apply molybdenum disulfide grease to the threads of the spark plugs, and reinstall them.

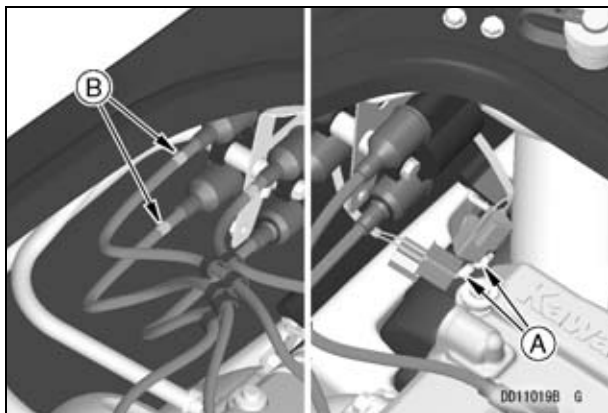
Spark Plugs Tightening Torque:
13 N·m (1.3 kgf·m, 115 in·lb)

- Pull the lanyard key off the stop button and turn the ignition switch off.
- Reinstall the spark plug caps.
- Reconnect the ignition coil connectors.

NOTE

- *Be sure to make correct connections (the connector of the spark plug cables marked 2 & 3 with the connector of the leads marked 2 & 3). Then, reconnect the other connector.*
- *Before reconnecting, apply a high quality waterproof marine grease to the connectors.*

82 TRANSPORTING AND STORAGE



A. 2 & 3 Marks (Leads)

B. 2 & 3 Marks (Spark Plug Cables)

Air Box

- Have your Kawasaki JET SKI watercraft dealer clean the inside of the air box.

Throttle Body Assy

- Have your Kawasaki JET SKI watercraft dealer clean the throttle bore.

Battery

- Remove the battery (see Battery section in the MAINTENANCE AND ADJUSTMENTS chapter).
- Clean the exterior with a solution of baking soda and water (one heaping tablespoon of baking soda in one cup of water). Rinse thoroughly with water.

NOTICE

Removing the sealed cap can damage the battery. To prevent battery damage, never remove the sealed cap.

- Coat both battery terminals with grease.
- Store the battery in a cool, dry place. Do not expose it to freezing temperatures. During storage it should be given a slow charge (one ampere or less) about once a month. Keep the battery well charged especially during cold weather.

Engine Mount Bracket Bolts

- Tighten all engine mount bracket bolts.

NOTE

- *We recommend that you have this service done by your authorized dealer since it requires special tools.*

Jet Pump Bearings/Seals

NOTICE

Major engine damage can occur if the jet pump bearings fail due to lack of maintenance or if water remains in the pump during prolonged storage and corrodes the bearings. To prevent premature jet pump bearing failure, follow the service schedule and have the bearings serviced prior to prolonged storage.

Have your Kawasaki dealer inspect the jet pump bearings and seals after the first 25 hours of use or one year, whichever comes first; and then every 50 hours or every year, whichever comes first. The jet pump bearings should also be serviced before any prolonged storage to prevent any water that may be left in the pump from corroding the bearings and causing premature failure.

Cleaning

- Wash the exterior and dry it thoroughly.

NOTICE

Harsh cleaning solvents may attack the surface or smear the colors. To preserve the finish, use only a mild detergent in water to wash the watercraft.

- Lightly spray all exposed metal parts with a penetrating rust inhibitor, such as WD40 or BEL-RAY 6 in 1 to prevent corrosion.
- Install the engine cover loosely, and block it with 10 mm (one half inch) spacers to insure adequate ventilation and prevent condensation from forming.
- Cover the watercraft and store it in a clean, dry place.

NOTICE

Water left in the riding platform can cause the paint to bubble and peel, and the mat to peel off the deck. Do not allow water to collect in the riding platform during storage. If the watercraft is left outside, even covered, water can collect in the riding platform. If the watercraft is left on a trailer, raise the trailer tongue so that water cannot accumulate in the riding platform.

Semi-gloss Finish

To clean the semi-gloss finish:

- When washing the watercraft, always use a mild neutral detergent and water.
- The semi-gloss finish effect may be lost if the finish is excessively rubbed.
- If in any doubt, consult an authorized Kawasaki dealer.

Lubrication

- Carry out all recommended lubrication procedures (see Lubrication section in the MAINTENANCE AND ADJUSTMENTS chapter).

Removal from Storage

The following procedure explains the steps necessary to put the watercraft back in service following a storage period. See your Kawasaki JET SKI watercraft dealer for this service, or do the following. See the MAINTENANCE AND ADJUSTMENTS chapter for detailed procedures.

84 TRANSPORTING AND STORAGE

- Carry out all recommended lubrication procedures (see Lubrication section).
- Check for binding or sticking throttle or steering. The throttle lever must return fully when released.
- Check the spark plugs (see Spark Plugs section).
- Check all rubber hoses for weathering, cracking, or looseness.
- Check the cooling and bilge hoses for weathering, cracking, or looseness.
- Check that the drain screws in the stern are securely tightened.
- Clean the battery terminals and charge if necessary. Install the battery (see Battery section).
- Check the fire extinguisher for a full charge.
- Fill the fuel tank with fuel and close the filler cap securely.

WARNING

Gasoline is extremely flammable and can be explosive under certain conditions. To avoid a possible fire or explosion, pull the lanyard key off the stop button. Do not smoke. Make sure the area is well ventilated and free from any source of flame or sparks; this includes any appliance with a pilot light.

- After transporting or refueling and before starting the engine, remove the engine cover and keep open for several minutes to ventilate the engine compartment.

WARNING

A concentration of gasoline fumes in the engine compartment can cause a fire or explosion. To prevent a fire or explosion, remove the engine cover to vent the engine compartment.

- Check for fuel leaks. Repair if necessary.
- Check the engine oil level. Fill with specified oil if necessary.

DANGER

Exhaust gas contains carbon monoxide, a colorless, odorless poisonous gas. Inhaling carbon monoxide can cause serious brain injury or death. DO NOT run the engine in enclosed areas. Operate only in a well-ventilated area.

- Start the engine and run it for 15 seconds. Check for fuel, oil and exhaust leaks. Any leaks must be repaired.

NOTICE

To prevent overheating resulting in engine and exhaust system damage, do not run the engine with the watercraft out of the water for more than 15 seconds at a time. Never operate the engine at maximum speed out of the water.

- Install the engine cover, making sure the engine cover latch is secure.

MAINTENANCE AND ADJUSTMENTS

The maintenance and adjustments outlined in this chapter must be carried out in accordance with the Periodic Maintenance Chart to keep the watercraft in good running condition. **The initial maintenance is vitally important and must not be neglected.**

With a basic knowledge of mechanics and the proper use of tools, you should be able to carry out many of the maintenance items described in this chapter. If you lack proper experience or doubt your ability, all adjustments, maintenance, and repair work should be completed by a qualified technician.

Please note that Kawasaki cannot assume any responsibility for damage resulting from incorrect or improper adjustment made by the owner.

EMISSION CONTROL INFORMATION

To protect the environment in which we all live, Kawasaki has incorporated crankcase emission (1), exhaust emission (2), evaporative emission (3) control systems in compliance with applicable regulations of the United States Environmental Protection Agency and California Air Resources Board.

1. Crankcase Emission Control System

This system eliminates the release of crankcase vapors into the atmosphere. Instead, the vapors are routed through a breather chamber to the intake side of the engine. While the engine is operating, the vapors are drawn into the combustion chamber, where they are burned along with the fuel and air supplied by the fuel injection system.

2. Exhaust Emission Control System

This system reduces the amount of pollutants discharged into the atmosphere by the exhaust of this engine. The fuel, ignition and exhaust systems of this engine have been carefully designed and constructed to ensure an efficient engine with low exhaust pollutant levels.

3. Evaporative Emission Control System

The evaporative emission control system for this watercraft consists of low permeation fuel hoses and a fuel tank.

Fuel Information

THIS ENGINE IS CERTIFIED TO OPERATE ON UNLEADED GASOLINE ONLY.

A minimum of 87 of the antiknock index is recommended. The antiknock index is posted on service station pumps in the U.S.A.

88 MAINTENANCE AND ADJUSTMENTS

Maintenance and Warranty

Proper maintenance is necessary to ensure continued low emission levels on your watercraft. This Owner's Manual contains those maintenance recommendations for your engine. Those items identified by the Periodic Maintenance Chart are necessary to ensure compliance with the applicable standards.

As the owner of the Personal Watercraft, you have the responsibility to make sure that the recommended maintenance is carried out according to the instructions in this Owner's Manual at your own expense.

The Kawasaki Limited Emission Control System Warranty requires that you return your Personal Watercraft to an authorized Kawasaki Personal Watercraft dealer for remedy under warranty. Please read the warranty carefully, and keep it valid by complying with the owner's obligations it contains.

Tampering with Emission Control System Prohibited

Federal law prohibits the following acts or the causing thereof: (1) the removal or rendering inoperative by any person other than for purposes of maintenance, repair, or replacement, of any device or element of design incorporated into any new engine for the purposes of emission control prior to its sale or delivery to the ultimate purchaser or while it is in use, or (2) the use of the engine after such device or element of design has been removed or rendered inoperative by any person.

Do not tamper with the original emission related parts.

- * Electronic Control Unit
- * Fuel Pump
- * Spark Plugs
- * Fuel Injectors
- * Throttle Body

Periodic Maintenance Chart

NOTE

○ Complete the Pre-Ride Checklist before each outing.

*: These items must be performed with the proper tools. See an authorized Kawasaki JET SKI watercraft dealer for service, unless you have the proper equipment and mechanical proficiency.

○: Emission Related

Description	Frequency	Initial 10 Hours	Every 25 Hours	Every 50 Hours	Every 100 Hours
Inspect all hoses, hose clamps, nuts, bolts, and fasteners		•	•		
* Lube jet pump bearings and seals; inspect and replace bearings/seals if necessary		Initial 25 hours or one year whichever comes first, then every 50 hours or every year whichever comes first			
Lubricate throttle body cable fitting at throttle body			•		
Lubricate throttle control cable and throttle cable fitting at throttle case			•		
○ Inspect spark plugs (replace if necessary)			•		
Lubricate steering cable ball joints and steering nozzle pivots			•		
* Lubricate handlebar pivot			•		
○* Clean fuel pump screen			•		
* Clean throttle bore			•		

90 MAINTENANCE AND ADJUSTMENTS

Description	Frequency	Initial 10 Hours	Every 25 Hours	Every 50 Hours	Every 100 Hours
○ * Inspect/adjust valve clearances					●
Inspect/clean air box drain caps			●		
Replace engine oil				● (or every year)	
* Replace engine oil filter					●
* Inspect/tighten engine mount bolts				● (or every year)	
* Inspect fuel vent check valve			●		
* Inspect/clean inside of air box			●		
○ Inspect throttle control system			●		
Flush bilge line and filter			●		
Flush cooling system (after each use in salt water)			●		
* Inspect impeller blades for damage					●
* Inspect/replace coupling damper					●
○ * Inspect throttle shaft spring (replace throttle body if necessary)					●
* Inspect steering cable					●
Inspect hull drain screws (replace if necessary)				●	

MAINTENANCE AND ADJUSTMENTS 91

Description	Frequency	Initial 10 Hours	Every 25 Hours	Every 50 Hours	Every 100 Hours
Inspect battery terminals and charging condition			●		
* Replace fuel hoses		Every 5 years			

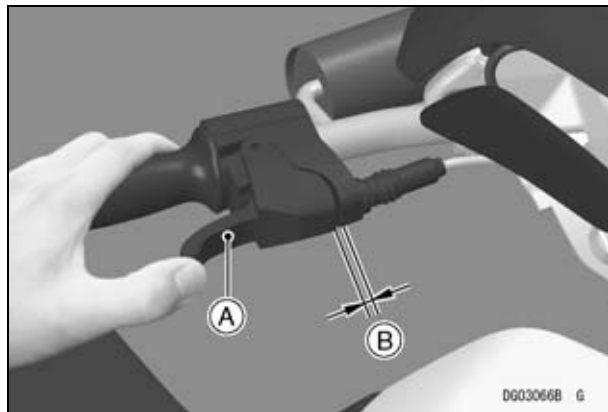
92 MAINTENANCE AND ADJUSTMENTS

Control Cables

Throttle Cable Play Inspection

There must be play in the throttle mechanism.

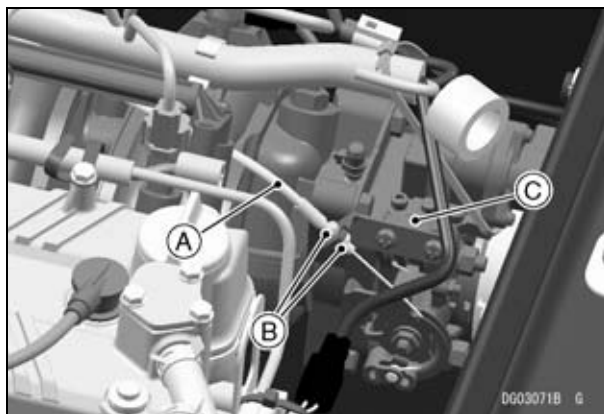
- Measure the distance the throttle lever moves before the engine begins to pick up speed. Play should be about 2 mm (0.08 in.).
- If there is improper play, adjust it.



- A. Throttle Lever**
- B. About 2 mm (0.08 in.)**

Throttle Cable Play Adjustment

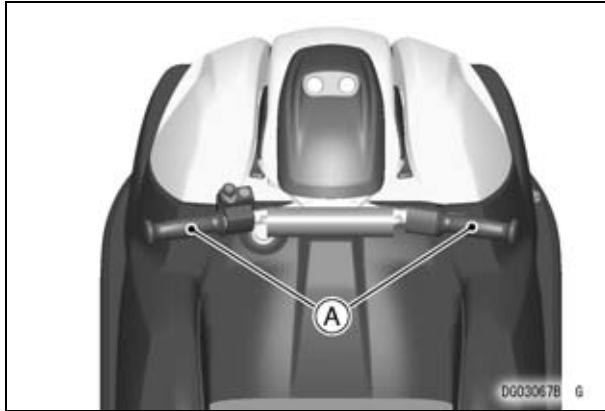
- Loosen and turn the locknuts at the end of the throttle cable until the suitable free play is obtained.
- Tighten the locknuts securely.



- A. Throttle Cable**
- B. Locknuts**
- C. Throttle Body Assy**

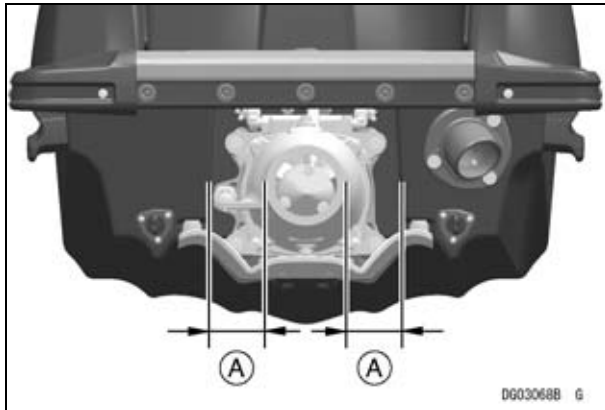
Steering Cable Adjustment

- Center the handlebars in a straight ahead steering position.



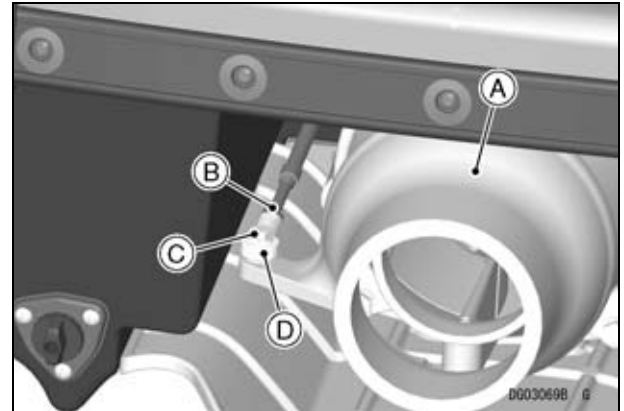
A. Handlebars

- Check that the steering nozzle at the same distance from each side of the pump cavity.



A. Equal

- If it is not, adjust the steering cable.
- Loosen the locknut on the end of the steering cable located to the left of the steering nozzle.
- Remove the joint bolt and disconnect the cable joint from the steering nozzle.



A. Steering Nozzle

B. Locknut

C. Joint Bolt

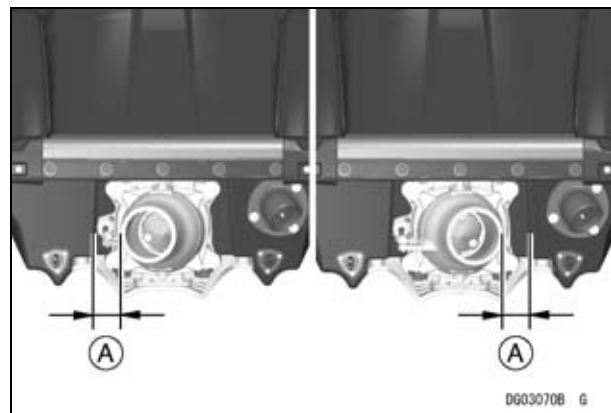
D. Joint

- Center the handlebars in a straight ahead steering position.
- Turn the joint on the cable to adjust the steering.
- Reattach the joint and check cable adjustment again.
- Apply a non-permanent locking agent to the joint bolt. And tighten the joint bolt and the locknut securely.

94 MAINTENANCE AND ADJUSTMENTS

Joint Bolt Tightening Torque:
9.8 N·m (1.0 kgf·m, 87 in·lb)

- As an additional check, turn the handlebars all the way to the left and right, and measure the distance between the nozzle and the edge of the pump cavity. It should be equal at both extremes.



A. Equal

Steering Cable Inspection

Steering cable inspection is best performed by an authorized Kawasaki JET SKI watercraft dealer. If the steering feels rough or “catchy,” have your dealer inspect the steering cable.

NOTE

- *The steering cable is sealed at each end and does not require lubrication.*

Fuel System

Throttle Adjustments

Idle Speed

Idle speed adjustment is best performed by your authorized Kawasaki JET SKI watercraft dealer. If the idle speed is unstable, have your dealer inspect the throttle body.

Idle Speed

1 300 $\pm$ 100 rpm - in water

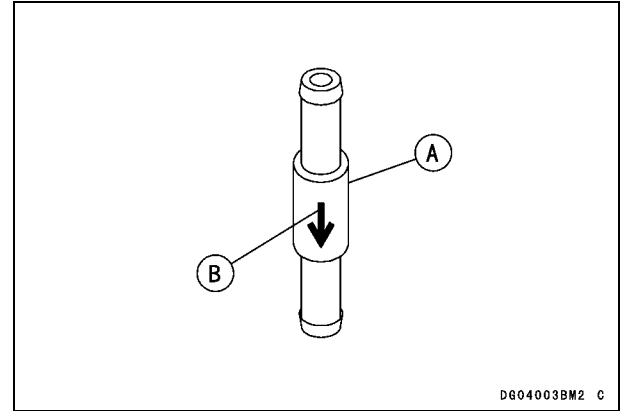
1 300 $\pm$ 100 rpm - out of water

High Altitude Use

High altitude adjustment is not required as the ECU (Electronic Control Unit) controls the air/fuel mixture automatically.

Fuel Vent Check Valve

The fuel tank is equipped with a vent hose. A small plastic check valve mounted in the vent hose allows air to enter the tank, but minimizes fuel spillage when the craft is tipped over. Have the check valve inspected in accordance with the **Periodic Maintenance Chart** by your authorized Kawasaki JET SKI watercraft dealer.



A. Check Valve

B. Flow Direction

Fuel Pump Screen

The watercraft fuel pump is equipped with fuel pump screens to prevent dirt or other foreign material from entering the fuel line.

Have your Kawasaki JET SKI watercraft dealer clean the fuel pump screen in accordance with the **Periodic Maintenance Chart**.

Fuel Hose

The rubber fuel hose deteriorates over time. Before boarding the watercraft, before prolonged storage and after prolonged storage, have your authorized JET SKI watercraft dealer check the fuel system.

 WARNING

Fuel is extremely flammable and can cause fire or explosion under certain conditions. The fuel hose is always under high pressure while the watercraft is in operation. If there is a crack in the hose due to deterioration or if there is a loose hose connection, gasoline may gush out, resulting in a fire or explosion. Do not start the engine if the hose is damaged or loose.

Engine Oil

In order for the engine to function properly, maintain the engine oil at the proper level, and change the oil and replace the oil filter in accordance with the Periodic Maintenance Chart. Not only do dirt and metal particles collect in the oil, but the oil itself loses its lubricative quality if used too long.

Oil Requirements

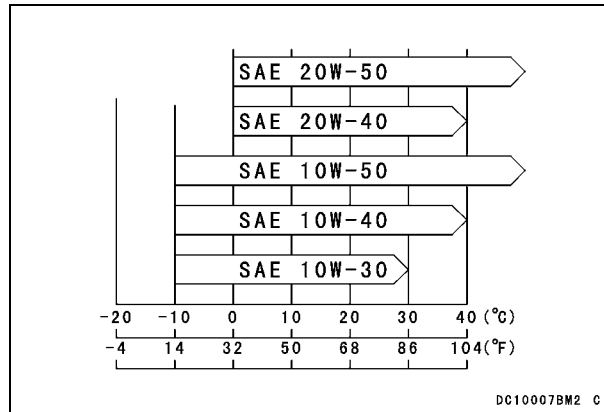
Type:	Kawasaki Performance 4-Stroke JET SKI® Watercraft Oil* Kawasaki Performance 4-Stroke Semi-Synthetic Oil* Kawasaki Performance 4-Stroke Full Synthetic Oil* or other 4-stroke oils with API SG, SH, SJ, SL, SM and JASO MA, MA1, MA2 rating
Viscosity:	SAE 10W-40
Capacity:	4.0 L (4.2 US qt) [when filter is not removed.] 4.2 L (4.4 US qt) [when filter is removed.] 5.0 L (5.3 US qt) [when engine is completely dry.]

*Kawasaki Performance Oils and Lubricants have been specifically engineered for your vehicle. Consistent use of these products meets or exceeds warranty and service requirements and can help to extend the life of your Kawasaki.

NOTE

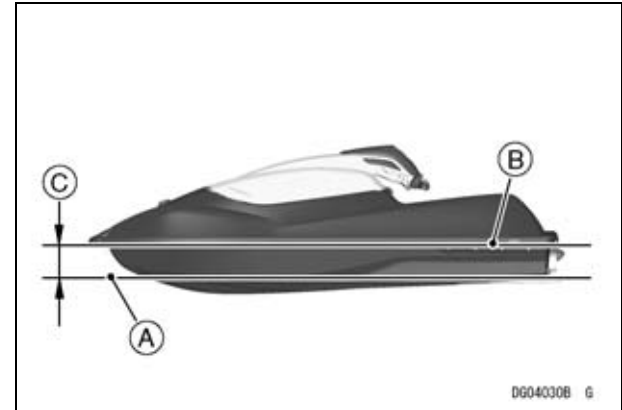
○ *Do not add any chemical additive to the oil. Oils fulfilling the above requirements are fully formulated and provide adequate lubrication for the engine.*

Although 10W-40 engine oil is the recommended oil for most conditions, the oil viscosity may need to be changed to accommodate atmospheric conditions in your riding area.



Oil Level Inspection

- Check the engine oil level each day before operating your watercraft and add oil if necessary.
- Whenever you check the oil level, keep your watercraft level side to side and fore to aft as much as possible.



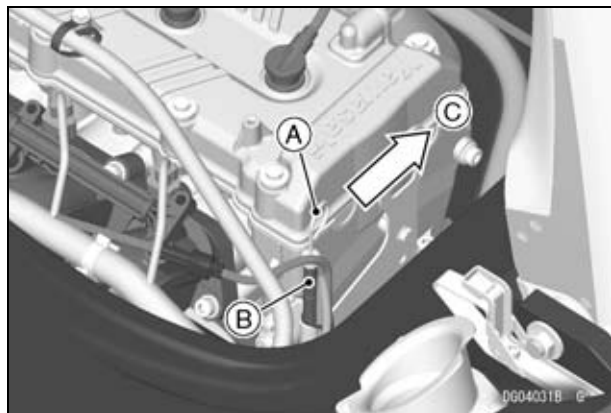
- A. Level Ground
- B. Side Bumper
- C. Parallel

- Remove the dipstick, wipe it dry and insert it back into the dipstick tube so that the finger grip is positioned toward the left side of the hull, and then remove it again to check the oil level.

NOTE

- *An accurate oil level cannot be obtained if the dipstick is not installed in the correct direction.*

98 MAINTENANCE AND ADJUSTMENTS

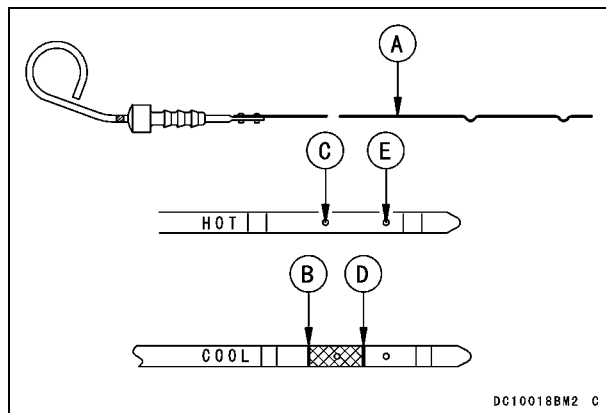


- A. Dipstick
- B. Dipstick Tube
- C. Left Side

- The oil level must be between the “H” (High) and “L” (Low) level on the stick. Use the cold level mark.

NOTE

- Be careful when reading the dipstick as different level marks on the dipstick should be used depending if the oil is warm or cold. See the next illustration.



- A. Dipstick
- B. “H” (High) Level when cold
- C. “H” (High) Level when hot
- D. “L” (Low) Level when cold
- E. “L” (Low) Level when hot

- If the oil level is too low, add oil up to the Low Level. Use the same type and brand of oil that is already in the engine.

NOTICE

Dirt and other foreign materials can cause serious engine damage. To prevent engine damage, do not allow dirt or foreign materials to enter the engine.

Oil Change

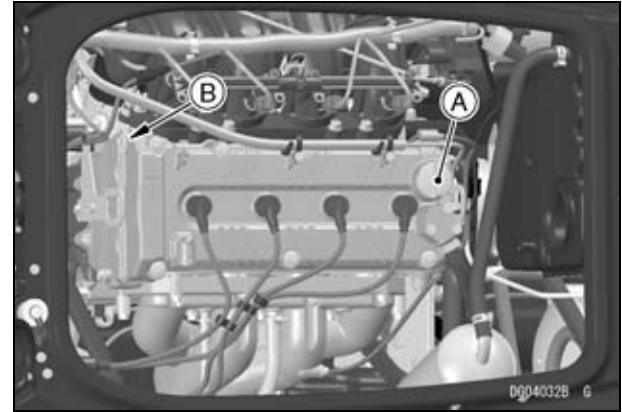
In accordance with the Maintenance Chart, change the engine oil as follows:

- Level the watercraft port to starboard as well as fore to aft.
- In a well-ventilated area, start the engine while flushing the cooling system.

NOTICE

The engine must be running before the water is turned on and the water must be turned off before the engine is stopped. Do not run the engine without cooling water flow for more than 15 seconds.

- Warm up the engine and stop it.
- Remove the oil filler cap and the dipstick.



A. Oil Filler Cap
B. Dipstick

NOTICE

Dirt and other foreign materials can cause serious engine damage. To prevent engine damage, do not allow dirt or foreign materials to enter the engine.

- Drain the oil thoroughly from the dipstick tube using a commercially-available vacuum pump.

⚠ WARNING

Used engine oil is toxic and pollutes the environment. To protect the environment, do not discard used engine oil; always return it to an authorized recycling center.

100 MAINTENANCE AND ADJUSTMENTS

- Fill the oil up to the “H” (High) level on the dipstick.

NOTE

○ *Be careful not to overfill. If you have overfilled, remove the excess oil.*

- Install the oil filler cap and dipstick securely.
- Run the engine for several minutes while flushing the cooling system (see Cooling System Flushing section).

NOTICE

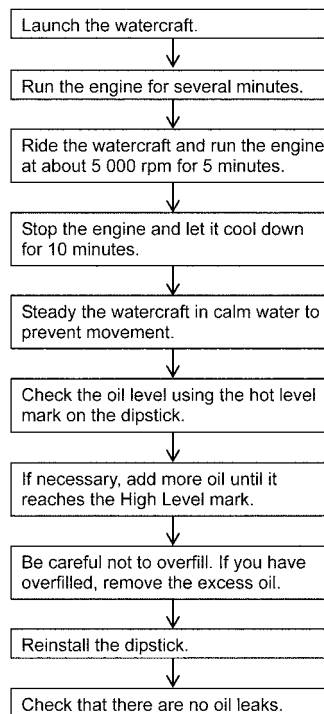
If the water is turned on before the engine is running, water may flow back through the exhaust pipe and into the engine, causing severe engine damage. To prevent engine damage, be sure the engine is running before turning the water on.

- The oil level must be between the “H” (High) and “L” (Low) level again on the stick.
- Check that there are no oil leaks in the engine compartment.

NOTE

○ *This procedure requires mechanical skills and tools. If it is beyond your capability, ask your Kawasaki dealer for the service.*

After filling with oil, measure the oil level carefully as follows:



DG04033B F

NOTE

○ *Since the trim and list of the watercraft will significantly affect the oil level, be sure that the operator and/or luggage are not aboard the watercraft when measuring the oil level. Also fill up the fuel tank if it is not full.*

- *This measuring procedure with the watercraft afloat should be followed if the oil level needs to be topped up.*

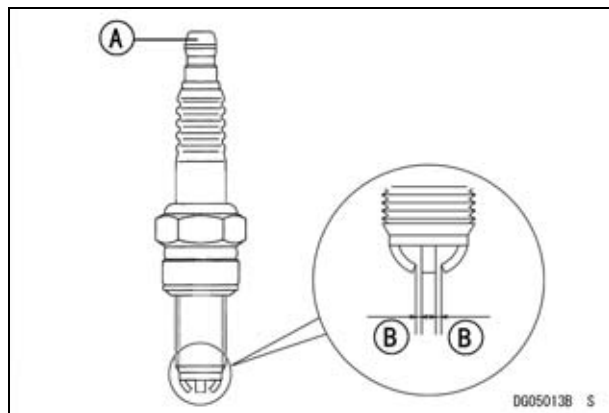
Spark Plugs

Since the engine is water-cooled and is generally operated at a constant throttle opening, cylinder head temperature is relatively stable. For this reason, if the engine is in good condition and properly tuned, it should not be necessary to use a spark plug of a different heat range. Since a spark plug of the wrong heat range can cause extensive engine damage, only the standard spark plug is recommended.

Standard Spark Plug

Standard Plug	NGK CR9EKB
Terminal	Solid Post Terminal
Plug Gap	0.7 ~ 0.8 mm (0.028 ~ 0.031 in.)
Tightening Torque	13 N·m (1.3 kgf·m, 115 in·lb)

102 MAINTENANCE AND ADJUSTMENTS



A. Terminal (Solid Post)
B. Plug Gap

Spark Plug Inspection and Replacement

- Remove the spark plugs and inspect the ceramic insulators. The appearance of the insulators reflects the efficiency of the combustion process. When the engine is operating properly, the plug insulators should be clean and a light brown color. If the insulators look glazed or very white, if the electrodes appear overheated, or if there are gray metallic deposits on the plugs, combustion chamber temperatures are too high. Inspection should be done by an authorized Kawasaki JET SKI watercraft dealer.

NOTICE

Excessive operating temperature can cause serious engine damage. To prevent engine damage, the cause for any excessive operating temperature should be located and corrected immediately.

- A dry, sooty black deposit on the insulators indicates an overly rich fuel/air mixture. Check for correct throttle control cable adjustment. Inspection should be done by an authorized Kawasaki JET SKI watercraft dealer.
- Inspect the condition of the spark plug. If the spark plug electrodes are rounded, damaged, the carbon is accumulated, or the insulator is cracked, replace the plug.
- Measure the spark plug gap. Use a wire-type thickness gauge to prevent possible damage to the electrode.

NOTICE

Do not adjust the plug gap. If the plug gap is out of the specification, replace the spark plug.

NOTE

- *If the plug is oily or has carbon build-up, clean it by using a high flash-point solvent and nonmetal brush (nylon etc.).*

NOTICE

To prevent electrode damage do not use a wire brush when cleaning the spark plug.

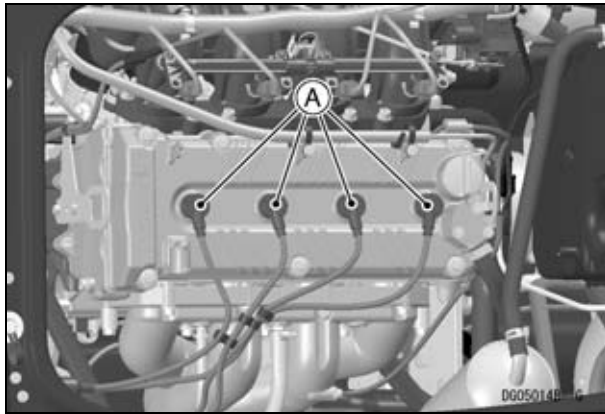
- Pull the caps lightly to make sure they are firmly in place.

Spark Plug Fitting

- Apply molybdenum disulfide grease to the threads of the spark plugs.
- Insert the plugs into the plug holes.
- Tighten the plugs to the specific torque.

Spark Plugs Tightening Torque:
13 N·m (1.3 kgf·m, 115 in·lb)

- Install the spark plug caps onto the spark plugs securely.



A. Spark Plug Caps

104 MAINTENANCE AND ADJUSTMENTS

Battery

The battery is located in the engine room.

The battery installed in this watercraft is a sealed type, and the sealing strip should not be removed at any time after the specified electrolyte has been installed in the battery for initial service. It is not necessary to check the battery electrolyte level or add distilled water.

⚠ DANGER

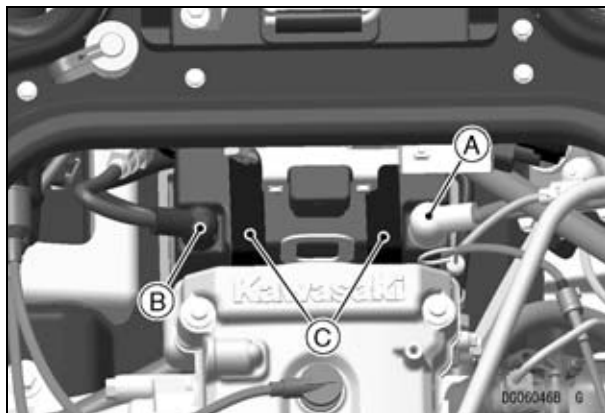
- **Battery acid generates hydrogen gas which is flammable and explosive under certain conditions. It is present within a battery at all times, even in a discharged condition. Keep all flames and sparks (cigarettes) away from the battery.**
- **Wear eye protection when working with a battery. In the event of battery acid contact with skin, eyes, or clothing, wash the affected areas immediately with water for at least five minutes. Seek medical attention.**

NOTICE

Removing the sealed cap can damage the battery. To avoid damaging the battery, never remove the sealed cap. Using a conventional battery in this watercraft will cause the electrical system to malfunction. Do not install a conventional battery.

Make	Yuasa Battery
Type	YTX20L-BS

Battery Removal

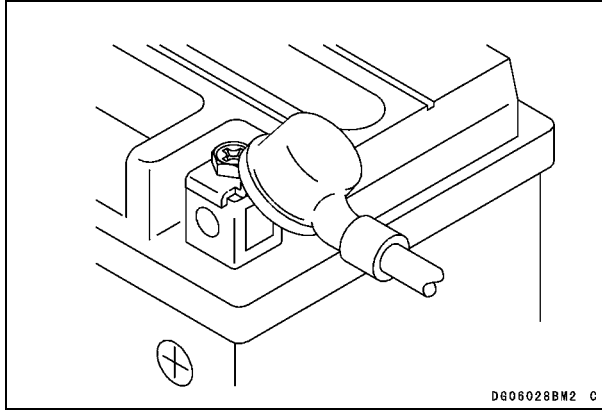


- A. Positive Cable (Red)**
- B. Negative Cable (Black)**
- C. Straps**

Battery Cable Removal

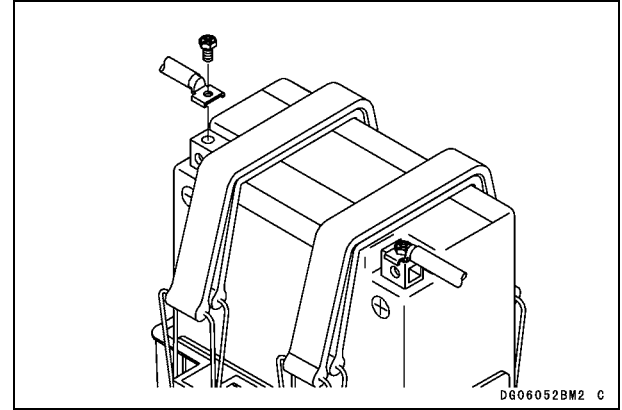
- Make sure the ignition switch is turned off before starting this procedure.

(1) Slide the rubber cap.



(2) Negative cable removal

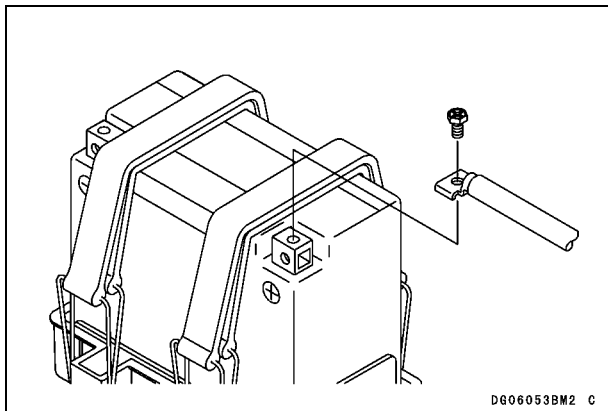
- First, disconnect the negative cable from the battery.



106 MAINTENANCE AND ADJUSTMENTS

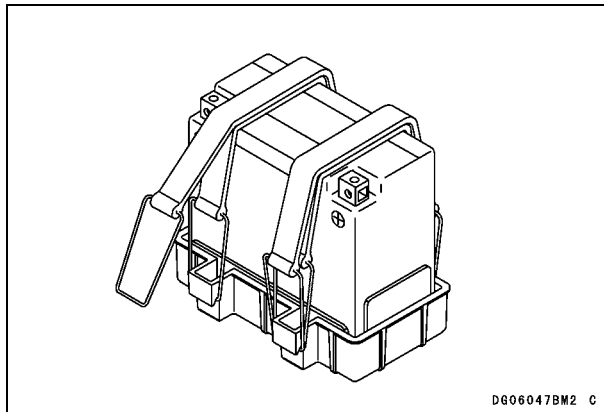
(3) Positive cable removal

- Next, disconnect the positive cable from the battery.

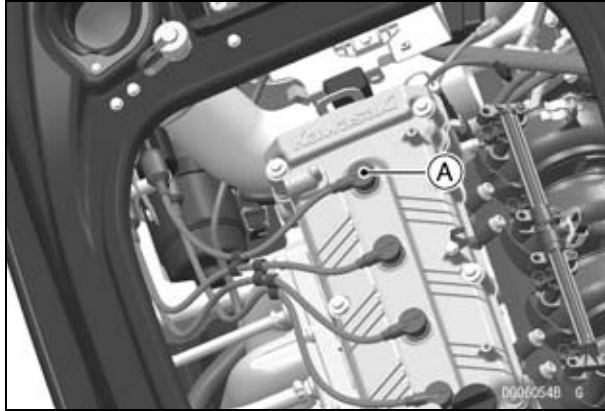


(4) Battery removal

- Release the tags of the hold-down straps from the hooks.



- Remove the spark plug cap #1.
- Remove the battery from the port side.



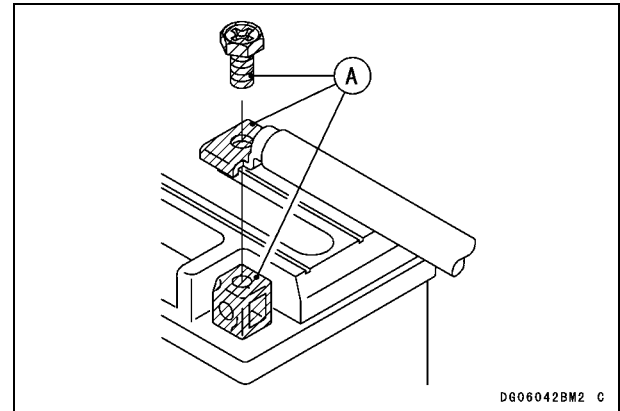
A. Spark Plug Cap #1

Battery Inspection and Maintenance

(1) Battery terminal oxidation/corrosion (coated with patina/white powder)

<Cleaning>

1. Apply a penetrating lubricating spray.
2. Leave it for five minutes.
3. Wipe off with a cloth or polish with a fine emery cloth or wire brush.

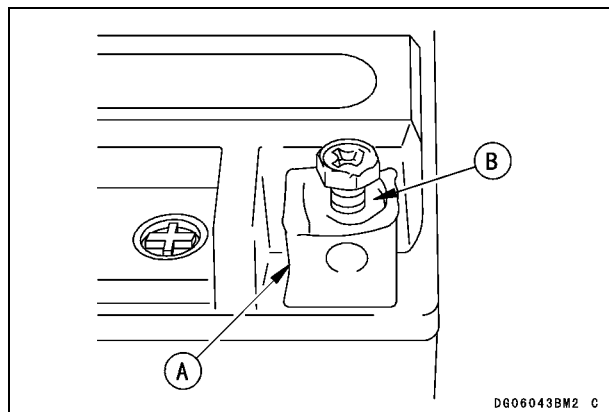


A. Oxidation/Corrosion

108 MAINTENANCE AND ADJUSTMENTS

(2) Battery terminal damage (deformation, cracks, dents)

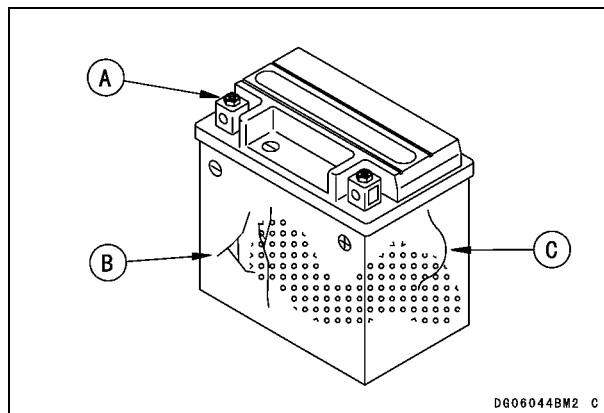
- If there are any deformation, cracks, or dents, replace the battery.



- A. Deformation
- B. Dents

(3) Battery inspection

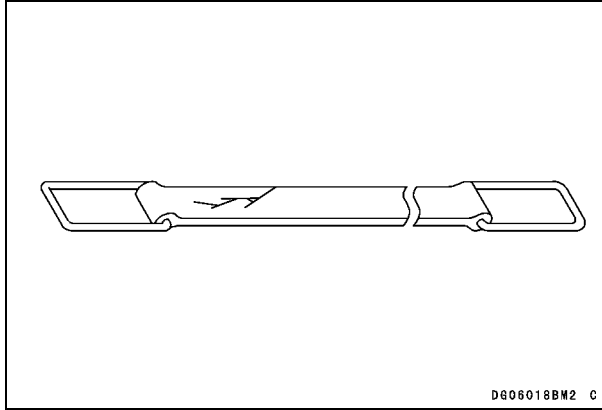
- Check the battery for deformation or cracks.



- A. Loose
- B. Cracks
- C. Deformation

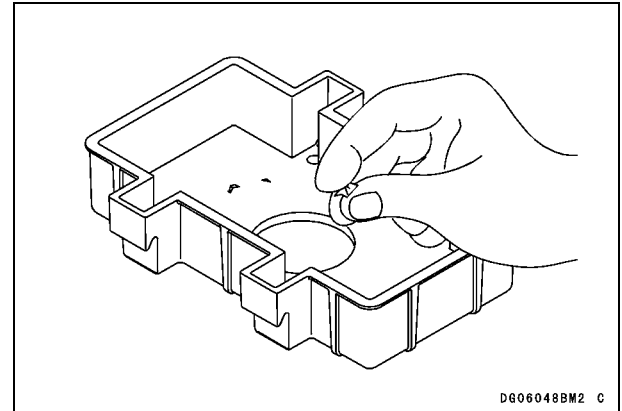
(4) Hold-down strap inspection

- Check the hold-down strap for deterioration such as cutting, cracking, or looseness.



(5) Battery tray cleaning

- Inspect the battery tray and remove dust.

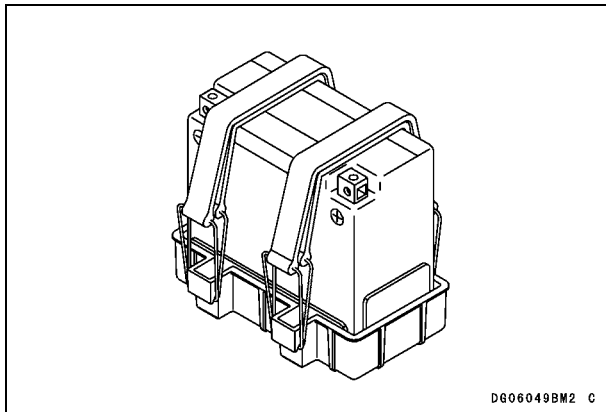


110 MAINTENANCE AND ADJUSTMENTS

Battery Installation

1. Battery installation and fixation

- Install the battery from the port side.
- Install the spark plug cap #1.
- Pull the cap lightly to make sure it is firmly in place.
- Secure the battery with the straps and make sure that it is firmly fixed.



2. Cable connection

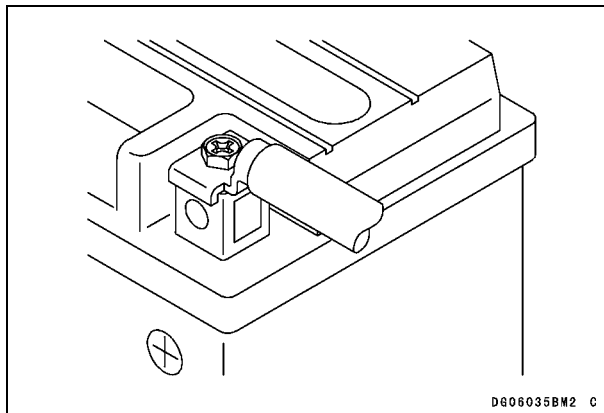
- Connect the positive cable to the battery first.

(1) Temporal tightening

- Pay attention to the cable terminal direction and connect the cable so that the battery terminal and cable terminal are in close contact.

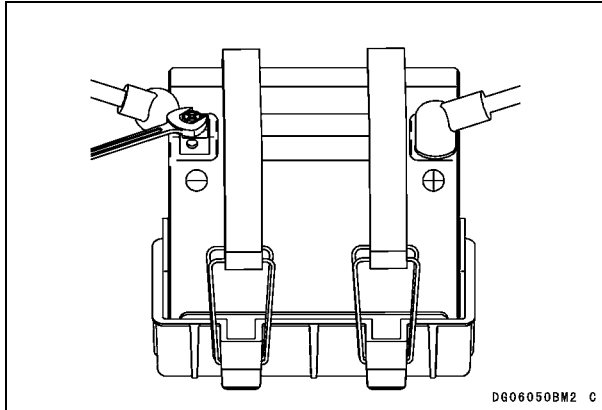
NOTICE

Reversing the battery connections will damage the electrical system. To prevent damage, be sure the battery connections are correct.



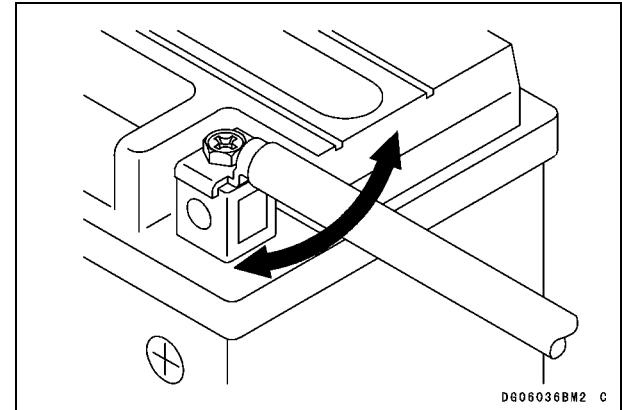
(2) Tightening

- Tighten the terminal screws securely with a wrench.
- Tighten the positive terminal first, then tighten the negative terminal.



(3) Confirmation of battery cable fixation

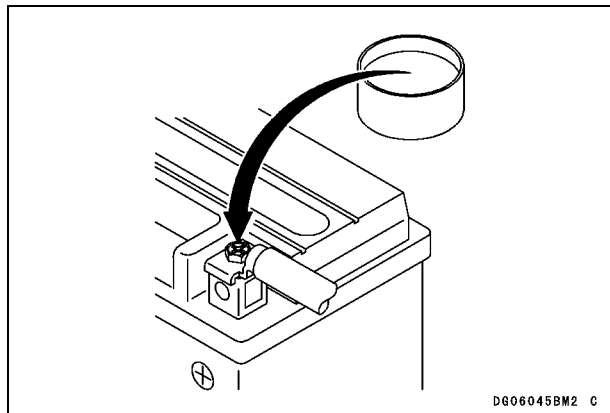
- After tightening both terminals securely, move the cable terminals from side to side and make sure that the cables are fixed and do not move.



112 MAINTENANCE AND ADJUSTMENTS

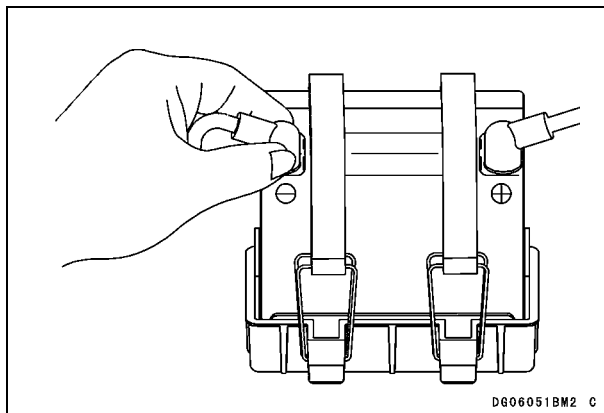
(4) Anticorrosive treatment

- Apply a grease or a penetrant lubricating spray to the terminals.



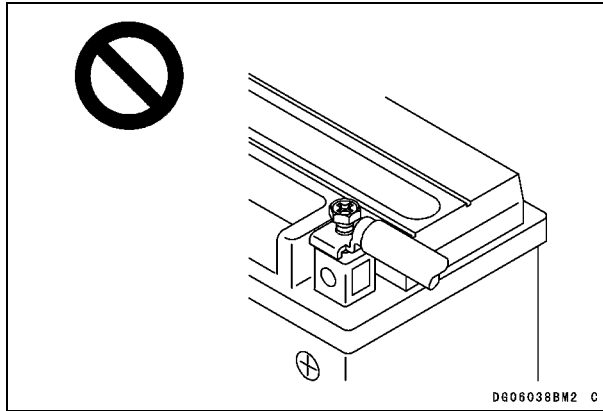
(5) Rubber cap installation

- Cover the terminal with the rubber cap completely.

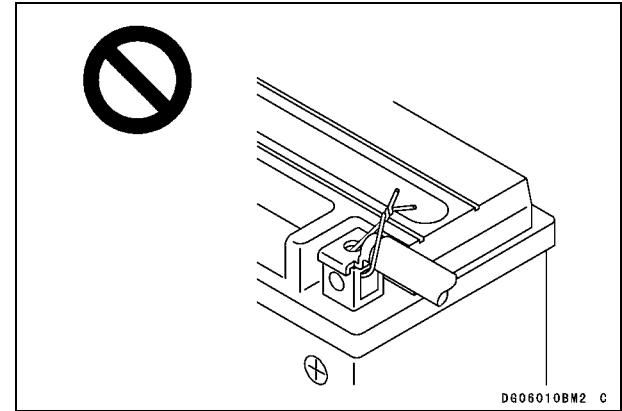


Precaution for connecting the cable

(1) To prevent a loose cable connection, do not use a long bolt

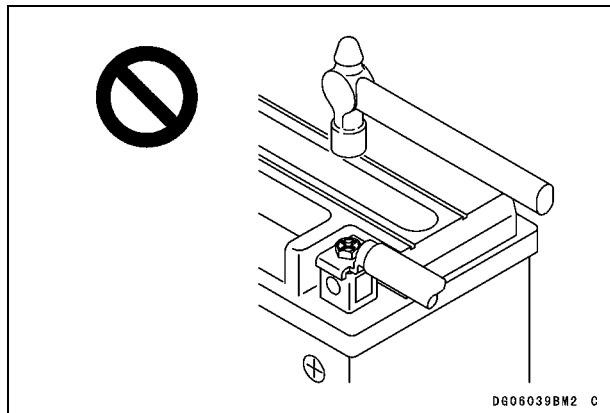


(2) To prevent a loose electrical connection, do not use a wire.

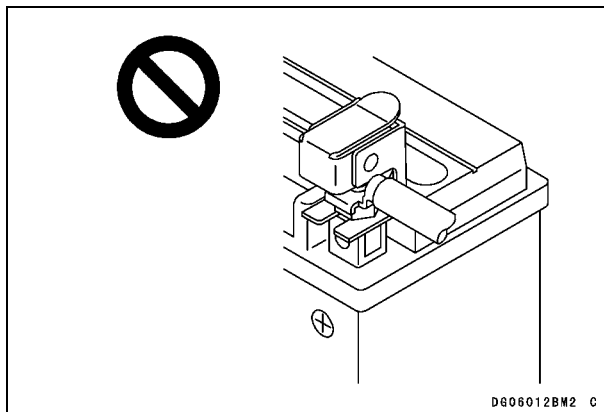


114 MAINTENANCE AND ADJUSTMENTS

(3) To prevent the terminals being deformed or damaged, do not hit the terminals with a hammer.



(4) To prevent the terminals from being disconnected by vibration during operation, do not use a one-touch coupler.



(5) When connecting multiple cable terminals, tighten the terminals securely so there is no clearance between the terminals.

WARNING

Loose battery cables can create sparks which can cause a fire or explosion resulting in injury or death. Make sure the battery terminal screws are tightened securely and the covers are installed over the terminals.

Battery Characteristics

The battery installed in this watercraft is a sealed type and it is not necessary to check the battery electrolyte level or add distilled water. The sealing strip

should not be removed after the specified electrolyte has been added to the battery during initial service.

However, in order to maximize battery life and ensure that it will provide the power needed to start your watercraft, you must properly maintain the battery's charge. When used regularly, the charging system in your watercraft helps keep the battery fully charged. If your watercraft is only used occasionally or for short periods of time, the battery is more likely to discharge.

Due to their internal composition, batteries continually self discharge. The discharge rate depends on the type of battery and ambient temperature. As temperatures rise, so does the discharge rate. Every 15°C (59°F) doubles the rate.

Electrical accessories, such as digital clocks and computer memory, also draw current from the battery even when the key is switched off. Combine such "key-off" draws with hot temperatures, and a battery can go from fully charged to completely discharged in a matter of days.

Self-discharge		
Temperature	Approx. Number of Days from 100% Charged to 100% Discharged	
	Lead-Antimony Battery	Lead-Calcium Battery
40°C (104°F)	100 Days	300 Days
25°C (77°F)	200 Days	600 Days
0°C (32°F)	550 Days	950 Days

Current Drain		
Discharging Ampere	Days from 100% Charged to 50% Discharged	Days from 100% Charged to 100% Discharged
7 mA	60 Days	119 Days
10 mA	42 Days	83 Days
15 mA	28 Days	56 Days
20 mA	21 Days	42 Days
30 mA	14 Days	28 Days

In extremely cold weather the fluid in an inadequately charged battery can easily freeze, which can crack the case and buckle the plates. A fully charged battery can withstand sub-zero temperatures with no damage.

WARNING

Battery posts, terminals and related accessories contain lead and lead compounds, chemicals known to the State of California to cause cancer and reproductive harm. Wash hands after handling.

Battery Sulfation

A common cause of battery failure is sulfation.

Sulfation occurs when the battery is left in a discharged condition for an extended time. Sulfate is a normal by product of the chemical reactions within a battery. But when continuous discharge allows the

116 MAINTENANCE AND ADJUSTMENTS

sulfate to crystallize in the cells, the battery plates become permanently damaged and will not hold a charge. Battery failure due to sulfation is not warrantable.

Battery Maintenance

It is the owner's responsibility to keep the battery fully charged. Failure to do so can lead to battery failure and leave you stranded.

If you are riding your watercraft infrequently, inspect the battery voltage weekly using a voltmeter. If it drops below 12.6 volts, the battery should be charged using an appropriate charger (check with your Kawasaki dealer or visit [by Kawasaki.com](http://www.kawasaki.com)) at a rate (amperage × hours) that is indicated on the battery. If it is not possible to read the rate, charge the battery at an amperage that is about 1/10th of the battery capacity.

If you will not be using your watercraft for longer than two weeks, the battery should be charged using an appropriate charger. Do not use an automotive -type quick charger that may overcharge the battery and damage it.

NOTE

○ *Leaving the battery connected causes the electrical components to discharge the battery and may even over discharge it. In this case, the repair or replacement of the battery is not included in the warranty. If you do not drive for four weeks or more, disconnect the battery from the vehicle.*

Kawasaki-recommended chargers are:

- **Battery Mate 150-9**
- **OptiMate 4**
- **Yuasa MB-2040/2060**
- **Christie C10122S**

If the above chargers are not available, use an equivalent one.

For more details, ask your Kawasaki dealer.

Battery Charging

- Remove the battery from the watercraft (see Battery Removal).
- Set the battery charge timer to the position indicated by the tester.
- Follow the battery charger instructions and charge the battery.

NOTICE

Removing the sealed cap can damage the battery. To avoid damaging the battery, never remove the sealed cap.

Using a conventional battery in this watercraft will cause the electrical system to malfunction. Do not install a conventional battery.

NOTE

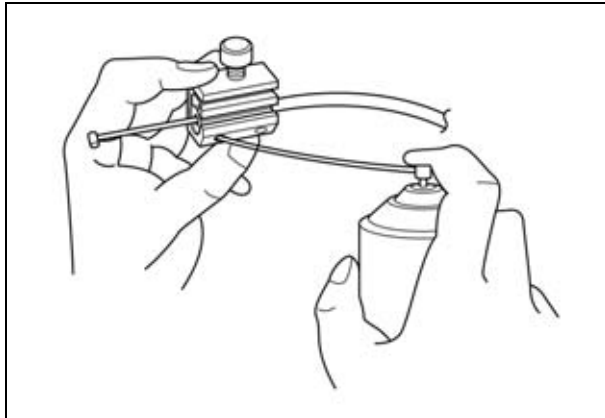
○ *If you charge the sealed type battery, follow the instructions on the battery label exactly.*

Lubrication

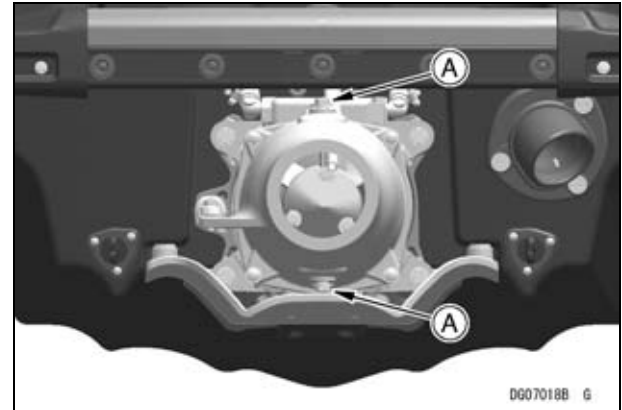
As in all marine craft, adequate lubrication and corrosion protection is an absolute necessity to provide long, reliable service. Refer to the **Periodic Maintenance Chart** and **PRE-RIDE CHECK** chapter for the frequency of the following items:

- Lubricate the following with a penetrating rust inhibitor, such as WD40 or BEL-RAY 6 in 1:

Lubricate the Throttle Control Cable with a Pressure Cable Luber



Steering Nozzle Pivots

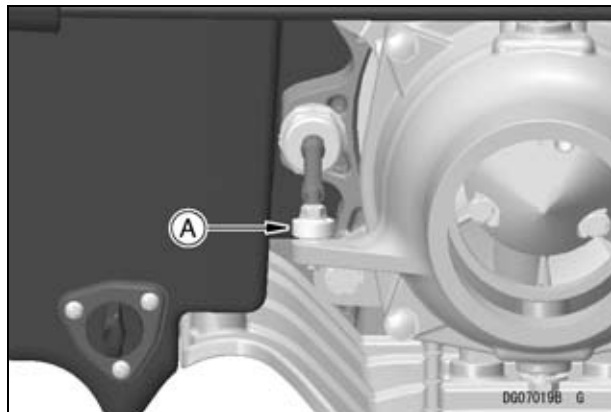


A. Steering Nozzle Pivots

- Lubricate the following with a high quality water-proof marine grease.

118 MAINTENANCE AND ADJUSTMENTS

Steering Link Joint



A. Steering Link Joint

Throttle Cable Fitting at Throttle Case



A. Apply grease.

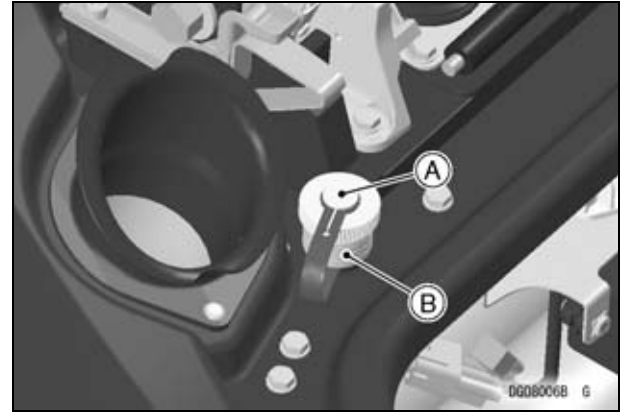
- Lubrication of the other link joints should be performed by your Kawasaki JET SKI watercraft dealer.

Cooling System Flushing

To prevent major engine damage, you must perform the following procedure to expel excess water from the exhaust system. This helps prevent premature wear due to internal engine corrosion and the build up of salt or other mineral deposits that can lead to cooling system blockage and overheating. Flush the system according to the **Periodic Maintenance Chart**, after each use in salt water, or whenever there is reduced water flow from the bypass outlet on the right side of the hull.

This procedure is also used to provide auxiliary cooling when the craft is out of the water (for example during an engine oil change).

- The auxiliary water supply port is located under the engine cover.



A. Cap
B. Intake Fitting (Water Supply Port)

To Flush the Engine Cooling System

- Remove the cap and connect a garden hose with a screw-in fitting on its end.
- Start the engine and allow it to idle **before turning on the water**.

NOTICE

If the water is turned on before the engine is running, water may flow back through the exhaust pipe and into the engine, causing severe engine damage. To prevent engine damage, be sure the engine is running before turning the water on.

120 MAINTENANCE AND ADJUSTMENTS

- Immediately turn on the water and adjust the flow so that a little trickle of water comes out of the bypass outlet in the right side of the hull.



A. Bypass Outlet

- Let the engine idle for several minutes with the water running.
- Turn off the water. **Leave the engine idling.**
- Rev the engine a few times to clear the water out of the exhaust system.

NOTICE

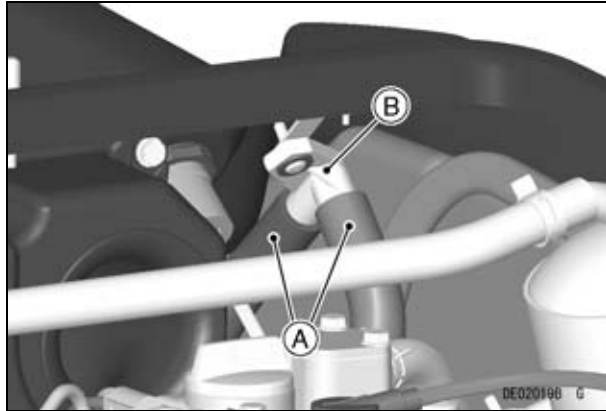
Lack of cooling water causes overheating which will cause severe engine and exhaust system damage. Do not run the engine without cooling water flow for more than 15 seconds.

- Switch off the engine, and remove the garden hose, reinstall the cap securely.

Bilge System Flushing

To prevent clogging, the bilge system should be flushed out according to the **Periodic Maintenance Chart**, or whenever you suspect it is blocked.

- Remove the engine cover (see Engine Cover section in the GENERAL INFORMATION chapter).
- Disconnect all bilge hoses at the plastic breather fitting. They are mounted on the rear upper corner in the engine compartment.

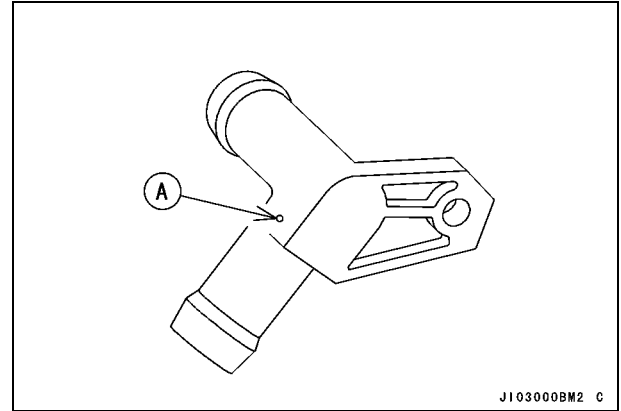


A. Bilge Hoses
B. Breather Fitting

- Connect the bilge filter hose, which comes from the hull bottom, to the garden hose, turn the water on, and flush it out for about a minute. During this procedure, water will flow into the engine compartment. Do not allow a large amount of water to

accumulate in the engine compartment. Remove the drain screws in the stern to drain the engine compartment.

- Connect the other hose to the garden hose, turn the water on, and flush it out for several minutes.
- Before reconnecting the hoses to the plastic breather fitting, make sure the small breather hole in the fittings is clear. If the hole is clogged, the engine compartment will fill with water when the engine stops or idles. It may be necessary to remove the fitting.



A. Breather Hole

- Reconnect the bilge hoses.

NOTE

- If your watercraft is to be stored, blow air through both hoses at the breather fitting before they are reconnected (see Preparation for Storage section

122 MAINTENANCE AND ADJUSTMENTS

in the **TRANSPORTING AND STORAGE** chapter).

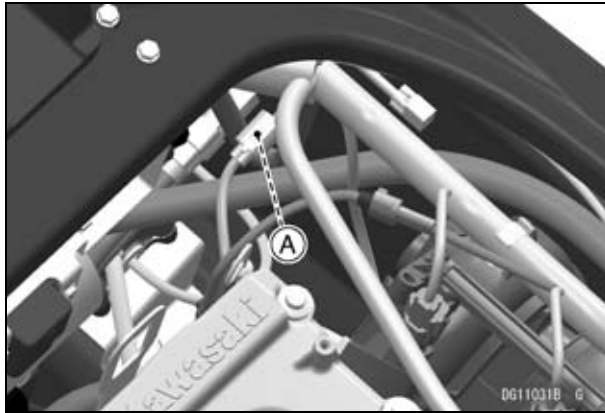
Jet Pump Bearings/Seals

<i>NOTICE</i>
Major engine damage can result if the jet pump bearings fail due to lack of maintenance. To help prevent this, follow the periodic maintenance schedule for the jet pump bearings.

Have your Kawasaki dealer inspect the jet pump bearings and seals after the first 25 hours of use or one year, whichever comes first; and then every 50 hours or every year, whichever comes first. The jet pump bearings should also be serviced before any prolonged storage to prevent any water that may be left in the pump from corroding the bearings and causing premature failure.

Fuses

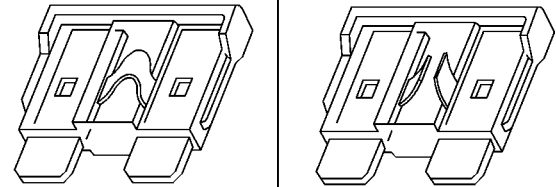
A 20 A main fuse is installed in the fuse case located in the engine room. If a fuse fails during operation, inspect the electrical system to determine the cause, and then replace it with a new fuse of proper amperage.



A. Main Fuse

NOTICE

Incorrect fuses can damage the electrical system and may lead to a fire. To prevent damage and fire, do not substitute fuses. Replace the blown fuse with a new one of the correct capacity, as specified on the electric case.



A

B

CL28028BM2 C

A. Normal
B. Failed

 IN AN EMERGENCY

Troubleshooting Guide

If this procedure does not identify your problem, see your JET SKI watercraft dealer.



PROBLEM	POSSIBLE CAUSE		REMEDY	
Engine does not start	Starter motor does not turn over	Starter interlock switch	Starter interlock switch positioned "LEFT"	Turn the starter interlock switch position "RIGHT"
		Lanyard key	Not pushed under stop button	Insert lanyard key under stop button
		Ignition switch	Ignition switch turned "OFF" and/or lanyard key not pushed under stop button	Turn the ignition switch "ON" and/or insert lanyard key under stop button
		Battery	Battery voltage low	Charge the battery
			Battery connections loose	Check the battery connections
		Fuse	Fuse is blown	Inspect the wiring, and then replace fuse with a new one
	Starter motor turns over	Fuel	Fuel tank low fuel level	Refuel in fuel tank
			Fuel is old or dirty	Get an authorized Kawasaki JET SKI watercraft dealer to inspect fuel
		Fuel tank	Water and dust in the fuel tank	Get an authorized Kawasaki JET SKI watercraft dealer to inspect fuel tank
		Spark plug	Fouled or worn spark plug	Get an authorized Kawasaki JET SKI watercraft dealer to inspect spark plug
		Spark plug cap	Poor attachment	Install spark plug cap properly and firmly
			Damage	Get an authorized Kawasaki JET SKI watercraft dealer to inspect spark plug cap

PROBLEM	POSSIBLE CAUSE		REMEDY
Engine misfires, runs rough	Spark plug	Fouled or worn spark plug	Get an authorized Kawasaki JET SKI watercraft dealer to inspect spark plug
		Wrong heat range	Replace correct spark plug
	Spark plug cap	Poor attachment	Install spark plug cap properly and firmly
		Damage	Get an authorized Kawasaki JET SKI watercraft dealer to inspect spark plug cap
	Fuel	Fuel tank low fuel level	Refuel in fuel tank
		Fuel is old or dirty	Get an authorized Kawasaki JET SKI watercraft dealer to inspect fuel
	FI system	FI system malfunction	Get an authorized Kawasaki JET SKI watercraft dealer to inspect FI system



PROBLEM	POSSIBLE CAUSE		REMEDY
Engine power low	Throttle cable	Throttle cable maladjusted	Adjust throttle cable properly
	Exhaust system	Exhaust system clogged	Get an authorized Kawasaki JET SKI watercraft dealer to inspect exhaust system
	Engine warning indicator light blinks	Engine protection function	Get an authorized Kawasaki JET SKI watercraft dealer to inspect engine protection function
Cooling water temperature gets high	Jet pump	Weeds or debris in jet pump	Clean jet pump water intake duct
	Cooling system	Cooling water line clogged	Get an authorized Kawasaki JET SKI watercraft dealer to inspect cooling system
	Engine oil	Quantity of engine oil is insufficient	Add up to specified value
Steering hard or erratic	Steering pivot	No lubricant on steering pivot	Lubricate steering pivot
	Steering cable	Steering cable damaged	Replace any damaged steering cable
		Steering cable improperly routed	Run steering cable properly

DH01219B F

⚠ WARNING

Faulty steering can cause an accident resulting in serious injury or death. To help prevent an accident, have any steering problems examined by an authorized Kawasaki JET SKI watercraft dealer.

In the Case of Emergency

Towing the JET SKI watercraft

Refer to the Towing section in the GENERAL INFORMATION chapter.

Jump Starting

If your watercraft's battery is run down, it should be removed and charged. If this is not practical, a booster battery and jumper cables may be used to start the engine. The booster battery must be of the same voltage as the watercraft battery (12 V).

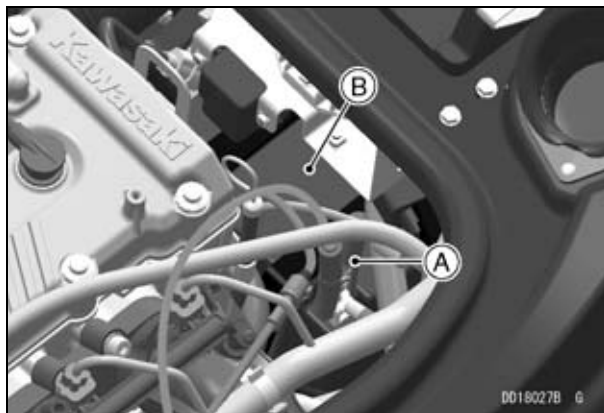
DANGER

- Battery acid generates hydrogen gas which is flammable and explosive under certain conditions. It is present within a battery at all times, even in a discharged condition. Keep all flames and sparks (cigarettes) away from the battery.
 - Wear eye protection when working with a battery. In the event of battery acid contact with skin, eyes, or clothing, wash the affected areas immediately with water for at least five minutes. Seek medical attention.
- Turn the ignition switch off.
 - Remove the engine cover.

- Connect a jumper cable between the positive (+) terminals of the two batteries.
- Connect one end of the remaining jumper cable to the negative (–) terminal of the booster battery.

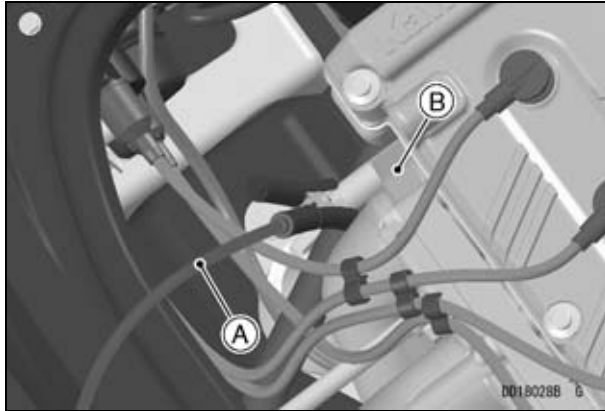
NOTICE

Connecting two batteries in reverse polarity (+ to –) can seriously damage the electrical system. To prevent electrical system damage, be sure the cables are connected to the correct terminals.



A. Positive Cable
B. Battery

- Connect the other end of the remaining jumper cable to the exhaust pipe bolt.



A. Negative Cable
B. Exhaust Pipe



DANGER

Batteries contain sulfuric acid that can cause burns and produce hydrogen gas which is highly explosive. Do not make this last connection at the throttle body, injector or battery. Take care not to touch the positive and negative cables together, and do not lean over the battery when making this last connection. Do not jump start a frozen battery, it could explode.

NOTICE

Do not operate the starter continuously for more than 5 seconds or the starter will overheat. Wait 15 seconds between each operation of the starter to let it cool.

- Start the watercraft engine following the standard engine starting procedure and then disconnect the jumper cables in the reverse of the sequence just described.

APPENDIX

YOUR WARRANTY/OWNER SATISFACTION

Welcome to the Kawasaki family!

Congratulations on buying your Kawasaki JET SKI™ watercraft. You've chosen a great, high-quality product with state-of-the-art features and built to Kawasaki's high standards. Your satisfaction is important to your authorized Kawasaki dealer and to Kawasaki Motors Corp., U.S.A. Here is some important information regarding your vehicle's limited warranty.

Frequently Asked Questions

What is a Limited Warranty?

The most important thing to know about your warranty is that it protects you from manufacturing defects in material or workmanship during the warranty period. You can find the warranty period in the Kawasaki Limited Warranty Certificate your Kawasaki dealer provided to you at the time of sale. The warranty does not cover the cost of regularly-scheduled maintenance. The warranty also does not apply to the normal wear of items such as batteries, impellers, etc.

What is the Kawasaki Protection Plus?

Much of the warranty coverage offered by the limited warranty can be extended by purchasing the Kawasaki Protection Plus (KPP). See your Kawasaki dealer or go to Kawasaki.com for more information if you don't already have the KPP.

What Am I Responsible For?

You are responsible for maintaining your watercraft according to the maintenance schedule shown in this owner's manual.

You are responsible for taking your product to the dealer immediately if there is a problem, and you, as the owner, will need to authorize the dealer to inspect the unit.

You will be responsible for paying for routine maintenance, including the first scheduled service. You can have the required servicing done by your Kawasaki dealer (recommended) or an equally-qualified service facility. You can also do your own maintenance work if you have the proper tools, service references, and mechanical skills. However, if a failure is found to be caused by improper servicing, it would not be covered by the limited warranty.

You may purchase a Kawasaki Service Manual and any necessary special tools directly from your Kawasaki dealer.

You will be responsible for paying for repairs needed because of an accident, to replace worn parts such as impellers, and for repairs needed because of a lack of maintenance, misuse or racing.

Whether you do it yourself or take your vehicle to a Kawasaki dealer, be sure to record your service in the Maintenance Record section of this Owner's Manual. Keep all receipts for the service and/or items necessary to perform the maintenance so that in the event of a failure you can document the service history.

What Are The Dealership's Responsibilities?

Your Kawasaki dealer offers a wide range of services, parts, accessories, and information on your product and on Kawasaki.

Each dealer is independently owned and operated and is responsible for the dealership's operations, its repair, warranty, and service work, and its personnel.

Your dealer is responsible for completing the set up and pre-delivery service of your new Kawasaki watercraft. The dealership should also explain its operation, maintenance, and warranty provisions so you

understand them at the time of purchase or at any other time you have questions.

The dealership is responsible for inspecting your Kawasaki watercraft if there is a failure, determining the cause of the problem, and getting any needed authorization from Kawasaki if the repair is one that will be covered by the limited warranty. The dealership will also file all necessary paperwork. The dealership is responsible for correctly completing any necessary repairs, whether they are covered by the limited warranty or not.

How Do I Get Warranty Service?

If there is a problem with your watercraft within the limited warranty period, you will need to schedule a service appointment and provide any maintenance records to an authorized Kawasaki dealer for inspection and diagnosis. You can go to any Kawasaki dealer for warranty repairs. Your Kawasaki dealer will inspect your vehicle and provide you with the results of the inspection. The dealer will perform the repairs at no cost to you if it is determined that the problem is covered by the warranty.

Kawasaki will work with your dealer to resolve any warranty issues. No authorization for warranty work can be given until your watercraft has been inspected by a Kawasaki dealer.

What if I am not Satisfied With My Warranty Service?

If you aren't satisfied with your dealership's repair work or operations, it is best to discuss the situation with the appropriate dealership manager. If you have already done this, then contact the dealership's owner or general manager to request a review of the issue.

If you are unable to resolve a problem after consulting with the dealership management and need further assistance, contact Kawasaki Motors Corp., U.S.A. at the address below. Please be certain to provide the model, hull identification number (HIN), hours of use, accessories, dates that events occurred and what action has been taken by both you and your dealer. Include the name and address of the dealership. To assist us in resolving your inquiry, please include copies of related receipts and any other pertinent information including the name of the dealership personnel with whom you have been working. Upon receipt of your correspondence, Kawasaki Motors Corp., U.S.A. will contact the dealership and work with it in resolving your problem.

Want to Contact Kawasaki?

This owner's manual should answer most of your questions about your Kawasaki. Your Kawasaki dealer should either be able to answer any other questions you might have immediately or be able to find the answer for you.

Please send your correspondence to:

Consumer Services

Kawasaki Motors Corp., U.S.A.

P.O. Box 25252

Santa Ana, CA 92799-5252

(949) 460-5688

REPORTING SAFETY DEFECTS

(For Products Sold in the United States of America, District of Columbia, and U.S. Territories Only)

If you believe that your watercraft has a defect which could cause a crash or could cause injury or death, you should immediately inform the U.S. Coast Guard (U.S.C.G.) in addition to notifying Kawasaki Motors Corporation, U.S.A.

If the U.S.C.G. receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of watercrafts, it may order a recall and remedy campaign. However, the U.S.C.G. cannot become involved in individual problems between you, your dealer, or Kawasaki Motors Corporation, U.S.A.

Please send your correspondence to:

Office of Boating Safety Product Assurance Division-OBP-3

United States Coast Guard

2100 Second Street SW

Washington, DC 20593-0001

ENVIRONMENTAL PROTECTION

Kawasaki subscribes to the guidelines of Tread Lightly! a program dedicated to protecting the great outdoors through education and fostering responsible enjoyment of public lands. When using your Kawasaki JET SKI watercraft, please follow these Tread Lightly! guidelines:

Tread Lightly!

Travel responsibly on designated waterways and launch your watercraft in designated areas.

Respect the rights of others including anglers, swimmers, skiers, boaters, divers and others to allow them to enjoy their recreational activities undisturbed.

Educate yourself by learning rules and regulations, planning for your trip, taking recreation skills classes, and knowing how to use and to operate your equipment safely.

Avoid sensitive areas and operating your watercraft in shallow waters or near shorelines at high speeds.

Do your part by leaving the area better than you found it, properly disposing of fuel, oil and waste, avoiding the spread of invasive species, restoring degraded areas, and joining a local enthusiast organization.

Properly discard used batteries, engine oil, other vehicle components, or the entire vehicle that you might dispose of in the future. Consult your authorized Kawasaki dealer or local environmental waste agency for their proper disposal procedure.

Environmental Hang Tag

This engine has been certified as a:



The Symbol for Cleaner Marine Engines:

Cleaner Air and Water – for a healthier lifestyle and environment.

Better Fuel Economy – burns up to 30-40 percent less gas and oil than conventional carbureted two-stroke engines, saving money and resources.

Longer Emissions Warranty – protects consumer for worry free operation.



One Star - Low-Emission

The one-star label identifies engines that meet the California Air Resources Board's 2001 exhaust emission standards. Engines meeting these standards have 75% lower emissions than conventional carbureted two-stroke engines. These engines are equivalent to the U.S. EPA's 2006 standards for marine engines.



Two Stars - Very Low-Emission

The two-star label identifies engines that meet the California Air Resources Board's 2004 exhaust emission standards. Engines meeting these standards have 20% lower emissions than One-Star-Low-Emission engines.



DC06001B S

Three Stars - Ultra Low-Emission

The three-star label identifies engines that meet the Air Resources Board's 2008 exhaust emission standards. Engines meeting these standards have 65% lower emissions than One-Star-Low-Emission engines.



DC05254B S

Four Stars - Super Ultra Low-Emission

The four-star label identifies engines that meet the Air Resources Board's Sterndrive and Inboard marine engine 2009 exhaust emission standards. Personal Watercraft may also comply with these standards. Engines meeting these standards have 90% lower emission than One-Star-Low-Emission engines.

SPECIFICATIONS

JET SKI WATERCRAFT - MODEL JS1500A INBOARD BOAT LESS THAN 4.8 M (16 FEET) IN LENGTH

Maximum Number of Riders and Load Limit:		
Maximum Number of Riders	1 person	
Load Limit	75 kg including rider and luggage	165 lb
Engine:		
Type	4-stroke, 4-cylinder, DOHC, 4-valve, water-cooled	
Displacement	1 498 cm ³	91.41 cu in.
Bore and Stroke	83 × 69.2 mm	3.27 × 2.72 in.
Compression Ratio	10.6:1	
Ignition System	Digital transistor	
Lubrication System	Semi-drysump	
Fuel System	Digital fuel injection	
Research Octane Number (RON)	Minimum Rating 87	
Starting System	Electric starter	
Tuning Specifications:		
Spark Plug:	NGK CR9EKB	
Gap	0.7 ~ 0.8 mm	0.028 ~ 0.031 in.
Terminal	Solid post terminal	

138 APPENDIX

Ignition Timing	3° ATDC @1 300 r/min (rpm) ~ 32° BTDC @3 000 r/min (rpm)	
Idle Speed	1 300 ±100 r/min (rpm) - in water 1 300 ±100 r/min (rpm) - out of water	
Drive System:		
Coupling	Direct drive from engine	
Jet Pump: Type	Axial flow, single stage	
Thrust	4 250 N (433.4 kgf)	955.6 lb
Steering	Steerable nozzle	
Braking	Water drag	
*Performance:		
Minimum Turning Radius	4.0 m	13.1 ft
Fuel Consumption	43 L/h at full throttle	11.4 US gal/hr
Cruising Range	46 km at full throttle 29 minutes	28 mi
Dimensions:		
Overall Length	2 655 mm	104.5 in.
Overall Width	765 mm	30.1 in.
Overall Height	840 mm	33.1 in.
Curb Mass	250 kg	551 lb
Air Draft (1)	604 mm	23.8 in.
Maximum Draft (2)	351 mm	13.8 in.
Fuel Tank Capacity	23 L	6.1 US gal

Engine Oil: Type Viscosity Oil Capacity	API SG, SH, SJ, SL or SM with JASO MA, MA1 or MA2 SAE 10W-40 5.0 L	5.3 US qt
Electrical Equipment: Battery	12 V 18 Ah (10 HR)	

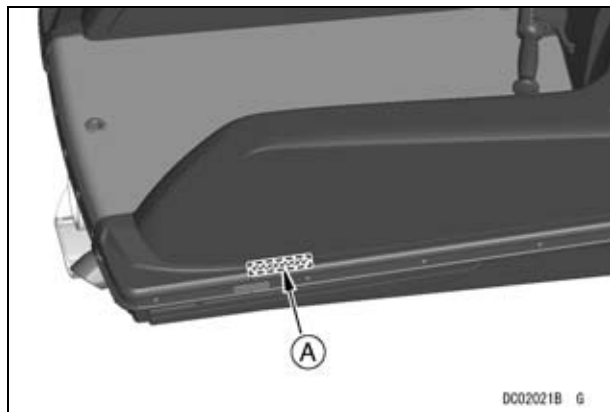
(1): Vertical distance between the floating plane in the light craft condition and the highest point of the craft structure, namely the handle top.

(2): Draft in the fully loaded craft condition.

*: The information shown here represents results under controlled conditions, and the information may not be correct under other conditions.

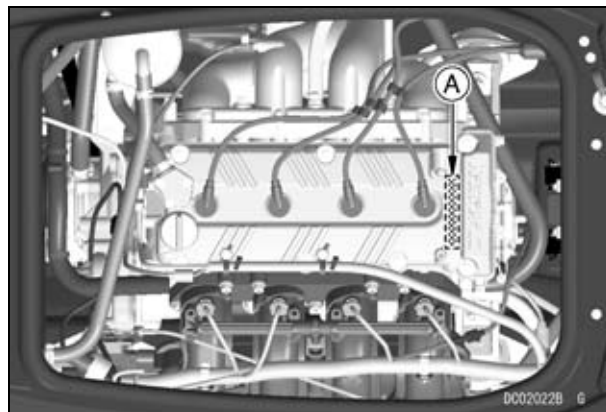
Serial Numbers

The hull and engine identification numbers are used to register the boat. They are the only means of identifying your particular machine from others of the same model. These serial numbers may be needed by your dealer when ordering parts. In the event of theft, investigating authorities will require both numbers as well as the model number and any unique features of your machine that could help identify it. Record these numbers here.



A. Hull Identification Number (HIN)

H.I.N.	
--------	--



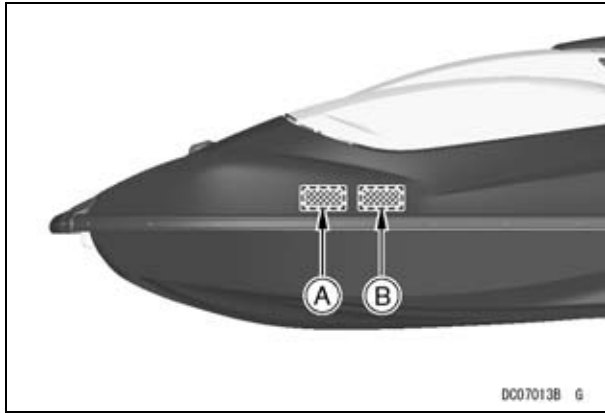
A. Engine Number

Eng. No.	
----------	--

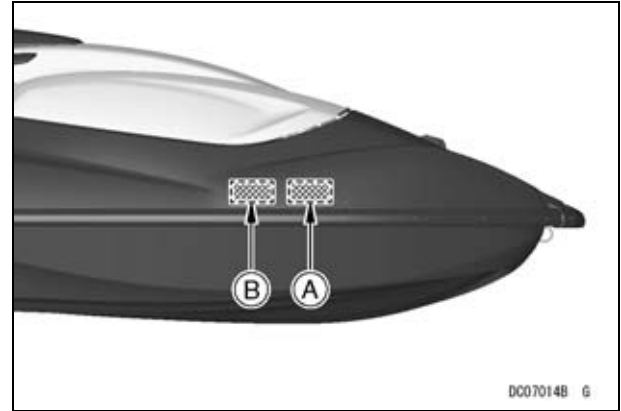
The engine number can also be confirmed by the label on the engine top.

Registration Numbers

The graphic design of your JET SKI watercraft provides a specific location on each side for the registration numbers and validation decals.



A. Location for Registration Number
B. Location for Validation Decal



A. Location for Registration Number
B. Location for Validation Decal

The registration numbers must read from left to right on both sides of the watercraft. Typically, the validation decal must be placed 3 inches (76.2 mm) beyond, and level with the first or last letter of the identification number.

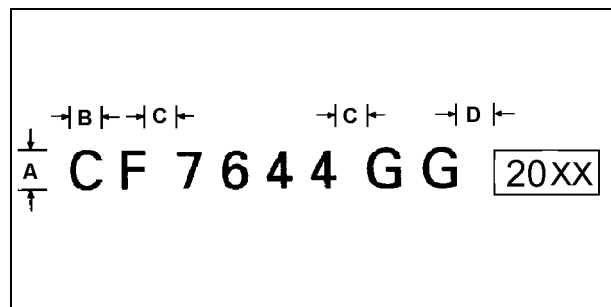
NOTE

- *Requirements for registration numbers and validation decals may vary from those given here for your state. Always follow the directions provided at the time you register your watercraft.*

Registration numbers must be block characters no less than 3 inches (76.2 mm) in height. They should be a color contrasting with the background. The spaces between the numerals and the prefix/suffix

142 APPENDIX

letters must be equal to the width of any letter except "I" or any number except "1."



A = 3 inches (76.2 mm) minimum

B = C

D = 3 inches (76.2 mm)

MAINTENANCE RECORD

Owner Name.....

Address

Phone Number

Hull Number

Engine Number

Selling Dealer Name

Address

Phone Number

Warranty Start Date

Note: Keep this information and a spare key in a secure location.

Date	Engine Hours	Maintenance Performed	Dealer Name	Dealer Address

MAINTENANCE RECORD 145

Date	Engine Hours	Maintenance Performed	Dealer Name	Dealer Address



[illegible]

MAINTENANCE RECORD 147

Date	Engine Hours	Maintenance Performed	Dealer Name	Dealer Address



⚠ WARNING

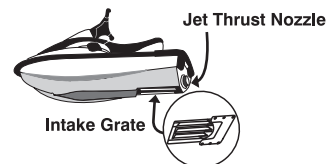
To reduce the risk of SEVERE INJURY or DEATH



WEAR A PERSONAL FLOTATION DEVICE (PFD) AND PROTECTIVE CLOTHING



NEVER RIDE AFTER CONSUMING DRUGS OR ALCOHOL



- **DO NOT APPLY THROTTLE WHEN ANYONE IS AT REAR OF PWC.** Water and/or debris exiting jet thrust nozzle can cause severe injury.
- **KEEP AWAY FROM INTAKE GRATE** while engine is on. Certain items can become entangled resulting in severe injury or drowning.

READ OWNER'S MANUAL FIRST!

- **TO AVOID COLLISIONS** resulting in INJURY or DEATH: SCAN CONSTANTLY, OPERATE DEFENSIVELY, TAKE EARLY ACTION. PWCs and other boats do not have brakes.



- **DO NOT RELEASE THROTTLE WHEN TRYING TO STEER.** You need throttle to steer.

- **OPEN ENGINE COMPARTMENT BEFORE STARTING ENGINE.** A concentration of gasoline fumes can cause a fire or explosion.
- **ATTACH ENGINE SHUT-OFF CORD (LANYARD)** to wrist and keep it free from handlebars so that engine stops if operator falls off.
- **RIDE WITHIN YOUR LIMITS AND AVOID AGGRESSIVE MANEUVERS.** Sharp turns or jumping wakes or waves can increase the risk of back/spinal or other injuries.
- **KNOW BOATING LAWS.**