



2007 WaveRunner GP1300R

OWNER'S/OPERATOR'S MANUAL

YAMAHA MOTOR CO., LTD.
F1G-F8199-74-E0

READ THIS OWNER'S/OPERATOR'S MANUAL CAREFULLY BEFORE OPERATING YOUR WATERCRAFT.

Important manual information

EJU30091

Declaration of Conformity for Personal Watercraft (PWC) with the requirements of Directive 94/25/EC as amended by Directive 2003/44/EC

Revision No:

Name of PWC manufacturer:

YAMAHA MOTOR MANUFACTURING CORPORATION OF AMERICA

Address: 1000 GA Highway 34 East

Town: Newnan Georgia **Post Code:** 30265-1320

Country: USA

Name of Authorized Representative (if applicable):

YAMAHA MOTOR EUROPE N.V.

Address: Koolhovenlaan 101

Town: Schiphol-Rijk **Post Code:** 1119 NC

Country: The Netherlands

Name of Notified Body for noise emission assessment: Luxcontrol SA

Address: 1, avenue des Terres Rouges BP 349

Town: Esch-sur-Alzette **Post Code:** L-4004

Country: Luxembourg **ID Number:** 0882

Name of Notified Body for exhaust emission assessment: Luxcontrol SA

Address: 1, avenue des Terres Rouges BP 349

Town: Esch-sur-Alzette **Post Code:** L-4004

Country: Luxembourg **ID Number:** 0882

ECtype-examination Certificate number (if applicable): LC*2003/44*10011

Important manual information

Conformity assessment modules used:

for construction: A Aa B+C B+D B+E B+F G H

for noise emissions: Aa G H

for exhaust emissions: B+C B+D B+E B+F G H

Other Community Directives applied:

Directive 89/336/EEC relating to electromagnetic compatibility (EMC), using the following standards, for emission CISPR12, for generic immunity EN61000-6-2

DESCRIPTION OF CRAFT

Craft model Identification Number, starting from

U S - Y A M A 1 2 0 1 1 6 0 7 -

Model name / Commercial name : GP1300-F / GP1300R Design Category: C D

IDENTIFICATION OF ENGINE(S) COVERED

BY THIS DECLARATION OF CONFORMITY

Combustion cycle: 2 stroke 4 stroke

Unique engine identification number(s) or engine family code(s)	EC Type-examination certificate (for exhaust)
60T	LC*2003/44*10011

ESSENTIAL REQUIREMENTS	standards	other normative document/ method	technical file	Please specify in more detail (* = mandatory standard)
I.A design and construction	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	EN ISO 13590
I.B exhaust emissions	<input checked="" type="checkbox"/> *	<input type="checkbox"/>	<input checked="" type="checkbox"/>	*EN ISO 8178-1:1996
I.C noise emissions	<input checked="" type="checkbox"/> *	<input type="checkbox"/>	<input checked="" type="checkbox"/>	*EN ISO 14509

This declaration of conformity is issued under the sole responsibility of the PWC manufacturer. I declare on behalf of the PWC manufacturer that the craft model and engine(s) mentioned above comply with all applicable essential requirements in the way specified and are in conformity with the type for which above mentioned EC type-examination certificate(s) has(have) been issued.

Name / title: T. Tsuchiya / President of YAMAHA MOTOR EUROPE N.V.

(identification of the person empowered to sign on behalf of the PWC manufacturer or his authorized representative)

Signature: _____
(or an equivalent marking)

Date and place of issue: 1st / September / 2006, Schiphol-Rijk, The Netherlands

Important manual information

EJU30170

To the owner/operator

Thank you for choosing a Yamaha watercraft. This owner's/operator's manual contains information you will need for proper operation, maintenance, and care. If you have any questions about the operation or maintenance of your watercraft, please consult a Yamaha dealer.

This manual is not a course on boating safety or seamanship. If this is your first watercraft, or if you are changing to a type of watercraft you are not familiar with, for your own comfort and safety, please ensure that you obtain proper training or practice before operating the watercraft by yourself. In addition, a Yamaha dealer or boating organization will be pleased to recommend local sea schools, or competent instructors.

Because Yamaha has a policy of continuing product improvement, this product may not be exactly as described in this owner's/operator's manual. Specifications are subject to change without notice.

This manual should be considered a permanent part of this watercraft and should remain with it even if the watercraft is subsequently sold.

In this manual, information of particular importance is distinguished in the following ways:



The Safety Alert Symbol means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

EWJ00060

WARNING

Failure to follow WARNING instructions could result in severe injury or death to the machine operator, the passenger, a bystander, or a person inspecting or repairing the watercraft.

ECJ00090

CAUTION:

A CAUTION indicates special precautions that must be taken to avoid damage to the watercraft.

NOTE:

A NOTE provides key information to make procedures easier or clearer.

EJU30230

**WaveRunner GP1300R
OWNER'S/OPERATOR'S MANUAL
©2006 by Yamaha Motor Co., Ltd.**

1st Edition, June 2006

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General and important labels

EJU30260

Identification numbers

Record the Primary Identification (PRI-ID) number, Hull Identification Number (HIN), and engine serial number in the spaces provided for assistance when ordering spare parts from a Yamaha dealer. Also record and keep these ID numbers in a separate place in case your watercraft is stolen.

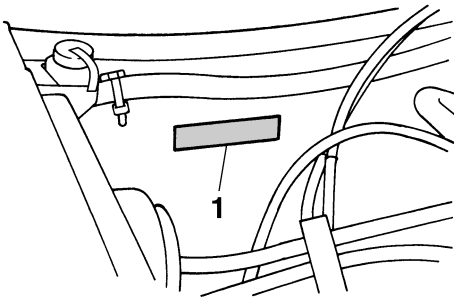
EJU30281

Primary Identification (PRI-ID) number

The PRI-ID number is stamped on a plate attached inside the engine compartment.

MODEL:

GP1300-F (GP1300R)



1 Primary Identification (PRI-ID) number location

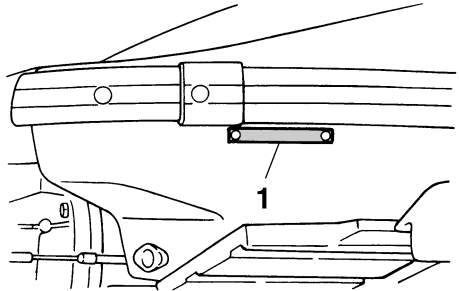
MODEL	<input type="text"/>	PRI-ID	<input type="text"/>
		F1G	<input type="text"/>
<small>YAMAHA MOTOR MANUFACTURING CORPORATION OF AMERICA, ASSEMBLED IN U.S.A. FROM AMERICAN AND JAPANESE COMPONENTS. ASSEMBLÉ AUX ÉTATS-UNIS DE PIÈCES AMÉRICAINES ET JAPONNAISES.</small>			

F1G-

EJU30290

Hull Identification Number (HIN)

The HIN is stamped on a plate attached to the hull on the aft, starboard (right) side.



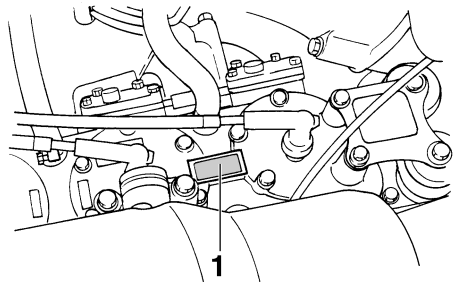
1 Hull Identification Number (HIN) location

US-YAM

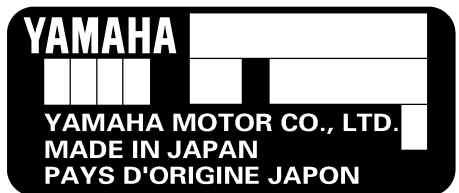
EJU30310

Engine serial number

The engine serial number is stamped on a plate attached to the engine unit.



1 Engine serial number location



General and important labels

EJU30320

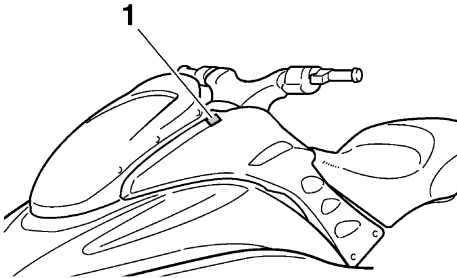
Model information

EJU30330

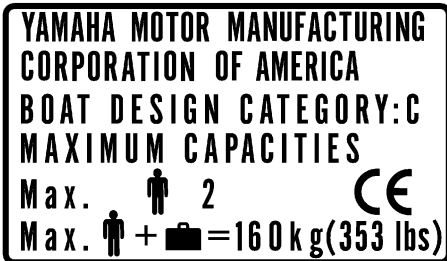
Builder's plate

Part of the information is given on the builder's plate affixed on the craft. A full explanation of this information is given in the relevant sections of this manual.

which approximately corresponds to the wave height estimated by an experienced observer. However, some waves will be double this height.



1 Builder's plate location



Design category of this personal watercraft: C

Category C:

This watercraft is designed to operate in winds up to Beaufort force 6 and the associated wave heights (significant wave heights up to 2 m (6.56 ft); see the following NOTE). Such conditions may be encountered in exposed inland waters, in estuaries, and in coastal waters in moderate weather conditions.

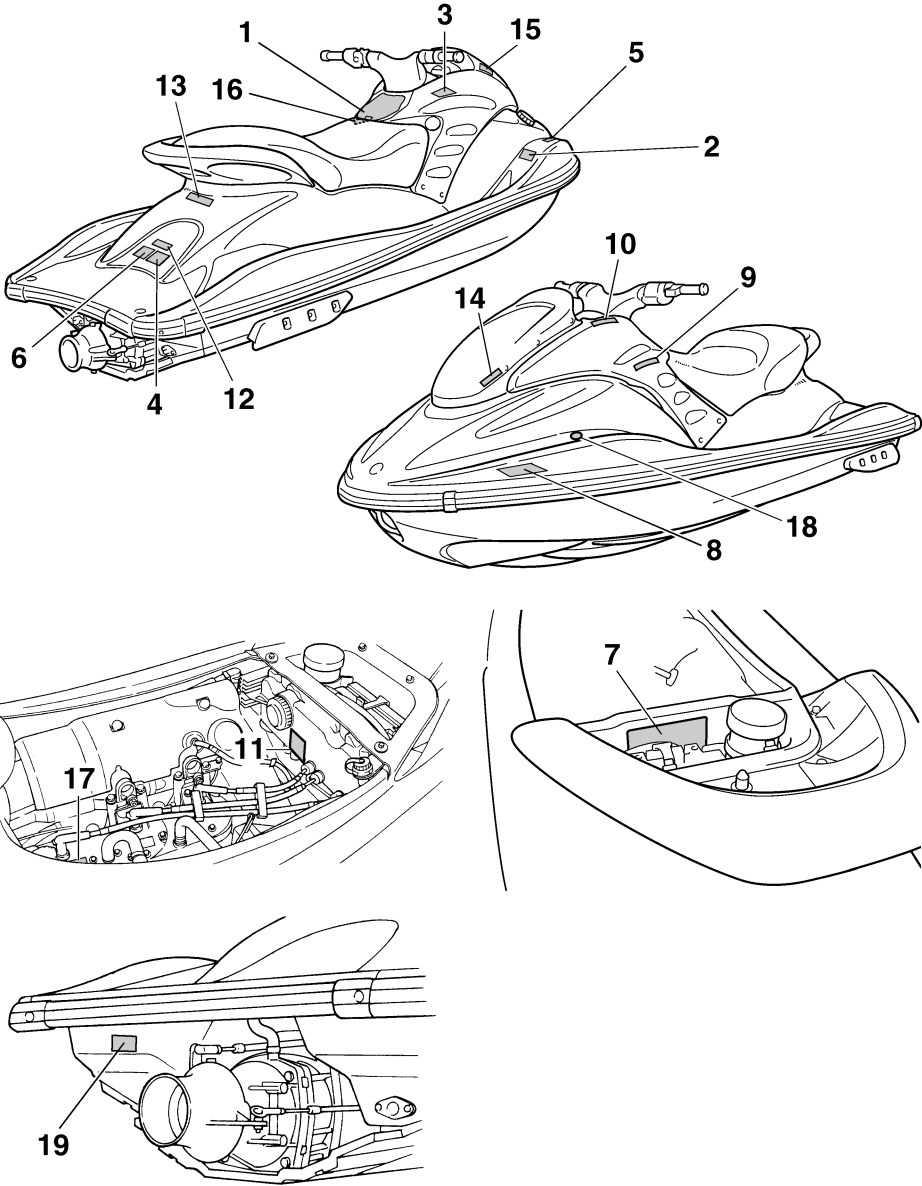
NOTE: _____

The significant wave height is the mean height of the highest one-third of the waves,

General and important labels

EJU30450

Important labels



General and important labels

EJU35910

Warning labels

1

⚠ AVERTISSEMENT

PORTER UN GILET DE SAUVETAGE. Afin de limiter les risques de BLESSURES GRAVES, voire MORTELLES, porter un gilet de sauvetage homologué pour les scooters des mers.

PORTER DES VÊTEMENTS PROTÉCTEURS. Afin de limiter les risques de BLESSURES GRAVES, voire MORTELLES, RESPECTER SES LIMITES ET ÉVITER LES MANŒUVRES BRUTALES afin de limiter tout risque de perte de contrôle, d'éjection et de collision. Il s'agit d'un véhicule à hautes performances et pas d'un jouet. Des virées brusques ou le saut de silages ou de vagues accroît le risque de fractures diverses. Ne jamais sauter des silages ni des vagues.

NE PAS DONNER DES GAZ LORSQUE QUELQU'UN SE TROUVE DERRIÈRE LE VÉHICULE: couper le moteur ou laisser tourner au ralenti. Eau et/ou débris projetés par la pompe pourraient causer des blessures graves.

NE PAS S'APPROCHER DE LA GRILLE D'ADMISSION lorsque le moteur tourne. Cheveux longs, vêtements amples ou laniers de gilet de sauvetage risquent d'être happés, ce qui pourrait provoquer des blessures, ou même une noyade.

NE JAMAIS PILOTER APRÈS AVOIR ABSORBÉ DE L'ALCOOL, DES DROGUES OU CERTAINS MÉDICAMENTS.

ATTACHER LA LANIÈRE DE L'INTERRUPTEUR D'ARRÊT DU MOTEUR au poignet et l'éloigner du guidon afin que le moteur se coupe bien en cas de chute. Après utilisation, retirer la lanrière du scooter afin de prévenir toute utilisation par des enfants ou des personnes non-autorisées.

⚠ WARNING

To reduce the risk of SEVERE INJURY or DEATH:

WEAR A PERSONAL FLOTATION DEVICE (PFD). All riders must wear an authority-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. Yamaha Motor Co., Ltd. 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 handlebars 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.

YAMAHA
FOX-U41B1-13

NEVER RIDE AFTER CONSUMING DRUGS OR ALCOHOL
READ AND FOLLOW OWNER'S MANUAL

4

General and important labels

2

⚠ 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/province and local laws that apply to PWCs. See Owner's Manual for more information.

YAMAHA



F0P-U41B2-01

3

⚠ AVERTISSEMENT

Les collisions sont la cause principale des **BLESSURES ET DÉCÈS** d'utilisateurs de scooter des mers.

POUR ÉVITER LES COLLISIONS:
ÊTRE CONSTamment à l'affût de personnes, d'objets et d'autres bateaux. Être conscient des conditions limitant sa visibilité ou celle des autres embarcations.
PILOTER AVEC PRUDENCE à des vitesses raisonnables et garder une distance de sécurité entre le scooter et toute personne, objet et embarcation.

- Ne pas suivre une autre embarcation de trop près.
- Ne pas se rapprocher d'autrui en vue de l'éclabousser.
- Éviter les virages brusques ou toute manœuvre qui risque de mettre un autre pilote en danger ou qui l'empêche de pouvoir déterminer clairement la direction que l'on prend.
- Éviter les endroits où flottent des objets et les eaux peu profondes.

RÉAGIR RAPIDEMENT en vue d'éviter les collisions. Garder à l'esprit que les bateaux n'ont pas de freins.

NE PAS LÂCHER LES GAZ LORSQUE L'ON ESSAIE DE S'ÉLOIGNER d'objets — une **passée est nécessaire** à la direction du scooter des mers. Toujours s'assurer avant le départ que l'accélérateur et la direction fonctionnent correctement. Suivre les lois de navigation ainsi que les législations nationales, provinciales et locales concernant les scooters des mers. Voir le manuel d'utilisation pour plus d'informations.

YAMAHA

F0X-U41B2-11



4

⚠ WARNING

- Severe internal injuries can occur if water is forced into body cavities as a result of being near jet thrust nozzle.
- Wear a wetsuit bottom or clothing that provides equivalent protection.
- Do not board PWC if operator is applying throttle.

⚠ AVERTISSEMENT

- Le choc infligé par la pénétration forcée d'eau dans les orifices corporels lors du contact avec le jet de la pompe risque de provoquer des lésions graves.
- Porter le pantalon d'une tenue de plongée ou tout autre vêtement offrant une protection semblable.
- Ne pas embarquer lorsque le pilote donne des gaz.

(F0W-U41E2-51)

5

⚠ WARNING

Gasoline is highly flammable and explosive. A fire or explosion could cause severe injury or death. Shut engine off. Refuel in well ventilated area away from flames or sparks. Do not smoke. Avoid spilling gasoline. Wipe up spilled gasoline immediately. Remove all seats and front storage compartment to ventilate fuel vapors from engine compartment before starting engine. Do not start engine if there is a fuel leak or a loose electrical connection.

⚠ AVERTISSEMENT

L'essence est très inflammable et explosive. Un incendie ou une explosion risquent de provoquer des blessures graves, voire mortelles. Couper le moteur. Faire le plein dans un endroit bien aéré et éloigné de toute flamme ou étincelle. Ne pas fumer. Éviter de renverser de l'essence. Essuyer immédiatement toute coulure d'essence. Déposer les selles et le compartiment de rangement avant pour évacuer les vapeurs d'essence du compartiment du moteur avant de mettre le moteur en marche. Ne jamais mettre le moteur en marche en cas de fuite d'essence ou si un branchement électrique est desserré.

REGULAR UNLEADED GASOLINE ONLY

ESSENCE NORMALE SANS PLOMB UNIQUEMENT

F1G-U415B-10

General and important labels

6

⚠ WARNING

Do not use cleat or grips to lift PWC. PWC could fall, which could result in severe injury.

⚠ AVERTISSEMENT

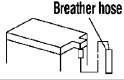
Ne pas soulever le scooter à l'aide du taquet ou des poignées. Le scooter pourrait tomber et provoquer des blessures graves.

(FOW-U41E2-51)

7

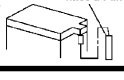
⚠ WARNING

Be sure to connect breather hose to battery. Fire or explosion could result if not connected properly.



⚠ AVERTISSEMENT

Bien veiller à brancher la durit de mise à l'air à la batterie. Un mauvais branchement risque d'être à l'origine d'un incendie ou d'une explosion.



YAMAHA

FOW-U41DB-12

8

⚠ AVERTISSEMENT

APPLICABLE POUR LA FRANCE SEULEMENT

- En France : permis de conduire et immatriculation obligatoire.
- Navigation en mer autorisée entre 300 mètres et 2 milles nautique.
- Entre 0 et 300 mètres, se référer aux instructions nautiques locales affichées. Sinon, règle générale : vitesse maxi 5 noeuds (9Km/h) dans cette zone.
- Utiliser les chenaux obligatoires de sortie lorsqu'ils existent.
- Respecter les règles de priorité.
- Gilet de sauvetage obligatoire-Fusée et bout de remorquage à bord.
- Ne jamais conduire sous l'influence de l'alcool ou de drogues.
- Consulter la météo avant de sortir en mer.
- Une conduite responsable et un contrôle quotidien de votre machine suivant le manuel d'entretien YAMAHA seront garants de votre sécurité.

YAMAHA

QPB-U41BH-01

9

⚠ WARNING

THIS PWC IS EQUIPPED WITH A CATALYTIC CONVERTER.

To reduce risk of severe burn injuries:

- Do not touch any muffler surfaces in engine compartment after running engine. Catalytic converter gets very hot.
- Do not start engine on land if anyone is behind watercraft. Steam and hot water can spurt from exhaust outlet.
- Return to shore at low speed if overheat warning indicator and buzzer come on. If you ignore these signals, engine will stop running and cannot be restarted until exhaust system cools down.
- Do not run engine over 4,000 r/min on land.

YAMAHA

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10

⚠ AVERTISSEMENT

CE SCOOTER EST ÉQUIPÉ D'UN CATALYSEUR

Afin d'éviter le risque de brûlures graves:

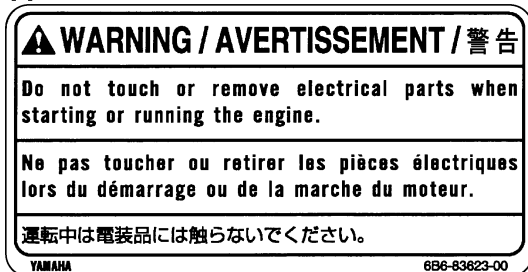
- Ne jamais toucher une partie quelconque du silencieux pendant ou après l'utilisation du moteur. Le catalyseur devient en effet très chaud.
- Ne pas mettre le moteur en marche lorsque quelqu'un se trouve derrière le scooter alors que celui-ci est hors de l'eau. De l'eau et de la vapeur chaudes pourraient gicler de l'échappement.
- Retourner au rivage à vitesse réduite si le témoin d'avertissement de surchauffe s'allume ou si le roufleur retentit. En cas de non-respect de cette consigne, le moteur se coupe et ne pourra être remis en marche qu'une fois le circuit d'échappement refroidi.
- Ne pas faire tourner le moteur à plus de 4.000 tr/min hors de l'eau.

YAMAHA

FOW-U418W-11

General and important labels

11



EJU35921

Other labels

12



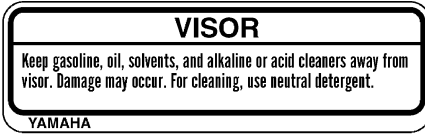
13



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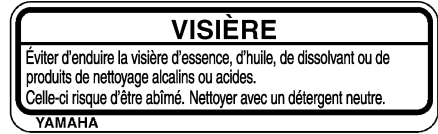
General and important labels

14



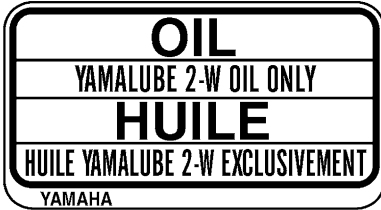
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15



F0X-U41FD-11

16



F0V-U41FB-11

17



18



The following label indicates the correct direction to upright a capsized watercraft.

19

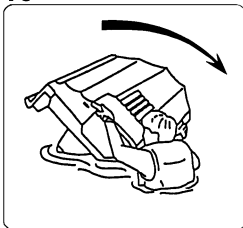


FIG-U418F-00

Safety information

EJU30680

The safe use and operation of this watercraft is dependent upon the use of proper riding techniques, as well as upon the common sense, good judgment, and expertise of the operator. Before using this watercraft, make sure that its use is permitted under local laws, bylaws, and regulations, and always operate the watercraft in full conformity with any requirements and limitations imposed. Every operator should know the following requirements before riding the watercraft.

- Before operating the watercraft, read this owner's/operator's manual, the Riding Practice Guide, and all warning and caution labels on the watercraft. These materials should give you an understanding of the watercraft and its operation.
- Never allow anyone to operate this watercraft until they too have read this owner's/operator's manual, the Riding Practice Guide, and all warning and caution labels.

EJU30720

Limitations on who may operate the watercraft

- Yamaha recommends a minimum operator age of 16 years old. Adults must supervise use by minors. Know your local operator age and training requirements.
- This watercraft is designed to carry the operator and 1 passenger. Never exceed the maximum load limit or allow more than 2 persons to ride the watercraft at any time.



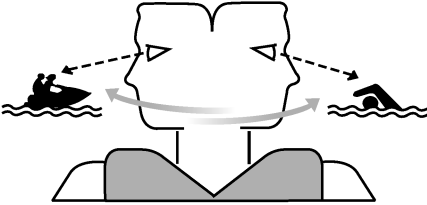
Maximum load:
160 kg (353 lb)
Load is the total weight of cargo, operator, and passenger.

- Do not operate the watercraft with a passenger on board until you have considerable practice and experience riding alone. Operating the watercraft with a passenger requires more skill. Take the time to become accustomed to the handling characteristics of the watercraft before trying any difficult maneuvers.

EJU30760

Cruising limitations

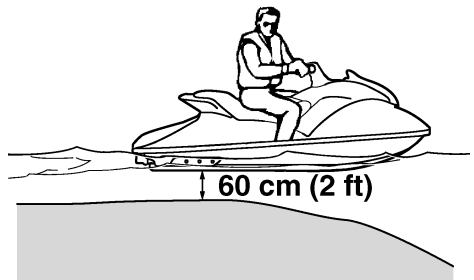
- Scan constantly for people, objects, and other watercraft. Be alert for conditions that limit your visibility or block your vision of others.



- Operate defensively at safe speeds and keep a safe distance away from people, objects, and other watercraft.
- Do not follow directly behind watercraft 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, watercraft and other boats do not have brakes.
- Do not release the throttle lever when trying to steer away from objects—you need throttle to steer. Always check throttle and steering controls before starting the watercraft.
- 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, an-

cles, and other bones. Do not jump wakes or waves.

- Do not operate the watercraft in rough water, bad weather, or when visibility is poor; this may lead to an accident causing injury or death. Be alert to the possibility of adverse weather. Take note of weather forecasts and the prevailing weather conditions before setting out on your watercraft.
- As with any water sport, you should not operate your watercraft without someone else nearby. If you operate further than swimming distance from shore, you should be accompanied by another boat or watercraft, but make sure you stay a safe distance away. It's good, common sense!
- Never operate in water that is less than 60 cm (2 ft) deep, otherwise you increase your chance of hitting a submerged object, which could result in injury.



- This watercraft is not equipped with lighting required for night operation. Do not operate the watercraft after sunset or before dawn, otherwise you increase the risk of colliding

Safety information

with another boat, which could result in severe injury or death.

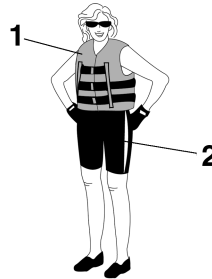


- Follow navigation rules, and state/provincial and local laws that apply to watercraft.

EJU30800

Operation requirements

- All riders must wear a personal flotation device (PFD) that is approved by the appropriate authorities and is suitable for personal watercraft use.
- Wear protective clothing. Severe internal injuries can occur if water is forced into body cavities as a result of falling into the 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 wetsuit bottom or clothing that provides equivalent protection. Such clothing includes thick, tightly woven, sturdy and snug-fitting apparel such as denim, but does not include spandex or similar fabrics, like those used in bicycle shorts.



- 1 Authority-approved PFD
- 2 Wetsuit bottom

- Eye protection is recommended to keep wind, water, and glare from the sun out of your eyes while you operate your watercraft. Restraining straps for eyewear are made which are designed to float should your eyewear fall in the water. Footwear and gloves are recommended.
- You must decide whether to wear a helmet while you ride for recreation. You should know that a helmet could help protect you in

Safety information

certain kinds of accidents and that it could injure you in others.

A helmet is designed to provide some head protection. Although helmets cannot protect against all foreseeable impacts, a helmet might reduce your injuries in a collision with a boat or other obstacle.

A helmet may have potential safety hazards, as well. Falling into the water could risk the chance of the helmet catching water, commonly known as “bucketing”, and the resulting strain on your neck could cause choking, severe and permanent neck injuries, or death. A helmet could also increase the risk of an accident if it reduces your vision or hearing, or if it distracts you or increases your fatigue.

How should you decide if a helmet’s potential safety benefits outweigh its potential risks for you? Consider your particular riding conditions. Consider factors such as your riding environment and your riding style and ability. Also consider the likelihood of traffic congestion, and the water surface conditions.

If you decide to wear a helmet based upon your riding circumstances, choose one carefully. Look for a helmet designed for personal watercraft use, if possible. If you will be engaging in closed-course competition, follow the helmet requirements of the sanctioning organization.

- NEVER operate the watercraft after consuming alcohol or taking other drugs.



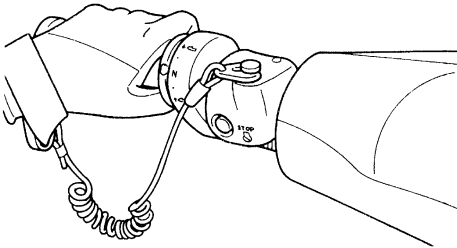
- For reasons of safety and proper care of the watercraft, always perform the pre-operation checks listed on page 38 before operating the watercraft.
- The operator and passenger should always keep their feet on the floor of the footwell when the watercraft is in motion. Lifting your feet increases the chances of losing your balance, or hitting objects outside the watercraft with your feet. Do not give a ride to a child whose feet cannot reach the floor of the footwell.
- The passenger should firmly hold on to the operator.



- Never allow a passenger to ride in front of the operator.
- Always consult your doctor on whether it is safe for you to ride this watercraft if you are pregnant or in poor health.

Safety information

- Do not attempt to modify this watercraft! Modifications to your watercraft may reduce safety and reliability, and render the watercraft unsafe or illegal for use.
- Attach the engine shut-off cord to your left wrist and keep it free from the handlebars so that the engine stops if you, the operator, fall off. After riding, remove the engine shut-off cord from the watercraft to avoid accidental starting or unauthorized use by children or others.



- Scan carefully for swimmers and stay away from swimming areas. Swimmers are hard to see and you could accidentally hit someone in the water.
- Avoid being hit by another boat! You should always take the responsibility to watch for traffic; other boaters may not be watching for you. If they do not see you, or if you maneuver more quickly than other boaters expect, you risk a collision.
- Maintain a safe distance from other boats and watercraft, and also watch for ski ropes or fishing lines. Obey the "Safe boating rules" and be sure to check behind you before making a turn. (See "Safe boating rules" on page 15.)

EJU30840

Recommended equipment

The following items should be carried on board your watercraft:

- Sound-signaling device
You should carry a whistle or other sound-signaling device that can be used to signal other boats.
- Visual distress signals
It is recommended that a pyrotechnic device, which is approved by the appropriate authorities, be stored in a waterproof container on your watercraft. A mirror can also be used as an emergency signal. Contact a Yamaha dealer for more information.
- Watch
A watch is helpful so you will know how long you have been operating the watercraft.
- Towline
A towline can be used to tow a disabled watercraft in an emergency.

EJU30860

Hazard information

- Never start the engine or let it run for any length of time in an enclosed area. Exhaust fumes contain carbon monoxide, a colorless, odorless gas that may cause loss of consciousness and death within a short time. Always operate the watercraft in an open area.
- Do not start the engine on land if anyone is behind the watercraft. Hot water and steam spurting from the exhaust outlet can cause serious burns.
- Do not touch the hot muffler or catalytic converter during or immediately after engine operation; they can cause serious burns. In addition, the catalytic converter becomes hotter after the engine stops before cooling down.

EJU30890

Watercraft characteristics

- Jet thrust turns the watercraft. Releasing the throttle lever completely produces only minimum thrust. If you are traveling at speeds above trolling, you will have rapidly decreasing ability to steer without throttle. This model is equipped with the Yamaha Engine Management System (YEMS) that includes an off-throttle steering (OTS) system. It will activate at planing speeds should you attempt to steer the watercraft after releasing the throttle lever. The OTS system assists in turning by continuing to supply some thrust while the watercraft is decelerating, but you can turn more sharply if you apply throttle while turning the handlebars. The OTS system does not function below planing speeds or when the engine is off. Once the engine slows down, the watercraft will no longer turn in response to handlebar input until you apply throttle again or you reach trolling speed. Practice turning in an open area without obstacles until you have a good feel for this maneuver.
- This watercraft is water-jet propelled. The jet pump is directly connected to the engine. This means that jet thrust will produce some movement whenever the engine is running. There is no “neutral” position.
- Keep away from the intake grate while the 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.
- Never insert any object into the jet thrust nozzle while the engine is running. Severe injury or death could result from coming in

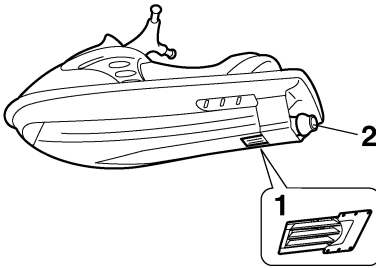
Safety information

contact with the rotating parts of the jet pump.

EJU30970

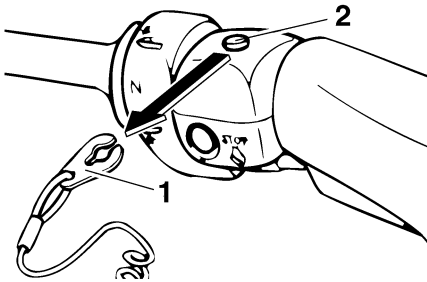
Safe boating rules

Your Yamaha watercraft is legally considered a powerboat. Operation of the watercraft must be in accordance with the rules and regulations governing the waterway on which it is used.



- 1 Intake grate
- 2 Jet thrust nozzle

- Stop the engine and remove the clip from the engine shut-off switch before removing any debris or weeds, which may have collected around the jet intake.



- 1 Clip
- 2 Engine shut-off switch

EJU30990

Enjoy your watercraft responsibly

You share the areas you enjoy when riding your watercraft with others and with nature. So your enjoyment includes a responsibility to treat these other people, and the lands, waters, and wildlife with respect and courtesy.

Whenever and wherever you ride, think of yourself as the guest of those around you. Remember, for example, that the sound of your watercraft may be music to you, but it could be just noise to others. And the exciting splash of your wake can make waves others won't enjoy.

Avoid riding close to shoreline homes and waterfowl nesting areas or other wildlife areas, and keep a respectful distance from fishermen, other boats, swimmers, and populated beaches. When travel in areas like these is unavoidable, ride slowly and obey all laws.

Proper maintenance is necessary to ensure that the exhaust emission and sound levels of your watercraft will continue to be within regulated limits. You have the responsibility to make sure that the recommended maintenance in this owner's/operator's manual is carried out.

Remember, pollution can be harmful to the environment. Do not refuel or add oil where a spill could cause damage to nature. Remove your watercraft from the water and move it away from the shoreline before refueling. And keep your surroundings pleasant for the people and wildlife that share the waterways: don't litter!

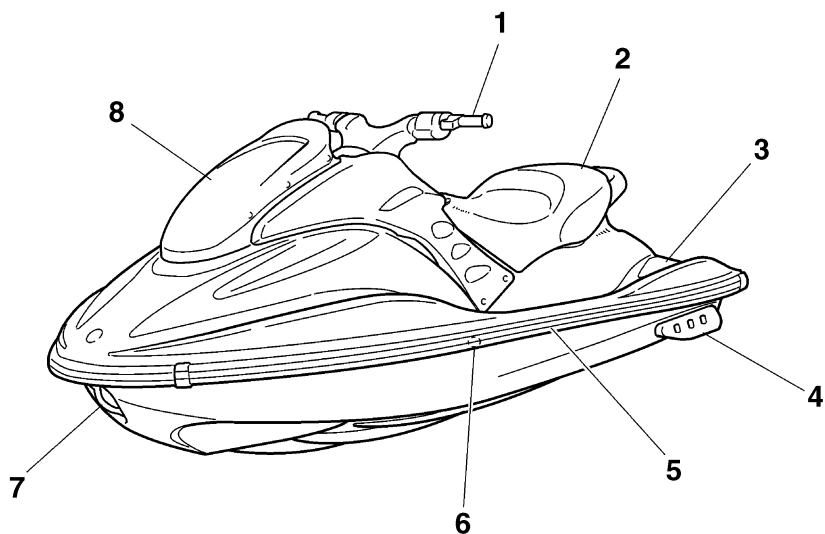
When you ride responsibly, with respect and courtesy for others, you help ensure that our waterways stay open for the enjoyment of a variety of recreational opportunities.

Features and functions

EJU31010

Location of main components

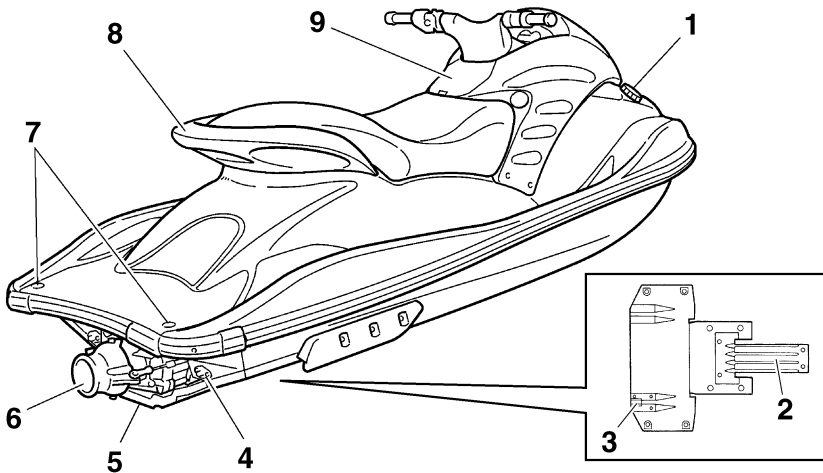
Front view



- 1 Handlebars
- 2 Seat
- 3 Footwell
- 4 Yamaha Adjustable Sponson (YAS)
- 5 Gunwale
- 6 Cooling water pilot outlet
- 7 Bow eye
- 8 Hood

Features and functions

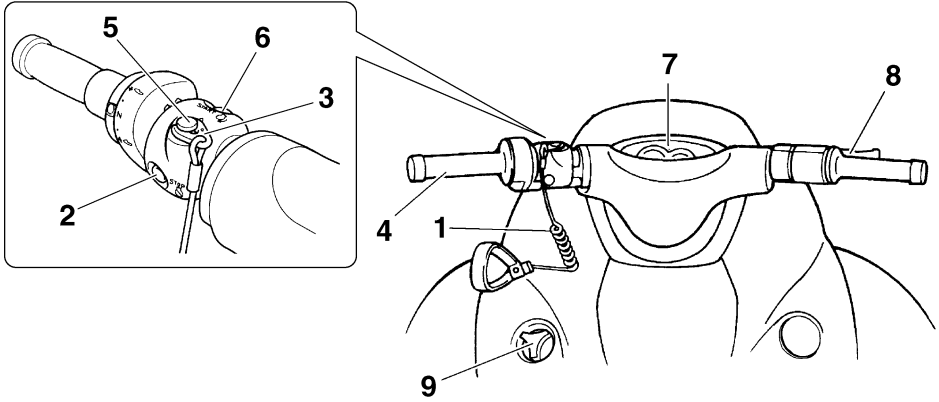
Rear view



- 1 Fuel tank filler cap
- 2 Intake grate
- 3 Speed sensor
- 4 Stern drain plugs
- 5 Ride plate
- 6 Jet thrust nozzle
- 7 Stern rope hole
- 8 Handgrip
- 9 Glove compartment

Features and functions

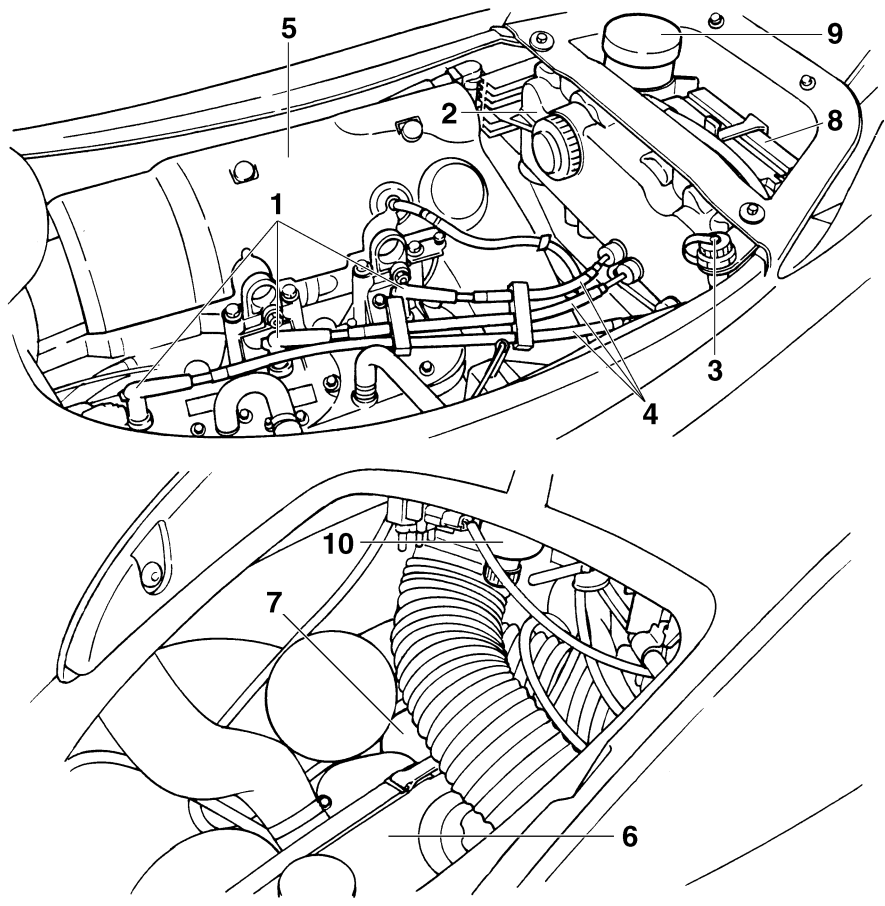
Control system



- 1 Engine shut-off cord (lanyard)
- 2 Engine stop switch
- 3 Clip
- 4 Quick Shift Trim System (QSTS) selector
- 5 Engine shut-off switch
- 6 Start switch
- 7 Multifunction information center
- 8 Throttle lever
- 9 Oil tank filler cap

Features and functions

Engine compartment



- 1 Spark plugs/Spark plug caps
- 2 Electrical box
- 3 Flushing hose connector
- 4 Spark plug lead
- 5 Muffler
- 6 Fuel tank
- 7 Oil tank
- 8 Battery
- 9 Fire extinguisher container
- 10 Water separator

Features and functions

EJU31020

Operation of controls and other functions

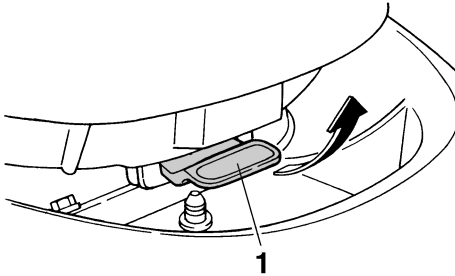
EJU31031

Seat

There is a seat latch at the rear of the seat to remove the seat.

To remove the seat:

Pull the seat latch up, and then pull the seat off.

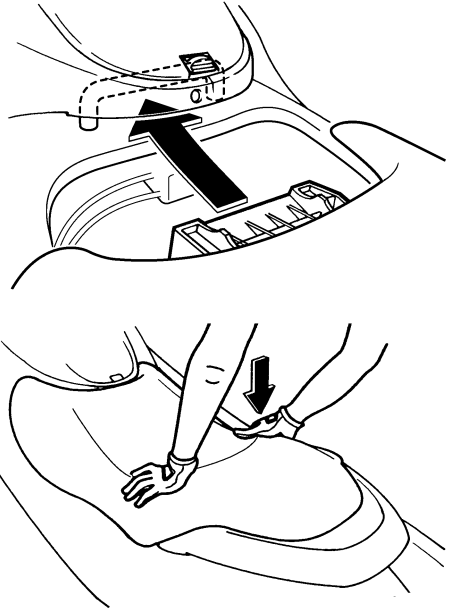


1 Seat latch

To install the seat:

Insert the projection on the front of the seat into the stay on the deck, and then push the

rear of the seat down to lock it in place securely.



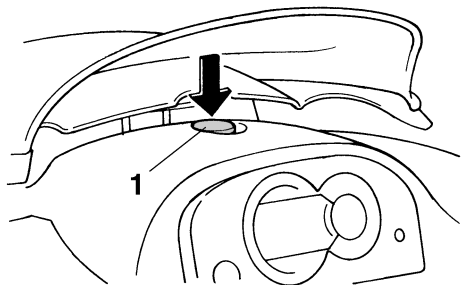
NOTE:

Make sure that the seat is securely installed before operating the watercraft.

EJU31061

Hood

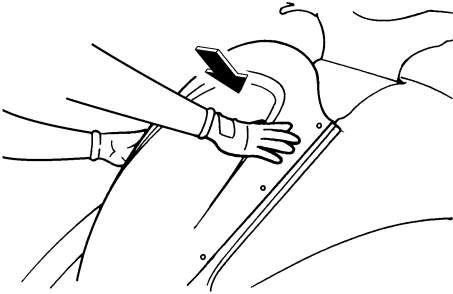
To open the hood, push the hood latch down, and then lift up the hood.



1 Hood latch

Features and functions

To close the hood, push the hood down to lock it in place.



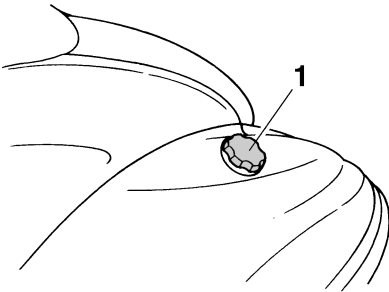
NOTE:

Make sure that the hood is securely closed before operating the watercraft.

EJU31090

Fuel tank filler cap

To remove the fuel tank filler cap, turn it counterclockwise.



1 Fuel tank filler cap

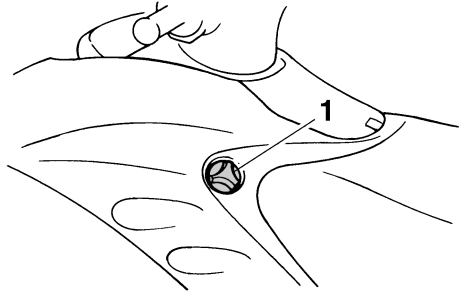
NOTE:

Make sure that the fuel tank filler cap is securely closed before operating the watercraft.

EJU31100

Oil tank filler cap

To remove the oil tank filler cap, turn it counterclockwise.



1 Oil tank filler cap

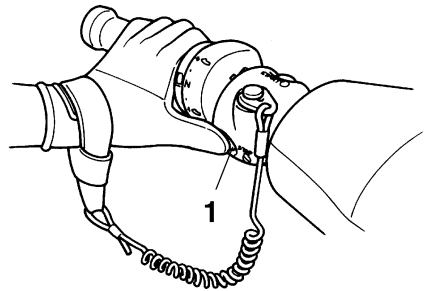
NOTE:

Make sure that the oil tank filler cap is securely closed before operating the watercraft.

EJU31150

Engine stop switch

Push the engine stop switch (red button) to stop the engine normally.



1 Engine stop switch

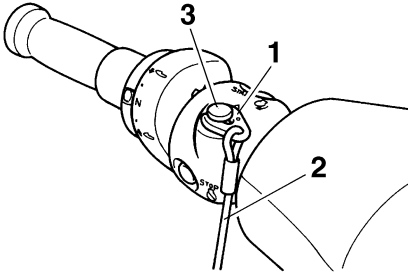
EJU31160

Engine shut-off switch

Insert the clip, on the end of the engine shut-off cord, under the engine shut-off switch (black button). The engine will stop automatically when the clip is removed from the

Features and functions

switch, such as if the operator falls off the watercraft.

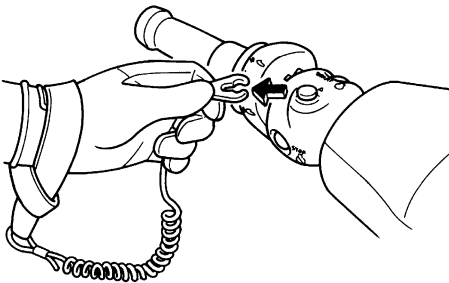


- 1 Clip
- 2 Engine shut-off cord
- 3 Engine shut-off switch

EWJ00010

WARNING

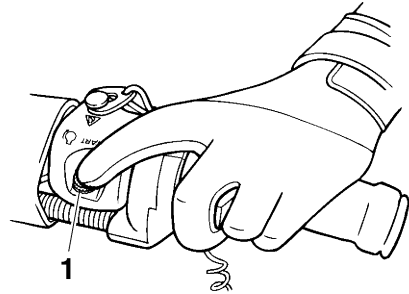
- Always attach the engine shut-off cord to your left wrist and the clip to the engine shut-off switch **BEFORE** starting the engine.
- To prevent accidental starting of the engine or unauthorized use by children or others, always remove the clip from the engine shut-off switch when the engine is not running.



EJU31180

Start switch

Push the start switch (green button) to start the engine.



- 1 Start switch

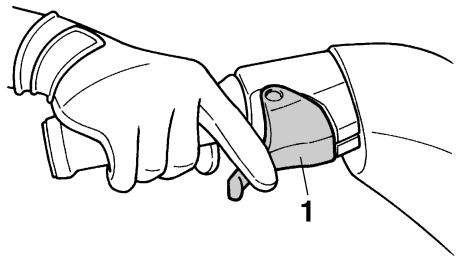
NOTE:

The engine will not start when the clip is removed from the engine shut-off switch or if the throttle lever is squeezed.

EJU31210

Throttle lever

Squeeze the throttle lever to increase engine speed.



- 1 Throttle lever

Release the throttle lever to decrease engine speed or to return it to the idle position.

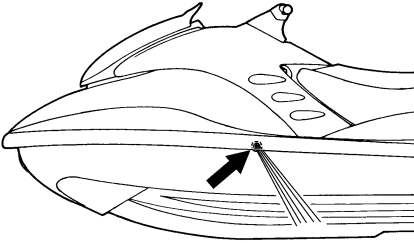
EJU31230

Cooling water pilot outlets

This watercraft is equipped with cooling water pilot outlets.

Features and functions

When the engine is running, cooling water is circulated in the engine, and then it is discharged from the pilot outlets.



To check for proper operation of the cooling system, check that water is being discharged from the pilot outlets. If water is not being discharged from the outlets, cooling water may not be circulating in the engine. When this occurs, stop the engine and check for the cause. (See pages 29 and 76 for more information.)

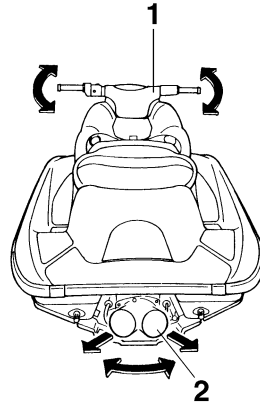
NOTE:

If the cooling water passages are dry, it will take about 20 seconds for the water to reach the outlets after the engine is started.

EJU31260

Steering system

Your watercraft can be steered by turning the handlebars in the direction you wish to travel.



- 1 Handlebar
- 2 Jet thrust nozzle

When the handlebars are turned, the angle of the jet thrust nozzle is changed, and the direction of the watercraft is changed accordingly. Since the strength of the jet thrust determines the speed and degree of a turn, throttle must always be applied when attempting a turn, except at trolling speed.

This model is equipped with the Yamaha Engine Management System (YEMS) that includes an off-throttle steering (OTS) system. It will activate at planing speeds should you attempt to steer the watercraft after releasing the throttle lever. The OTS system assists in turning by continuing to supply some thrust while the watercraft is decelerating, but you can turn more sharply if you apply throttle while turning the handlebars.

The OTS system does not function below planing speeds or when the engine is off. Once the engine slows down, the watercraft will no longer turn in response to handlebar in-

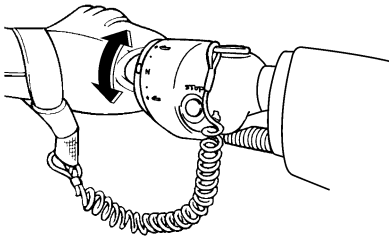
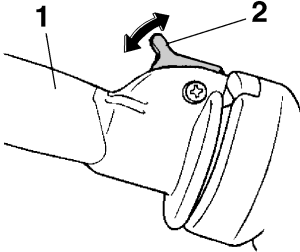
Features and functions

put until you apply throttle again or you reach trolling speed.

EJU31310

Quick Shift Trim System (QSTS) selector

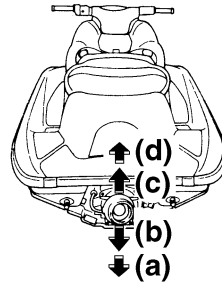
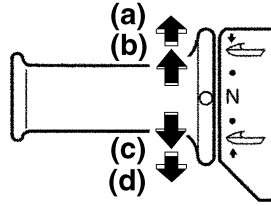
The QSTS selector is located at the left handlebar grip and is used to adjust the trim angle of the watercraft.



- 1 Quick Shift Trim System (QSTS) selector
- 2 QSTS selector lock lever

Operating the QSTS selector changes the angle of the jet thrust nozzle vertically. This changes the trim angle of the watercraft.

There are 5 positions: 2 bow-down positions (a) and (b), neutral "N", and 2 bow-up positions (c) and (d).



To change the trim angle:

- (1) Reduce engine speed to 3000 r/min or less.
- (2) Squeeze the QSTS selector lock lever, and then turn the QSTS selector to the desired position.
- (3) Release the lock lever to lock the QSTS selector.

ECJ00010

CAUTION:

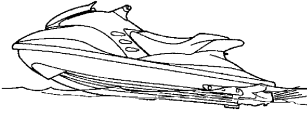
Do not turn the QSTS selector while operating the watercraft at full throttle, otherwise damage could occur to the QSTS.

The neutral "N" position will provide good performance for most operating conditions.

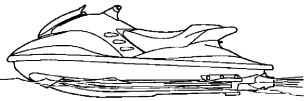
Features and functions

To enhance particular types of performance, select bow down or bow up.

(d) ↑



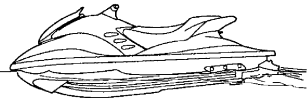
(c) ↑
N



(b) ↓



(a) ↓



EJU31330

Bow down

Turn the QSTS selector to (a) or (b) and the bow will go down while the watercraft is on plane.

Bow down puts more of the bow in the water. This gives the watercraft more “hook”, which enhances turning performance. This position will also help the watercraft get up on plane more quickly.

At higher speeds, however, the watercraft will have a greater tendency to “bow steer” and follow waves and wakes in the water. Fuel economy and maximum speed are also reduced.

EJU31340

Bow up

Turn the QSTS selector to (c) or (d) and the bow will go up while the watercraft is on plane.

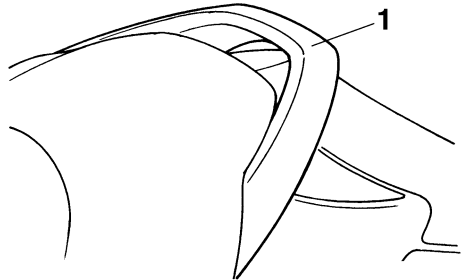
Bow up puts less of the bow in the water. There is less water resistance, so straight-ahead acceleration when on plane and top speed are enhanced.

In some conditions, however, the watercraft may tend to “porpoise” (hop in the water). If the watercraft is porpoising, select neutral or bow down.

EJU31350

Handgrip

The handgrip provides a handhold for boarding the watercraft.



1 Handgrip

EWJ00020

⚠ WARNING

Do not use the handgrip to lift the watercraft. The watercraft could fall, which could result in severe injury.

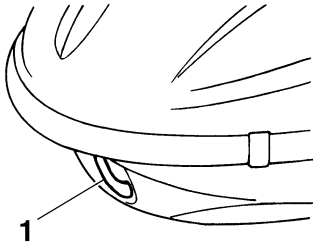
EJU34870

Bow eye

The bow eye is located at the bow of the watercraft.

Features and functions

The bow eye is used to attach a rope to the watercraft when transporting, mooring, or towing it in an emergency.



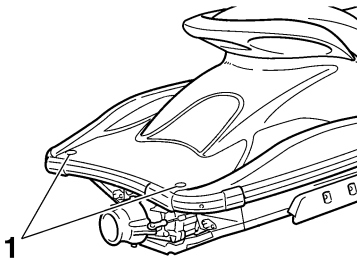
1 Bow eye

EJU36020

Stern rope holes

The stern rope holes are located at the stern of the watercraft.

The stern rope holes are used to attach a rope to the watercraft when transporting or mooring it.



1 Stern rope hole

EJU31370

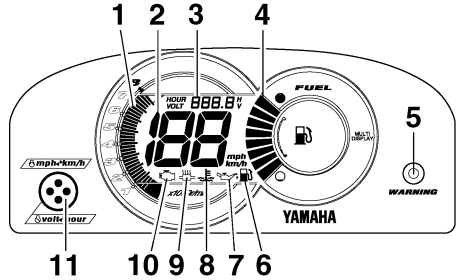
Yamaha Engine Management System (YEMS)

This model is equipped with an integrated, computerized management system that controls and adjusts ignition timing, fuel injection, engine diagnostics, and the off-throttle steering (OTS) system.

EJU31420

Multifunction information center

This meter contains the following functions for help and convenience in operating the watercraft.



- 1 Tachometer
- 2 Speedometer
- 3 Hour meter/voltmeter
- 4 Fuel level meter
- 5 "WARNING" light
- 6 Fuel level warning indicator
- 7 Oil level warning indicator
- 8 Engine overheat warning indicator
- 9 Exhaust temperature warning indicator
- 10 Check engine warning indicator
- 11 Select button

ECJ00060

CAUTION:

- Do not run the engine over 4000 r/min when checking the operation of the meter on land without supplying water, otherwise the engine could overheat and the catalytic converter could be seriously damaged.
- Use the specified resistor-type spark plugs and caps, otherwise the meter may function erratically.

NOTE:

- When the engine is started, all displays light up for a few seconds, the buzzer sounds twice, and then the meter starts to operate normally.

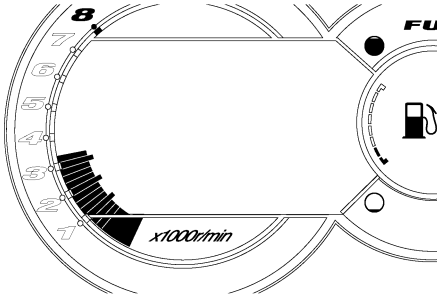
Features and functions

- The current display will continue to operate for 25 seconds after the engine stops.

EJU31460

Tachometer

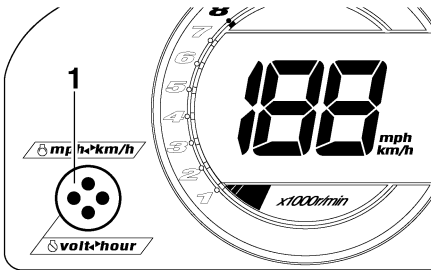
The engine speed (r/min) is displayed by segments. Each segment indicates a 250 r/min increment.



EJU31500

Speedometer

The meter shows the watercraft speed against water.



- 1 Select button

NOTE:

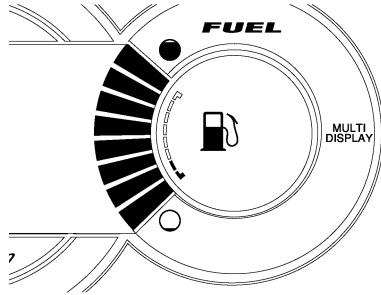
To switch the speedometer display between kilometers and miles, push the select button for at least 1 second, within 10 seconds after the meter is displayed.

EJU31510

Fuel level meter

The fuel level meter is provided for convenient fuel level checking while riding.

The fuel level meter has eight segments which show the amount of fuel remaining in the fuel tank.

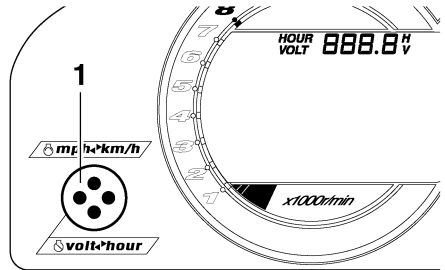


NOTE:

The fuel level is most accurate when the watercraft is sitting level on a trailer or in the water.

EJU31530

Hour meter/voltmeter



- 1 Select button

NOTE:

To switch the display between the hour meter and the voltmeter, push the select button for at least 1 second after the meter is displayed for more than 10 seconds.

Hour meter

The hour meter is provided to make it easy to follow the maintenance schedule.

Features and functions

The meter shows the hours of engine operation that have elapsed since the watercraft was new.

Voltmeter

The voltmeter is provided to display the voltage of the battery.

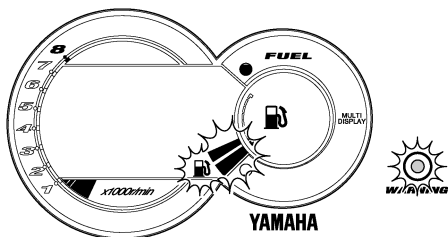
The voltmeter displays 12 volts or more when the battery voltage is within specification.

If the voltage displayed is low, return to shore and, if necessary, have a Yamaha dealer check the charging system and the battery.

EJU31560

Fuel level warning indicator

If the fuel remaining in the fuel tank drops to about 13 L (3.4 US gal, 2.9 Imp gal), the lowest two fuel level segments, the fuel level warning indicator, and the “WARNING” light begin to blink. The buzzer also starts sounding intermittently.



If this occurs, refill the fuel tank as soon as possible.

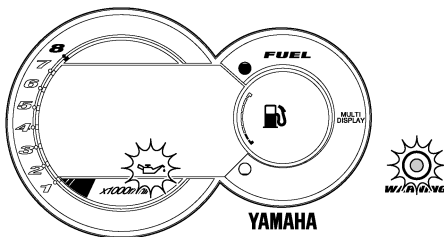
The warning signals will be cleared when the engine is restarted after the fuel tank is refilled.

EJU31570

Oil level warning indicator

If the oil remaining in the oil tank drops to about 1.7 L (0.45 US gal, 0.37 Imp gal) or the oil filter is clogged, the oil level warning indicator and the “WARNING” light begin to blink.

The buzzer also starts sounding intermittently.



If this occurs, refill the oil tank as soon as possible.

The warning signals will be cleared when the engine is restarted after the oil tank is refilled.

NOTE:

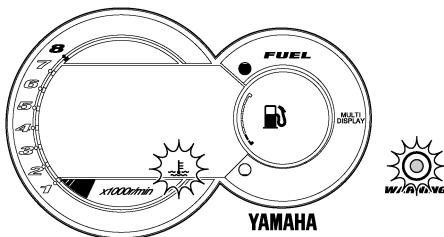
If the oil level warning indicator and the “WARNING” light blink when there is adequate oil in the oil tank, have a Yamaha dealer check the oil filter for dirt and clogs.

EJU31580

Engine overheat warning indicator

This model is equipped with an engine overheat warning system.

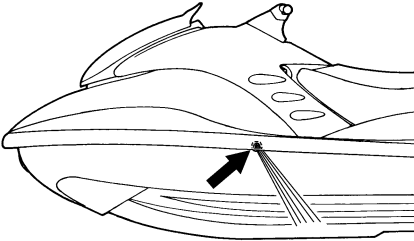
If the engine starts to overheat, the “WARNING” light and the engine overheat warning indicator begin to blink, and the buzzer sounds intermittently.



If this occurs, reduce the engine speed, return to shore, and then check for water discharge

Features and functions

at the cooling water pilot outlet while the engine is running. If there is no discharge of water, shut the engine off, and then check the intake grate and impeller for clogging.

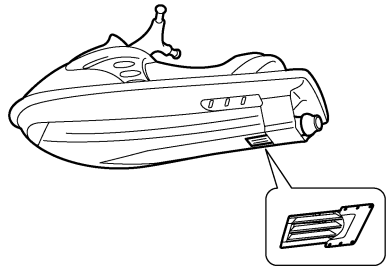
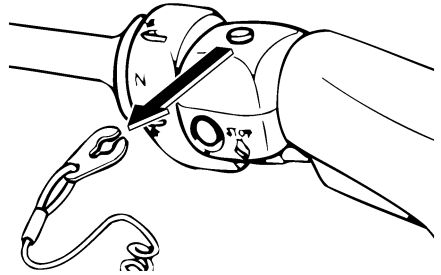


EWJ00050

WARNING

Before attempting to remove weeds or debris from the intake grate or impeller, shut the engine off and remove the clip from the engine shut-off switch. Severe injury or

death could result from coming in contact with the rotating parts of the jet pump.



ECJ00800

CAUTION:

This watercraft is equipped with a catalytic converter.

- If the “WARNING” light, engine overheat warning indicator, and buzzer come on, reduce the engine speed and return to shore. If you ignore these signals, the engine will stop running and cannot be restarted until the exhaust system cools down.
- If you cannot locate and correct the cause of the overheating, consult a Yamaha dealer. Continuing to operate at higher speeds could result in severe engine damage.

If the overheat warning is ignored, engine and exhaust system heat may increase, particularly if the watercraft is operated at higher

Features and functions

speeds. If this occurs, the “WARNING” light and the engine overheat warning indicator come on and the buzzer sounds continuously. In addition, the warning system will cut the ignition to the engine to reduce the risk of severe overheating. The engine cannot be started until it cools down, so it may be necessary to have the watercraft towed back to the shore. (See “Towing the watercraft” on page 78 for towing procedures.)

The warning signals will be cleared when the engine is restarted after it has cooled down.

NOTE:

If multiple warnings occur at the same time, their priority is as follows:

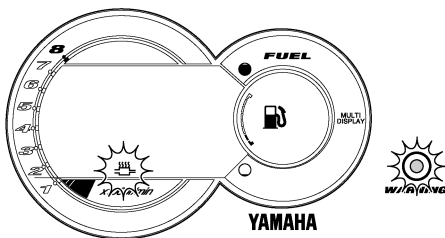
- (1) Final engine overheat warning
- (2) Fuel level warning
- (3) Oil level warning
- (4) Initial engine overheat warning
- (5) Exhaust temperature warning
- (6) Check engine warning

EJU31610

Exhaust temperature warning indicator

This model is equipped with an exhaust temperature warning system.

If the exhaust temperature becomes too hot, the “WARNING” light and the exhaust temperature warning indicator begin to blink, and the buzzer sounds intermittently.



If this occurs, reduce the engine speed and return to shore to allow the exhaust system to cool down.

EWJ00830

WARNING

Do not touch the hot muffler or catalytic converter during or immediately after engine operation; they can cause serious burns. In addition, the catalytic converter becomes hotter after the engine stops before cooling down.

ECJ00810

CAUTION:

This model is equipped with a catalytic converter.

- If the “WARNING” light, exhaust temperature warning indicator, and buzzer come on, reduce the engine speed (below 4000 r/min) and return to shore.
- If you cannot locate and correct the cause of the overheating, consult a Yamaha dealer. Continuing to operate at higher speeds could result in severe engine damage.

The warning signals will be cleared when the engine is restarted after it has cooled down.

EJU31630

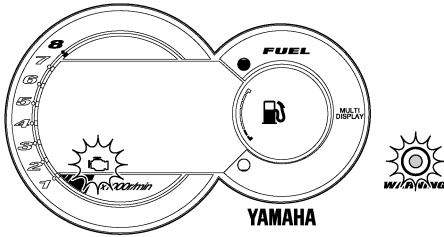
Check engine warning indicator

If a sensor malfunction or a short circuit is detected, the “WARNING” light and the check

Features and functions

engine warning indicator begin to blink, and the buzzer sounds intermittently.

To open the front storage compartment, push the hood latch down, and then lift up the hood.



If this occurs, reduce the engine speed, return to shore, and have a Yamaha dealer check the engine.

EJJU31680

Storage compartments

A front storage compartment and a glove compartment are provided.

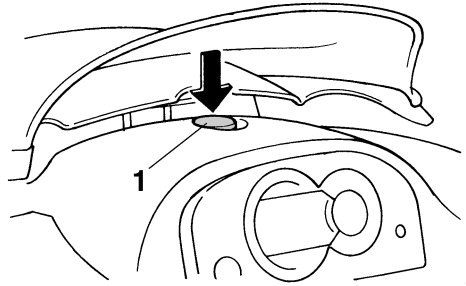
NOTE:

- Make sure that the storage compartments are securely closed before operating the watercraft.
- The storage compartments are not designed to be waterproof. If you carry objects that must be kept dry, such as the manuals, put them in a waterproof bag.

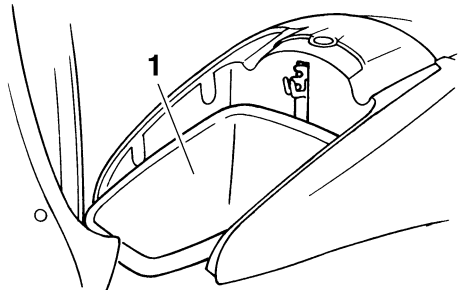
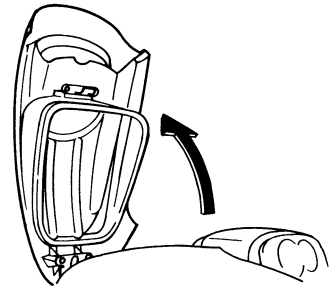
EJJU31701

Front storage compartment

The front storage compartment is located at the bow.



1 Hood latch



1 Front storage compartment

Front storage compartment:

Capacity:

16.0 L (4.2 US gal) (3.5 Imp.gal)

Load limit:

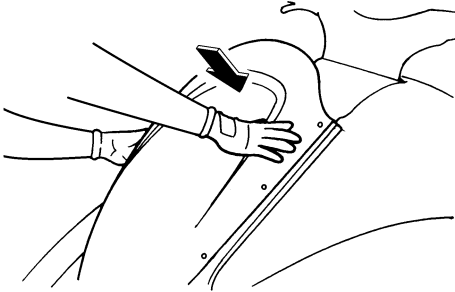
5.0 kg (11 lb)

Features and functions

NOTE:

The front storage compartment can be removed to access the engine compartment.

To close the front storage compartment, push down on the rear of the hood until it latches securely.



NOTE:

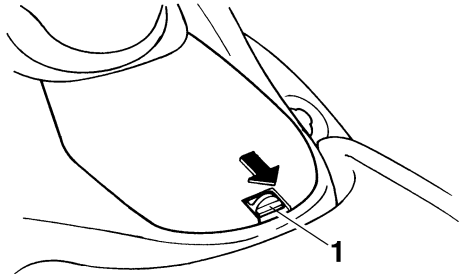
Make sure that the front storage compartment is securely closed before operating the watercraft.

EJU31731

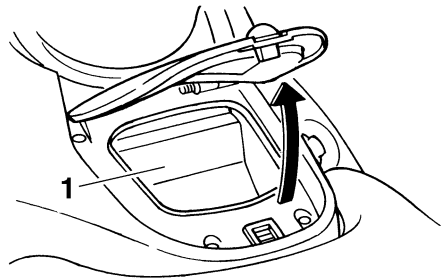
Glove compartment

The glove compartment is located in front of the seat.

To open the glove compartment, slide the glove compartment latch toward you, and then lift up the lid.



1 Glove compartment latch



1 Glove compartment

Glove compartment:

Capacity:

2.0 L (0.5 US gal) (0.4 Imp.gal)

Load limit:

1.0 kg (2 lb)

To close the glove compartment, push the lid down until it latches securely.

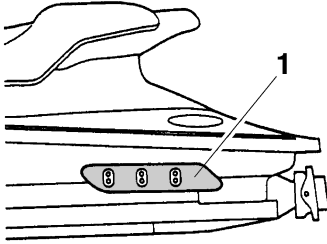
EJU31771

Yamaha Adjustable Sponsons (YAS)

The positions of the Yamaha Adjustable Sponsons are adjustable to allow the operator to enhance either straight-line performance or turning performance according to preference

Features and functions

and the operating conditions. (See page 71 for adjustment procedures.)



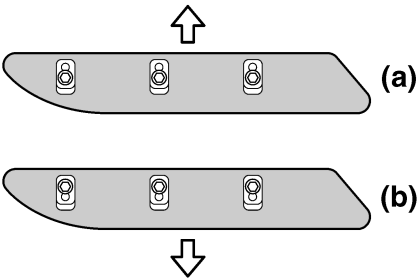
1 Yamaha Adjustable Sponson (YAS)

Up position (a):

There is less water resistance in this position, so straight-ahead acceleration when on plane and top speed are enhanced.

Down position (b):

This position gives the watercraft more “hook”, which enhances turning performance.



Operation

EJU31800

Fuel and oil

This engine uses Yamaha's oil injection system, which provides superior lubrication by ensuring the proper fuel-to-oil ratio for all operating conditions. No fuel premixing is necessary, except during the engine break-in period. Simply pour gasoline into the fuel tank and oil into the oil tank.

The engine utilizes an electronic fuel injection system to deliver the optimal air-fuel ratio required by the engine. By ensuring the optimal combustion conditions, this system is able to increase startability and improve fuel economy.

EJU31850

Gasoline

EWJ00440



GASOLINE AND ITS VAPORS ARE HIGHLY FLAMMABLE AND EXPLOSIVE!

- Do not smoke when refueling, and keep away from sparks, flames, and other sources of ignition.
- Stop the engine before refueling.
- Refuel in a well-ventilated area with the watercraft in a horizontal position.
- Do not stand or sit on the watercraft while refueling in case of fire.
- Take care not to spill gasoline. If gasoline spills, wipe it up immediately with dry rags. Always properly dispose of gasoline-soaked rags.
- Avoid overfilling the fuel tank. Stop filling when the fuel level just reaches the bottom of the filler tube. Do not fill up the filler tube because fuel expands as it warms up and could overflow. If temporarily leaving the watercraft with a full fuel tank, do not leave it in direct sunlight. Leave it in a well-ventilated area

with the watercraft in a horizontal position.

- Tighten the fuel tank filler cap securely after refueling.
- If you should swallow some gasoline, inhale a lot of gasoline vapor, or get gasoline in your eyes, get immediate medical attention.
- If any gasoline spills on your skin or clothing, immediately wash the affected area with soap and water and change your clothes.

ECJ00320

CAUTION:

- Do not use leaded gasoline. Leaded gasoline can seriously damage the catalytic converter.
- Use only fresh gasoline that has been stored in clean containers.

Recommended gasoline:

Regular unleaded gasoline with a minimum octane rating of

86 (Pump octane number) = (R + M)/2

90 (Research octane number)

EJU31860

Gasohol

There are two types of gasohol: gasohol containing ethanol and that containing methanol. Gasohol containing ethanol can be used if ethanol content does not exceed 10% and the fuel meets the minimum octane ratings.

Gasohol containing methanol is not recommended by Yamaha because it can cause fuel system damage and engine performance problems.

EJU31880

2-stroke engine oil

ECJ00270

CAUTION:

Use only YAMALUBE 2-W engine oil, otherwise the catalytic converter and other engine components could be seriously damaged.

Recommended engine oil:
YAMALUBE 2-W

NOTE:

YAMALUBE 2-W engine oil is developed for this watercraft and available from a Yamaha dealer.

EJU31920

Filling the fuel tank

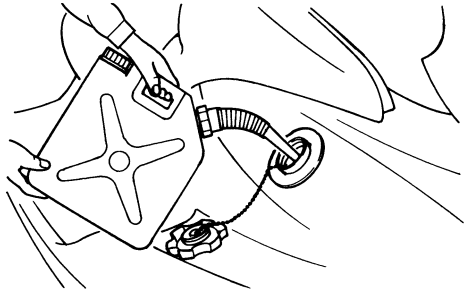
ECJ00290

CAUTION:

Be careful when refueling. Avoid getting water and other contaminants in the fuel tank. Contaminated fuel can cause poor running and engine damage.

- (1) Open the hood, remove the front storage compartment, and then check the fuel level. (See "Front storage compartment" on page 32 for more information.)
- (2) Remove the fuel tank filler cap, and then slowly add fuel to the fuel tank. Stop filling

when the fuel level just reaches the bottom of the filler tube.



- (3) Install the fuel tank filler cap and front storage compartment, and then close the hood.

NOTE:

Do not fill up the filler tube because fuel expands as it warms up and could overflow.

Fuel tank capacity:
60.0 L (15.9 US gal) (13.2 Imp.gal)

EJU31960

Filling the oil tank

EWJ00420

WARNING

- Do not add gasoline to the oil tank. Fire or explosion could result.
- Oil in the bilge is a serious fire hazard. Wipe up any spilled oil immediately.

ECJ00300

CAUTION:

Do not allow the oil tank to become completely empty. If the oil tank becomes empty, the oil pump must be bled to ensure proper oil flow, otherwise engine damage could result. If necessary, have a Yamaha dealer bleed the oil pump.

- (1) Remove the seat to view the oil level. (See page 21 for seat removal and installation procedures.)

Operation

- (2) Remove the oil tank filler cap, and then very slowly add engine oil to the oil tank. Stop filling when the oil level just reaches the top of the oil tank.



Oil tank capacity:
5.5 L (1.45 US gal) (1.21 Imp.gal)

EJU31980

Pre-operation checks

EJU31990

Pre-operation check list

Before operating this watercraft, perform the checks in the following check list. See the accompanying text in this chapter for details on how to perform the checks.

EWJ00410



WARNING

If any item in the pre-operation check list is not working properly, have it inspected and repaired before operating the watercraft, otherwise an accident could occur.

ITEM	ROUTINE	PAGE
BEFORE LAUNCH OR OPERATION		
Engine compartment	Remove the seat and front storage compartment to ventilate the engine compartment. Check for fuel vapors and loose electrical connections.	39
Bilge	Check for water and fuel and drain if necessary.	39
Stern drain plugs	Check for proper installation.	40
Throttle lever	Check that the throttle lever springs back smoothly.	42
Steering system	Check for proper operation.	42
QSTS	Check for proper operation.	42
Fuel and oil	Check the fuel and oil levels and replenish if necessary. Check the hoses and tanks for leakage.	39
Water separator	Check for water and drain if necessary.	39
Battery	Check the electrolyte level and battery condition.	40
Hood	Check that the hood is securely closed.	21
Seat	Check that the seat is securely installed.	21
Hull and deck	Check the hull and deck for cracks and other damage.	39
Jet intake	Check for debris and remove if necessary.	43
Fire extinguisher	Check the condition and replace if necessary.	41
Engine shut-off cord	Check the condition and replace if frayed or broken.	44
Switches	Check the start switch, engine stop switch, and engine shut-off switch for proper operation.	44
AFTER LAUNCH		
Cooling water pilot outlet	Check that water is discharged while the engine is running and the watercraft is in the water.	44
Multifunction information center	Check for warning indications and proper operation.	44

NOTE:

Pre-operation checks should be made each time the watercraft is used. These checks can be completed in a short time. It is worth the time spent to ensure safety and reliability.

Operation

EJU32280

Pre-operation check points

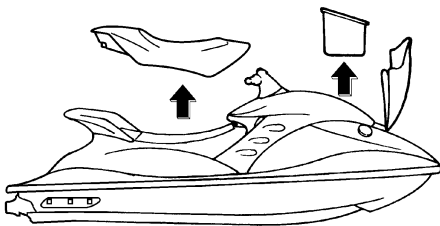
EJU32300

Engine compartment

Ventilate the engine compartment before each use.

To ventilate the engine compartment, remove the seat and front storage compartment. (See “Seat” on page 21 and “Front storage compartment” on page 32 for more information.) Leave the engine compartment open for a few minutes to allow any fuel vapors to escape.

While the engine compartment is open, check for loose electrical connections.



EWJ00460

WARNING

Failure to ventilate the engine compartment could result in a fire or explosion. Do not start the engine if there is a fuel leak or a loose electrical connection.

EJU32350

Hull and deck

Check the hull and deck for cracks and other damage. If any damage is found, have a Yamaha dealer repair the watercraft.

EJU32371

Fuel and oil systems

Check the fuel system for leakage, cracks, and malfunctions before each use. (See page 66 for check points and correct procedures.)

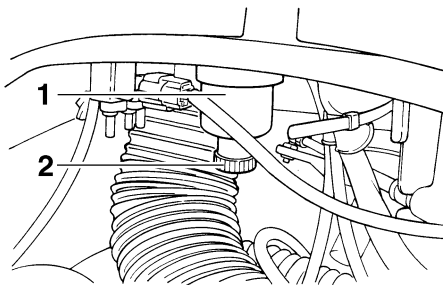
- (1) Remove the fuel tank filler cap to release any pressure that might have built up in the fuel tank.

- (2) Remove the seat and front storage compartment. (See “Seat” on page 21 and “Front storage compartment” on page 32 for more information.)
- (3) Check the fuel and oil levels in the tanks and replenish if necessary. (See page 36 for refueling procedures and page 36 for oil tank filling procedures.)
- (4) Install the fuel tank filler cap, seat, and front storage compartment.

EJU32420

Water separator

Check the water separator for water. The water separator retains any water that may have entered through the fuel tank breather hose if the watercraft was capsized. Normally, the water separator is empty.



- 1 Water separator
- 2 Drain screw

If water remains in the water separator, drain it by removing the drain screw. Place a drain pan under the water separator to catch the draining water or use a dry cloth to soak up any water that could spill into the watercraft. If any water spills into the watercraft, be sure to wipe it up with a dry cloth. Also, be sure to install the drain screw after draining the water separator.

EJU32440

Bilge

Check the bilge for moisture and fuel residue. This watercraft is equipped with a conventional jet vacuum bilge draining system and an

electric bilge draining system. The electric bilge draining system is operated when the engine is running. When excess water reaches the water inlet of the electric bilge pump, the water is discharged via the exhaust passage from the jet thrust nozzle.

A small quantity of water will remain in the bilge and should be drained manually. To drain any residual water, beach the watercraft and perform the following procedure.

To drain water from the bilge:

- (1) Remove the stern drain plugs.
- (2) Raise the bow of the watercraft until the water drains.
- (3) After the water has drained, wipe the bilge with dry rags to make sure that it is thoroughly dry.
- (4) Install the stern drain plugs.

ECJ00360

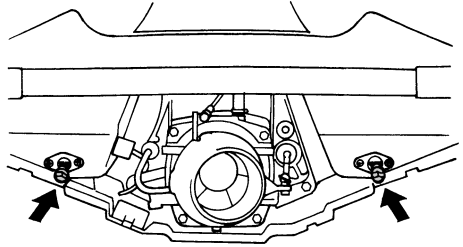
CAUTION:

- Before installing the stern drain plugs, clean the drain plug threads to remove any foreign materials, such as dirt or sand. Otherwise, the stern drain plugs could be damaged, allowing water to enter the engine compartment.
- Make sure that the stern drain plugs are tightened securely before launching the watercraft. Otherwise, water may flood the engine compartment and cause the watercraft to submerge.

EJU32470

Stern drain plugs

Check the stern drain plugs for proper installation.



ECJ00360

CAUTION:

- Before installing the stern drain plugs, clean the drain plug threads to remove any foreign materials, such as dirt or sand. Otherwise, the stern drain plugs could be damaged, allowing water to enter the engine compartment.
- Make sure that the stern drain plugs are tightened securely before launching the watercraft. Otherwise, water may flood the engine compartment and cause the watercraft to submerge.

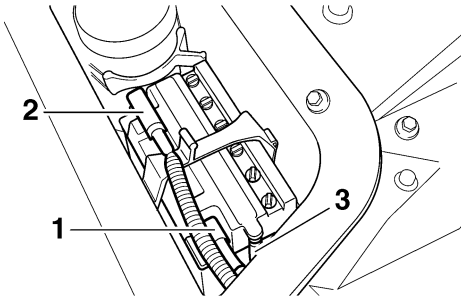
EJU32480

Battery

Check the battery condition and the electrolyte level.

Operation

Check that the battery leads are tightened securely and that there is no corrosion on the battery terminals.



- 1 Positive (+) battery terminal: Red lead
- 2 Negative (-) battery terminal: Black lead
- 3 Breather hose

EWJ00450

WARNING

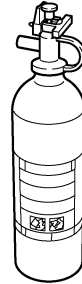
- **The battery must always be fully charged and in good condition. Loss of battery power may leave you stranded. Never operate the watercraft if the battery does not have sufficient power to start the engine or if it shows any other signs of decreased power.**
- **Be sure to connect the breather hose to the battery. Fire or explosion could result if the breather hose is damaged, obstructed, or not connected properly.**

Make sure that the battery is securely held in place.

EJU32520

Fire extinguisher

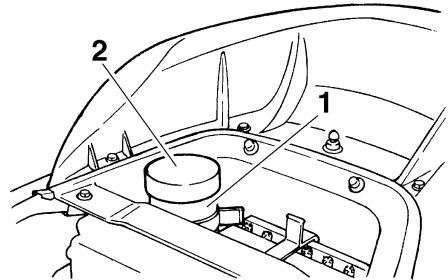
Check that there is a full fire extinguisher on board.



The fire extinguisher container is located in the battery compartment under the seat.

To open the fire extinguisher container, turn the cap counterclockwise.

To close the fire extinguisher container, insert the fire extinguisher into the container, and then install the cap and tighten it securely.



- 1 Fire extinguisher container
- 2 Fire extinguisher container cap

NOTE:

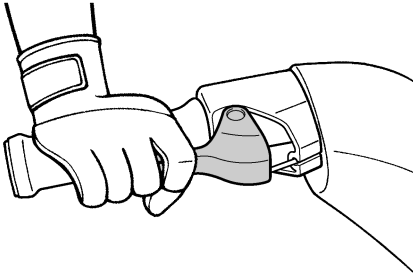
- To check the fire extinguisher, see the instructions supplied by the fire extinguisher manufacturer. Always keep the fire extinguisher in the fire extinguisher container.
- Always carry a fire extinguisher on board. A fire extinguisher is not standard equipment with this watercraft. If you do not have one,

contact a Yamaha dealer or a fire extinguisher dealer to obtain one meeting the proper specifications.

EJU32590

Throttle lever

Check the throttle lever for proper operation. Squeeze and release the throttle lever several times to make sure that there is no hesitation in its travel. It should be smooth over the complete range and spring back to the idle position when released.



EWJ00490

WARNING

Before starting the engine, always check the operation of the throttle lever.

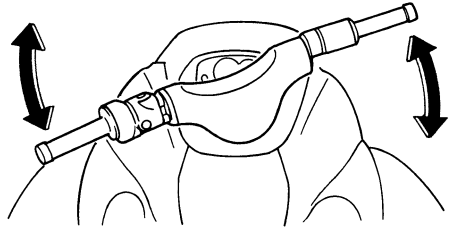
EJU32600

Steering system

Check the handlebars for looseness.

Turn the handlebars as far as possible to the right and left to make sure that operation is smooth and unrestricted throughout the whole range. Also, make sure that the jet thrust nozzle moves as the handlebars are

turned, and that there is no free play between the handlebars and the jet thrust nozzle.

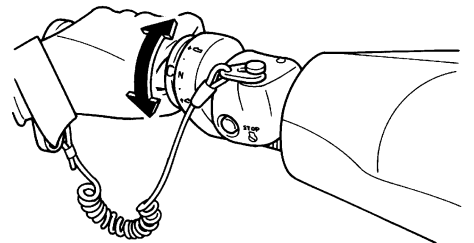
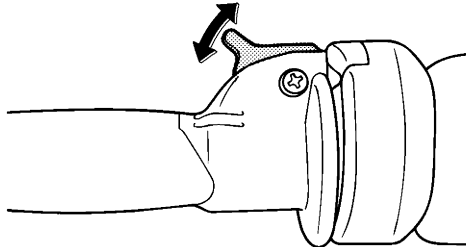


EJU32640

Quick Shift Trim System (QSTS)

Check the QSTS selector lock lever and the QSTS selector for proper operation.

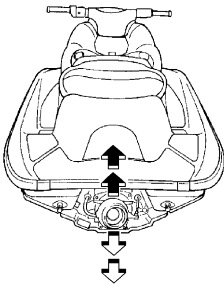
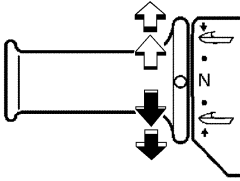
- (1) Operate the QSTS selector lock lever and the QSTS selector to check that they operate properly.



- (2) Check that the QSTS selector locks when the lever is released.

Operation

- (3) Check that the QSTS selector turns smoothly when the lever is squeezed and held in place.
- (4) Check that the angle of the jet thrust nozzle changes when the QSTS selector is shifted from neutral to bow up or bow down.



If the mechanism does not work properly, have a Yamaha dealer service it.

EJU32650

Jet intake

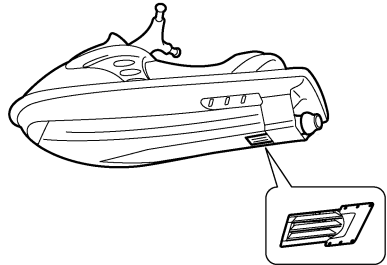
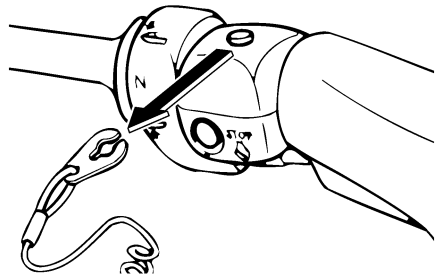
Carefully check the jet intake for weeds, debris, or anything else that might restrict the intake of water. If the jet intake is clogged, cavitation could occur, reducing jet thrust, and possibly damaging the jet pump.

In some cases, the engine may overheat because of lack of cooling water, and damage to the engine could result. Cooling water is fed to the engine by the jet pump. (See page 76 for jet intake cleaning procedures.)

EWJ00470

WARNING

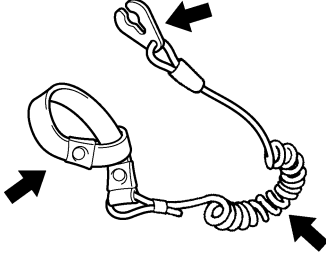
- Keep away from the intake grate while the engine is on. Items such as long hair, loose clothing, or PFD straps can become entangled in moving parts, resulting in severe injury or drowning.
- Stop the engine and remove the clip from the engine shut-off switch before removing any debris or weeds, which may have collected around the jet intake.



EJU32660

Engine shut-off cord

Check that the engine shut-off cord is not frayed or broken. If the cord is damaged, replace it; never try to repair it or tie it together.



EJU32670

Switches

ECJ00410

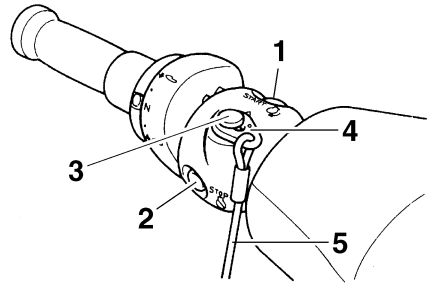
CAUTION:

Do not run the engine for more than 15 seconds when checking the switches on land without supplying water, otherwise the engine could overheat.

Check the start switch, the engine stop switch, and the engine shut-off switch for proper operation.

Push the start switch to start the engine. As soon as the engine starts running, push the engine stop switch to verify that the engine stops immediately. Restart the engine, and then pull the engine shut-off cord to remove the clip from the engine shut-off switch to verify that the engine stops immediately. (See pages 22 to 23 for information on proper op-

eration of the start switch, the engine stop switch, and the engine shut-off switch.)

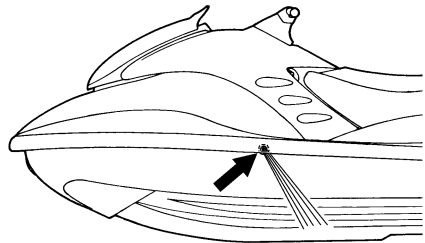


- 1 Start switch
- 2 Engine stop switch
- 3 Engine shut-off switch
- 4 Clip
- 5 Engine shut-off cord

EJU32690

Cooling water pilot outlets

Check that water comes out from the cooling water pilot outlets while the engine is running and the watercraft is in the water.



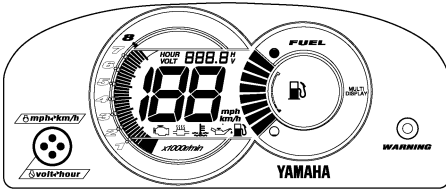
EJU32710

Multifunction information center

Check the multifunction information center for proper operation. (See page 27 for informa-

Operation

tion on proper operation of the multifunction information center.)



EJU32740

Operation

EWJ00510

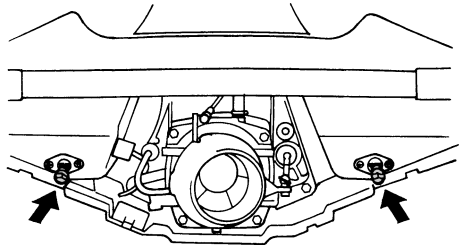
WARNING

Before operating your watercraft, become familiar with all of the controls. Consult a Yamaha dealer about any control or function that you do not fully understand. Failure to understand how the controls work could cause an accident or prevent you from avoiding an accident.

EGJ00460

CAUTION:

Make sure that the stern drain plugs are tightened securely before launching the watercraft.



EJU32760

Engine break-in

The engine break-in period is essential to allow the various components of the engine to wear and polish themselves to the correct operating clearances. This ensures proper performance and promotes longer component life.

EGJ00450

CAUTION:

- For the first tankful of fuel, premix the fuel in a fuel-to-oil ratio of 50:1 (in addition to the oil in the oil tank).
 - After break-in, use straight gasoline for normal operation.
-

- (1) Launch the watercraft and start the engine. (See page 46 for engine starting procedures.)
- (2) Run the engine at trolling speed for 5 minutes.
- (3) Gradually apply throttle and run the engine at 5000 r/min or less.
- (4) Operate the watercraft at 5000 r/min or less for the first tankful of fuel.
- (5) Fill the fuel tank with straight gasoline, and then proceed with normal operation.

ECJ00430

CAUTION:

Failure to follow the engine break-in procedure could result in reduced engine life or even severe engine damage.

EJU32820

Launching the watercraft

When launching the watercraft, make sure that there are no obstacles around you.

After the watercraft is in the water, turn it around so that the bow faces the direction you wish to go. Start the engine, and then slowly move away from the launching area. If there are waves, someone should make sure that the watercraft is not pushed into the trailer after launching the watercraft.

EJU32840

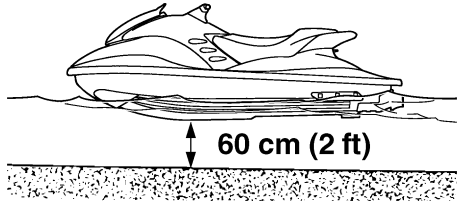
Starting the engine

EWJ00560

WARNING

Never start the engine or let it run for any length of time in an enclosed area. Exhaust fumes contain carbon monoxide, a colorless, odorless gas that may cause loss of consciousness and death within a short time. Always operate the watercraft in an open area.

- (1) Launch the watercraft in water free from weeds and debris and at least 60 cm (2 ft) deep.



EWJ00570

WARNING

Never operate in water that is less than 60 cm (2 ft) deep, otherwise you increase your chance of hitting a submerged object, which could result in injury.

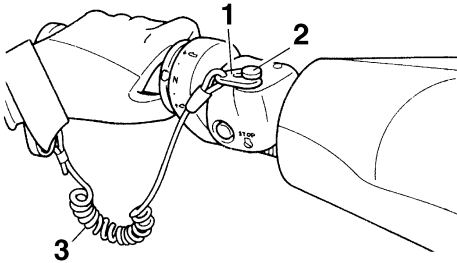
ECJ00470

CAUTION:

Never operate in water that is less than 60 cm (2 ft) deep, otherwise pebbles or sand could be sucked into the jet intake, causing impeller damage and engine overheating.

Operation

- (2) Attach the engine shut-off cord to your left wrist, and then attach the clip to the engine shut-off switch.



- 1 Clip
2 Engine shut-off switch
3 Engine shut-off cord

EWJ00580

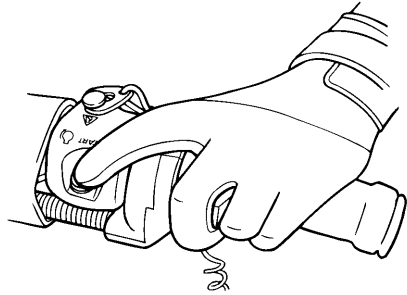
WARNING

Check that the engine shut-off cord is not frayed or broken, and keep it free from the handlebars so that the engine stops if the operator falls off. The engine shut-off cord may not pull free if wrapped around the handlebars when the operator falls off, allowing the watercraft to continue to run and cause an accident.

NOTE:

It is not possible to start the engine with the clip removed from the engine shut-off switch.

- (3) Push the start switch (green button), and then release it as soon as the engine starts to run.



NOTE:

The engine will not start if the throttle lever is squeezed.

EGJ00480

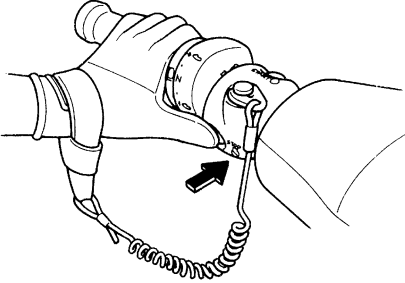
CAUTION:

- Never push the start switch while the engine is running.
 - Do not operate the start switch for more than 5 seconds, otherwise the battery will be discharged and the engine will not start. Also, the starter motor could be damaged. If the engine does not start in 5 seconds, release the start switch, wait 15 seconds, and then try again.
-

EJU32860

Stopping the engine

To stop the engine, release the throttle lever, and then push the engine stop switch (red button).



EWJ00600

WARNING

You need throttle to steer. Shutting the engine off can cause you to hit an obstacle you are attempting to avoid. A collision could result in severe injury or death.

EJU32870

Leaving the watercraft

If leaving the watercraft, remove the engine shut-off cord to reduce the chance of accidental starting or unauthorized use by children or others.

EJU32900

Operating your watercraft

EJU32940

Getting to know your watercraft

Operating your watercraft requires skills acquired through practice over a period of time. Take the time to learn the basic techniques well before attempting more difficult maneuvers.

Operating your new watercraft can be a very enjoyable activity, providing you with hours of pleasure. However, it is essential to familiarize yourself with the operation of the watercraft to achieve the skill level necessary to enjoy riding safely.

Before operating this watercraft, read this owner's/operator's manual, the Riding Practice Guide, and all warning and caution labels on the watercraft. Pay particular attention to the safety information on pages 9. These materials should give you an understanding of the watercraft and its operation.

Remember: This watercraft is designed to carry the operator and 1 passenger. Never exceed the maximum load limit or allow more than 2 persons to ride the watercraft at any time.

<p>Maximum load: 160 kg (353 lb) Load is the total weight of cargo, operator, and passenger.</p>
--

EJU36040

Learning to operate your watercraft

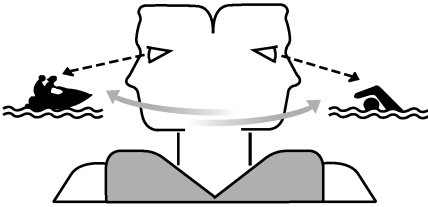
Before operating the watercraft, always perform the pre-operation checks listed on page 38. The short time spent checking the watercraft will reward you with added safety and reliability.

Check local laws before operating your watercraft.

Operate defensively at safe speeds and keep a safe distance away from people, objects,

Operation

and other watercraft. Select a wide area to learn in, where there is good visibility and light boat traffic.



Use the buddy system—operate with someone nearby. Scan constantly for people, objects, and other watercraft. Be alert for conditions that limit your visibility or block your vision of others.

Attach the engine shut-off cord to your left wrist and keep it free from the handlebars so that the engine stops if you, the operator, fall off.

Wear a personal flotation device (PFD). All riders must wear a PFD that is approved by the appropriate authorities and is suitable for personal watercraft use.

Wear protective clothing. Severe internal injuries can occur if water is forced into body cavities as a result of falling into the water or being near the jet thrust nozzle. Normal swimwear does not adequately protect against forceful water entry into the rectum and vagina. All riders must wear a wetsuit bottom or clothing that provides equivalent protection.

Such clothing includes thick, tightly woven, sturdy and snug-fitting apparel such as denim, but does not include spandex or similar fabrics, like those used in bicycle shorts. A full wetsuit can also protect against hypothermia (subnormal body temperature) and abrasions.

Footwear and gloves are recommended.

Eye protection is recommended to keep wind, water, and glare from the sun out of your eyes while you operate your watercraft. Restraining straps for eyewear are made which are designed to float should your eyewear fall in the water.

You should grip the handlebars firmly and keep both feet on the floor of the footwell. Do not attempt to ride with a passenger until your operating skills are fully developed.

EJU33020

Riding with a passenger

When a passenger is on board with the operator, the watercraft handles differently, and is not as easy to maneuver, so operating it requires a higher degree of skill. Before attempting to operate the watercraft with a passenger on board, the operator must practice operating the watercraft alone enough to be able to acquire the necessary skills.

The passenger must always wear a PFD that is approved by the appropriate authorities and a wetsuit bottom or equivalent.

EWJ00520

WARNING

Do not apply throttle when anyone is at the rear of the watercraft. Turn the engine off or keep it at idle. Water and/or debris exiting the jet thrust nozzle can cause severe injury. The passenger should not attempt to board the watercraft if the operator is applying throttle.

Do not give a ride to a child whose feet cannot reach the floor of the footwell. The passenger should hold on firmly to the operator and keep both feet on the floor of the footwell. Never allow a passenger to ride in front of the operator.

EWJ00530

WARNING

When a passenger is on board, make sure that the passenger is holding on firmly and has both feet on the floor of the footwell before you start to accelerate.

EJU33080

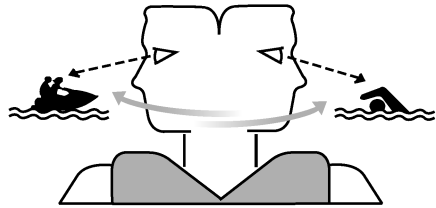
Starting the watercraft

EWJ00710

WARNING

- 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 watercraft 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, watercraft and other boats do not have brakes. Do not release the throttle lever when trying to steer away from objects—you need throttle to steer.

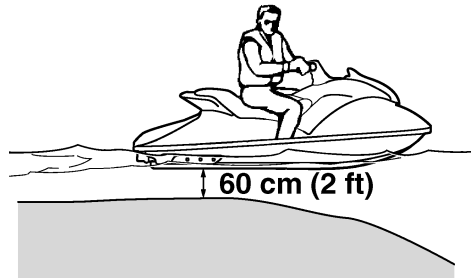
- Practice reboarding in shallow water before riding in deep water.



EJU33090

Boarding and starting in shallow water

- (1) Launch the watercraft in water free from weeds and debris and at least 60 cm (2 ft) deep.



EWJ00640

WARNING

Never operate in water that is less than 60 cm (2 ft) deep, otherwise you increase your chance of hitting a submerged object, which could result in injury.

ECJ00500

CAUTION:

Never operate in water that is less than 60 cm (2 ft) deep, otherwise pebbles or sand could be sucked into the jet intake, causing impeller damage and engine overheating.

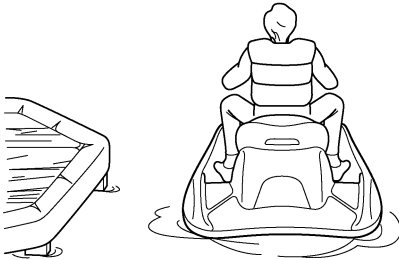
Operation

- (2) Board the watercraft from the side or the rear.
- (3) Attach the engine shut-off cord to your left wrist, and then attach the clip to the engine shut-off switch.
- (4) Grip the handlebars with both hands, place both feet on the floor of the footwell, start the engine, and then look in all directions before starting off.

EJU33110

Boarding and starting from a dock

- (1) Board the watercraft from the side.
- (2) Attach the engine shut-off cord to your left wrist, and then attach the clip to the engine shut-off switch.
- (3) Push the watercraft away from the dock, grip the handlebars with both hands, place both feet on the floor of the footwell, start the engine, and then look in all directions before starting off.



EJU33130

Boarding and starting in deep water

EWJ00620

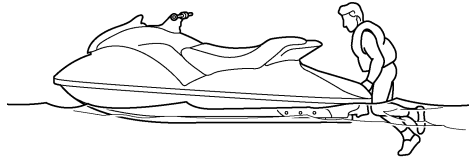
WARNING

- **The operator and passenger should practice boarding in shallow water before riding in deep water. Boarding in deep water requires more skill.**
- **The fatigue and exposure that could result after unsuccessful attempts to get back on the watercraft may increase the risk of injuries and drowning.**

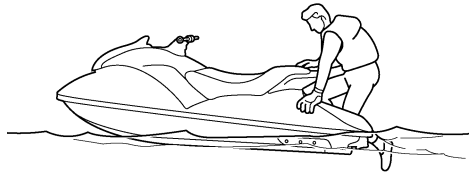
EJU33140

Boarding alone

- (1) Swim to the rear of the watercraft and place both hands on the boarding platform, pull yourself up, and then grasp the handgrip with one hand.

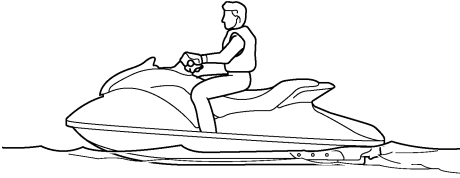


- (2) Pull yourself up to a kneeling position on the platform, and then move to the seat and sit astride.



- (3) Attach the engine shut-off cord to your left wrist, and then attach the clip to the engine shut-off switch.
- (4) Grip the handlebars with both hands, place both feet on the floor of the footwell,

start the engine, and then look in all directions before starting off.



EWJ00610

WARNING

Before starting off, make sure that there are no boats, swimmers, or obstacles around you.

EJU33150

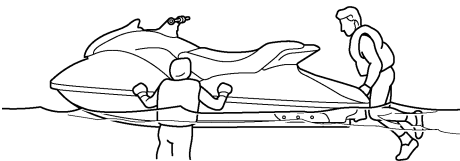
Boarding with a passenger

EWJ00650

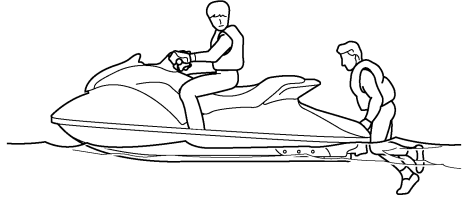
WARNING

Severe internal injuries can occur if water is forced into body cavities as a result of being near the jet thrust nozzle. Do not apply throttle until the passenger is seated with both feet on the floor of the footwell and is securely holding on to the operator.

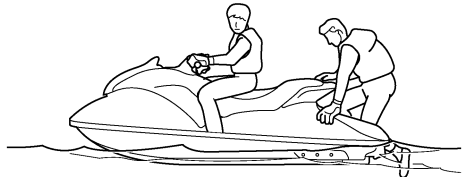
- (1) Climb on board as noted in the previous section, and sit astride the seat.



- (2) Attach the engine shut-off cord to your left wrist, and then attach the clip to the engine shut-off switch.
- (3) Have the passenger move to the rear of the watercraft.



- (4) Have the passenger board and sit astride the seat.

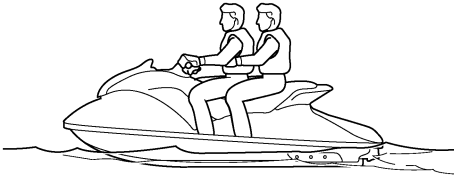


NOTE: When the passenger is boarding, both the passenger and the operator should try to balance the watercraft.

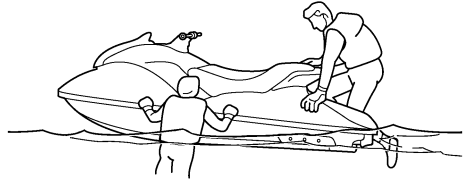
- (5) Check that the passenger has both feet on the floor of the footwell and is securely

Operation

holding on to the operator. Never allow a passenger to ride in front of the operator.



then move to the seat and sit astride to balance the watercraft.



- (6) Start the engine, look in all directions, and then accelerate to planing speed.

EWJ00610

WARNING

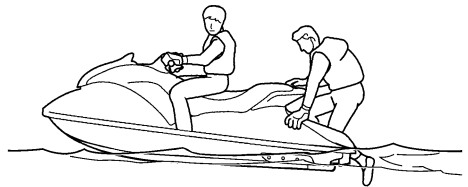
Before starting off, make sure that there are no boats, swimmers, or obstacles around you.

NOTE:

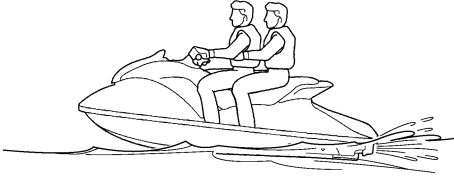
The heavier the total weight of the operator and passenger, the more difficult it will be to balance the watercraft. Do not operate the watercraft when the total weight exceeds 160 kg (353 lb) including any cargo. If it is difficult to balance the watercraft at a standstill, proceed as follows:

- (1) While the passenger is steadying the watercraft, pull yourself up onto the boarding platform into a kneeling position, and

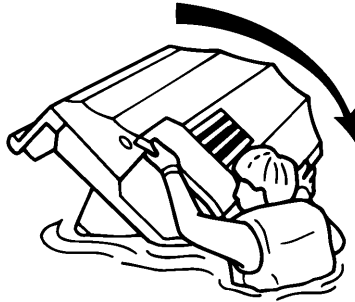
- (2) Attach the engine shut-off cord to your left wrist, and then attach the clip to the engine shut-off switch.
(3) Start the engine and keep it at idle.
(4) Have the passenger pull him or herself up onto the boarding platform into a kneeling position, then crawl onto the seat as the watercraft accelerates.



- (5) Gradually increase the speed to balance the watercraft.



ride plate while pushing down on the gunwale with your right hand or foot.



EJU33210

Capsized watercraft

If the watercraft capsizes, turn it over immediately.

Be sure to carefully follow the procedures below to prevent injury, or damage to the watercraft.

EWJ00670

WARNING

IMPROPER UPRIGHTING CAN CAUSE INJURY:

- Be sure to shut the engine off by pulling on the engine shut-off cord to remove the clip from the engine shut-off switch.
- Do not put your hands in the intake grate.

- (1) Remove the clip from the engine shut-off switch.
- (2) Swim to the rear of the watercraft. Pull the watercraft over with your left hand on the

NOTE: _____

If the port (left) side of the capsized watercraft is tilting up, push down on the gunwale so that the port (left) side is down before turning the watercraft clockwise.

ECJ00540

CAUTION: _____

Do not turn the watercraft over counter-clockwise, otherwise water can enter the engine, which can result in severe damage.

- (3) Start the engine and operate the watercraft to discharge any water remaining in the engine compartment. (If the engine does not start, see "Towing the watercraft" on page 78 or "Submerged watercraft" on page 79.)

Operation

ECJ00550

CAUTION:

Do not operate the engine at full throttle for at least 1 minute after the engine has been restarted. Excessive water in the bilge can splash into the engine, which can result in severe damage.

NOTE:

To efficiently discharge water from the engine compartment, operate the watercraft as straight as possible and above planing speed for at least 2 minutes.

EJU36050

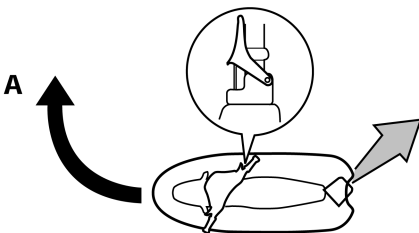
Turning the watercraft

Steering control depends on the combination of handlebar position and the amount of throttle.

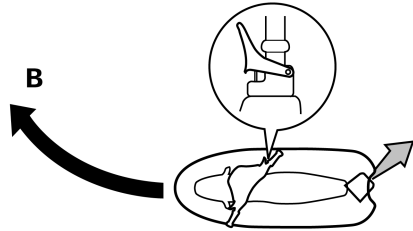
Water sucked in through the intake grate is pressurized by the impeller in the jet pump. As the pressurized water is expelled from the pump through the jet thrust nozzle, it creates thrust to move and steer the watercraft. The higher the engine speed, the more thrust produced.

The amount of jet thrust, in addition to the position of the handlebars, determines how sharply you turn.

A. More throttle produces higher thrust, so the watercraft will turn more sharply.

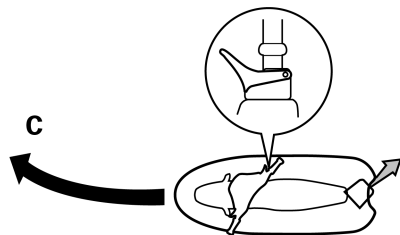


B. Less throttle produces lower thrust, so the watercraft will turn more gradually.

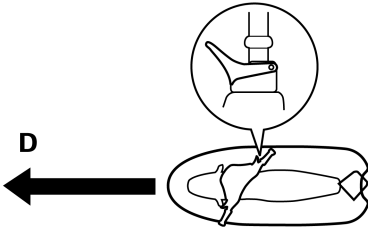


C. Releasing the throttle lever completely produces only minimum thrust. If you are traveling at speeds above trolling, you will have rapidly decreasing ability to steer without throttle. You may still have some turning ability immediately after releasing the throttle lever, but once the engine slows down, the watercraft will no longer respond to handlebar input until you apply throttle again or you reach trolling speed.

At trolling speed, the watercraft can be turned gradually by handlebar position alone using just the amount of thrust available at idle.



- D. If the engine is stopped while riding, there is no thrust. The watercraft will go straight even though the handlebars are turned.



You need throttle to steer.

EWJ01100

! WARNING

- **Do not release the throttle lever when trying to steer away from objects—you need throttle to steer. A collision could result in severe injury or death.**
- **When operating at higher speeds, make gradual turns or slow down before turning. Sharp high-speed turns may cause the watercraft to slide sideways or spin, throwing the operator and passenger overboard, which could cause an injury.**

This model is equipped with the Yamaha Engine Management System (YEMS) that includes an off-throttle steering (OTS) system. It will activate at planing speeds should you attempt to steer the watercraft after releasing the throttle lever (see condition C above).

The OTS system assists in turning by continuing to supply some thrust while the watercraft is decelerating, but you can turn more sharply if you apply throttle while turning the handlebars. The OTS system does not function below planing speeds or when the engine is off. Once the engine slows down, the watercraft will no longer turn in response to handlebar in-

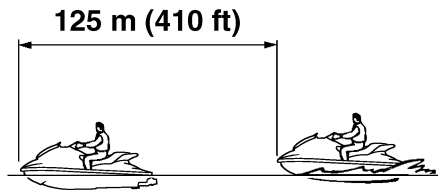
put until you apply throttle again or you reach trolling speed.

EJU35980

Stopping the watercraft

The watercraft is not equipped with a separate braking system. It is stopped by water resistance when the throttle lever is released. From full speed, the watercraft comes to a complete stop in approximately 125 m (410 ft) after the throttle lever is released or the engine is stopped, although this distance will vary depending on many factors, including gross weight, water surface conditions, and wind direction.

The watercraft slows down as soon as the throttle lever is released, but will coast for a distance before fully stopping. If you are not sure you can stop in time before hitting an obstacle, apply throttle and turn in another direction.



EWJ00720

! WARNING

- **Allow adequate stopping distance.**
- **Take early action to avoid collisions. Remember, watercraft and other boats do not have brakes.**
- **Operate defensively at safe speeds and keep a safe distance away from people, objects, and other watercraft to give you time to stop.**
- **Do not shut the engine off when slowing down in case you need engine power to**

Operation

steer away from a boat or other obstacle that comes into your path.

EJU35940

Beaching the watercraft

- (1) Make sure that there are no boats, swimmers, or obstacles near the beach. Release the throttle lever about 125 m (410 ft) before you reach the intended beaching area.
- (2) Approach the beach slowly and stop the engine before reaching land. Remember, you need throttle to steer.
- (3) Get off the watercraft and pull it up on the beach.

ECJ00490

CAUTION:

Small pebbles, sand, seaweed, and other debris can be sucked into the jet intake and impair or damage the impeller. Always stop the engine and get off the watercraft before beaching it.

EJU33310

Docking the watercraft

- (1) Make sure that there are no boats, swimmers, or obstacles near the watercraft. Reduce speed about 125 m (410 ft) away from the dock.
- (2) Slowly approach the dock and stop the engine just before coming alongside it.

EJU33340

Rough water operation

The force of landing after jumping can cause a strong impact on both the watercraft and the operator and passenger. It is possible for the operator to hit his or her chest or jaw on the watercraft or handlebars and be injured. The passenger could also impact the watercraft and be injured.

Do not operate the watercraft with your chin right above the handlebars. In addition, the operator and passenger should keep their feet on the floor of the footwell.

Operating in rough water or jumping waves can also crack the watercraft hull and deck, and damage internal parts. Avoid operating in rough water or bad weather conditions.

EJU33370

Post-operation care

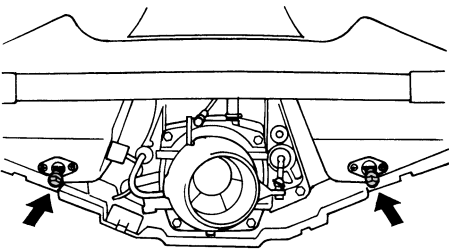
EWJ00680

! WARNING

Do not start the engine on land if anyone is behind the watercraft. Hot water and steam spurting from the exhaust outlet into the air can cause serious burns.

To keep your watercraft in top shape, always take it out of the water after using it and perform the following procedures. Leaving the watercraft in the water for extended periods will accelerate the rate of normal deterioration of the jet unit components and hull finish. Marine organisms and corrosion are some of the conditions that can adversely affect the life of many watercraft components.

- (1) Remove the watercraft from the water.
- (2) Wash down the hull, handlebars, and jet unit with fresh water.
- (3) Remove the seat and check the engine compartment for water. To drain excess water, remove the stern drain plugs, and then raise the bow of the watercraft enough to allow the water in the bilge to drain out.



NOTE:

This watercraft is equipped with a jet vacuum bilge draining system and an electric bilge draining system that remove water from the engine compartment while you are underway.

However, some residual water will remain. (See page 39 for bilge draining procedures.)

- (4) Place the watercraft in a horizontal position.
- (5) Flush the cooling system to prevent it from clogging with salt, sand, or dirt. (See page 60 for flushing procedures.)
- (6) Drain residual water from the exhaust system by running the engine at 4000 r/min for 10 to 15 seconds.

ECJ00600

CAUTION:

Do not run the engine over 4000 r/min on land, otherwise the catalytic converter could be seriously damaged.

- (7) If the watercraft will be stored for a week or more, lubricate internal engine components to help prevent corrosion. (See page 61 for lubrication procedures.)
- (8) Rinse the engine and engine compartment with a small amount of water.

ECJ00570

CAUTION:

Do not use high-pressure water when rinsing the engine or engine compartment as severe engine damage could result.

- (9) Wipe the engine and engine compartment dry with a clean cloth (repeat step 3, if necessary).
- (10) Wipe the hull, handlebars, and jet unit dry with a clean cloth.
- (11) Spray a rust inhibitor on metallic parts to minimize corrosion.

EWJ00690

! WARNING

Do not spray flammable rust inhibitor products on engine surfaces while the engine is hot. The sprayed substance or propellants could catch fire.

Operation

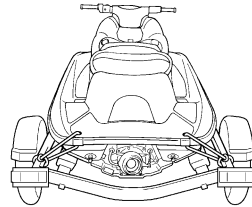
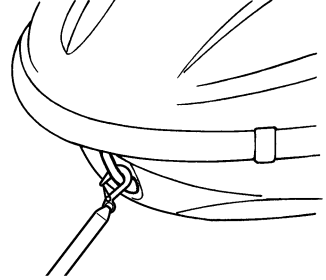
(12) Allow the engine compartment to air dry completely before installing the seat.

NOTE: _____
Cover the watercraft after the engine and catalytic converter have cooled down.

EJU33430

Transporting

When transporting the watercraft on a trailer, secure the tie downs to the trailer through the bow eye and stern rope holes.



ECJ00610

CAUTION: _____

Do not route ropes or tie downs over the seat, as they may leave permanent marks on the seat's surface. Also, wrap the ropes or tie downs with towels or rags where they touch the body of the watercraft to avoid scratching or damage.

EJU33490

Storage

EWJ00330

WARNING

Always place the watercraft upright in a horizontal position when storing it, otherwise fuel could leak out into the engine or engine compartment, which could create a fire hazard.

Storage for long periods of time, such as winter storage, requires preventive maintenance to ensure against deterioration. It is advisable to have the watercraft serviced by a Yamaha dealer prior to storage. However, the following procedures can be performed by the owner.

EJU33520

Flushing the cooling system

Flushing the cooling system is essential to prevent it from clogging with salt, sand, or dirt.

EWJ00270

WARNING

Do not start the engine on land if anyone is behind the watercraft. Hot water and steam spurting from the exhaust outlet into the air can cause serious burns.

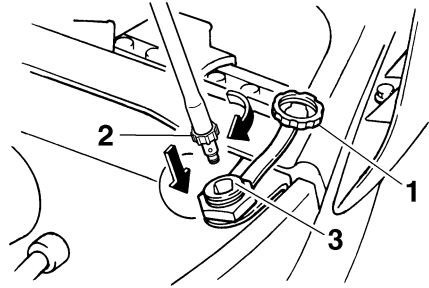
ECJ00130

CAUTION:

- Do not supply water to the cooling water passages when the engine is not running. The water could flow back through the muffler into the crankcase, causing severe engine damage.
- Do not run the engine for more than 15 seconds on land without supplying water, otherwise the engine could overheat.
- Do not run the engine over 4000 r/min on land, otherwise the catalytic converter could be seriously damaged.

(1) Remove the watercraft from the water and place it in a horizontal position.

- (2) Remove the flushing hose connector cap, and then insert the garden hose adapter into the flushing hose connector and turn it until it is securely connected.



- 1 Flushing hose connector cap
2 Garden hose adapter
3 Flushing hose connector

- (3) Connect the garden hose adapter to a water tap using a garden hose.

NOTE:

A garden hose is not included and must be purchased separately.

- (4) Start the engine, and then immediately turn the water supply on until water flows out continually from the cooling water pilot outlet.
- (5) Run the engine at idling speed for about 3 minutes watching the engine condition. If the engine stops while flushing, turn the water supply off immediately and repeat the above steps.
- (6) Turn the water supply off, and then force the remaining water out of the cooling water passages by running the engine at 4000 r/min or less for 10 to 15 seconds.
- (7) Stop the engine.
- (8) Remove the garden hose adapter and install the flushing hose connector cap.

Maintenance and care

EJU33580

Lubrication

EWJ00260

WARNING

Do not spray flammable rust inhibitor products on engine surfaces while the engine is hot. The sprayed substance or propellants could catch fire.

- (1) Remove the spark plugs and pour approximately one tablespoon of engine oil into each cylinder.
- (2) Grease the spark plug threads and reinstall the spark plugs.
- (3) With the spark plug caps removed from the spark plugs, crank the engine for 3 seconds or less using the start switch.
- (4) Lubricate all cables such as the throttle and steering cables.

NOTE:

Use a suitable marine grease applicator to pressure-lubricate the cables and purge out any moisture between the inner and outer cables.

- (5) Lubricate the areas of the watercraft specified in "Lubrication points" on page 68.

EJU33651

Fuel system

EWJ00290

WARNING

GASOLINE AND ITS VAPORS ARE HIGHLY FLAMMABLE AND EXPLOSIVE!

- **Do not smoke when refueling, and keep away from sparks, flames, and other sources of ignition.**
- **Stop the engine before refueling.**
- **Refuel in a well-ventilated area with the watercraft in a horizontal position.**
- **Do not stand or sit on the watercraft while refueling in case of fire.**

- **Take care not to spill gasoline. If gasoline spills, wipe it up immediately with dry rags. Always properly dispose of gasoline-soaked rags.**
 - **Avoid overfilling the fuel tank. Stop filling when the fuel level just reaches the bottom of the filler tube. Do not fill up the filler tube because fuel expands as it warms up and could overflow. If temporarily leaving the watercraft with a full fuel tank, do not leave it in direct sunlight. Leave it in a well-ventilated area with the watercraft in a horizontal position.**
 - **Tighten the fuel tank filler cap securely after refueling.**
 - **If you should swallow some gasoline, inhale a lot of gasoline vapor, or get gasoline in your eyes, get immediate medical attention.**
 - **If any gasoline spills on your skin or clothing, immediately wash the affected area with soap and water and change your clothes.**
-

Top off the fuel tank with fresh gasoline and add 470 ml (15.9 US oz, 16.5 Imp oz) of Yamaha Fuel Stabilizer and Conditioner.

ECJ00140

CAUTION:

Use only Yamaha Fuel Stabilizer and Conditioner, otherwise the catalytic converter could be seriously damaged.

EJU33680

Battery

If the watercraft will not be used for more than a month, remove the battery from the watercraft and store it in a cool, dry place.

- (1) Disconnect the negative (–) battery lead first, then the positive (+) battery lead and breather hose, and then remove the battery from the watercraft.

Maintenance and care

- (2) Clean the battery casing using fresh water.
 - (3) If the battery terminals are dirty or corroded, clean them with a wire brush.
 - (4) Fully charge the battery.
 - (5) Apply Yamaha Marine Grease or Yamaha Grease A to the battery terminals, and then store the battery in a cool, dry place.
 - (6) Check the battery at least once every 2 months and fully charge it if necessary.
- (1) Wash down the hull, handlebars, and jet unit with fresh water.
 - (2) Rinse the engine and bilge area with fresh water. Drain all of the water and wipe up any remaining moisture with clean, dry rags.

ECJ00100

CAUTION:

Always keep the battery charged. Storing a discharged battery can cause permanent battery damage.

To check the condition of the battery, check the specific gravity of the electrolyte or measure the voltage at both battery terminals. Charge the battery if the voltage is less than 12 volts.

Specific gravity (for reference): 1.28 at 20 °C (68 °F)
--

It is recommended to have a Yamaha dealer check the specific gravity and charge the battery. If you maintain the battery yourself, be sure to read and follow the instructions provided with the battery tester and charger you use.

EJU33720

Cleaning the watercraft

Clean the watercraft before storing it for a long period.

EWJ00260



WARNING

Do not spray flammable rust inhibitor products on engine surfaces while the engine is hot. The sprayed substance or propellants could catch fire.

ECJ00110

CAUTION:

Do not use high-pressure water when rinsing the engine and bilge area as severe engine damage could result.

- (3) Spray the engine's exterior with a rust inhibitor and lubricant.
- (4) Wax the hull with a non-abrasive wax.
- (5) Wipe all vinyl and rubber components, such as the seat and engine compartment seals, with a vinyl protectant.

Maintenance and care

EJU33761

Maintenance and adjustments

Periodic inspection, adjustment, and lubrication will keep your watercraft in the safest and most efficient condition possible. Safety is an obligation of the watercraft owner. Proper maintenance must be carried out to keep the exhaust emission and sound levels within the regulated limits. The most important points of watercraft inspection, adjustment, and lubrication are explained on the following pages. See a Yamaha dealer for genuine Yamaha replacement parts and optional accessories designed for your watercraft.

Remember, failures that are the result of the installation of parts or accessories which are not qualitatively equivalent to genuine Yamaha parts are not covered by the limited warranty.

Maintenance, replacement, or repair of the emission control devices and system may be performed by any marine SI engine repair establishment or individual. Warranty repair, however, must be performed at an authorized Yamaha marine dealership.

EWJ00310

WARNING

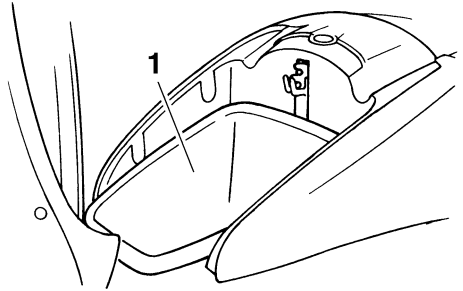
- **Be sure to shut the engine off when you perform maintenance unless otherwise specified, otherwise an accident or injury could result from unexpected operation, moving parts, or electric shock. If the owner is not familiar with watercraft servicing, this work should be done by a Yamaha dealer. Improperly serviced components could fail or stop operating correctly, which could result in an accident.**
- **Modifications to this watercraft not approved by Yamaha may cause loss of performance or excessive noise and exhaust emissions, or render it unsafe for**

use. Consult a Yamaha dealer before attempting any modifications.

EJU33810

Owner's/operator's manual and tool kit

It is advisable to always carry the owner's/operator's manual and tool kit with you whenever you use the watercraft. For your convenience, a storage compartment is provided on the watercraft for the manual and tool kit.



1 Storage compartment

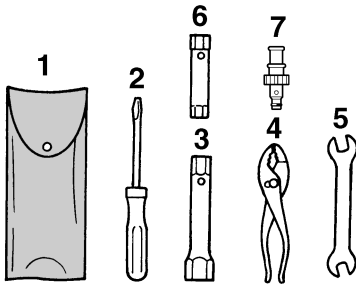
NOTE:

To protect these materials from water damage, it would be a good idea to put them in a waterproof bag.

The service information included in this manual is intended to provide you, the owner, with the necessary information for completing your own preventive maintenance and minor repairs. The tools provided in the tool kit are sufficient for this purpose, except that a torque

Maintenance and care

wrench may also be necessary to tighten nuts and bolts.



- 1 Tool bag
- 2 Screwdriver
- 3 14/21 mm box wrench
- 4 Pliers
- 5 Open-end wrench
- 6 10/12 mm box wrench
- 7 Garden hose adapter

Maintenance and care

EJU33820

Periodic maintenance chart

The following chart gives general guidelines for periodic maintenance. However, maintenance may need to be performed more frequently depending on your operating conditions.

This “●” mark indicates maintenance that you may do yourself.

This “○” mark indicates work to be done by a Yamaha dealer.

Item	Operation	Initial			Thereafter every		Page
		10 hours	50 hours	100 hours	100 hours	200 hours	
			6 months	12 months	12 months	24 months	
Spark plugs	Check, clean, adjust	●	●	●	●		67
Lubrication points	Lubricate			●/○	●/○		68
Intermediate housing	Lubricate	○		●	●		68
Fuel system	Check			○	○		66
Fuel tank	Check, clean			●/○	●/○		66
Oil injection system	Check, clean	○				○	66
Throttle shaft	Check			○	○		—
Cooling water passages	Flush	●*					60
Water inlet strainer	Check, clean			○	○		—
Bilge strainer	Clean			○	○		—
Electric bilge pump strainer	Check, clean			○	○		—
Impeller	Check			○	○		—
Jet thrust nozzle angle	Check, adjust			●/○	●/○		66
QSTS mechanism	Check, adjust	○		○	○		—
Throttle cable	Check, adjust	○		●	●		67
Stern drain plugs	Check, replace			○	○		40
Battery	Check, charge			●/○	●/○		69
Rubber coupling	Check					○	—
Engine mount	Check					○	—
Nuts and bolts	Check	○		○	○		—

* This operation should be performed after every use.

EJU34210

Checking the fuel system

EWJ00380

WARNING

Gasoline is highly flammable and explosive. Failure to check for and repair any fuel leakage could result in a fire or explosion. A fire or explosion can cause severe injury or death. Shut the engine off. Do not smoke. Avoid spilling gasoline.

Fuel in the fuel lines is pressurized.

Fuel can spray out and cause injury or a fire hazard if a fuel line is disconnected.

Do not run the engine with a fuel line disconnected.

Check the fuel system for leaks, cracks, and malfunctions. If any problem is found, consult a Yamaha dealer.

Check:

- Fuel tank filler cap and seal for damage.
- Fuel in fuel tank for water and dirt.
- Fuel tank for damage, cracks, and leakage.
- Fuel hoses and joints for damage, cracks, and leakage.
- Air bleeding passages for leakage.

EJU34230

Fuel tank

Check the fuel tank for leakage and for water in the tank. If water is found in the fuel system, or if the fuel tank needs to be cleaned, have a Yamaha dealer service the watercraft.

EJU34240

Checking the oil injection system

Check the oil injection system for leakage, cracks, and malfunctions. Have a Yamaha dealer repair the oil injection system if necessary.

Check:

- Oil tank for damage, cracks, and leakage.
- Oil in the oil tank for water and dirt.
- Oil hoses and joints for damage, cracks, and leakage.
- Oil filter for dirt.
- Oil pump for leakage.

EJU34250

Oil tank

Check the oil tank for leakage and for water in the tank. If water is found in the oil injection system, or if the oil tank needs to be cleaned, have a Yamaha dealer service the watercraft.

EJU34260

Oil filter

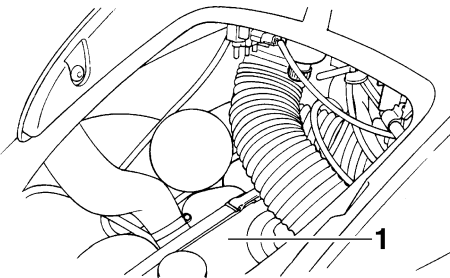
Have a Yamaha dealer check the oil filter for dirt and clogs.

EJU34320

Checking the jet thrust nozzle angle

Check the handlebars and jet thrust nozzle for smooth operation.

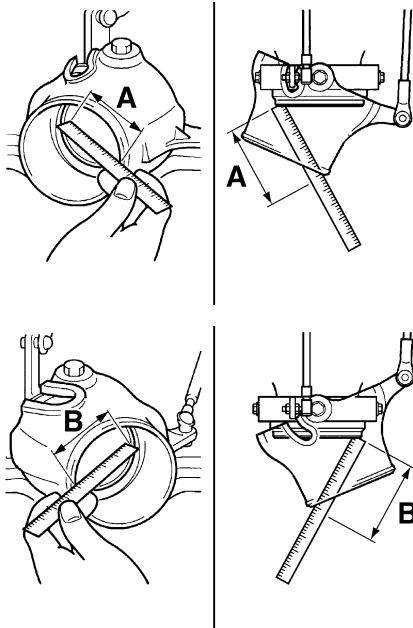
Turn the handlebars as far as possible to the right and left and check that the difference of distances A and B between the jet thrust nozzle and the nozzle is within specification.



1 Fuel tank

Maintenance and care

Difference of A and B:
Maximum 5 mm (0.20 in)



If the steering is stiff or misadjusted, have a Yamaha dealer service it.

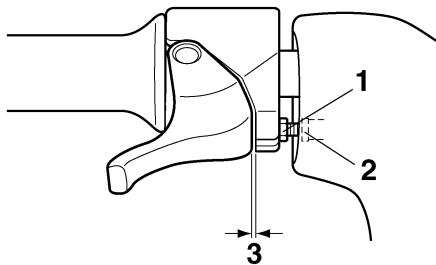
EJU34360

Checking and adjusting the throttle cable

Check that the throttle cable moves back to the set position smoothly and that the throttle lever free play is within specification.

- (1) Squeeze and release the throttle lever. If the throttle lever does not return smoothly, have a Yamaha dealer service it.

- (2) Adjust the free play by loosening the locknut and turning the adjuster.



- 1 Locknut
- 2 Adjuster
- 3 Throttle lever free play

Throttle lever free play:
4.0–7.0 mm (0.16–0.28 in)

EJU34371

Cleaning and adjusting the spark plugs

EWJ00350



WARNING

Be careful not to damage the insulator when removing or installing a spark plug. A damaged insulator could allow sparks to escape, which could result in a fire or explosion.

The spark plug is an important engine component and is easy to inspect. The condition of the spark plug can indicate something about the condition of the engine. For example, if the center electrode porcelain is very white, this could indicate an intake air leak or carburetion problem in that cylinder. Do not attempt to diagnose any problems yourself. Have a Yamaha dealer service the watercraft.

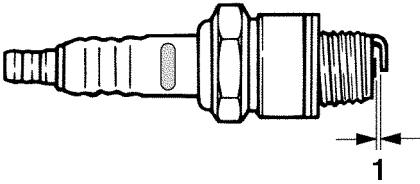
Remove and inspect the spark plugs periodically; heat and deposits will cause the spark plugs to slowly break down and erode. If electrode erosion becomes excessive, or if carbon

Maintenance and care

and other deposits are excessive, replace the spark plug with the specified plug.

Specified spark plug:
BR8ES-11

Measure the spark plug gap with a wire thickness gauge. Replace the spark plugs or adjust the gap to specification if necessary.



1 Spark plug gap

Spark plug gap:
1.0–1.1 mm (0.039–0.043 in)

To install a spark plug:

- (1) Clean the gasket surface.
- (2) Wipe any dirt from the threads of the spark plug.
- (3) Install the spark plug, and then tighten it to the specified torque.

Spark plug tightening torque:
25.0 Nm (18.4 ft-lb) (2.55 kgf-m)

- (4) Install the spark plug cap.

NOTE:

- Wipe off any water on the spark plug or inside the spark plug cap before installing the cap. Push the spark plug cap down until it is securely installed.
- If a torque wrench is not available when you are installing a spark plug, a good estimate of the correct torque is 1/4 turn to 1/2 turn

past finger tight using the spark plug wrench included in the tool kit. Have the spark plug adjusted to the correct torque with a torque wrench as soon as possible.

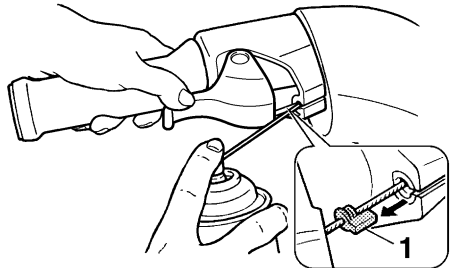
EJU34410

Lubrication points

To keep moving parts sliding or rotating smoothly, coat them with water-resistant grease.

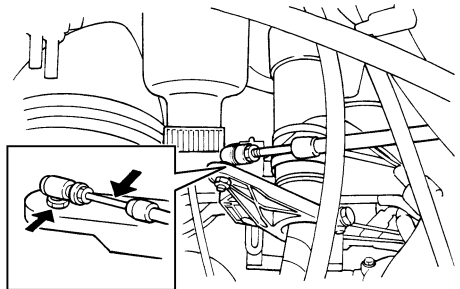
Recommended water-resistant grease:
Yamaha Marine Grease/Yamaha Grease A

- Throttle cable (handlebar end)
Squeeze the throttle lever and remove the seal. Spray a rust inhibitor into the outer cable. Refit the seal securely.



1 Seal

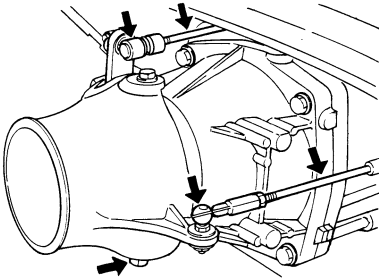
- Steering cable (handlebar end)



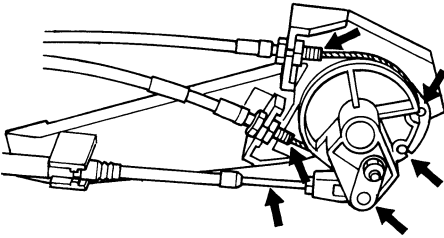
- Steering cable (jet thrust nozzle end)
- Jet thrust nozzle pivot shaft

Maintenance and care

- QSTS cable (jet thrust nozzle end)

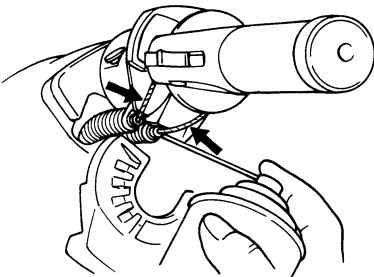


- QSTS cables (pulley end)



- QSTS cables (handlebar end)

Remove the QSTS cable housing. Spray a rust inhibitor into the outer cables. Reinstall the QSTS cable housing.



- Intermediate housing

Fill the intermediate housing with water-resistant grease through the grease nipple using a grease gun.

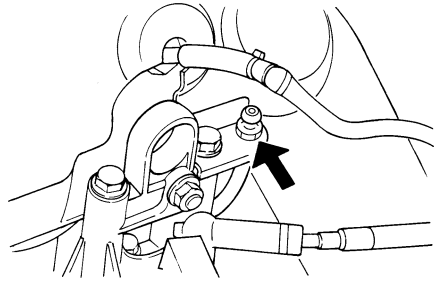
Grease quantity:

Initial 10 hours or 1 month:

33.0–35.0 cm³ (1.12–1.18 US oz)
(1.16–1.23 Imp.oz)

Every 100 hours or 12 months:

6.0–8.0 cm³ (0.20–0.27 US oz)
(0.21–0.28 Imp.oz)



EJU34450

Checking the battery

Check the level of the battery electrolyte and make sure that the negative (–) and positive (+) battery leads are tightened securely.

EWJ00790

⚠ WARNING

Battery electrolyte is poisonous and dangerous, causing severe burns, etc. Electrolyte contains sulfuric acid. Avoid contact with skin, eyes, or clothing.

Antidotes

External: Flush with water.

Internal: Drink large quantities of water or milk. Follow with milk of magnesia, beaten egg, or vegetable oil. Call a physician immediately.

Eyes: Flush with water for 15 minutes and get prompt medical attention.

Batteries produce explosive gases. Keep sparks, flames, cigarettes, etc., well away. If using or charging the battery in an enclosed space, make sure that it is well ventilated. Always shield your eyes when working near batteries.

Maintenance and care

KEEP OUT OF THE REACH OF CHILDREN.

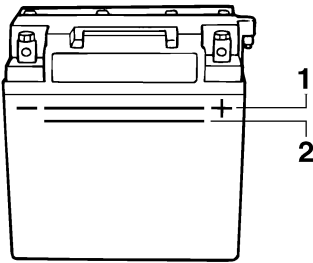
ECJ00230

CAUTION:

- Be careful not to place the battery on its side.
- Be sure to remove the battery from the battery compartment when adding electrolyte or charging the battery.

To replenish the battery:

- (1) Make sure that the electrolyte level is between the maximum and minimum level marks.



- 1 Maximum level mark
- 2 Minimum level mark

- (2) Refill the battery with distilled water if necessary.

ECJ00240

CAUTION:

Normal tap water contains minerals that are harmful to a battery. Use only distilled water for replenishing the battery.

To recharge the battery:

ECJ00250

CAUTION:

Do not attempt to charge a battery hastily. Battery life could be shortened.

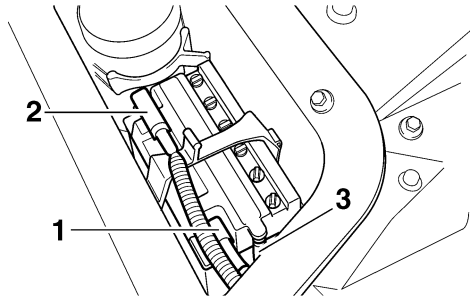
It is recommended to have a Yamaha dealer charge the battery. If you charge the battery yourself, carefully read the battery charger in-

structions before charging and follow the points below.

- (1) Remove all of the battery caps.
- (2) If the electrolyte level is low, add distilled water to raise it to the specified level.
- (3) Set the charging rate to 1.9 ampere and charge the battery slowly until the explosive gases are discharged vigorously from the battery cells.

To install the battery:

- (1) Place the battery in the battery compartment and connect the battery leads to the battery terminals.
- (2) Connect the breather hose to the battery.
- (3) Secure the battery in place.



- 1 Positive (+) battery terminal: Red lead
- 2 Negative (-) battery terminal: Black lead
- 3 Breather hose

EWJ00400

WARNING

Be sure to connect the breather hose to the battery. Fire or explosion could result if the breather hose is damaged, obstructed, or not connected properly.

ECJ00260

CAUTION:

After installation, make sure that the battery leads are properly connected to the battery terminals.

Maintenance and care

EJU34490

Fuel injection system

The fuel injection system was set at the Yamaha factory. If the fuel injection system needs to be adjusted, have a Yamaha dealer service the watercraft.

ECJ00220

CAUTION:

Do not attempt to adjust the fuel injection system. If the settings are disturbed by someone who does not have the necessary technical knowledge, poor engine performance and damage may result.

EJU34500

Checking the trolling speed

- (1) Place the watercraft in the water.
- (2) Start the engine and warm it up. Use the tachometer in the multifunction information center to check the trolling speed.

Trolling speed:
1350 ±100 r/min

If the trolling speed is out of specification, have a Yamaha dealer service the watercraft.

EJU34520

Bleeding the oil pump

If the oil tank becomes completely empty, or any hose connected to the oil pump has been disconnected, the oil pump must be bled to ensure proper oil flow.

If necessary, have a Yamaha dealer bleed the oil pump.

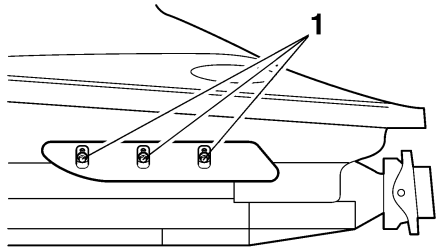
EJU36190

Adjusting the Yamaha Adjustable Sponsons (YAS)

The Yamaha Adjustable Sponsons can be adjusted to two positions to enhance watercraft performance according to operator preference and operating conditions. (See page 33 for an explanation of the positions.)

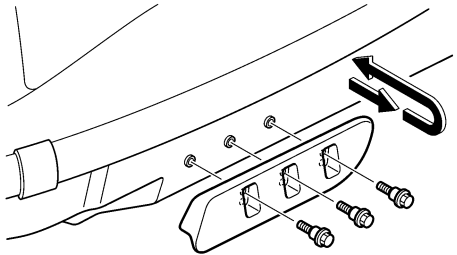
To adjust the YAS:

- (1) Remove the bolts on both sponsons.



1 Bolt

- (2) Remove the sponsons, and then install them in the desired position.



NOTE:

Be sure to install both sponsons in the same position.

- (3) Tighten the sponson bolts to the specified torque.

Sponson bolt tightening torque:
18.0 Nm (13.3 ft-lb) (1.84 kgf-m)

EJU34540

Specifications

Watercraft capacity:

Maximum people on board:

2 person

Maximum load capacity:

160 kg (353 lb)

Dimensions:

Length:

2930 mm (115.4 in)

Width:

1150 mm (45.3 in)

Height:

1020 mm (40.2 in)

Dry weight:

297 kg (655 lb)

Performance:

Maximum output (according to ISO 8665/SAE

J1228):

114.7 kW@7000 r/min

Maximum fuel consumption:

57.0 L/h (15.1 US gal/h) (12.5 Imp.gal/h)

Cruising range at full throttle:

1.05 hour

Trolling speed:

1350 ±100 r/min

Engine:

Engine type:

2-stroke

Number of cylinders:

3

Engine displacement:

1297.0 cm³

Bore & stroke:

84.0 × 78.0 mm (3.31 × 3.07 in)

Compression ratio:

5.90 :1

Lubrication system:

Oil injection

Cooling system:

Water

Starting system:

Electric

Ignition system:

Digital C.D.I.

Spark plug:

BR8ES-11

Spark plug gap:

1.0–1.1 mm (0.039–0.043 in)

Battery capacity:

12 V19.0 Ah

Charging system:

Flywheel magneto

Drive unit:

Propulsion system:

Jet pump

Jet pump type:

Axial flow, single stage

Impeller rotation:

Counterclockwise

Jet thrust nozzle angle:

23.0 °+23.0 °

Jet thrust nozzle trim angle:

-10 °, -5 °, 0 °, 5 °, 10 °

Fuel and oil:

Recommended fuel:

Regular unleaded gasoline

Minimum octane rating (PON):

86

Minimum octane rating (RON):

90

Recommended engine oil:

YAMALUBE 2-W

Fuel tank total capacity:

60.0 L (15.9 US gal) (13.2 Imp.gal)

Engine oil tank capacity:

5.5 L (1.45 US gal) (1.21 Imp.gal)

Trouble recovery

EJU34560

Troubleshooting

If you have any trouble with your watercraft, use this section to check for the possible cause. If you cannot find the cause, or if the procedure for replacement or repair is not described in this owner's/operator's manual, have a Yamaha dealer perform the necessary service.

EJU34580

Troubleshooting chart

TROUBLE	POSSIBLE CAUSE		REMEDY	PAGE
Engine does not start (Starter motor does not turn over)	Engine shut-off switch	Clip not in place	Install clip	22
	Fuse	Burned out	Replace the fuse and check wiring	78
	Battery	Run down	Recharge	69
		Poor terminal connections	Tighten as required	69
		Terminal corroded	Clean	61
	Starter motor	Faulty	Have serviced by Yamaha dealer	—
	Warning system	Overheat mode	Cool down engine	29
Engine does not start (Starter motor turns over)	Throttle lever	Squeezed	Release	23
	Fuel	Empty	Refill as soon as possible	36
		Stale or contaminated	Have serviced by Yamaha dealer	66
	Fuel tank	Water or dirt present	Have serviced by Yamaha dealer	66
	Spark plug	Fouled or defective	Clean or replace	67
	Spark plug cap	Not connected or loose	Connect properly	67
	Crankcase	Filled with water	Crank engine with plug out until clean	79
	Fuel injection system	Fuel pump faulty	Have serviced by Yamaha dealer	—
	Water temperature sensor	Failed	Have serviced by Yamaha dealer	29

Trouble recovery

TROUBLE	POSSIBLE CAUSE		REMEDY	PAGE
Engine runs irregularly or stalls	Fuel	Empty	Refill as soon as possible	36
		Stale or contaminated	Have serviced by Yamaha dealer	66
	Fuel tank	Water or dirt present	Have serviced by Yamaha dealer	66
	Spark plug	Fouled or defective	Replace	67
		Incorrect heat range	Replace	67
		Gap incorrect	Adjust	67
	Spark plug cap	Loose	Connect properly	67
		Cracked, torn, or damaged	Replace	—
	Electrical wiring	Loose connection	Tighten or connect properly	—
Fuel injection system	Faulty or clogged injectors	Have serviced by Yamaha dealer	—	
Warning light or indicator blinks	Fuel level	Empty	Refill as soon as possible	36
	Engine oil level	Empty	Refill immediately	36
		Oil filter clogged	Have serviced by Yamaha dealer	—
	Engine overheated	Jet intake clogged	Clean	76
		Water temperature sensor is failed	Have serviced by Yamaha dealer	29
	Low battery voltage	Battery voltage low	Charge	69
		Battery terminal connected wrong	Connect properly	69
	Exhaust gas temperature	Gas temperature is too high	Cool down engine	31
Check engine warning	Faulty sensors	Have serviced by Yamaha dealer	31	

Trouble recovery

TROUBLE	POSSIBLE CAUSE		REMEDY	PAGE
Watercraft slow or loses power	Cavitation	Jet intake clogged	Clean	76
		Impeller damaged or worn	Have serviced by Yamaha dealer	—
	Engine over-heated	Jet intake clogged	Clean	76
	Spark plug	Fouled or defective	Replace	67
		Incorrect heat range	Replace	67
		Gap incorrect	Adjust	67
	Spark plug caps	Loose	Connect properly	67
	Electrical wiring	Loose connection	Tighten or connect properly	—
	Fuel	Stale or contaminated	Have serviced by Yamaha dealer	66
Bilge	Water in bilge	Drain	39	

EJU34620

Emergency procedures

EJU34630

Cleaning the jet intake and impeller

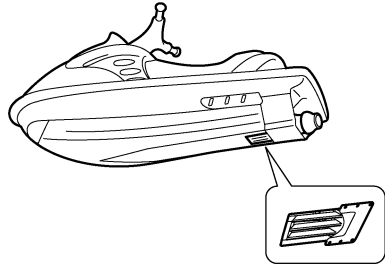
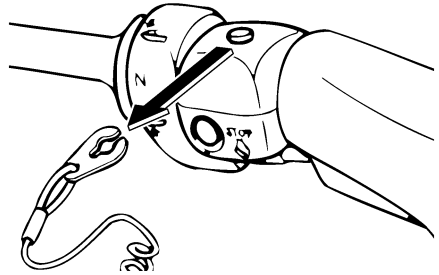
If weeds or debris get caught in the jet intake or impeller, cavitation can occur, causing jet thrust to decrease even though engine speed rises. If this condition is allowed to continue, the engine will overheat and may seize. If there is any sign that the jet intake or impeller is clogged with weeds or debris, return to shore and check the intake and impeller. Always stop the engine before beaching the watercraft.

EWJ00780

WARNING

Before attempting to remove weeds or debris from the jet intake or impeller area, shut the engine off and remove the clip from the engine shut-off switch. Severe injury or death could result from coming in

contact with the rotating parts of the jet pump.

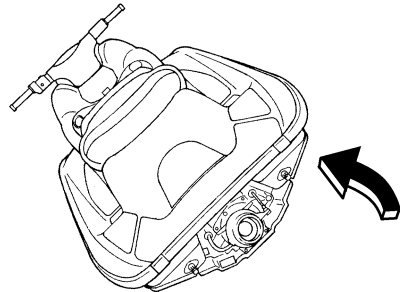


ECJ00650

CAUTION:

If weeds or debris get caught in the jet intake, do not operate the watercraft above trolling speed until they have been removed.

(1) Turn the watercraft on its side as shown.



Trouble recovery

ECJ00660

CAUTION:

- Place a suitable clean cloth or carpeting underneath the watercraft to protect it from abrasions and scratches.
- Always turn the watercraft over onto its port (left) side.
- When turning the watercraft on its side, support the bow so that the handlebars are not bent or damaged.

(2) Remove any weeds or debris from around the drive shaft, impeller, jet pump housing, and jet thrust nozzle.

If debris is difficult to remove, consult a Yamaha dealer.

ECJ00670

CAUTION:

Always avoid operating your watercraft in areas where weed growth is thick. If traveling in weeded areas is unavoidable, operate the engine alternately at partial throttle and full throttle. Weeds tend to accumulate more at a steady speed and at trolling speed. If weeds clog the jet intake or impeller area and cause cavitation, follow the cleaning procedure above.

EJU34640

Jumping the battery

If the watercraft battery has run down, the engine can be started using a 12-volt booster battery and jumper cables.

EWJ00790

WARNING

Battery electrolyte is poisonous and dangerous, causing severe burns, etc. Electrolyte contains sulfuric acid. Avoid contact with skin, eyes, or clothing.

Antidotes

External: Flush with water.

Internal: Drink large quantities of water or milk. Follow with milk of magnesia, beaten

egg, or vegetable oil. Call a physician immediately.

Eyes: Flush with water for 15 minutes and get prompt medical attention.

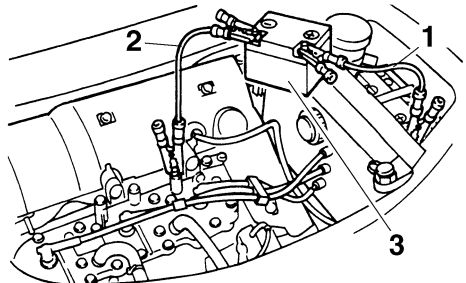
Batteries produce explosive gases. Keep sparks, flames, cigarettes, etc., well away. If using or charging the battery in an enclosed space, make sure that it is well ventilated. Always shield your eyes when working near batteries.

KEEP OUT OF THE REACH OF CHILDREN.

EJU34650

Connecting the jumper cables

- (1) Connect the positive (+) jumper cable to the positive (+) battery terminals of both batteries.
- (2) Connect one end of the negative (-) jumper cable to the negative (-) battery terminal of the booster battery.
- (3) Connect the other end of the negative (-) jumper cable to an unpainted bolt on the cylinder head.



- 1 Positive (+) jumper cable
- 2 Negative (-) jumper cable
- 3 Booster battery

ECJ00680

CAUTION:

Do not connect the end of the negative (-) jumper cable to the negative (-) battery terminal of the watercraft battery! Make sure that all connections are secure and correct before attempting to start the en-

gine. Any wrong connection could damage the electrical system.

- (4) Start the engine, and then disconnect the jumper cables by reversing the steps above.

ECJ00690

CAUTION:

- Never push the start switch while the engine is running.
- Do not operate the start switch for more than 5 seconds, otherwise the battery will be discharged and the engine will not start. Also, the starter motor could be damaged. If the engine does not start in 5 seconds, release the start switch, wait 15 seconds, and then try again.

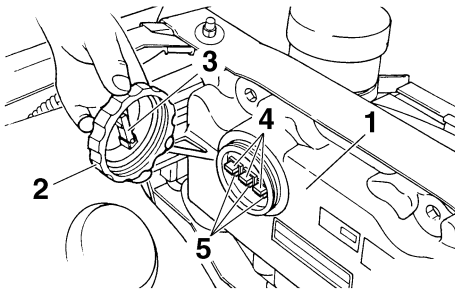
EJU34680

Replacing the fuses

The fuses are located in the electrical box.

To replace a fuse:

- (1) Remove the cap on the electrical box.
- (2) Replace the blown fuse with the spare fuse of the correct amperage by using the fuse puller on the reverse side of the cap.



- 1 Electrical box
- 2 Cap
- 3 Fuse puller
- 4 Fuse
- 5 Spare fuse

Fuse amperage:

Main fuse:

20 A

Meter fuse:

3 A

Bilge pump fuse:

3 A

EWJ00800

WARNING

Do not use fuses of higher amperage than recommended. Substitution with a fuse that has an improper rating can cause extensive electrical system damage and possible fire.

EJU34710

Towing the watercraft

If the watercraft becomes inoperative in the water, it can be towed to shore.

If the watercraft must be towed in an emergency using a towline, the operator should ride the watercraft, holding onto the handlebars.

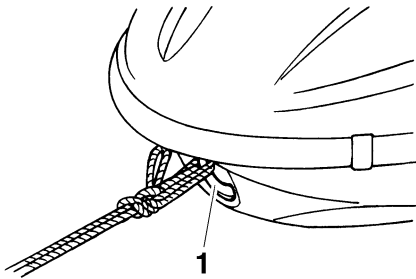
ECJ00720

CAUTION:

- Tow the watercraft at 5 mph (8 km/h) or less, otherwise water could enter the engine through the exhaust passages or through the air intake and flood the engine compartment if it is towed too fast.
- Tow the watercraft using the bow eye only.

Trouble recovery

- The bow must be kept up out of the water during towing to prevent water from entering the engine compartment.
-



1 Bow eye

EWJ00810

WARNING

- The watercraft should only be towed in an emergency.
 - The towline should be long enough so that the watercraft will not collide with the towing boat when slowing down. A good rule of thumb is a towline that is three times the combined length of the towing boat and the watercraft.
 - The operator of the towing boat must keep speed to a minimum and avoid traffic or obstacles which could be a hazard to the rider on the watercraft.
-

EJU34740

Submerged watercraft

If the watercraft is submerged or flooded with water, follow the procedure below and consult a Yamaha dealer as soon as possible. Failure to do so could result in serious engine damage!

In an emergency:

- (1) Beach the watercraft and remove the stern drain plugs to drain the water from

the engine compartment. (See page 39 for more information.)

Remove the storage compartment drain plugs to drain the water from each storage compartment.

- (2) Install the stern drain plugs.
- (3) Have the watercraft inspected by a Yamaha dealer as soon as possible.

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