

YAMAHA

110 motorcycle



OWNER'S MANUAL

SECA II

LIT-11626-10-84

**XJ600SK
XJ600SKC**

4DU-28199-16

Dear Yamaha ATV Owner: Please Review this IMPORTANT SAFETY CARD before operating your ATV (If card is not attached, call 1-800-344-6418).

Dear New Yamaha ATV Owner:

CONGRATULATIONS ON THE PURCHASE OF YOUR NEW YAMAHA ATV. You have purchased a quality Yamaha product that, with proper use and care, will provide hours of riding pleasure. **BEFORE YOU OPERATE YOUR NEW ATV, Yamaha recommends these important points:**

- READ YOUR OWNER'S MANUAL
- A CHILD UNDER 12 YEARS OLD SHOULD NOT OPERATE AN ATV WITH ENGINE SIZE 70CC OR GREATER
- A CHILD UNDER 16 YEARS OLD SHOULD NOT OPERATE AN ATV WITH ENGINE SIZE GREATER THAN 90CC
- TAKE THE FREE HANDS-ON TRAINING COURSE OFFERED BY YAMAHA — ASK YOUR DEALER FOR DETAILS OR CALL 1-800-887-2887

If you have any questions about these points, or if you purchased your ATV from an authorized Yamaha dealership and were not informed of the age recommendation for your ATV by the dealership, please fill out the information below and mail this card to Yamaha today.

Name:

This is not a
warranty card

ATV Model:

Primary I.D. (Engine Number):
_____ - _____

MO.	DAY	YR.
-----	-----	-----

Purchase Date:

Address:

Telephone:

()

Dealer Name & Address:

READ CAREFULLY



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**YAMAHA MOTOR CORPORATION U.S.A.
P.O. BOX 6555
CYPRESS, CALIFORNIA 90630-9989**

ATTN: SALES ADMINISTRATION



INTRODUCTION

Congratulations on your purchase of the Yamaha XJ600S/XJ600SC. This model is the result of Yamaha's vast experience in the production of fine sporting, touring, and pacesetting racing machines. It represents the high degree of craftsmanship and reliability that have made Yamaha a leader in these fields.

This manual will give you an understanding of the operation, inspection, and basic maintenance of this motorcycle. If you have any questions about the operation or maintenance of your motorcycle, please consult a Yamaha dealer.

The design and manufacture of this Yamaha motorcycle fully comply with the emissions standards for clean air applicable at the date of manufacture. Yamaha has met these standards without reducing the motorcycle's performance or economy of operation. To maintain these high standards, it is important that you and your dealer pay close attention to the recommended maintenance schedules and operating instructions contained within this manual.

IMPORTANT MANUAL INFORMATION

Particularly important information is distinguished in this manual by the following notations:



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



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



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

NOTE:

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

EUU00001

NOTE:

- This manual should be considered a permanent part of this motorcycle and should remain with it even if the motorcycle is subsequently sold.
- Yamaha continually seeks advancements in product design and quality. Therefore, while this manual contains the most current product information available at the time of printing, there may be minor discrepancies between your motorcycle and this manual. If there is any question concerning this manual, please consult your Yamaha dealer.

EUU60001

⚠ WARNING

PLEASE READ THIS MANUAL AND THE "YOU AND YOUR MOTORCYCLE: RIDING TIPS" BOOKLET CAREFULLY AND COMPLETELY BEFORE OPERATING THIS MOTORCYCLE. DO NOT ATTEMPT TO OPERATE THIS MOTORCYCLE UNTIL YOU HAVE ATTAINED A SATISFACTORY KNOWLEDGE OF ITS CONTROLS AND OPERATING FEATURES AND UNTIL YOU HAVE BEEN TRAINED IN SAFE AND PROPER RIDING TECHNIQUES. REGULAR INSPECTIONS AND CAREFUL MAINTENANCE, ALONG WITH GOOD RIDING SKILLS, WILL ENSURE THAT YOU SAFELY ENJOY THE CAPABILITIES AND THE RELIABILITY OF THIS MOTORCYCLE.

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⚠ SAFETY INFORMATION

TWO-WHEELED MOTORCYCLES ARE SINGLE TRACK VEHICLES. THEIR SAFE USE AND OPERATION ARE DEPENDENT UPON THE USE OF PROPER RIDING TECHNIQUES AS WELL AS THE EXPERTISE OF THE OPERATOR. EVERY OPERATOR SHOULD KNOW THE FOLLOWING REQUIREMENTS BEFORE RIDING.

HE OR SHE SHOULD:

- 1. OBTAIN THOROUGH INSTRUCTIONS FROM A COMPETENT SOURCE ON ALL ASPECTS OF MOTORCYCLE OPERATION.**
- 2. OBSERVE THE WARNINGS AND MAINTENANCE REQUIREMENTS IN THE OWNER'S MANUAL.**
- 3. OBTAIN QUALIFIED TRAINING IN SAFE AND PROPER RIDING TECHNIQUES.**
- 4. OBTAIN PROFESSIONAL TECHNICAL SERVICE AS INDICATED BY THE OWNER'S MANUAL AND/OR WHEN MADE NECESSARY BY MECHANICAL CONDITIONS.**

SAFE RIDING

- 1. Always make pre-operation checks. Careful checks may help prevent an accident.**
- 2. This motorcycle is designed to carry the operator and a passenger.**

- 3. The failure of motorists to detect and recognize motorcycles in traffic is the predominating cause of automobile/motorcycle accidents. Many accidents have been caused by an automobile driver who did not see the motorcycle. Making yourself conspicuous appears to be very effective in reducing the chance of this type of accident.**

Therefore:

- a. Wear a brightly colored jacket.**
 - b. Use extra caution when you approach and pass through intersections, since intersections are the most likely places for motorcycle accidents.**
 - c. Ride where other motorists can see you. Avoid riding in another motorist's "blind spot".**
- 4. Many accidents involve inexperienced operators. In fact, many operators who have been involved in accidents do not even have a current motorcycle license.**
- a. Make sure you are qualified. Also, only lend your motorcycle to experienced operators.**
 - b. Know your skills and limits. Staying within your limits may help you to avoid an accident.**
 - c. We recommend that you practice riding your motorcycle where there is no traffic until you have become thoroughly familiar with your motorcycle and all of its controls.**

- 5. Many motorcycle accidents have been caused by motorcycle operator errors. A typical error made by the operator is veering wide on a turn due to EXCESSIVE SPEED or undercornering (insufficient lean angle for the speed).**
 - a. Always obey the speed limits and never travel faster than warranted by road and traffic conditions.**
 - b. Always signal before turning or changing lanes. Make sure other motorists see you.**
- 6. The operator's and passenger's posture are important for proper control.**
 - a. The operator should keep both hands on the handlebars and both feet on the operator footrests during operation to maintain control of the motorcycle.**
 - b. The passenger should always hold on to the operator, or the seat strap or grab bar if the motorcycle is so equipped, with both hands and keep both feet on the passenger footrests.**
 - c. Never carry a passenger unless he or she can firmly place both feet on the passenger footrests.**
- 7. Never ride under the influence of alcohol or drugs.**
- 8. This motorcycle is designed for on-road use only. It is not suitable for off-road use.**

PROTECTIVE APPAREL

The majority of fatalities from motorcycle accidents are the result of head injuries. The use of a safety helmet is the single most critical factor in the prevention or reduction of head injuries.

- 1. Always wear an approved helmet.**
- 2. Wear a face shield or goggles. Wind on your unprotected eyes could contribute to an impairment of vision which could delay seeing a hazard.**
- 3. The use of heavy boots, jacket, trousers, gloves, etc. is effective in preventing or reducing abrasions or lacerations.**
- 4. Never wear loose fitting clothing. It could catch on the control levers, footrests, or wheels and cause injury or accident.**
- 5. Never touch the engine or exhaust system during or after operation. They become very hot and can cause burns. Always wear protective clothing that covers your legs, ankles, and feet.**
- 6. A passenger should also observe the above precautions.**

MODIFICATION

Modifications made to the motorcycle not approved by Yamaha, or the removal of original equipment, may render your motorcycle unsafe for use and may cause severe personal injury. Modifications may also make your motorcycle illegal to use.

LOADING AND ACCESSORIES

Adding accessories or cargo to your motorcycle can adversely affect stability and handling if the weight distribution of the machine is changed. To avoid the possibility of an accident, extreme caution should be used if adding cargo or accessories to your motorcycle. Use extra care if riding a motorcycle which has added cargo or accessories. Here are some general guidelines to follow if loading cargo or adding accessories to your motorcycle:

LOADING

The total weight of the operator, passenger, accessories and cargo must not exceed the maximum load limit of 423 lbs. (192 kg).

When loading within these weight limits, keep the following in mind:

- 1. Cargo and accessory weight should be kept as low and close to the motorcycle as possible. Be sure to distribute the weight as evenly as possible on both sides of the machine to minimize imbalance or instability.**
- 2. Shifting weights can create a sudden imbalance. Make sure that accessories and cargo are securely attached to the motorcycle before riding. Recheck accessory mounts and cargo restraints frequently.**

3. Never attach any large or heavy items to the handlebars, front forks, or front fender. These items, including such cargo as sleeping bags, duffle bags, or tents, can create unstable handling or slow steering response.

ACCESSORIES

Genuine Yamaha accessories have been specifically designed for use on this motorcycle. Since Yamaha cannot test all other accessories which may be available, you must personally be responsible for the proper selection, installation and use of non-Yamaha accessories. You should use extreme caution when selecting and installing any accessories.

Keep in mind these guidelines for mounting accessories in addition to those provided under "LOADING".

1. Never install accessories or carry cargo that would impair the performance of your motorcycle. Carefully inspect the accessory before using it to make sure it does not in any way reduce ground clearance or cornering clearance, limit suspension travel, steering travel or control operation, or obscure lights or reflectors.
 - a. Accessories fitted to the handlebar or the front fork area can create instability due to improper weight distribution or aerodynamic changes. If accessories are added to the handlebar or front fork area, they must be as lightweight as possible and should be kept to a minimum.

- b. Bulky or large accessories may seriously affect the stability of the motorcycle due to aerodynamic effects. Wind may attempt to lift the motorcycle, or the motorcycle may become unstable in cross winds. These accessories may also cause instability when being passed by or passing large vehicle.
 - c. Certain accessories can displace the operator from his or her normal riding position. This improper position limits the freedom of movement of the operator and may limit control ability. Therefore such accessories are not recommended.
- 2. Caution must be used if adding electrical accessories. If these accessories exceed the capacity of the motorcycle's electrical system, an electric failure could result, which could cause a dangerous loss of lights or engine power.

GASOLINE AND EXHAUST GAS

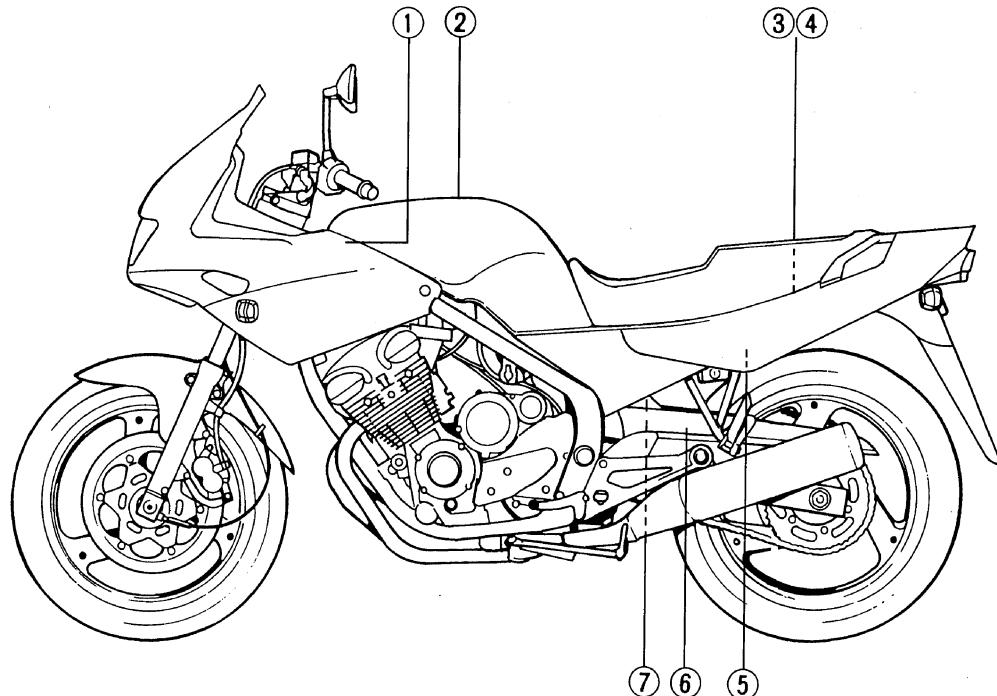
- 1. **GASOLINE IS HIGHLY FLAMMABLE:**
 - a. Always turn off the engine when refueling.
 - b. Take care not to spill any gasoline on the engine or exhaust system when refueling.
 - c. Never refuel while smoking or in the vicinity of an open flame.
- 2. Never start the engine or let it run for any length of time in a closed area. The exhaust fumes are poisonous and may cause loss of consciousness and death within a short time. Always operate your motorcycle in an area that has adequate ventilation.

3. Always turn off the engine before leaving the motorcycle unattended and remove the ignition key. When parking the motorcycle, note the following:

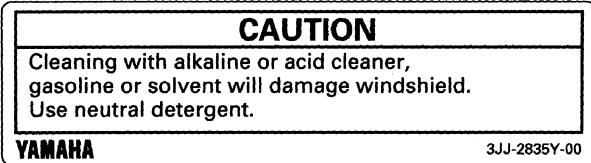
 - a. The engine and exhaust system may be hot. Park the motorcycle in a place where pedestrians or children are not likely to touch these hot areas.
 - b. Do not park the motorcycle on a slope or soft ground; the motorcycle may fall over.
 - c. Do not park the motorcycle near a flammable source, e.g. a kerosene heater, or near an open flame. The motorcycle could catch fire.
4. When transporting the motorcycle in another vehicle, be sure it is kept upright and that the fuel cock is turned to "ON" or "RES" (for vacuum type)/"OFF" (for manual type). If it should lean over, gasoline may leak out of the carburetor or fuel tank.
5. If you should swallow any gasoline, inhale a lot of gasoline vapor, or allow gasoline to get in your eyes, see your doctor immediately. If any gasoline spills on your skin or clothing, immediately wash it off with soap and water and change your clothes.

LOCATION OF THE IMPORTANT LABELS

Please read the following labels carefully before operating this motorcycle.



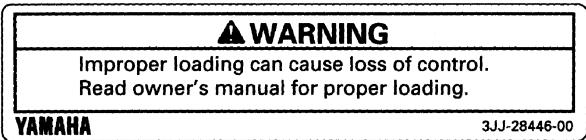
①



②



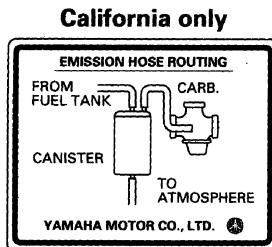
③



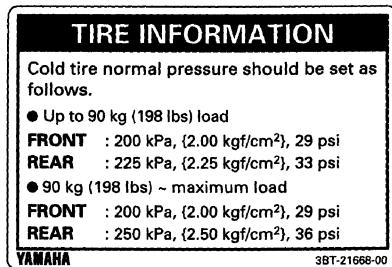
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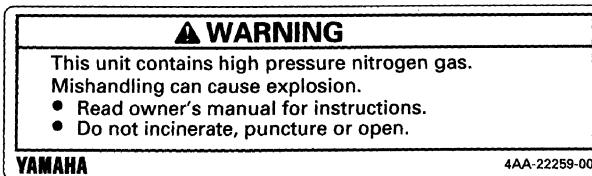
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⑥

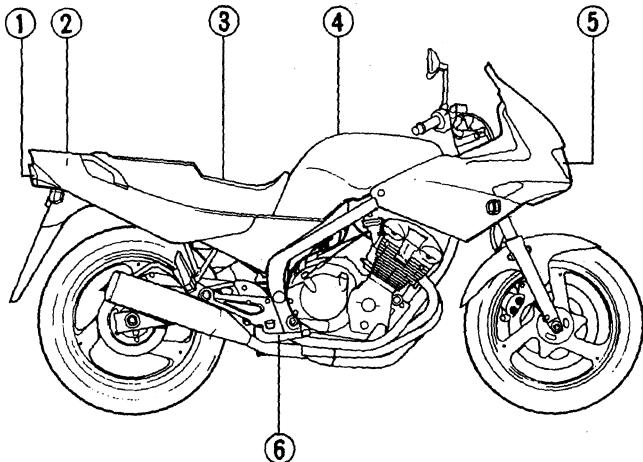


⑦

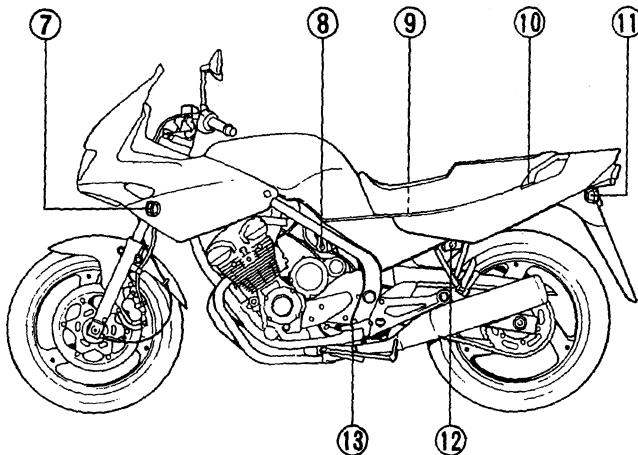


DESCRIPTION

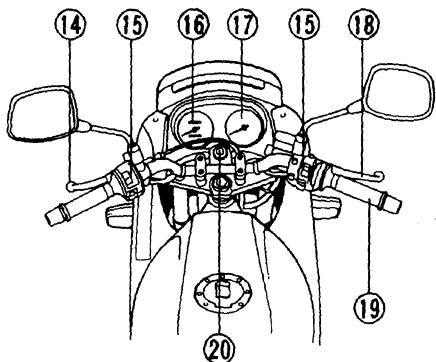
Right view



Left view



Controls/Instruments



- | | |
|--|------------------------|
| 1. Tail/brake light | 11. Rear flasher light |
| 2. Storage compartment | 12. Seat lock |
| 3. Seat | 13. Shift pedal |
| 4. Fuel tank | 14. Clutch lever |
| 5. Headlight | 15. Handlebar switches |
| 6. Rear brake pedal | 16. Speedometer |
| 7. Front flasher light
(Front position light) | 17. Tachometer |
| 8. Fuel cock | 18. Front brake lever |
| 9. Helmet holder | 19. Throttle grip |
| 10. Grab bar | 20. Main switch |

EAA60000

MOTORCYCLE IDENTIFICATION

EAA61800

Identification numbers record

Record the key identification number, vehicle identification number and model label information in the spaces provided for assistance when ordering spare parts from a Yamaha dealer or for reference in case the vehicle is stolen.

1. KEY IDENTIFICATION NUMBER:

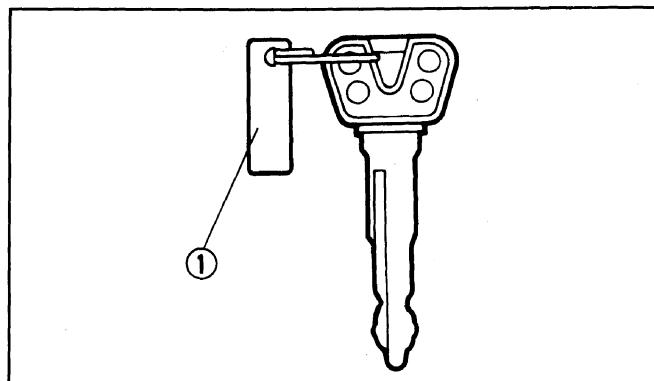
2. VEHICLE IDENTIFICATION NUMBER:

3. MODEL LABEL INFORMATION:

EAA61500

Key identification number

The key identification number is stamped on the key tag. Record this number in the space provided and use it for reference when obtaining a new key.



1. Key identification number

EAA80000

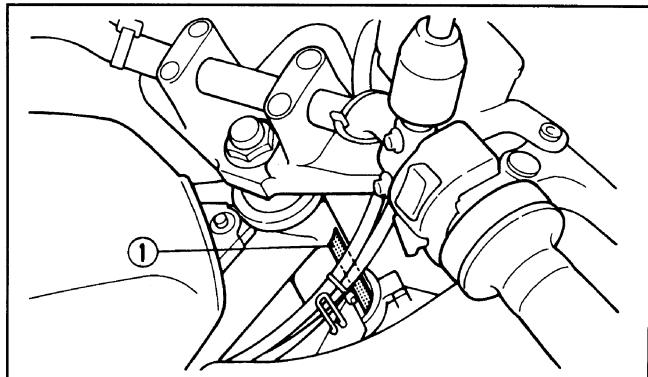
Vehicle identification number

The vehicle identification number is stamped into the steering head pipe.

EUU00400

NOTE:

The vehicle identification number is used to identify your motorcycle and may be used to register your motorcycle with the licensing authority in your state.

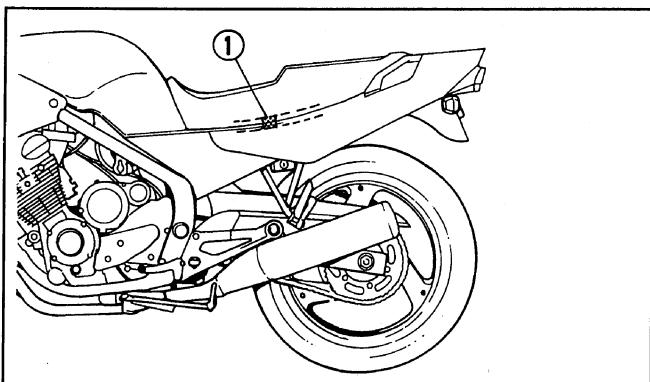


1. Vehicle identification number

EAA61602

Model label

The model label is affixed to the location shown in the figure. Record the information on this label in the space provided. This information will be needed to order spare parts from your Yamaha dealer.



1. Model label

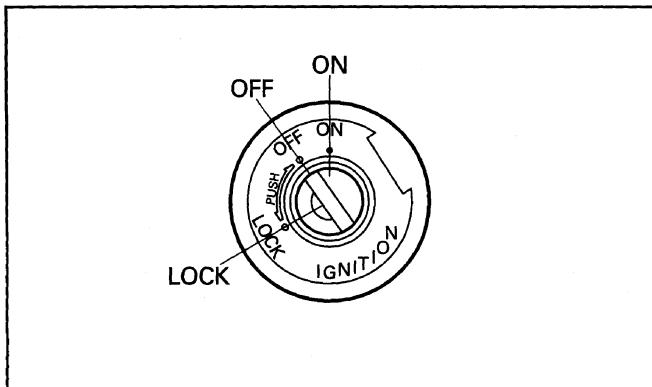
EAB00000

CONTROL FUNCTIONS

EAB00100

Main switch

The main switch controls the ignition and lighting systems. Its operation is described below.



EAB04800

ON:

All electrical circuits are switched on, and the headlight, meter light, taillight, and front position lights come on. The engine can be started. The key cannot be removed in this position.

EAB00600

OFF:

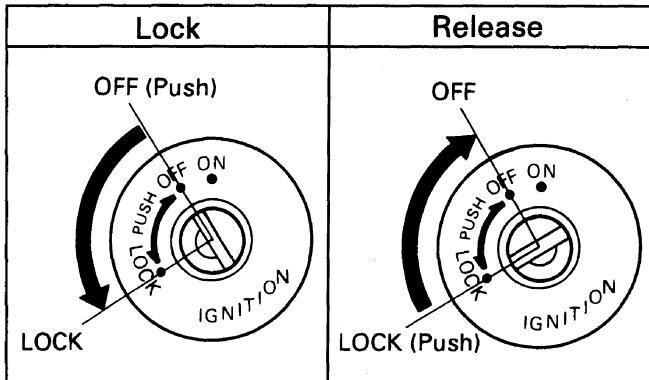
All electrical circuits are switched off. The key can be removed in this position.

EAB04900

LOCK:

The steering is locked in this position and all electrical circuits are switched off. The key can be removed in this position. To lock the steering, turn the handlebars all the way to the left. While pushing the key into the main switch, turn it from "OFF" to "LOCK" and remove it. To release the lock, turn the key to "OFF" while pushing.

EUU61400



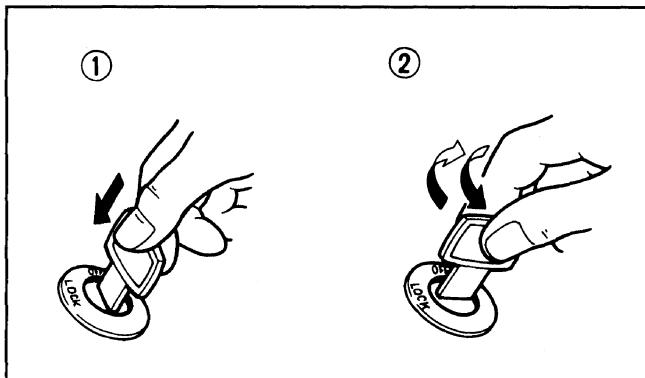
WARNING

Never turn the key to "LOCK" when the motorcycle is moving.

EUU00700

NOTE:

Always turn the main switch to "OFF" or "LOCK" and remove the key when the motorcycle is unattended.

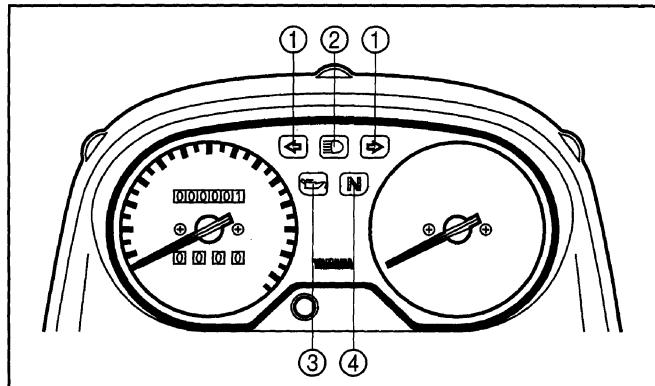


1. Push

2. Turn

EAB10000

Indicator lights



1. Turn indicator lights "  "
2. High beam indicator light "  "
3. Oil level indicator light "  "
4. Neutral indicator light " N "

EAB12202

Turn indicator lights " "

The corresponding indicator flashes when the turn switch is moved to the left or right.

EAB13100

Neutral indicator light " N "

This indicator comes on when the transmission is in neutral.

EAB13200

High beam indicator light " "

This indicator comes on when the headlight high beam is used.

EAB13401

Oil level indicator light " "

This indicator comes on when the oil level is low. This light circuit can be checked by the following procedure.

EUU30000

CAUTION

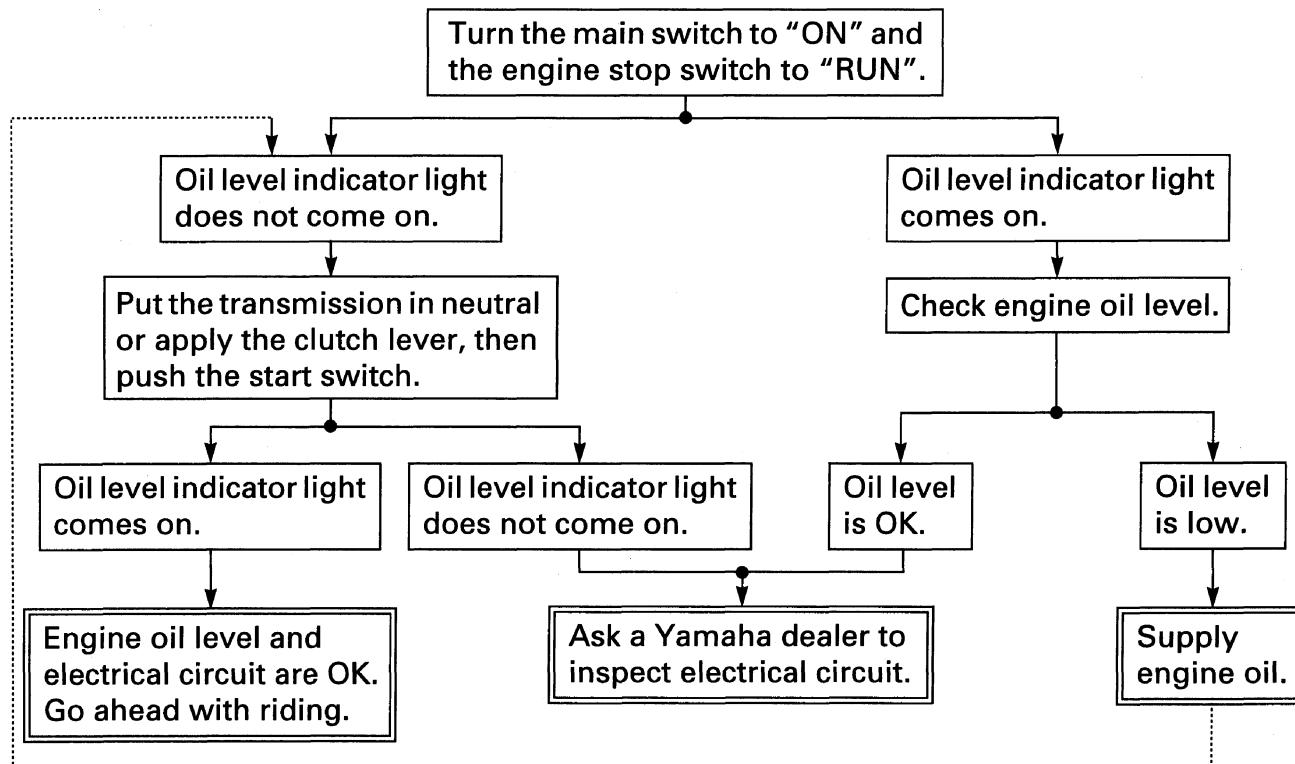
Do not run the motorcycle until you know it has sufficient engine oil.

EUU20900

NOTE:

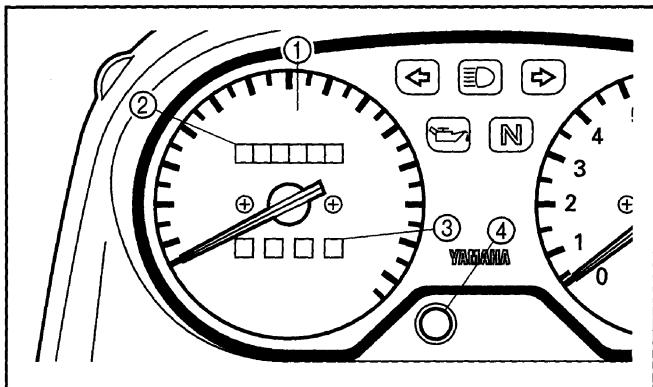
Even if the oil is filled to the specified level, the indicator light may flicker when riding on a slope or during sudden acceleration or deceleration, but this is not abnormal.

Oil level indicator circuit check



Speedometer

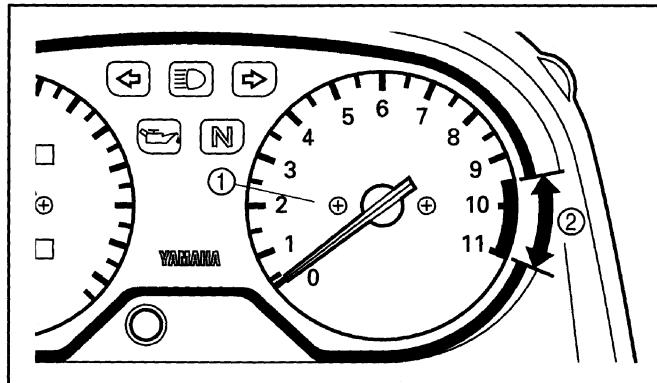
The speedometer shows riding speed. This speedometer is equipped with an odometer and trip odometer. The trip odometer can be reset to "0" with the reset button. Use the trip odometer to estimate how far you can ride on a tank of fuel. This information will enable you to plan fuel stops in the future.



1. Speedometer
2. Odometer
3. Trip odometer
4. Reset switch

Tachometer

This model is equipped with an electric tachometer so the rider can monitor the engine speed and keep it within the ideal power range.



1. Tachometer

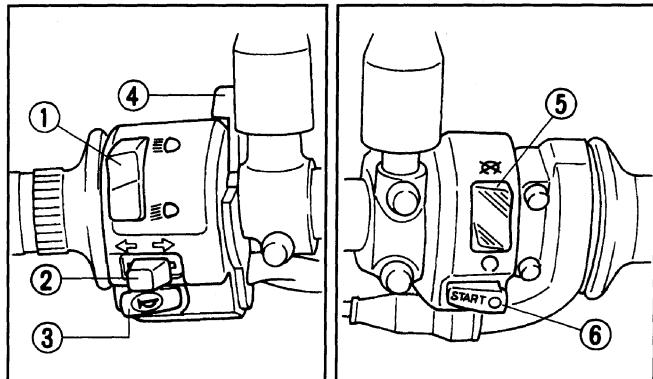
2. Red zone

CAUTION:

Do not operate in the red zone
Red zone: 9,500 r/min and above

EAB60000

Handlebar switches



1. Dimmer switch
2. Turn signal switch
3. Horn switch “”
4. Starter “”
5. Engine stop switch
6. Start switch “START”

EAB63400

Dimmer switch

Turn the switch to “” for the high beam and to “” for the low beam.

EAB63500

Turn signal switch

To signal a right-hand turn, push the switch to “”. To signal a left-hand turn, push the switch to “”. Once the switch is released it will return to the center position. To cancel the signal, push the switch in after it has returned to the center position.

EAB63700

Horn switch “”

Press the switch to sound the horn.

EAB63800

Engine stop switch

The engine stop switch is a safety device for use in an emergency such as when the motorcycle overturns or if trouble occurs in the throttle system. Turn the switch to “” to start the engine. In case of emergency, turn the switch to “” to stop the engine.

EAB60703

Start switch "START"

The starter motor cranks the engine when pushing the start switch.

EUU30700

CAUTION:

See starting instructions prior to starting the engine.

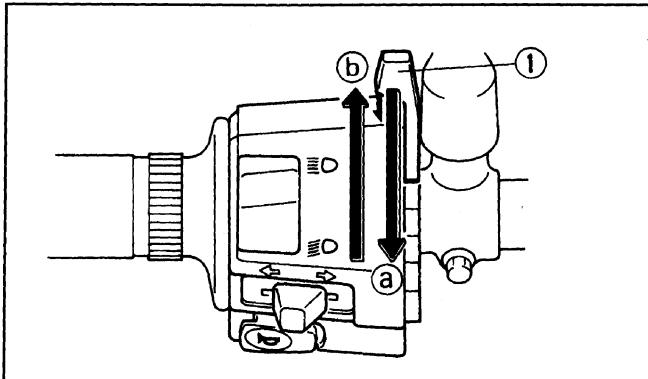
EAC20502

Starter "|\\"

Starting a cold engine requires a richer air-fuel mixture. A separate starter circuit supplies this mixture.

Move in direction **a** to turn on the starter.

Move in direction **b** to turn off the starter.



1. Starter "|\\"

EAB70003

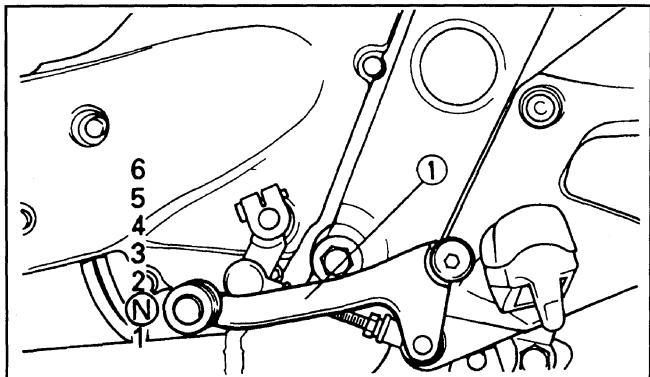
Clutch lever

The clutch lever is located on the left handlebar, and the ignition circuit cut-off system is incorporated in the clutch lever holder. Pull the clutch lever to the handlebar to disengage the clutch, and release the lever to engage the clutch. The lever should be pulled rapidly and released slowly for smooth clutch operation. (Refer to the engine starting procedures for a description of the ignition circuit cut-off system.)

Shift pedal

This motorcycle is equipped with a constant-mesh 6-speed transmission.

The shift pedal is located on the left side of the engine and is used in combination with the clutch when shifting.

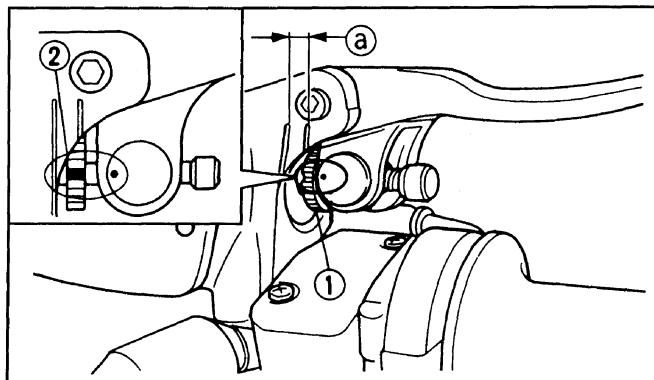


1. Shift pedal

N. Neutral

Front brake lever

The front brake lever is located on the right handlebar and is equipped with a position adjuster. To activate the front brake, pull the lever toward the handlebar. To adjust the front brake lever position, turn the adjusting nut while pulling the lever forward. Make sure the mark "■" on the adjusting nut is aligned with the mark "●" on the lever.



1. Adjusting nut
a. Adjusting range

2. Proper position

EAB90101

Rear brake pedal

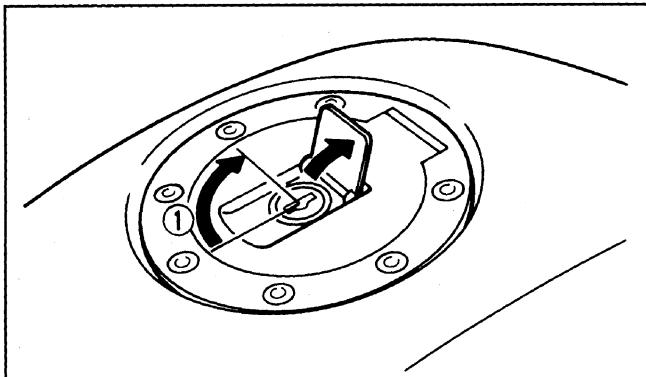
The rear brake pedal is on the right side of the motorcycle. Press down on the brake pedal to apply the rear brake.

EAC00501

Fuel tank cap

TO OPEN:

Open the key cover. Insert the key and turn it 1/4 turn clockwise. The lock will be released and the cap can be opened.



1. Open

TO CLOSE:

Push the tank cap into position with the key inserted. To remove the key, turn it counterclockwise to the original position. Then, close the key cover.

EUU01200

NOTE:

This tank cap cannot be closed unless the key is in the lock. The key cannot be removed if the cap is not locked properly.

EUU61100

WARNING

Be sure the cap is properly installed and locked in place before riding the motorcycle.

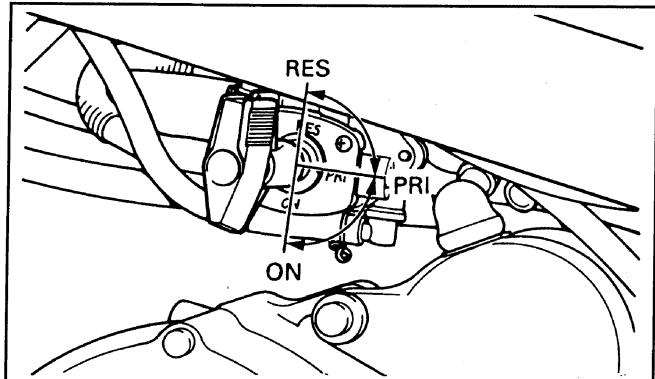
Fuel cock

The fuel cock supplies fuel from the tank to the carburetors while also filtering it.

The fuel cock has three positions, which should be set as illustrated.

ON: With the fuel cock in this position, fuel flows to the carburetors when the engine is running. Set the fuel cock to this position when starting the engine and for riding.

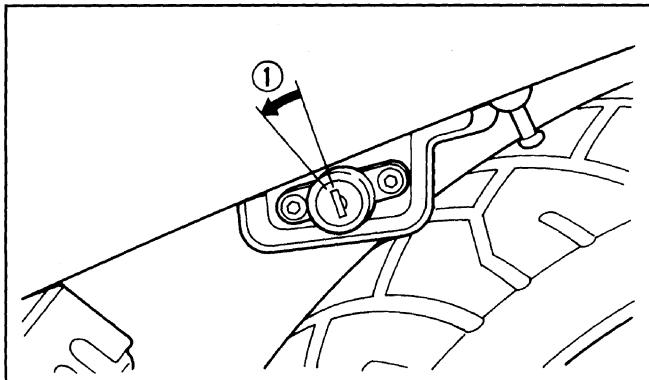
RES: This stands for "reserve". If you are running out of fuel while riding with the fuel cock in the "ON" position, quickly turn the lever to this position. Otherwise the engine may die and will have to be primed (see "PRI" below). After turning the lever to "RES", fill the tank at the first opportunity and be sure to set the fuel cock back to "ON"!



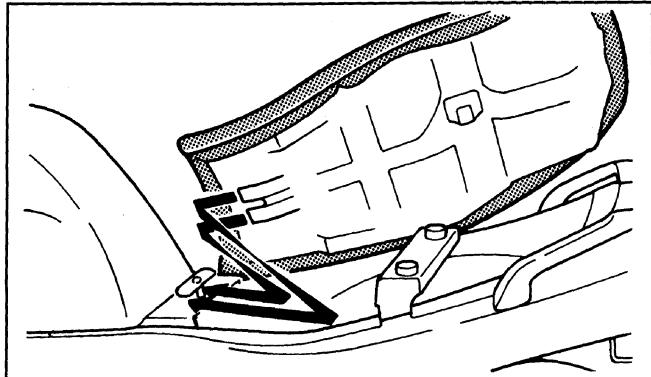
PRI: This stands for "prime". If the engine has been allowed to run out of fuel, turn the lever to the "PRI" position to send fuel directly to the carburetors. This will make starting easier. However, be sure to turn the lever to the "ON" position (or "RES" if you have not refuelled yet) after the engine has started.

Seat

1. To unlock the seat, insert the key in the lock and turn it counterclockwise.



1. Unlock
2. Remove the seat.
3. To lock the seat, insert the lobes on the front of the seat into the receptacles on the fuel tank, then push down on the rear of the seat.



EUU01700

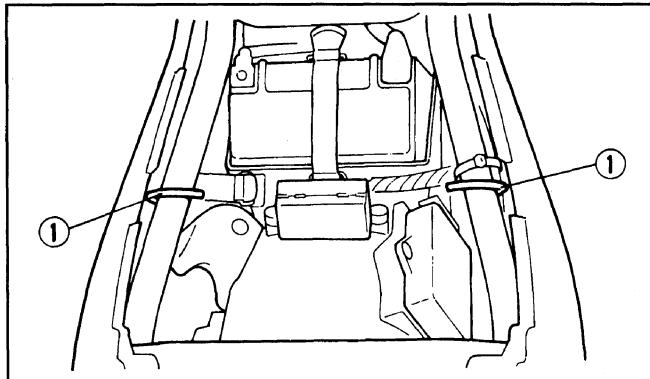
NOTE:

Make sure that the seat is securely fitted.

EAC50700

Helmet holder

The helmet holder is under the seat. Remove the seat and hook the helmet on the helmet holder. Then, reinstall the seat and lock it.



1. Helmet holder

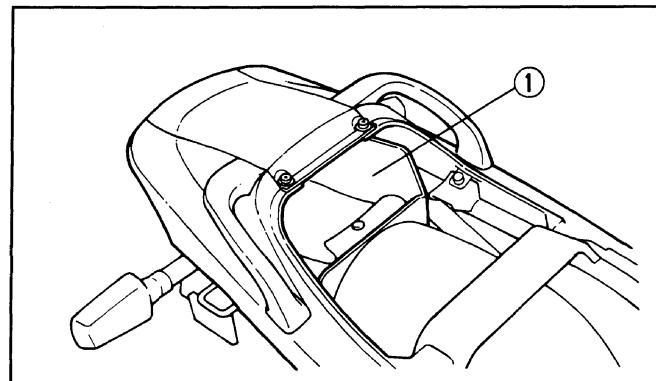
EUU72900

⚠ WARNING

Never ride with a helmet in the helmet holder. The helmet may hit objects, causing loss of control and possibly an accident.

EACT4501

Storage compartment



1. Storage compartment

EUU76001

⚠ WARNING

Do not exceed the load limit of 1 kg (2 lbs).

Rear shock absorber

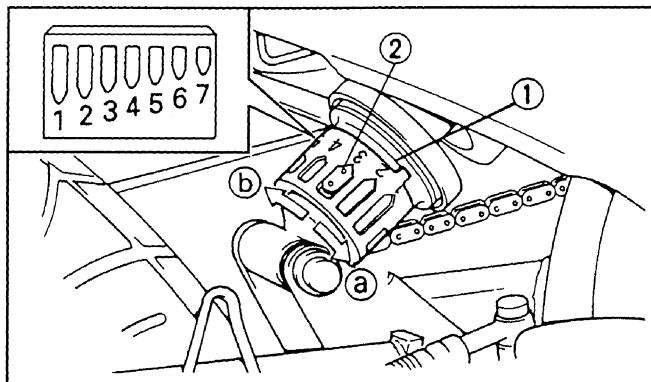
WARNING

This shock absorber contains highly pressurized nitrogen gas. Read and understand the following information before handling the shock absorber. The manufacturer cannot be held responsible for property damage or personal injury that may result from improper handling.

1. Do not tamper with or attempt to open the cylinder assembly.
2. Do not subject the shock absorber to an open flame or other high heat source. This may cause the unit to explode due to excessive gas pressure.
3. Do not deform or damage the cylinder in any way. Cylinder damage will result in poor damping performance.
4. Take your shock absorber to a Yamaha dealer for any service.

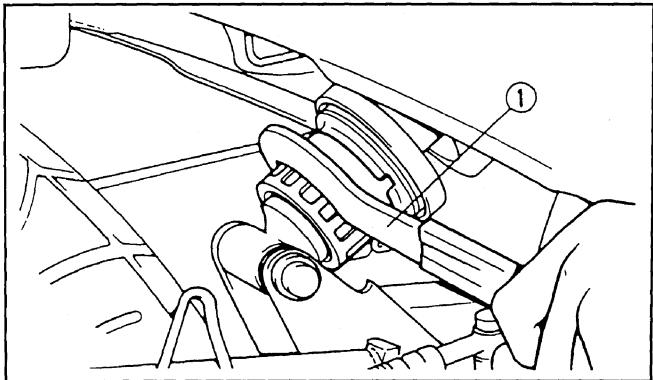
Rear shock absorber adjustment

This shock absorber is equipped with a spring preload adjuster. Adjust spring preload as follows. Turn the adjusting ring in direction ① to increase spring preload and in direction ② to decrease spring preload.



1. Spring preload adjuster
2. Align stopper with preload position

	Hard				Stand-	Soft	
Adjusting position	7	6	5	4	3	2	1



EAD30101

Sidestand

This model is equipped with an ignition circuit cut-off system. The motorcycle must not be ridden when the sidestand is down. The sidestand is located on the left side of the frame. (Refer to page 7-2 for an explanation of this system.)

WARNING

This motorcycle must not be operated with the sidestand in the down position. If the stand is not properly retracted, it could contact the ground and distract the operator, resulting in a possible loss of control. Yamaha has designed into this motorcycle a lockout system to assist the operator in fulfilling the responsibility of retracting the sidestand. Please check carefully the operating instructions listed below and if there is any indication of a malfunction, return the motorcycle to a Yamaha dealer immediately for repair.

Sidestand/clutch switch operation check

Check the operation of the sidestand switch and clutch switch against the information below.

TURN THE MAIN SWITCH TO "ON" AND THE ENGINE STOP SWITCH TO "RUN".

TRANSMISSION IS IN GEAR AND SIDESTAND IS UP.

PULL IN CLUTCH LEVER AND PUSH THE START SWITCH.

ENGINE WILL START.

CLUTCH SWITCH IS OK.

SIDESTAND IS DOWN.

ENGINE WILL STALL.

SIDESTAND SWITCH IS OK.



If improper operation is noted, consult a Yamaha dealer immediately.

PRE-OPERATION CHECKS

Owners are personally responsible for their vehicle's condition. Your motorcycle's vital functions can start to deteriorate quickly and unexpectedly, even if it remains unused (for instance, if it is exposed to the elements). Any damage, fluid leak or loss of tire pressure could have serious consequences. Therefore, it is very important that, in addition to a thorough visual inspection, you check the following points before each ride.

No.	Item	Routine	Page
1	Brake	<ul style="list-style-type: none"> • Check operation, fluid level and leakage. • Fill with DOT 4 (or DOT 3) brake fluid if necessary. 	6-3 ~ 6-4, 8-19 ~ 8-23
2	Clutch	<ul style="list-style-type: none"> • Check operation and free play. • Adjust if necessary. 	6-4, 8-24
3	Engine oil	<ul style="list-style-type: none"> • Check engine oil level. • Fill with oil if necessary. 	6-4, 8-13 ~ 8-16
4	Drive chain	<ul style="list-style-type: none"> • Check chain slack and condition. • Adjust if necessary. 	6-5, 8-25 ~ 8-27
5	Throttle grip and housing	<ul style="list-style-type: none"> • Check for smooth operation. • Lubricate/adjust if necessary. 	6-4, 8-19, 8-28
6	Lights, Signals and switches	<ul style="list-style-type: none"> • Check for proper operation. 	6-8, 8-33 ~ 8-35
7	Wheels and tires	<ul style="list-style-type: none"> • Check tire pressure, wear and damage. 	6-5 ~ 6-7
8	Fuel tank	<ul style="list-style-type: none"> • Check fuel level. • Fill with fuel if necessary. 	6-9 ~ 6-10

No.	Item	Routine	Page
9	Chassis fasteners	<ul style="list-style-type: none">• Check the tightness of all chassis nuts, bolts and screws.• Tighten if necessary.	6-8

NOTE:

Pre-operation checks should be made each time the motorcycle is used. Such an inspection can be thoroughly accomplished in a very short time, and the added safety it assures is more than worth the time involved.

⚠ WARNING

- 1. The engine, exhaust system will be very hot after the engine has been run. Be careful not to touch them or to allow any clothing item to contact them during inspection or repair.**
 - 2. If any item in the PRE-OPERATION CHECK is not working properly, have it inspected and repaired before operating the motorcycle.**
-

Brakes

1. Brake lever and brake pedal

This motorcycle's brake lever and pedal free play adjust automatically. Do not attempt to make any adjustments. Make sure the brakes are working properly by checking at low speed shortly after starting out.

EUU61900

WARNING

A soft, spongy feeling in the brake lever (and/or brake pedal) indicates a failure in the brake system. Do not operate the motorcycle until the failure in the brake system is corrected. Ask a Yamaha dealer for immediate repairs. A soft, spongy feeling could indicate a hazardous condition in the brake system.

2. Brake fluid

Check the brake fluid level and fill the master cylinder with brake fluid if necessary. (See page 8-22 for details.)

Recommended brake fluid: DOT 4

EUU13100

NOTE:

If DOT 4 is not available, DOT 3 can be used.

3. Check the brake pads. (See page 8-21 for details.)

EUU02201

NOTE:

When this brake service is necessary, consult a Yamaha dealer.

EAE10702

Brake fluid leakage

Apply each brake for a few minutes. Check to see if any brake fluid leaks out from the pipe joints or the master cylinders.

EUU37801

CAUTION:

Brake fluid may deteriorate painted surfaces or plastic parts. Never spill any fluid. If spilled, clean it up immediately.

⚠ WARNING

If brake fluid leakage is found, ask a Yamaha dealer for immediate repairs. Such leakage could indicate a hazardous condition.

Clutch

Check the free play in the clutch lever and make sure the clutch operates properly. If the free play is incorrect, adjust it. (See page 8-24 for details.)

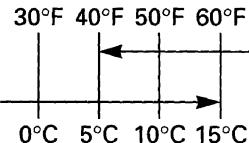
Throttle grip

Turn the throttle grip to see if it operates properly. Make sure the grip returns by spring force when released. There should be a free play of 3 ~ 5 mm (0.12 ~ 0.20 in) at the throttle grip. If the free play is incorrect, ask a Yamaha dealer to make this adjustment.

Engine oil

Make sure the engine oil is at the specified level. Fill with oil as necessary. (See page 8-13 for details.)

Recommended oil:



YAMALUBE 4 (20W40) or
SAE 20W40 type SE motor oil
YAMALUBE 4 (10W30) or
SAE 10W30 type SE motor oil

Recommended engine oil classification:

API Service "SE", "SF" type or
equivalent
(e.g. "SF-SE", "SF-SE-CC",
"SF-SE-SD" etc.)

Oil quantity:

Total amount:

2.9 L (2.6 Imp qt, 3.1 US qt)

Periodic oil change:

2.2 L (1.9 Imp qt, 2.3 US qt)

With oil filter replacement:

2.5 L (2.2 Imp qt, 2.6 US qt)

Chain

Check the general condition of the chain and the chain slack before every ride. Lubricate and adjust the chain as necessary. (See page 8-25 for details.)

Tires

To ensure maximum performance, long service and safe operation, note the following:

1. Tire air pressure

Always check and adjust the tire pressure before operating the motorcycle.



Tire inflation pressure should be checked and adjusted when the temperature of the tire equals the ambient air temperature.

Tire inflation pressure must be adjusted according to total weight of cargo, rider, passenger, and accessories (fairing, saddlebags, etc. if approved for this model), and vehicle speed.

Maximum load*:	192 kg (423 lb)	
Cold tire pressure:	Front	Rear
Up to 90kg (198 lb) load*	200 kPa (2.00 kgf/cm ² , 29 psi)	225 kPa (2.25 kgf/cm ² , 33 psi)
90kg (198 lb) load ~ Maximum load*	200 kPa (2.00 kgf/cm ² , 29 psi)	250 kPa (2.50 kgf/cm ² , 36 psi)
High speed riding	200 kPa (2.00 kgf/cm ² , 29 psi)	250 kPa (2.50 kgf/cm ² , 36 psi)

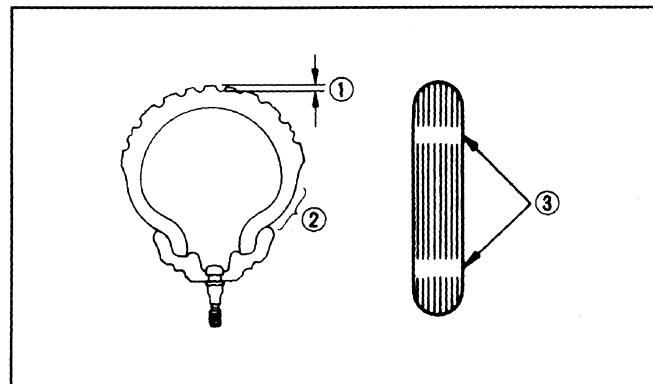
* Load is the total weight of cargo, rider, passenger and accessories.

WARNING

Proper loading of your motorcycle is important for several characteristics of your motorcycle, such as handling, braking, performance and safety. Do not carry loosely packed items that can shift. Securely pack your heaviest items close to the center of the motorcycle, and distribute the weight evenly from side to side. Properly adjust the suspension for your load, and check the condition and pressure of your tires. NEVER OVERLOAD YOUR MOTORCYCLE. Make sure the total weight of the cargo, rider, passenger, and accessories (fairing, saddlebags, etc. if approved for this model) does not exceed the maximum load of the motorcycle. Operation of an overloaded motorcycle could cause tire damage, an accident, or even injury.

2. Tire inspection

Always check the tires before operating the motorcycle. If a tire tread shows crosswise lines (minimum tread depth), if the tire has a nail or glass fragments in it, or if the side wall is cracked, contact a Yamaha dealer immediately and have the tire replaced.



1. Tread depth 2. Side wall 3. Wear indicator

FRONT:

Manufacturer	Size	Type
DUNLOP	110/80-17 57H	D103FA
MICHELIN	110/80-17 57H	MACADAM50

REAR:

Manufacturer	Size	Type
DUNLOP	130/70-18 63H	D103A
MICHELIN	130/70-18 63H	MACADAM50

Minimum tire tread depth (front and rear)	1.0 mm (0.04 in)
--	------------------

EUU68001

WARNING

It is dangerous to ride with a worn-out tire. When a tire tread begins to show lines, have a Yamaha dealer replace the tire immediately. Brakes, tires and related wheel parts replacement should also be left to a Yamaha dealer.

Cast wheels and tires

To ensure maximum performance, long service, and safe operation, note the following:

1. Always inspect the wheels before a ride. Check for cracks, bends, or warpage of the wheels. If any abnormal condition exists in a wheel, consult a Yamaha dealer. Do not attempt even small repairs to the wheel. If a wheel is deformed or cracked, it must be replaced.
2. Tires and wheels should be balanced whenever either one is changed or replaced. Failure to have a wheel balanced can result in poor performance, adverse handling characteristics, and shortened tire life.
3. Ride at moderate speeds after changing a tire since the tire surface must first be broken in for it to develop its optimal characteristics.

EAE93900

Accessories or replacement parts

EUU69700

WARNING

This motorcycle is not designed to pull a trailer or to be attached to a sidecar. The accessories or replacement parts you choose for your motorcycle should be designed specifically for it, and they must be securely mounted to maintain the inherent stability of the original design. Genuine Yamaha Parts and Accessories are designed and tested to be compatible with your motorcycle. Please consider Genuine Yamaha Parts and Accessories before making an accessory purchase. Use of non-Yamaha-approved parts or accessories may cause loss of handling stability and riding safety. Since Yamaha cannot control the quality of parts or accessories manufactured by other companies, Yamaha cannot be held liable for any con-

sequences caused by the use of items which have not been approved by Yamaha.

EAE85101

Chassis fasteners

Always check the tightness of all chassis nuts, bolts and screws before a ride. Take the motorcycle to a Yamaha dealer or refer to the Service Manual for correct tightening torque.

EAE71500

Lights, signals and switches

Check all the lights, meter lights and indicator lights to make sure they are in working condition.

Check the operation of the handlebar switches and main switch.

EAE80000

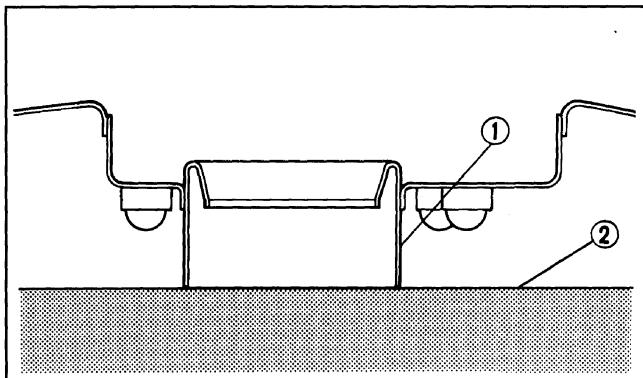
Fuel

Make sure there is sufficient fuel in the tank.

EUU61000

WARNING

Do not overfill the fuel tank. Avoid spilling fuel on the hot engine. Do not fill the fuel tank above the bottom of the filler tube as shown in the illustration or it may overflow when the fuel heats up later and expands.



1. Filler tube

2. Fuel level

EUU39302

CAUTION:

Always wipe off spilled fuel immediately with a dry and clean soft cloth. Fuel may deteriorate painted surfaces or plastic parts.

EAE81701

Recommended fuel:
UNLEADED FUEL

Fuel tank capacity:

Total:

17.0 L (3.7 Imp gal, 4.5 US gal)

Reserve:

3.5 L (0.8 Imp gal, 0.9 US gal)

Your Yamaha engine has been designed to use regular unleaded gasoline with a pump octane number ($[R+M]/2$) of 86 or higher, or research octane number of 91 or higher. If knocking or pinging occurs, use a different brand of gasoline or premium unleaded fuel. Unleaded fuel will give you longer spark plug life and reduced maintenance cost. If unleaded gasoline is not available, then leaded regular gasoline can be used.

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%. Gasohol containing methanol is not recommended by Yamaha because it can cause fuel system damage or vehicle performance problems.

OPERATION AND IMPORTANT RIDING POINTS

⚠ WARNING

1. Before riding this motorcycle, become thoroughly familiar with all operating controls and their functions. Consult a Yamaha dealer regarding any control or function that you do not thoroughly understand.
2. Never start your engine or let it run for any length of time in a closed area. The exhaust fumes are poisonous and can cause loss of consciousness and death within a short time. Always operate your motorcycle in an area with adequate ventilation.

3. Before starting out, always be sure the sidestand is up. Failure to retract the sidestand completely can result in a serious accident when you try to turn a corner.

CAUTION:

1. Be careful where you store personal items on the motorcycle. Avoid blocking the air cleaner intake or performance will suffer.
2. Be careful not to put anything near the battery and its terminals. Electrical failure and acid corrosion may result.

EAF11704

Starting and warming up a cold engine

EUU02802

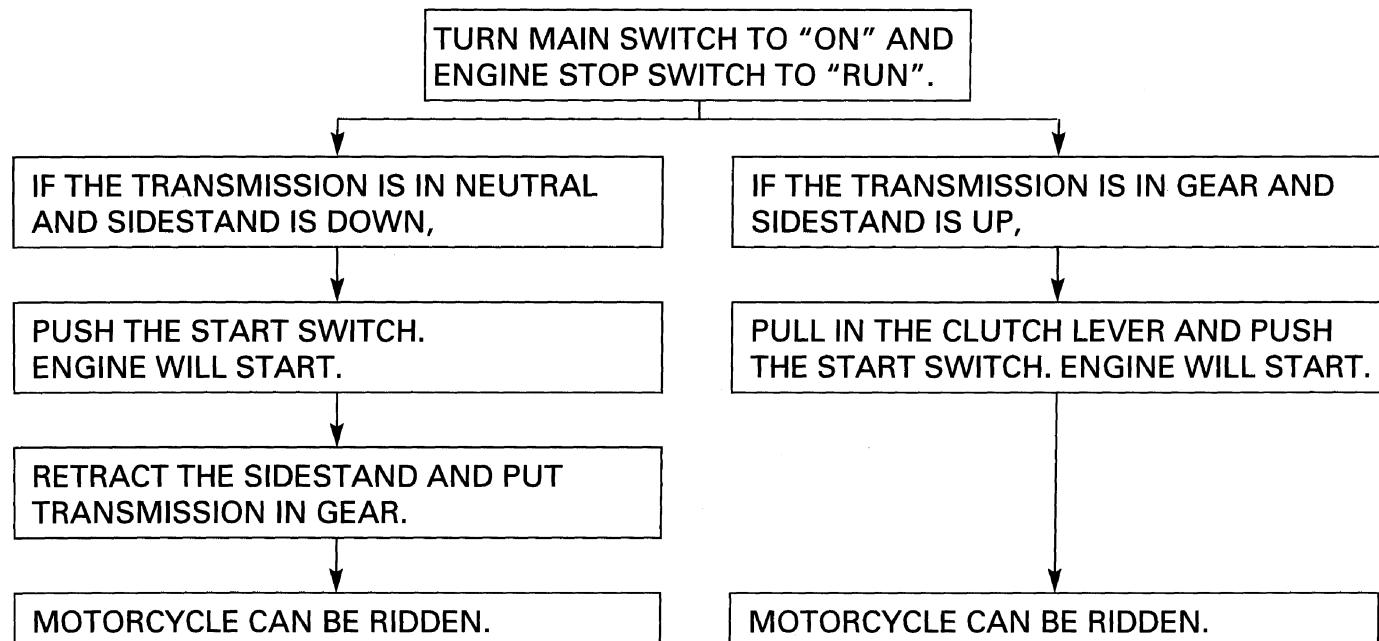
NOTE:

This motorcycle is equipped with an ignition circuit cut-off system.

1. The engine can be started only under the following conditions:
 - a. The transmission is in neutral.
 - b. The sidestand is up, the transmission is in gear and the clutch is disengaged.
 2. The motorcycle must not be ridden when the sidestand is down.
-

WARNING

**Before going through the following steps,
check the function of the sidestand switch
and clutch switch. (Refer to page 5-15.)**



1. Turn the fuel cock to "ON".
2. Turn the main switch to "ON" and the engine stop switch to "RUN".
3. Shift transmission into neutral.

EUU03001

NOTE:

When the transmission is in neutral, the neutral indicator light should be on. If the light does not come on, ask a Yamaha dealer to inspect it.

4. Turn on the starter "||" and completely close the throttle grip.
5. Start the engine by pushing the start switch.

EUU02501

NOTE:

If the engine fails to start, release the start switch, wait a few seconds, then try again. Each attempt should be as short as possible to preserve the battery. Do not crank the engine more than 10 seconds on any one attempt.

CAUTION:

The oil level indicator light should come on when the start switch is pushed and should go off when the start switch is released. If the indicator light flickers or remains on, immediately stop the engine and check the engine oil level and for oil leakage. If necessary, fill the engine with oil and check to see that the oil level indicator light goes off. If the light does not go off even with sufficient oil in the crankcase or the light does not come on when pushing the start switch, consult a Yamaha dealer.

6. After starting the engine, turn off the starter. The starter operation periods differ with the ambient temperature. Refer to the following notes.

EEU03101

NOTE:

- The engine is warm when it responds normally to the throttle with the starter turned off. To avoid the possibility of excessive exhaust emissions, never leave the starter circuit on longer than necessary. The length of time the starter is needed depends upon the ambient temperature. Warm ambient temperatures (above 10°C/50°F) require about 7 seconds of starter use. Cold ambient temperatures (below 10°C/50°F) require about 35 seconds with the starter turned on, then about 2.5 minutes with the starter in the half-way position.
- For maximum engine life, always warm up the engine before starting off. Never accelerate hard with a cold engine.

EAF10802

Starting a warm engine

The starter “|x|” is not required when the engine is warm.

EEU31401

CAUTION:

See the “Engine break-in” section prior to operating the motorcycle for the first time.

EAF20003

Shifting

The transmission lets you control the amount of power you have available at a given speed for starting, accelerating, climbing hills, etc. The use of the shift pedal is shown in the illustration. (Page 5-8)

To shift into neutral, depress the shift pedal repeatedly until it reaches the end of its travel, then raise the pedal slightly.

CAUTION:

- 1. Do not coast for long periods with the engine off, and do not tow the motorcycle a long distance. Even with gears in neutral, the transmission is only properly lubricated when the engine is running. Inadequate lubrication may damage the transmission.**
- 2. Always use the clutch when changing gears. The engine, transmission, and driveline are not designed to withstand the shock of forced shifting and can be damaged by shifting without using the clutch.**

To start out and accelerate:

1. Pull the clutch lever to disengage the clutch.
2. Shift into first gear. The neutral indicator light should go out.
3. Open the throttle gradually, and at the same time, release the clutch lever slowly.
4. At the recommended shift point in the table below, close the throttle, and at the same time, quickly pull in the clutch lever.
5. Shift into second gear. (Be careful not to shift into neutral.)
6. Open the throttle part way and gradually release the clutch lever.
7. Follow the same procedure when shifting to the next higher gear. Always shift gears at the recommended shift points.

EAF20302

To decelerate:

1. Apply both the front and the rear brakes at the same time to slow the motorcycle.
2. When the motorcycle reaches 25 km/h (15.5 mi/h), shift into first gear. Any time the engine is about to stall or runs very roughly, pull in the clutch and use the brakes to stop.
3. When the motorcycle is almost completely stopped, shift into neutral. The neutral indicator light should come on.

EAF20400

Recommended shift point

	Acceleration shift point km/h (mi/h)	Deceleration shift point km/h (mi/h)
1st → 2nd	16 (9.9)	–
2nd → 3rd	24 (14.9)	25 (15.5)
3rd → 4th	32 (19.9)	25 (15.5)
4th → 5th	40 (24.9)	25 (15.5)
5th → 6th	48 (29.9)	25 (15.5)

EAF30000

Engine break-in

There is never a more important period in the life of your motorcycle than the period between zero and 1,000 km (600 mi). For this reason we ask that you carefully read the following material. Because the engine is brand new, you must not put an excessive load on it for the first 1,000 km (600 mi). The various parts in the engine wear and polish themselves to the correct operating clearances. During this period, prolonged full throttle operation, or any condition which might result in excessive heating of the engine, must be avoided.

EAF30702

1. 0 ~ 150 km (0 ~ 90 mi):

Avoid operation above 5,000 r/min. Stop the engine and let it cool for 5 to 10 minutes after every hour of operation. Vary the speed of the motorcycle from time to time. Do not operate it at one set throttle position.

2. 150 ~ 500 km (90 ~ 300 mi):

Avoid prolonged operation above 6,000 r/min. Rev the motorcycle freely through the gears, but do not use full throttle at any time.

3. 500 ~ 1,000 km (300 ~ 600 mi):

Avoid prolonged full throttle operation. Avoid cruising speeds in excess of 7,000 r/min.

EUU32001

CAUTION:

After 1,000 km (600 mi) of operation, be sure to replace the engine oil and oil filter.

4. 1,000 km (600 mi) and beyond:

Full throttle can be used.

EUU38701

CAUTION:

- **Never let engine speeds enter the red zone.**
- **If any engine trouble should occur during the break-in period, consult a Yamaha dealer immediately.**

EAF40001

Parking

When parking the motorcycle, stop the engine and remove the ignition key.

EUU63001



WARNING

The exhaust system is hot. Park the motorcycle in a place where pedestrians or children are not likely to touch the motorcycle. Do not park the motorcycle on a slope or soft ground; the motorcycle may overturn.

EAH00000

PERIODIC MAINTENANCE AND MINOR REPAIR

EAH00101

Periodic inspection, adjustment, and lubrication will keep your motorcycle in the safest and most efficient condition possible. Safety is an obligation of the motorcycle owner. The most important points of motorcycle inspection, adjustment, and lubrication are explained in the following pages. **"Maintenance, replacement, or repair of the emission control devices and systems may be performed by any repair establishment or individual using any part which is certified (if applicable)".**

EUU63200



WARNING

If you are not familiar with motorcycle service, this work should be done by a Yamaha dealer.

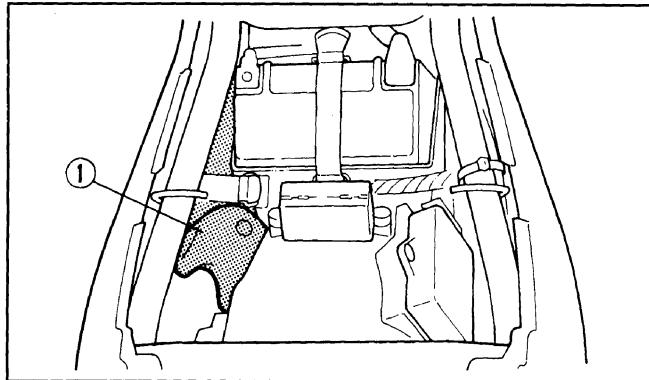
EAH00300

PERIODIC MAINTENANCE

PROPER PERIODIC MAINTENANCE OF YOUR MOTORCYCLE IS IMPORTANT IN ORDER TO ENJOY LONG, PLEASURABLE SERVICE. ESPECIALLY IMPORTANT ARE THE MAINTENANCE SERVICES RELATED TO EMISSIONS CONTROL. THESE CONTROLS NOT ONLY FUNCTION TO ENSURE CLEANER AIR BUT ARE ALSO VITAL TO PROPER ENGINE OPERATION AND MAXIMUM PERFORMANCE. IN THE FOLLOWING TABLES OF PERIODIC MAINTENANCE, THE SERVICES RELATED TO EMISSIONS CONTROL ARE GROUPED SEPARATELY. THESE SERVICES REQUIRE SPECIALIZED DATA, KNOWLEDGE, AND EQUIPMENT. YAMAHA DEALERS ARE TRAINED AND EQUIPPED TO PERFORM THESE PARTICULAR SERVICES.

Tool kit

The service information included in this manual is intended to provide you, the owner, with the necessary information for completing some of your own preventive maintenance and minor repairs. The tools provided in the owner's tool kit are to assist you in the performance of periodic maintenance. However, some other tools such as a torque wrench are also necessary to perform the maintenance correctly.



1. Tool kit

NOTE:

If you do not have necessary tools required during a service operation, take your motorcycle to a Yamaha dealer for service.

WARNING

Modifications to this motorcycle not approved by Yamaha may cause loss of performance, excessive emissions, and render it unsafe for use. Consult a Yamaha dealer before attempting any changes.

Periodic maintenance emission control system

No.	ITEM	ROUTINE	INITIAL	ODOMETER READINGS					
			1,000 km (600 mi) or 1 month	7,000 km (4,400 mi) or 7 months	13,000 km (8,200 mi) or 13 months	19,000 km (12,000 mi) or 19 months	25,000 km (15,800 mi) or 25 months	31,000 km (19,600 mi) or 31 months	
1 * Valve clearance		• Check and adjust valve clearance when engine is cold.					○		
2 Spark plugs		• Check condition. • Adjust gap and clean. • Replace at 13,000 km (or 13 months) and thereafter every 12,000 km (or 12 months).		○	Replace	○	Replace	○	
3 * Crankcase breather system		• Check breather hose for cracks or damage. • Replace if necessary.		○	○	○	○	○	
4 * Fuel line		• Check fuel hose and vacuum pipe for cracks or damage. • Replace if necessary.		○	○	○	○	○	
5 * Fuel filter		• Replace initial 31,000 km (19,600 mi) and thereafter every 30,000 km (19,000 mi).							Replace
6 * Exhaust system		• Check for leakage. • Retighten if necessary. • Replace gaskets if necessary.		○	○	○	○	○	
7 * Carburetor Synchronization		• Adjust synchronization of carburetors.	○	○	○	○	○	○	
8 * Idle speed		• Check and adjust engine idle speed. • Adjust cable free play.		○	○	○	○	○	

No.	ITEM	ROUTINE	INITIAL	ODOMETER READINGS				
			1,000 km (600 mi) or 1 month	7,000 km (4,400 mi) or 7 months	13,000 km (8,200 mi) or 13 months	19,000 km (12,000 mi) or 19 months	25,000 km (15,800 mi) or 25 months	31,000 km (19,600 mi) or 31 months
9	* Evaporative emission control system**	<ul style="list-style-type: none"> • Check control system for damage. • Replace if necessary. 				<input type="radio"/>		<input type="radio"/>

* It is recommended that these items be serviced by a Yamaha dealer or other qualified mechanic.

** For California type only

NOTE:

For odometer readings or time periods higher than 31,000 km (19,600 mi) or 31 months repeat the same maintenance as listed in the table from the 7,000 km (4,400 mi) or 7 months every 6,000 km (3,800 mi) or 6 month interval.

General maintenance/lubrication

No.	ITEM	ROUTINE	TYPE	INITIAL	ODOMETER READINGS				
				1,000 km (600 mi) or 1 month	7,000 km (4,400 mi) or 7 months	13,000 km (8,200 mi) or 13 months	19,000 km (12,000 mi) or 19 months	25,000 km (15,800 mi) or 25 months	31,000 km (19,600 mi) or 31 months
1	Engine oil	• Warm-up engine before draining.	*1) YAMALUBE 4 (20W40) or SAE 20W40 type "SE" motor oil *2) YAMALUBE 4 (10W30) or SAE 10W30 type "SE" motor oil	○	○	○	○	○	○
2	* Oil filter	• Replace	–	○	○	○	○	○	○
3	* Air filter	• Clean with compressed air. • Replace if necessary.	–		○	○	○	○	○
4	* Brake system	• Check brake system. • Replace pads if necessary.	–	○	○	○	○	○	○
5	Clutch	• Adjust free play.	–	○	○	○	○	○	○
6	* Drive chain	• Check chain condition. • Adjust and lubricate chain thoroughly.	SAE 30W-50W motor oil	Every 1,000 km (600 mi) and after washing the motorcycle or riding in the rain.					

No.	ITEM	ROUTINE	TYPE	INITIAL	ODOMETER READINGS			
				1,000 km (600 mi) or 1 month	7,000 km (4,400 mi) or 7 months	13,000 km (8,200 mi) or 13 months	19,000 km (12,000 mi) or 19 months	25,000 km (15,800 mi) or 25 months
7 *	Control and meter cable	• Apply chain lube thoroughly.	Yamaha chain and cable lube or SAE 10W30 motor oil	○	○	○	○	○
8	Rear arm pivot shaft	• Apply grease lightly.	Molybdenum disulfide grease					○
9	Brake/Clutch lever pivot shaft	• Apply chain lube lightly.	Yamaha chain and cable lube or SAE 10W30 motor oil		○	○	○	○
10 *	Brake pedal and shift pedal shaft	• Lubricate. • Apply chain lube lightly.	Yamaha chain and cable lube or SAE 10W30 motor oil		○	○	○	○
11 *	Sidestand pivot	• Check operation and lubricate. • Apply chain lube lightly.	Yamaha chain and cable lube or SAE 10W30 motor oil		○	○	○	○
12 *	Front fork	• Check operation and leakage.	—		○	○	○	○
13 *	Steering bearings	• Check bearings assembly for looseness. • Moderately repack every 24,000 km (15,200 mi).	Lithium soap base.		○	○	○	Rearpack ○

No.	ITEM	ROUTINE	TYPE	INITIAL	ODOMETER READINGS				
				1,000 km (600 mi) or 1 month	7,000 km (4,400 mi) or 7 months	13,000 km (8,200 mi) or 13 months	19,000 km (12,000 mi) or 19 months	25,000 km (15,800 mi) or 25 months	31,000 km (19,600 mi) or 31 months
14	* Wheel bearings	• Check bearings for smooth rotation.	–		○	○	○	○	○
15	* Sidestand switch	• Check and clean or replace if necessary.	–	○	○	○	○	○	○

*1) If ambient temperature does not go below 5°C/40°F.

*2) If ambient temperature dose not go above 15°C/60°F.

* It is recommended that these items be serviced by a Yamaha dealer or other qualified mechanic.

NOTE:

- The air filter needs more frequent service if you are riding in unusually wet or dusty areas.
 - For odometer readings or time periods higher than 31,000 km (19,600 mi) or 31 months repeat the same maintenance as listed in the table from the 7,000 km (4,400 mi) or 7 months every 6,000 km (3,800 mi) or 6 month interval.
 - Brake fluid replacement:
 1. When disassembling the master cylinder or caliper cylinder, always replace the brake fluid. Check the brake fluid level regularly and fill as required.
 2. Replace the oil seals on the inner parts of the master cylinder and caliper cylinder every two years.
 3. Replace the brake hoses every four years or if cracked or damaged.
-

Spark plug inspection

The spark plug is an important engine component and is easy to inspect. The condition of the spark plug can indicate the condition of the engine.

Normally, all spark plugs from the same engine should have the same color on the white insulator around the center electrode. The ideal color at this point is a medium-to-light tan color for a motorcycle that is being ridden normally. If one spark plug shows a distinctly different color, there could be something wrong with the engine.

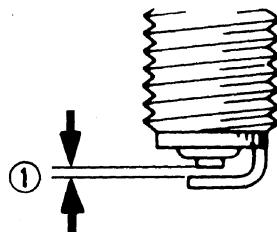
Do not attempt to diagnose such problems yourself. Instead, take the motorcycle to a Yamaha dealer. You should periodically remove and inspect the spark plugs because heat and deposits will cause any spark plug to slowly break down and erode. If electrode erosion becomes exces-

sive, or if carbon and other deposits are excessive, you should replace the spark plug with the specified plug.

Specified spark plug:

CR8E (NGK) or
U24ESR-N (DENSO)

Before installing any spark plug, measure the electrode gap with a wire thickness gauge. Adjust the gap to specification.



1. Spark plug gap

Spark plug gap:

0.7 ~ 0.8 mm (0.028 ~ 0.031 in)

When installing the spark plug, always clean the gasket surface and use a new gasket. Wipe off any grime from the threads and tighten the spark plug to the specified torque.

Tightening torque:**Spark plug:**

13 Nm (1.3 m·kg, 9.4 ft·lb)

EUU03802

NOTE:

If a torque wrench is not available when you are installing a spark plug, a good estimate of the correct torque is 1/4 to 1/2 turn past finger tight. Have the spark plug tightened to the specified torque as soon as possible.

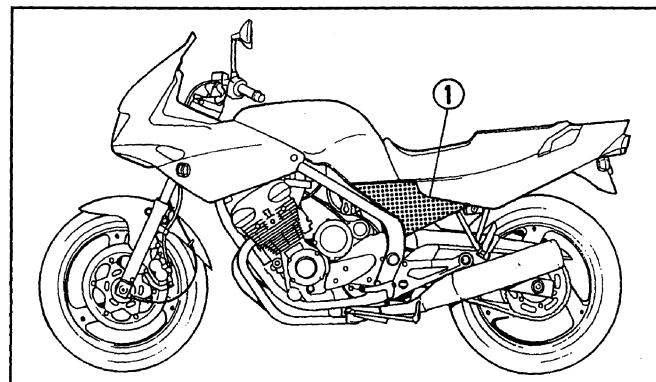
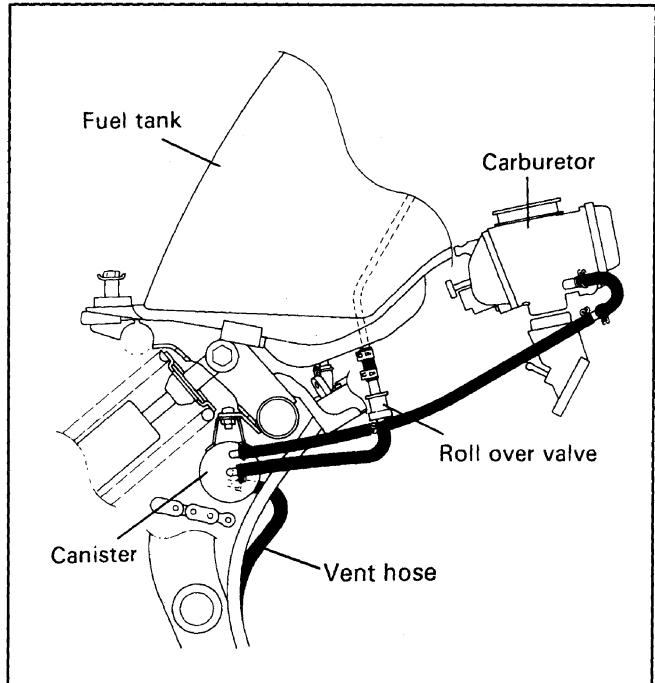
Canister (for California only)

This model is equipped with a canister to prevent the discharging of fuel vapor into the atmosphere. Before using this motorcycle be sure to:

1. Check each hose connection.
2. Check each hose and canister for cracks or damage. Replace if damaged.
3. Make sure the vent hose is not blocked. Clean it if necessary.

Panel removal and installation

The panels indicated in the illustration need to be removed to perform some of the maintenance described in this chapter. Refer to this section each time a panel has to be removed or reinstalled.

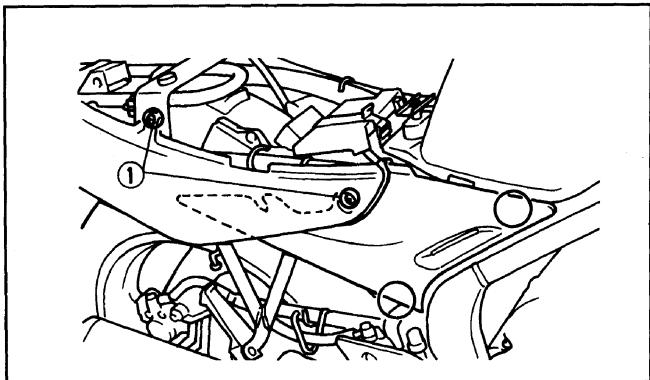


1. Panel A

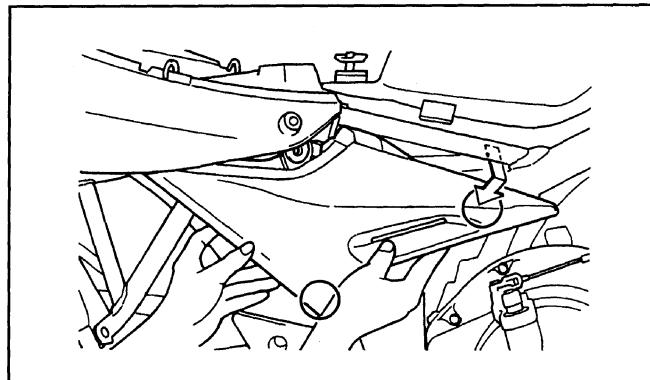
Panel A

To remove:

1. Remove the seat.
2. Remove the screws and slide it as shown to unhook it.

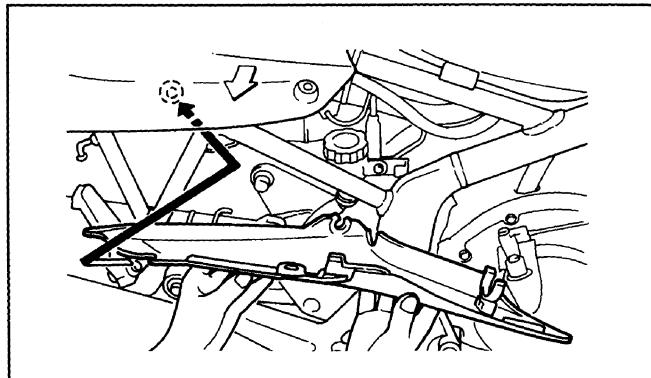


1. Screw ($\times 2$)



To install:

1. Place in the original position and install the screws.



2. Install the seat.

Engine oil

1. Oil level inspection

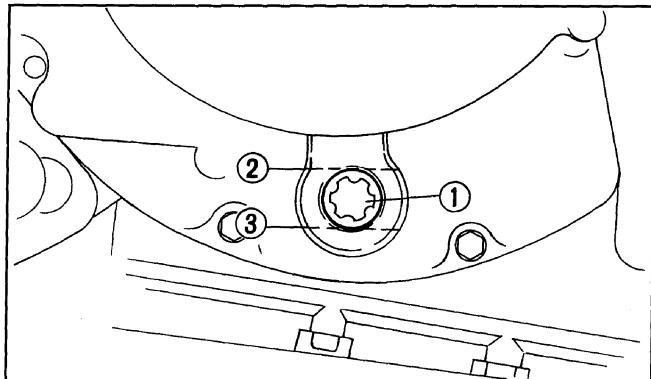
- a. Place the motorcycle on a level place and hold it in an upright position. Warm up the engine for several minutes.

EUU03901

NOTE:

Be sure the motorcycle is positioned straight up when checking the oil level. A slight tilt toward the side can result in false readings.

- b. With the engine stopped, check the oil level through the level window located at the lower part of the right side crankcase cover.



1. Level window

3. Minimum level mark

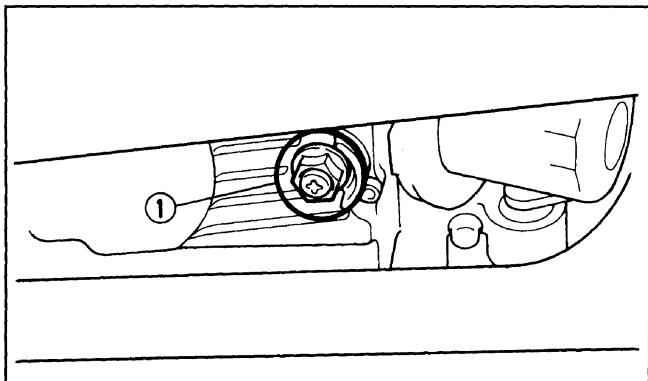
EUU04000

NOTE:

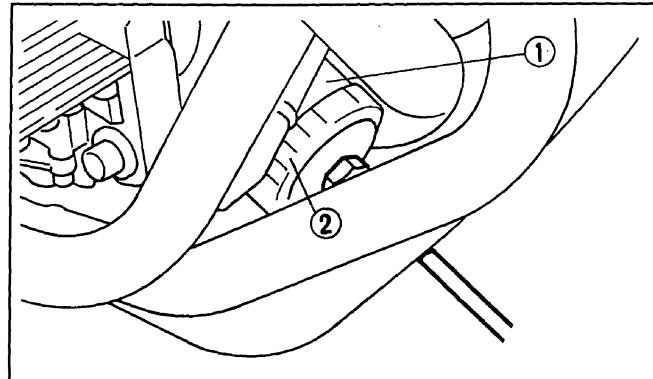
Wait a few minutes until the oil level settles before checking.

- c. The oil level should be between the maximum and minimum marks. If the level is low, fill the engine with sufficient oil to reach the specified level.

2. Engine oil and oil filter cartridge replacement
 - a. Warm up the engine for several minutes.
 - b. Stop the engine. Place an oil pan under the engine and remove the oil filler cap.
 - c. Remove the drain plug and drain the oil.



1. Drain plug
- d. Remove the oil filter by using an oil filter wrench.



1. Oil filter

2. Oil filter wrench

EUU13001

NOTE:

An oil filter wrench is available at a nearby Yamaha dealer.

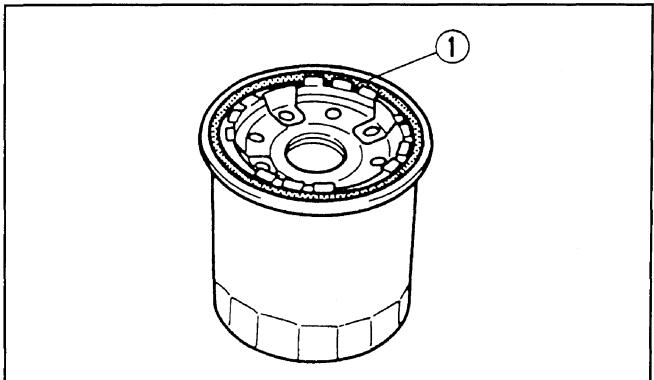
- e. Reinstall the drain plug and tighten it to the specified torque.

Tightening torque:

Drain plug:

43 Nm (4.3 m·kg, 31 ft·lb)

- f. Apply a light coat of engine oil to the O-ring of new oil filter.



1. O-ring

EUU04101

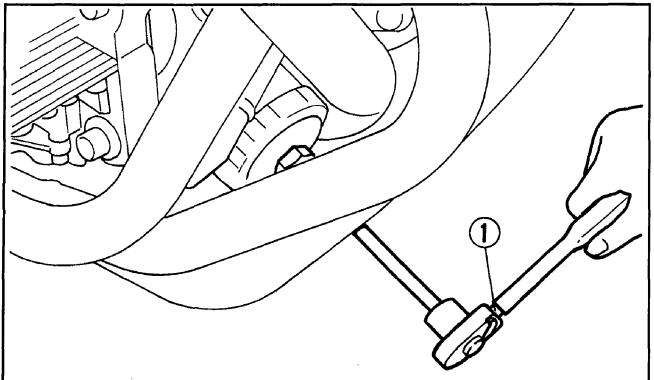
NOTE: _____
Make sure the O-ring is seated properly.

- g. Install the oil filter and tighten it to the specified torque with an oil filter wrench.

Tightening torque:

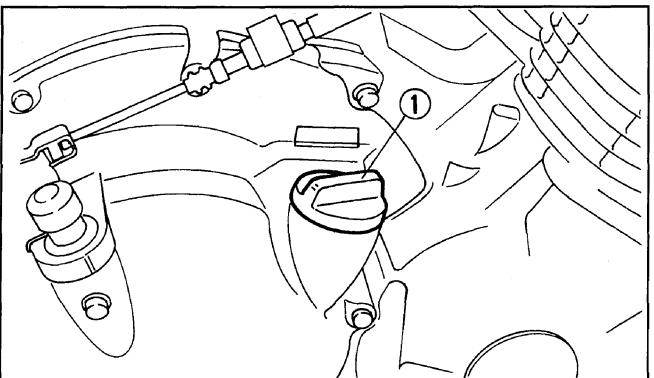
Oil filter:

17 Nm (1.7 m·kg, 12 ft·lb)



1. Torque wrench

- h. Fill the engine with sufficient oil. Install the oil filler cap and tighten it.



1. Oil filler cap

Recommended oil:

See page 6-4

Oil quantity:

Total amount:

2.9 L (2.6 Imp qt, 3.1 US qt)

Periodic oil change:

2.2 L (1.9 Imp qt, 2.3 US qt)

With oil filter replacement:

2.5 L (2.2 Imp qt, 2.6 US qt)

- i. Start the engine and warm it up for several minutes. While warming up, check for oil leakage. If oil leakage is found, stop the engine immediately and check for the cause.
- j. After the engine is started, the oil level indicator light should go off if the oil is at the specified level.

EUU32401

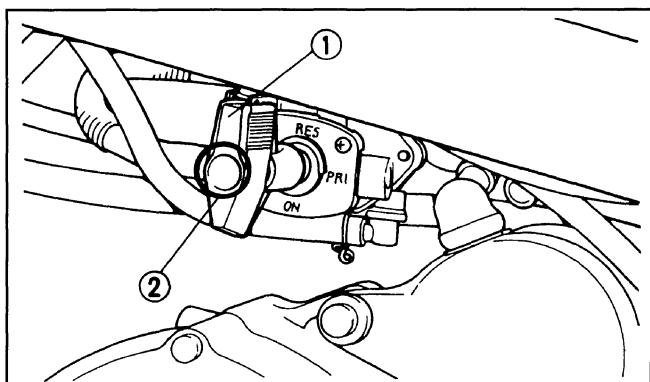
CAUTION:

- **Do not put in any chemical additives.**
Engine oil also lubricates the clutch and additives could cause clutch slippage.
- **Be sure no foreign material enters the crankcase.**

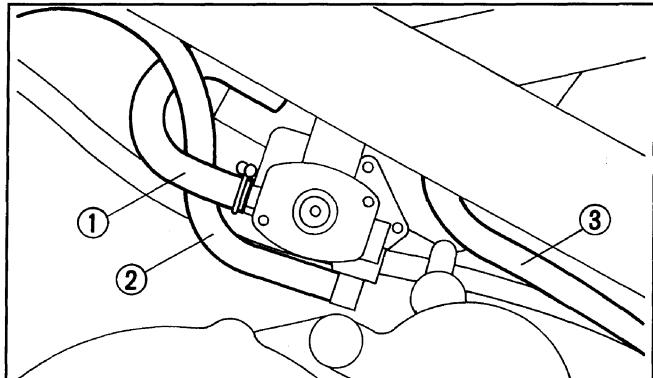
Air filter

The air filter should be cleaned at the specified intervals. It should be cleaned more frequently if you are riding in unusually wet or dusty areas.

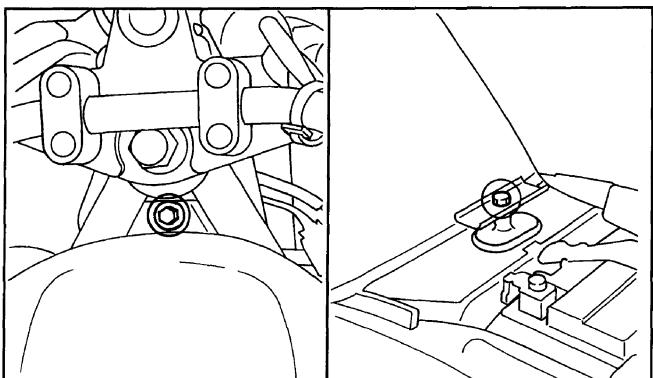
1. Remove the seat.
2. Turn the fuel cock lever to "ON". Then remove the fuel cock lever by removing the screw.



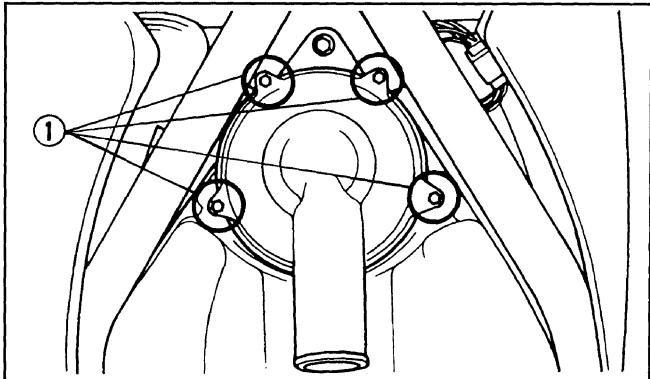
1. Fuel cock lever
2. Screw
3. Disconnect the hoses.



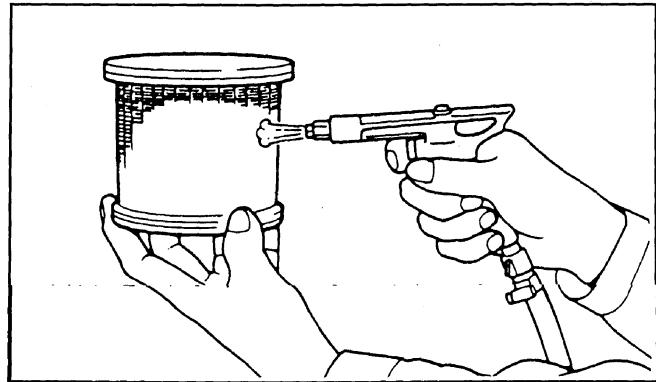
1. Fuel hose
2. Vacuum hose
3. Drain hose
4. Remove the fuel tank.



5. Remove the air filter case cover by removing the screws.



1. Screw (x 4)
6. Pull out the air filter.
7. Tap the air filter lightly to remove most of the dust and dirt. Blow out the remaining dirt with compressed air as shown. If the air filter is damaged, replace it.



8. Reassemble by reversing the removal procedure.

EUU42402

CAUTION

- Make sure the air filter is properly seated in the filter case.
 - The engine should never be run without the air filter installed. Excessive piston and/or cylinder wear may result.
-

EAH93002

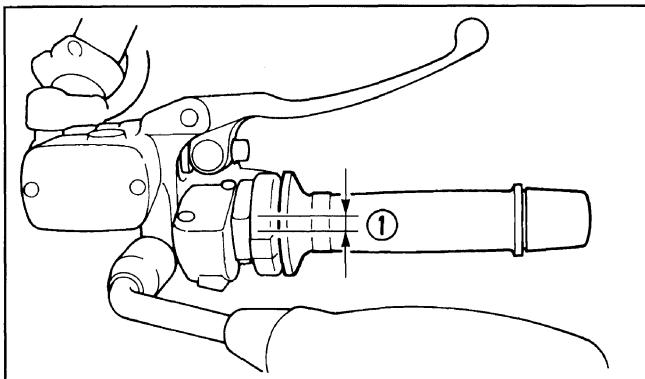
Carburetor adjustment

The carburetors are important parts of the engine and emission control system. Adjusting should be left to a Yamaha dealer with the professional knowledge, specialized data and equipment to do so properly.

EAH92202

Throttle cable free play inspection

There should be a free play of 3 ~ 5 mm (0.12 ~ 0.20 in) at the throttle grip. If the free play is incorrect, ask a Yamaha dealer to make this adjustment.



1. Free play

EAH90801

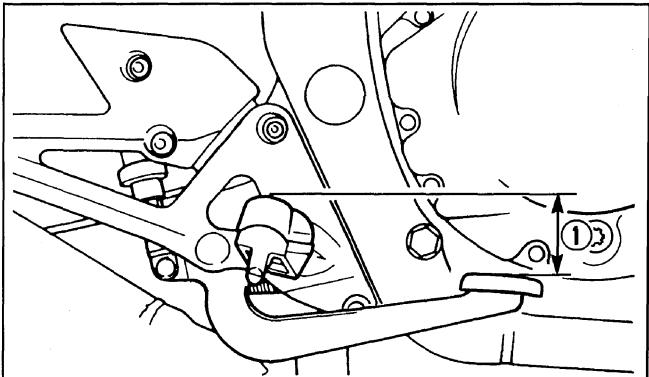
Valve clearance adjustment

The correct valve clearance changes with use, resulting in improper fuel/air supply or engine noise. To prevent this, the valve clearance must be adjusted regularly. This adjustment however, should be left to a professional Yamaha service technician.

EAH80402

Rear brake pedal height adjustment

The top of the brake pedal should be positioned 40 mm (1.57 in) below the top of the footrest. If not, ask a Yamaha dealer to adjust it.



1. Pedal height

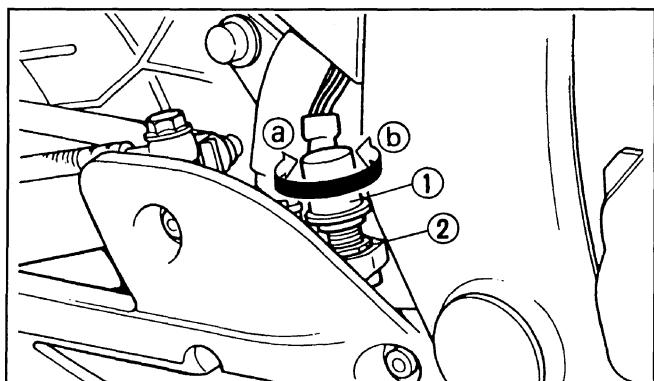
EUU79300

WARNING

A soft or spongy feeling in the brake pedal can indicate the presence of air in the brake system. This air must be removed by bleeding the brake system before the motorcycle is operated. Air in the system will cause greatly diminished braking capability and can result in loss of control and an accident. Have a Yamaha dealer inspect and bleed the system if necessary.

Brake light switch adjustment

The rear brake light switch is activated by the brake pedal and is properly adjusted when the brake light comes on just before braking takes effect. To adjust the rear brake light switch, hold the switch body so it does not rotate while turning the adjusting nut. Turn the adjusting nut in direction ① to make the brake light come on earlier. Turn the adjusting nut in direction ② to make the brake light come on later.



1. Main body

2. Adjusting nut

EAH87300

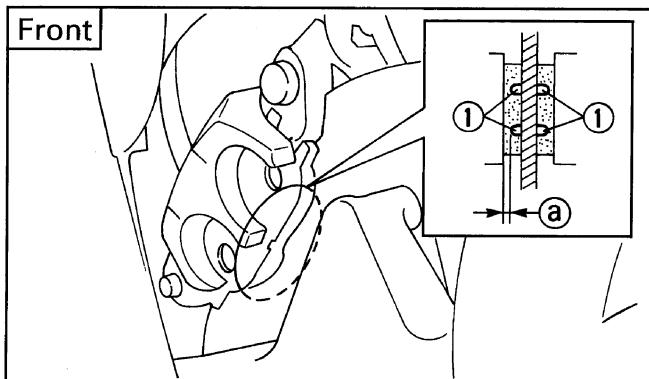
Checking the front and rear brake pads

Check the brake pads for damage and wear.

EAH87401

FRONT

Apply the brake and inspect the wear indicator. If the brake pads are worn to the wear limit, have a Yamaha dealer replace the pads.



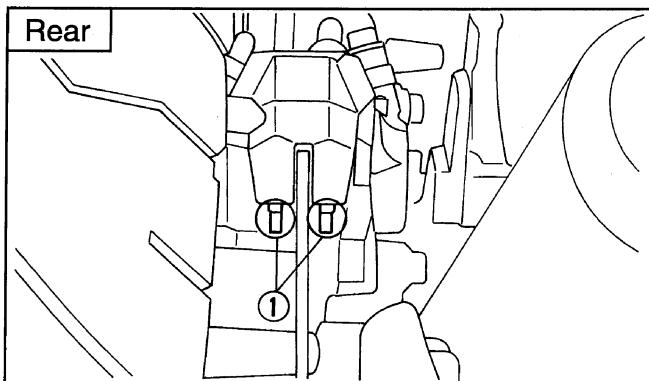
1. Wear indicator

a. Wear limit 0.8 mm (0.031 in)

EAH89800

REAR

Apply the brake and inspect the wear indicator. If the wear indicator is ALMOST in contact with the disc plate, ask a Yamaha dealer to replace the pads.



1. Wear indicator

Inspecting the brake fluid level

Insufficient brake fluid may let air enter the brake system, possibly causing the brakes to become ineffective.

Before riding, check that the brake fluid is above the minimum level and fill when necessary. Observe these precautions:

1. When checking the fluid level, make sure the top of the master cylinder is level by turning the handlebars.
2. Use only the designated quality brake fluid. Otherwise, the rubber seals may deteriorate, causing leakage and poor brake performance.

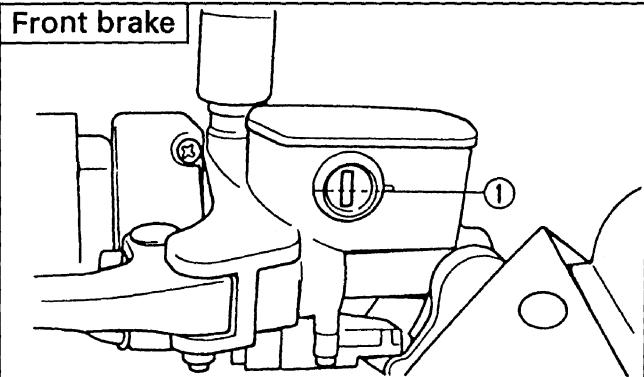
Recommended brake fluid: DOT 4

EUU13100

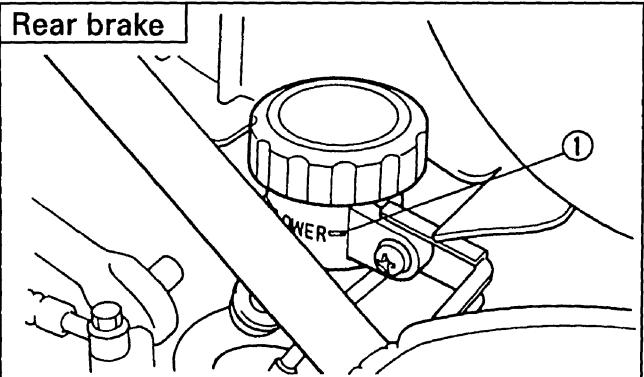
NOTE:

If DOT 4 is not available, DOT 3 can be used.

3. Refill with the same type of brake fluid. Mixing fluids may result in a harmful chemical reaction and lead to poor brake performance.
4. Be careful that water does not enter the master cylinder when refilling. Water will significantly lower the boiling point of the fluid and may result in vapor lock.
5. Brake fluid may deteriorate painted surfaces or plastic parts. Always clean up spilled fluid immediately.
6. Have a Yamaha dealer check the cause if the brake fluid level goes down.

Front brake

1. Minimum level mark

Rear brake

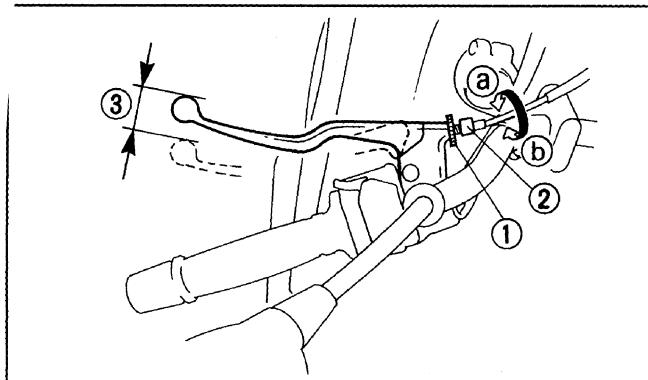
1. Minimum level mark

Brake fluid replacement

1. Complete fluid replacement should be done only by trained Yamaha service personnel.
2. Have a Yamaha dealer replace the following components during periodic maintenance or when they are damaged or leaking.
 - a. Replace all rubber seals every two years.
 - b. Replace all hoses every four years.

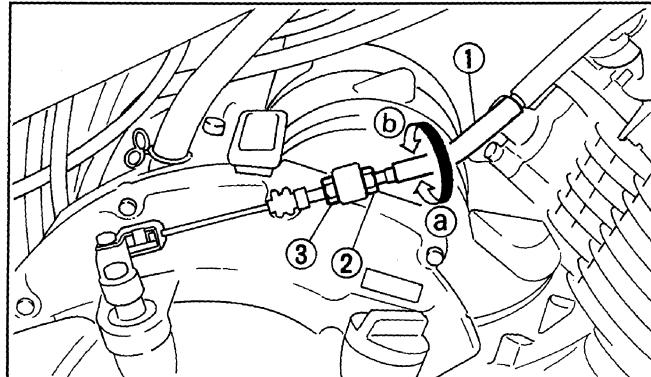
Clutch lever free play adjustment

The clutch lever free play should be adjusted to 10 ~ 15 mm (0.39 ~ 0.59 in).



1. Locknut 2. Adjusting bolt 3. Free play

1. Loosen the locknut at the clutch lever.
 2. Turn the adjusting bolt at the clutch lever in direction **a** to increase free play or in direction **b** to decrease free play.
 3. Tighten the locknut at the clutch lever.
- If the specified free play cannot be obtained, proceed with the following steps.



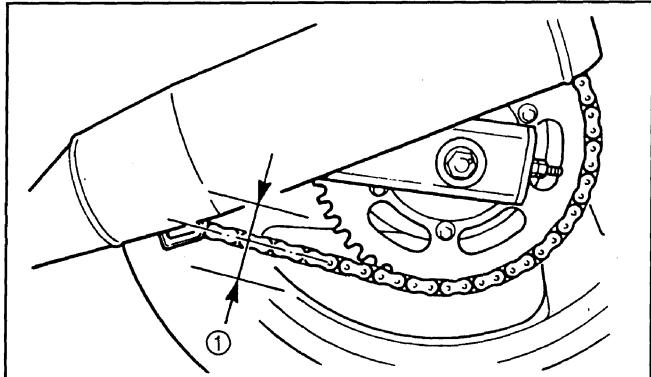
4. Loosen the locknut at the clutch lever.
5. Turn the adjusting bolt at the clutch lever in direction **a** to loosen the cable.
6. Loosen the locknut at the crankcase side.
7. Turn the adjusting nut at the crankcase in direction **a** to increase free play or in direction **b** to decrease free play.
8. Tighten the locknut at the crankcase and the clutch lever.

Drive chain slack check

NOTE:

Spin the wheel several times and find the tightest position of the chain. Check and/or adjust the chain slack while it's in this tightest position.

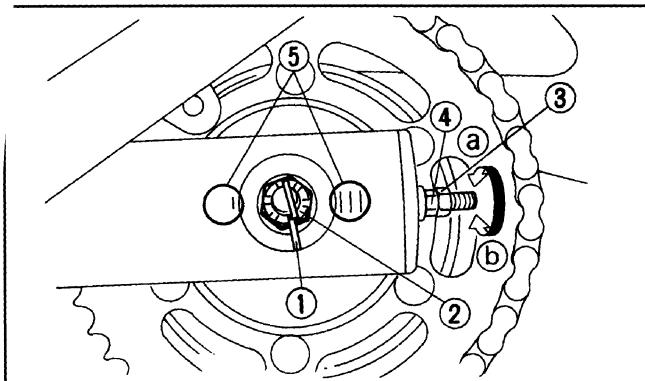
To check the chain slack the motorcycle must be held straight up with both wheels on the ground and without rider. Check the slack at the position shown in the illustration. Normal slack is approximately 30 ~ 40 mm (1.2 ~ 1.6 in). If the slack exceeds 40 mm (1.6 in), adjust.



1. Slack

Drive chain slack adjustment

1. Remove the cotter pin from the axle nut.



1. Cotter pin 2. Axle nut 3. Locknut
4. Adjusting nut 5. Alignment marks

2. Loosen the axle nut.
3. Loosen the locknuts on each side. To tighten the chain, turn the chain adjusting nuts in direction ④. To loosen the chain, turn the adjusting nuts in direction ⑤ and push the wheel forward. Turn each adjusting nut exactly the same amount to maintain correct

axle alignment. There are marks on each side of the swingarm. Use these marks to align the rear wheel.

EUU33301

CAUTION:

Too little chain slack will overload the engine and other vital parts. Keep the slack within the specified limits.

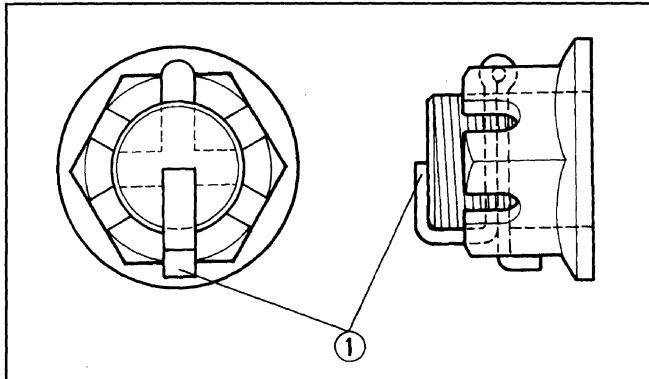
4. After adjusting, tighten the locknuts. Then tighten the axle nut to the specified torque.

Tightening torque:

Axle nut:

105 Nm (10.5 m·kg, 75 ft·lb)

5. Insert a new cotter pin into the axle nut and bend the end of the cotter pin as shown in the illustration. If the notch in the nut and the cotter pin hole do not match, tighten the nut slightly to align them.



1. Cotter pin

EUU64700

WARNING

Always use a new cotter pin on the axle nut.

Drive chain lubrication

The chain consists of many parts which work with each other. If the chain is not maintained properly, it will wear out quickly. Therefore, the chain must be serviced regularly. This service is especially necessary when riding in dusty areas. This motorcycle is equipped with a sealed type chain. Steam cleaning, high-pressure washes, and solvents can damage chain so do not use these for cleaning it. Use only kerosene to clean the drive chain. Wipe it dry, and thoroughly lubricate it with SAE 30 ~ 50W motor oil. Do not use any other lubricants on the drive chain. They may contain solvents that could damage the sealed chain.

EUU48300

CAUTION:

Be sure to oil the chain after washing the motorcycle or riding in the rain.

EAI10101

Cable inspection and lubrication

EEU64601

WARNING

Damage to the outer housing of cables may allow internal rusting and cause interference with cable movement. Replace damaged cables as soon as possible to prevent unsafe conditions.

Lubricate the inner cable and the cable end. If it does not operate smoothly, ask a Yamaha dealer to replace them.

Recommended lubricant:

Yamaha Chain and Cable Lube or
SAE 10W30 motor oil

EAI10201

Throttle cable and grip lubrication

The throttle twist grip assembly should be greased at the time that the cable is lubricated, since the grip must be removed to get at the end of the throttle cable. After removing the screws, hold the end of the cable up in the air and put in several drops of lubricant. With the throttle grip disassembled, coat the metal surface of the grip assembly with a suitable all-purpose grease.

EAI30202

Brake and shift pedal lubrication

Lubricate the pivoting parts.

Recommended lubricant:

Yamaha Chain and Cable Lube or
SAE 10W30 motor oil

EAI30301

Brake and clutch lever lubrication

Lubricate the pivoting parts.

Recommended lubricant:

Yamaha Chain and Cable Lube or
SAE 10W30 motor oil

EAI31202

Sidestand lubrication

Lubricate the sidestand pivoting and mating parts. Check to see that the sidestand moves up and down smoothly.

Recommended lubricant:

Yamaha Chain and Cable Lube or
SAE 10W30 motor oil

EUU70401



If the sidestand does not move smoothly,
consult a Yamaha dealer.

EAI31901

Rear suspension lubrication

Lubricate the pivoting parts.

Recommended lubricant:

Molybdenum disulfide grease

EAI20502

Front fork inspection

EUU65700



Securely support the motorcycle so there is no danger of it falling over.

1. Visual check

Check for scratches or damage on the inner tube and excessive oil leakage from the front fork.

2. Operation check

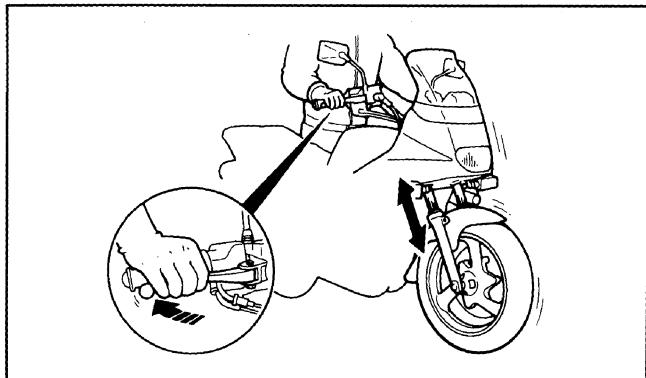
Place the motorcycle on a level place.

- a. Hold the motorcycle in an upright position and apply the front brake.
- b. Push down hard on the handlebars several times and check if the fork rebounds smoothly.

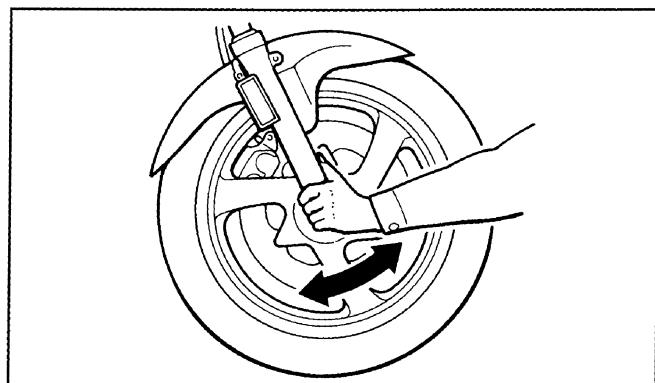
UU42500

CAUTION:

If any damage or unsMOOTH movement is found with the front fork, consult a Yamaha dealer.

**Steering inspection**

Periodically inspect the condition of the steering. Worn out or loose steering bearings may be dangerous. Place a stand under the engine to raise the front wheel off the ground. Hold the lower end of the front forks and try to move them forward and backward. If any free play can be felt, ask a Yamaha dealer to inspect and adjust the steering. Inspection is easier if the front wheel is removed.



EUU65700

WARNING

Securely support the motorcycle so there is no danger of it falling over.

EAI60103

Wheel bearings

If there is play in the front or rear wheel hub or if the wheel does not turn smoothly, have a Yamaha dealer inspect the wheel bearings. The wheel bearings should be inspected according to the General Maintenance Schedule.

EAI84906

Battery

This motorcycle is equipped with a sealed-type battery. Therefore it is not necessary to check the electrolyte or fill the battery with distilled water.

- If the battery seems to have discharged, consult a Yamaha dealer.
- If the motorcycle is equipped with optional electrical accessories, the battery tends to discharge more quickly, so be sure to recharge it periodically.

EUU43402

CAUTION:

Never try to remove the sealing caps of the battery cells. The battery will be damaged.

WARNING

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

Antidote:

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, flame, cigarettes etc., away. Ventilate when charging or using in an enclosed space. Always shield your eyes when working near batteries.

KEEP OUT OF REACH OF CHILDREN.

Storage

When the motorcycle is not used for a month or longer, remove the battery, fully charge it and store it in a cool, dry place.

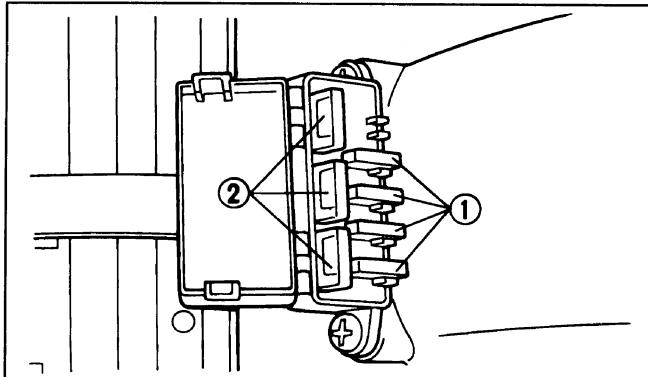
EUU43503

CAUTION

- Completely recharge the battery before storing. Storing a discharged battery can cause permanent battery damage.
- Use a battery charger designed for a sealed-type (MF) battery. Using a conventional battery charger will cause battery damage. If you do not have a sealed-type battery charger, contact your Yamaha dealer.
- Always make sure the connections are correct when reinstalling the battery.

Fuse replacement

1. The fuse box is located under the seat.



1. Fuse (x 4)
2. If any fuse is blown, turn off the main switch and the switch of the circuit in question. Install a new fuse of specified amperage. Turn on the switches and see if the electrical device operates. If the fuse immediately blows again, consult a Yamaha dealer.

CAUTION:

Do not use fuses of higher amperage rating than those recommended. Substitution of a fuse of improper rating can cause extensive electrical system damage and possibly a fire.

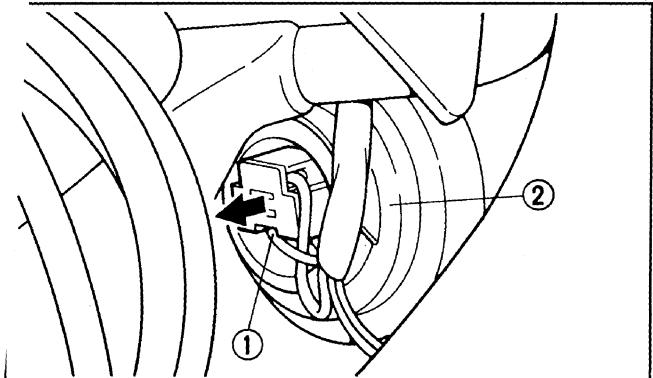
Specified fuse:

Main:	30A
Head:	15A
Signal:	15A
Ignition:	10A

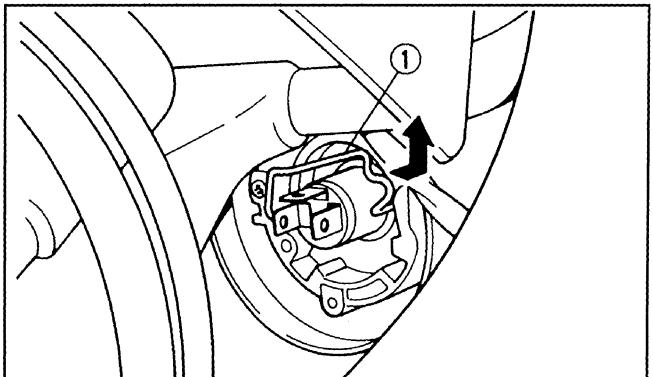
Headlight bulb replacement

This motorcycle is equipped with a quartz bulb headlight. If the headlight bulb burns out, replace the bulb as follows:

1. Remove the connectors and the bulb holder cover.



1. Connector
2. Unhook the bulb holder and remove the defective bulb.



1. Bulb holder

WARNING

Keep flammable products and your hands away from a bulb while it is on, as it is hot. Do not touch a bulb until it cools down.

3. Put a new bulb into position and secure it in place with the bulb holder.

CAUTION:

Avoid touching the glass part of a bulb. Keep it free from oil; otherwise, the transparency of the glass, life of the bulb, and luminous flux will be adversely affected. If oil gets on a bulb, thoroughly clean it with a cloth moistened with alcohol or lacquer thinner.

4. Install the bulb holder cover and reconnect the headlight connectors. If the headlight beam adjustment is necessary, ask a Yamaha dealer to make that adjustment.

EAJ50002

Troubleshooting

Although Yamaha motorcycles receive a rigid inspection before shipment from the factory, trouble may occur during operation.

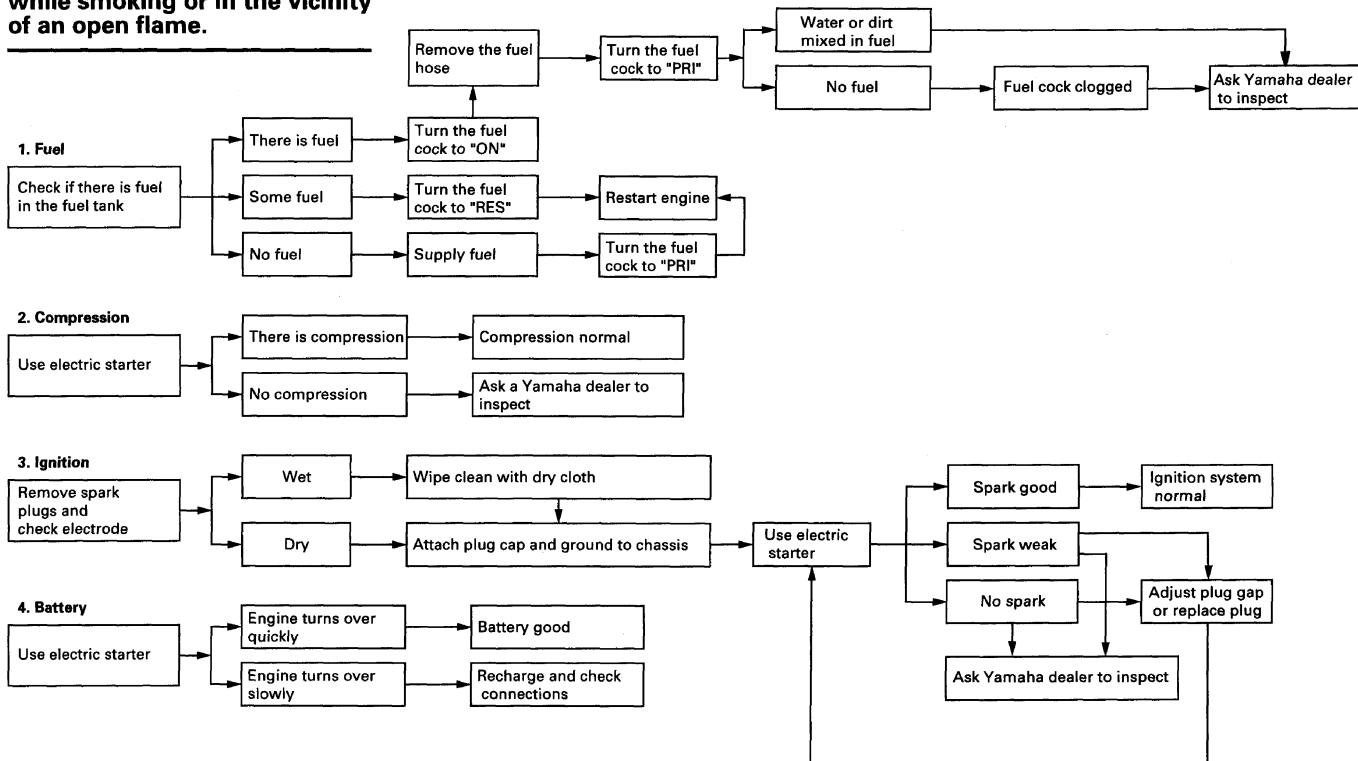
Any problem in the fuel, compression, or ignition systems can cause poor starting and loss of power. The troubleshooting chart describes a quick, easy procedure for making checks.

If your motorcycle requires any repair, bring it to a Yamaha dealer. The skilled technicians at a Yamaha dealership have the tools, experience, and know-how to properly service your motorcycle. Use only genuine Yamaha parts on your motorcycle. Imitation parts may look like Yamaha parts, but they are often inferior. Consequently, they have a shorter service life and can lead to expensive repair bills.

Troubleshooting chart

WARNING

Never check the fuel system
while smoking or in the vicinity
of an open flame.



CLEANING AND STORAGE

A. CLEANING

Frequent, thorough cleaning of your motorcycle will not only enhance its appearance but will improve its general performance and extend the useful life of many components.

1. Before cleaning the motorcycle:
 - a. Block off the end of the exhaust pipe to prevent water entry. A plastic bag and strong rubber band may be used.
 - b. Make sure the spark plugs and all filler caps are properly installed.
2. If the engine case is excessively greasy, apply degreaser with a paint brush. Do not apply degreaser to the chain, sprockets or wheel axles.
3. Rinse the dirt and degreaser off with a garden hose. Use only enough pressure to do the job.

CAUTION:

Excessive hose pressure may cause water seepage and deterioration of wheel bearings, front fork, brakes, transmission seals and electrical parts.

Many expensive repair bills have resulted from improper high pressure detergent applications such as those available in coin-operated car washers.

4. After riding on salted roads, wash the motorcycle with cold water immediately. Do not use warm water as it increases the chemical reaction of the salt.
5. Once the majority of the dirt has been hosed off, wash all surfaces with warm water and mild, detergent-type soap. An old toothbrush or bottle brush is handy for hard-to-get-at places.

6. Rinse the motorcycle off immediately with clean water and dry all surfaces with a chamois, clean towel or soft absorbent cloth.
7. Dry the chain and lubricate it to prevent rust.
8. Windscreen cleaning

EUU37400

CAUTION:

Avoid using any alkaline or strong acid cleaner, gasoline, brake fluid, or any other solvent.

Clean the windscreen with a cloth or sponge dampened with a neutral detergent, and after cleaning, thoroughly wash it off with water. Some cleaning compounds for plastics may leave scratches on surfaces of the windscreen. Before using them, make a test by polishing an area which does not affect your visibility.

9. Clean the seat with a vinyl upholstery cleaner to keep the cover pliable and glossy.
10. Automotive-type wax may be applied to all painted and chrome-plated surfaces. Avoid combination cleaner-waxes. Many contain abrasives which may mar the paint or protective finish on the fuel tank and side covers. When finished, start the engine and let it idle for several minutes.

B. STORAGE

Long term storage (60 days or more) of your motorcycle will require some preventive procedures to guard against deterioration. After thoroughly cleaning the motorcycle, prepare for storage as follows:

1. Fill the fuel tank with fuel and add fuel stabilizer (if available).
2. Remove each spark plug, pour about one tablespoon of SAE 10W30 or 20W40 motor oil in each spark plug hole and reinstall the spark plugs. Turn the engine over several times (ground spark plug leads) to coat the cylinder walls with oil.

EUU66400

WARNING

When using the starter motor to crank the engine, remove the spark plug wires, and ground them to prevent sparking.

3. Clean the chain and lubricate it (refer to "Drive chain lubrication").

4. Lubricate all control cables.
5. Block up the frame to raise both wheels off the ground.
6. Tie a plastic bag over the exhaust pipe outlets to prevent moisture from entering.
7. If storing in a humid or salt-air atmosphere, coat all exposed metal surfaces with a light film of oil. Do not apply oil to any rubber parts or the seat cover.
8. Remove the battery and fully charge it. Store it in a cool, dry place and recharge it once a month. Do not store the battery in an excessively warm or cold place (less than 0°C (30°F) or more than 30°C (90°F)). See page 8-32 for battery storage precautions.

EUU05800

NOTE:

Make any necessary repairs before storing the motorcycle.

SPECIFICATIONS

Model	XJ600S/XJ600SC
Dimension:	
Overall length	2,095 mm (82.5 in)
Overall width	735 mm (28.9 in)
Overall height	1,205 mm (48.0 in)
Seat height	770 mm (30.3 in)
Wheel base	1,445 mm (56.9 in)
Minimum ground clearance	150 mm (5.9 in)
Minimum turning radius:	2,700 mm (106.3 in)
Basic weight:	
With oil and full fuel tank	205 kg (452 lb)
Engine:	
Type	Air cooled 4-stroke, gasoline, DOHC
Cylinder arrangement	Parallel 4-cylinder, forward inclined
Displacement	599 cm ³
Bore × Stroke	58.5 × 55.7 mm (2.30 × 2.19 in)
Compression ratio	10 : 1
Starting system	Electric starter
Lubrication system	Wet sump
Oil type or grade:	
Engine oil	Refer to page 6-4.
Oil capacity:	
Periodic oil change	2.2 L (1.9 Imp qt, 2.3 US qt)
With oil filter replacement	2.5 L (2.2 Imp qt, 2.6 US qt)
Total amount	2.9 L (2.6 Imp qt, 3.1 US qt)

Model	XJ600S/XJ600SC
Air filter:	Dry type element
Fuel: Type Tank capacity Reserve amount	Unleaded fuel 17.0 L (3.7 Imp gal, 4.5 US gal) 3.5 L (0.8 Imp gal, 0.9 US gal)
Carburetor: Type/manufacturer	BDS26/MIKUNI
Spark plug: Type/manufacturer Gap	CR8E/NGK U24ESR-N/DENSO 0.7 ~ 0.8 mm (0.028 ~ 0.031 in)
Clutch type:	Wet, multi-disc
Transmission: Primary reduction system Primary reduction ratio Secondary reduction system Secondary reduction ratio Transmission type Operation Gear ratio 1st 2nd 3rd 4th 5th 6th	Chain, Gear 23/24 × 65/28 (2.225) Chain drive 48/16 (3.000) Constant mesh 6-speed Left foot operation 41/15 (2.733) 32/18 (1.778) 28/21 (1.333) 29/27 (1.074) 21/23 (0.913) 23/28 (0.821)

Model	XJ600S/XJ600SC
Chassis:	
Frame type	Double cradle
Caster angle	25°
Trail	97 mm (3.8 in)
Tire:	
Type	Tubeless
Size – Front	110/80-17 57H
Rear	130/70-18 63H
Brake:	
Front brake type	Single, Disc brake
Operation	Right hand operation
Rear brake type	Single, Disc brake
Operation	Right foot operation
Suspension:	
Front	Telescopic fork
Rear	Swingarm (Monocross suspension)
Shock absorber:	
Front	Coil spring, Oil damper
Rear	Gas, Coil spring, Oil damper
Wheel travel:	
Front	140 mm (5.5 in)
Rear	110 mm (4.3 in)
Electrical:	
Ignition system	TCI (Digital)
Generator system	AC magneto generator
Battery type/capacity	YTX9-BS, GTX9-BS/12V 8AH

Model	XJ600S/XJ600SC
Headlight type:	Quarz bulb
Bulb voltage, wattage/quantity:	
Headlight	12V, 60W/55W × 1
Tail/brake light	12V, 5W/21W × 1
Front flasher/Position light	12V, 27W/8W × 2
Rear flasher light	12V, 27W × 2
Meter light	12V, 1.7W × 3
Indicator light voltage, wattage/quantity:	
Neutral indicator light	12V, 3.4W × 1
High beam indicator light	12V, 3.4W × 1
Oil level indicator light	12V, 3.4W × 1
Turn indicator light	12V, 3.4W × 1

CONSUMER INFORMATION

Reporting safety defects

If you believe that your vehicle has a defect which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying YAMAHA MOTOR CORP. U.S.A.. If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer, or YAMAHA MOTOR CORP. U.S.A..

To contact NHTSA, you may either call the Auto Safety Hotline toll-free at 1-800-424-9393 (or 366-0123 in Washington, D.C. area) or write to: NHTSA, U.S. Department of Transportation, Washington, D.C. 20590. You can also obtain other information about motor vehicle safety from the Hotline.

Motorcycle noise regulation

TAMPERING WITH NOISE CONTROL SYSTEM PROHIBITED:

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

"AMONG THOSE ACTS PRESUMED TO CONSTITUTE TAMPERING ARE THE ACTS LISTED BELOW".

These acts include tampering with the following systems; i.e., modification, removal, etc.

Exhaust system	Muffler Exhaust pipe Silencer
Intake system	Air cleaner case Air cleaner element Intake duct

Maintenance record

Copies of work orders and/or receipts for parts you purchase and install will be required to document that maintenance has been completed in accordance with the emission warranty. The chart below is printed only as a reminder to you that the maintenance work is required. It is not acceptable proof of maintenance work.

MAINTENANCE INTERVAL	DATE OF SERVICE	MILEAGE	SERVICING DEALER NAME AND ADDRESS	REMARKS
1,000km (600mi) or 1 mo.				
7,000km (4,400mi) or 7 mos.				
13,000km (8,200mi) or 13 mos.				
19,000km (12,000mi) or 19 mos.				
25,000km (15,800mi) or 25 mos.				

MAINTENANCE INTERVAL	DATE OF SERVICE	MILEAGE	SERVICING DEALER NAME AND ADDRESS	REMARKS
31,000km (19,600mi) or 31 mos.				
37,000km (23,400mi) or 37 mos.				
43,000km (27,200mi) or 43 mos.				
49,000km (31,000mi) or 49 mos.				
55,000km (34,800mi) or 55 mos.				
61,000km (38,600mi) or 61 mos.				

YAMAHA MOTOR CORPORATION, U.S.A. STREET AND ENDURO MOTORCYCLE LIMITED WARRANTY

Yamaha Motor Corporation, U.S.A. hereby warrants each new street or enduro model Yamaha motorcycle purchased from an authorized Yamaha motorcycle dealer in the continental United States will be free from defects in material and workmanship for the period of time stated herein, subject to certain stated limitations.

THE PERIOD OF WARRANTY for Yamaha motorcycles originally equipped with headlight, stoplight, and turn signals shall be one (1) year from the date of purchase, with no mileage limitation.

MODELS EXCLUDED FROM WARRANTY include those used for non-Yamaha-authorized renting, leasing, or other commercial purposes, and TZ models.

DURING THE PERIOD OF WARRANTY any authorized Yamaha motorcycle dealer will, free of charge, repair or replace, at Yamaha's option, any part adjudged defective by Yamaha due to faulty workmanship or material from the factory. Parts used in warranty repairs will be warranted for the balance of the product's warranty period. All parts replaced under warranty become property of Yamaha Motor Corporation U.S.A.

GENERAL EXCLUSIONS from this warranty shall include any failures caused by:

- a. Competition or racing use.
- b. Installation of parts or accessories that are not qualitatively equivalent to genuine Yamaha parts.
- c. Abnormal strain, neglect, or abuse.
- d. Lack of proper maintenance.
- e. Accident or collision damage.
- f. Modification to original parts.
- g. Damage due to improper transportation.

SPECIFIC EXCLUSIONS from this warranty shall include parts replaced due to normal wear or routine maintenance.

THE CUSTOMER'S RESPONSIBILITY under this warranty shall be to:

1. Operate and maintain the motorcycle as specified in the appropriate Owner's Manual, and
2. Give notice to an authorized Yamaha motorcycle dealer of any and all apparent defects within ten (10) days after discovery, and make the machine available at that time for inspection and repairs at such dealer's place of business.

WARRANTY TRANSFER: To transfer the warranty from the original purchaser to any subsequent purchaser, it is imperative that the machine be inspected and registered for warranty by an authorized Yamaha motorcycle dealer. In order for this warranty to remain in effect, this inspection and registration must take place within ten (10) days after transfer. An inspection and registration fee will be charged for this service.

EMISSIONS CONTROL SYSTEM WARRANTY

Yamaha Motor Corporation, U.S.A. also warrants to the ultimate purchaser and each subsequent purchaser of each Yamaha motorcycle covered by this warranty with a displacement of 50cc or greater, that the vehicle is designed, built, and equipped so as to conform at the time of sale with all U.S. emissions standards applicable at the time of manufacture and that it is free from defects in materials and workmanship which would cause it not to meet these standards within the periods listed immediately below. Failure other than those resulting from defects in material or workmanship which arise solely as a result of owner abuse and / or lack of proper maintenance are not covered by this warranty.

ENGINE DISPLACEMENT	PERIOD
50cc to 169cc	12,000 km (7,465 miles) or five years, whichever occurs first
170cc to 279cc	18,000 km (11,185 miles) or five years, whichever occurs first
280cc or over	30,000 km (18,641 miles) or five years, whichever occurs first

YAMAHA MOTOR CORPORATION, U.S.A. MAKES NO OTHER WARRANTY OF ANY KIND, EXPRESSED OR IMPLIED. ALL IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE WHICH EXCEED THE OBLIGATIONS AND TIME LIMITS STATED IN THIS WARRANTY ARE HEREBY DISCLAIMED BY YAMAHA MOTOR CORPORATION, U.S.A. AND EXCLUDED FROM THIS WARRANTY.

SOME STATES DO NOT ALLOW LIMITATIONS ON HOW LONG AN IMPLIED WARRANTY LASTS, SO THE ABOVE LIMITATION MAY NOT APPLY TO YOU. ALSO EXCLUDED FROM THIS WARRANTY ARE ANY INCIDENTAL OR CONSEQUENTIAL DAMAGES INCLUDING LOSS OF USE. SOME STATES DO NOT ALLOW THE EXCLUSION OR LIMITATION OF INCIDENTAL OR CONSEQUENTIAL DAMAGES, SO THE ABOVE EXCLUSION MAY NOT APPLY TO YOU.

THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS, AND YOU MAY ALSO HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.

YAMAHA MOTOR CORPORATION, U.S.A.
P. O. Box 6555
Cypress, California 90630

WARRANTY QUESTIONS AND ANSWERS

- Q. What costs are my responsibility during the warranty period?
 - A. The customer's responsibility includes all costs of normal maintenance services, non-warranty repairs, accident and collision damage, and oil, oil filters, air filters, spark plugs, and brake shoes or pads.
- Q. What are some examples of "abnormal" strain, neglect, or abuse?
 - A. These terms are general and overlap each other in areas. Specific examples include: Running the machine out of oil; sustained high-rpm, full-throttle use; operating the machine with a broken or damaged part which causes another part to fail; damage or failure due to improper or careless transportation and or tie down; and so on. If you have any specific questions on operation or maintenance, please contact your dealer for advice.
- Q. Does the warranty cover incidental costs such as towing or transportation due to a failure?
 - A. No. The warranty is limited to repair of the machine itself.
- Q. May I perform any or all of the recommended maintenance shown in the Owner's Manual instead of having the dealer do them?
 - A. Yes, if you are a qualified mechanic and follow the procedures specified in the Owner's and Service Manual. We do recommend, however, that items requiring special tools or equipment be done by a Yamaha motorcycle dealer.
- Q. Will the warranty be void or cancelled if I do not operate or maintain my new motorcycle exactly as specified in the Owner's Manual?
 - A. No. The warranty on a new motorcycle cannot be "voided" or "cancelled." However, if a particular failure is caused by operation or maintenance other than as shown in the Owner's Manual, that failure may not be covered under warranty.
- Q. What responsibility does my dealer have under this warranty?
 - A. Each Yamaha motorcycle dealer is expected to:
 1. Completely set up every new machine before sale.
 2. Explain the operation, maintenance, and warranty requirements to your satisfaction at the time of sale, and upon your request at any later date.In addition, each Yamaha motorcycle dealer is held responsible for his setup, service and warranty repair work.
- Q. Is the warranty transferable to second owners?
 - A. Yes. The remainder of the existing warranty can be transferred upon request. The unit has to be inspected and re-registered by an authorized Yamaha motorcycle dealer for the warranty coverage to remain effective.

CUSTOMER SERVICE

If your machine requires warranty service, you must take it to any authorized Yamaha motorcycle dealer within the continental United States. Be sure to bring your warranty registration identification or other valid proof of the original date of purchase. If a question or problem arises regarding warranty, first contact the owner of the dealership. Since all warranty matters are handled at the dealer level, this person is in the best position to help you. If you are still not satisfied and require additional assistance, please write:

YAMAHA MOTOR CORPORATION U.S.A.
CUSTOMER RELATIONS DEPARTMENT
P.O. Box 6555
Cypress, California 90630

When contacting Yamaha Motor Corporation, U.S.A. don't forget to include any important information such as names, addresses, model, engine serial number, dates, and receipts.

CHANGE OF ADDRESS

The federal government requires each manufacturer of a motor vehicle to maintain a complete, up-to-date list of all first purchasers against the possibility of a safety-related defect and recall. This list is compiled from the purchase registrations sent to Yamaha Motor Corporation, U.S.A. by the selling dealer at the time of your purchase.

If you should move after you have purchased your new motorcycle, please advise us of your new address by sending a postcard listing your motorcycle model name, engine serial number, dealer number (or dealer's name) as it is shown on your warranty identification, your name and new mailing address. Mail to:

YAMAHA MOTOR CORPORATION, U.S.A.
WARRANTY DEPARTMENT
P.O. Box 6555
Cypress, California 90630

This will ensure that Yamaha Motor Corporation, U.S.A. has an up-to-date registration record in accordance with federal law.

YAMAHA EXTENDED SERVICE (Y.E.S.)

Keep your Yamaha protected even after your warranty expires with genuine Yamaha Extended Service (Y.E.S.).

- Y.E.S. is designed and administered by Yamaha Motor Corporation to provide maximum owner satisfaction. You get uninterrupted factory-backed coverage for extra peace of mind.
- Y.E.S. is flexible. You choose the plan that's right for you: 12 months, 24 months, or 36 months beyond your warranty period.
- Y.E.S. is designed and administered by the same Yamaha people who handle your warranty — and it shows in the comprehensive coverage benefits. There are no mileage limitations. Coverage isn't limited to "moving parts" or the "drive train" like many other plans. And Y.E.S. covers manufacturing defects just like the warranty. See the sample contract at your Yamaha dealer to see how comforting uninterrupted factory-backed protection can be.
- You don't have to pay anything for covered repairs. There's no deductible to pay, and repairs aren't "pro-rated." You don't have any "out-of-pocket" expenses for covered repairs.
- In addition, Travel and Recreation Interruption Protection (TRIP) is included at no extra cost. TRIP gives you up to \$150 reimbursement per occurrence for any reasonable expenses you incur because your Yamaha needs covered service: replacement vehicle rental, emergency towing, phone calls, even food and lodging when you are away from home. This superb coverage goes into effect when you purchase Y.E.S., so it applies to any warranty repairs as well as covered repairs during your entire Y.E.S. plan period.
- Y.E.S. coverage is honored at any authorized Yamaha dealer nationwide.
- Y.E.S. coverage is transferrable to a new owner if you sell or trade-in. That can make your Yamaha much more valuable!

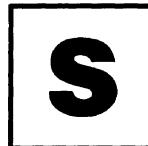
This excellent Y.E.S. plan coverage is only available to Yamaha owners like you, and only while your Yamaha is still within the Yamaha Limited Warranty period. So visit your authorized Yamaha dealer to get all the facts. He can show you how easy it is to protect your investment with Yamaha Extended Service.

We urge you to act now. You'll get the excellent benefits of TRIP coverage right away, and you'll rest easy knowing you'll have strong factory-backed protection even after your Yamaha Limited Warranty expires. You can also save money: Y.E.S. costs less within the first 90 days after you buy your Yamaha. See your dealer today!

A special note:

If visiting your dealer isn't convenient, contact Yamaha with your Primary ID number (your engine number). We'll be happy to help you get the Y.E.S. coverage you need.

Yamaha Service Marketing
P.O. Box 6555
Cypress, CA 90630
(714) 761-7631



YAMAHA EXTENDED SERVICE