



OWNER'S MANUAL

YAMAHA

XT600EG

3WR-28199-25

EAA00100

XT600EG

OWNER'S MANUAL

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INTRODUCTION

Congratulations on your purchase of the Yamaha XT600EG. 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.

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



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

WARNING

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.

CAUTION

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.

NOTE: _____

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

NOTE: _____

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 machine and this manual. If there is any question concerning this manual, please consult your Yamaha dealer.

WARNING _____

PLEASE READ THIS MANUAL CAREFULLY AND COMPLETELY BEFORE OPERATING THIS MOTORCYCLE.

CONTENTS

SAFETY INFORMATION	1-1	Fuel cock	5-9
LOCATION OF THE IMPORTANT LABELS	2-1	Starter knob (CHOKE)	5-9
DESCRIPTION	3-1	Steering lock	5-10
MOTORCYCLE IDENTIFICATION	4-1	Seat	5-11
Identification numbers record	4-1	Helmet holder	5-12
Vehicle identification number	4-2	Side cover	5-12
Engine serial number	4-2	Air duct	5-13
CONTROL FUNCTIONS	5-1	Rear shock absorber	5-15
Main switch	5-1	Rear carrier	5-15
Indicator lights	5-2	Sidestand	5-16
"REV." indicator light circuit check	5-4	Sidestand/clutch switch operation check	5-17
Speedometer	5-5	PRE-OPERATION CHECKS	6-1
Handlebar switches	5-5	Brakes	6-3
Clutch lever	5-7	Brake fluid leakage	6-3
Shift pedal	5-7	Clutch	6-4
Front brake lever	5-7	Throttle grip	6-4
Rear brake pedal	5-7	Engine oil	6-4
Fuel tank cap	5-8	Chain	6-5
		Tires	6-5

Wheels	6-7	Throttle cable adjustment	8-13
Fittings/Fasteners	6-8	Valve clearance adjustment	8-14
Lights and signals	6-8	Spark plug inspection	8-14
Switches	6-8	Front brake adjustment	8-15
Fuel	6-9	Rear brake adjustment	8-16
OPERATION AND IMPORTANT		Brake light switch adjustment	8-17
RIDING POINTS	7-1	Checking the front and rear	
Starting and warming up a		brake pads	8-18
cold engine	7-2	Inspecting the brake fluid level	8-18
Starting a warm engine	7-5	Brake fluid replacement	8-20
Shifting	7-5	Clutch adjustment	8-20
Engine break-in	7-6	Drive chain slack check	8-21
Parking	7-7	Drive chain slack adjustment	8-22
PERIODIC MAINTENANCE AND		Drive chain lubrication	8-23
MINOR REPAIR	8-1	Cable inspection and lubrication	8-24
Tool kit	8-1	Throttle cable and grip lubrication	8-24
Periodic maintenance/lubrication	8-3	Brake and shift pedals	8-24
Torque specifications	8-5	Brake and clutch levers	8-25
Engine oil	8-6	Sidestand	8-25
Air filter	8-10	Rear suspension	8-25
Carburetor adjustment	8-12	Front fork inspection	8-26
Idle speed adjustment	8-12	Rear shock absorber	8-27

Rear shock absorber adjustment	8-27
Steering inspection	8-29
Wheel bearings	8-29
Battery	8-29
Battery maintenance	8-30
Fuse replacement	8-31
Headlight bulb replacement	8-32
Front wheel removal	8-34
Front wheel installation	8-36
Rear wheel removal	8-37
Rear wheel installation	8-39
Troubleshooting	8-40
Troubleshooting chart	8-41
CLEANING AND STORAGE	9-1
A. Cleaning	9-1
B. Storage	9-2
SPECIFICATIONS	10-1
NOISE REGULATION	11-1
WIRING DIAGRAM	

⚠ 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.

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 401 lbs. (182 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 vehicles.
 - 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.

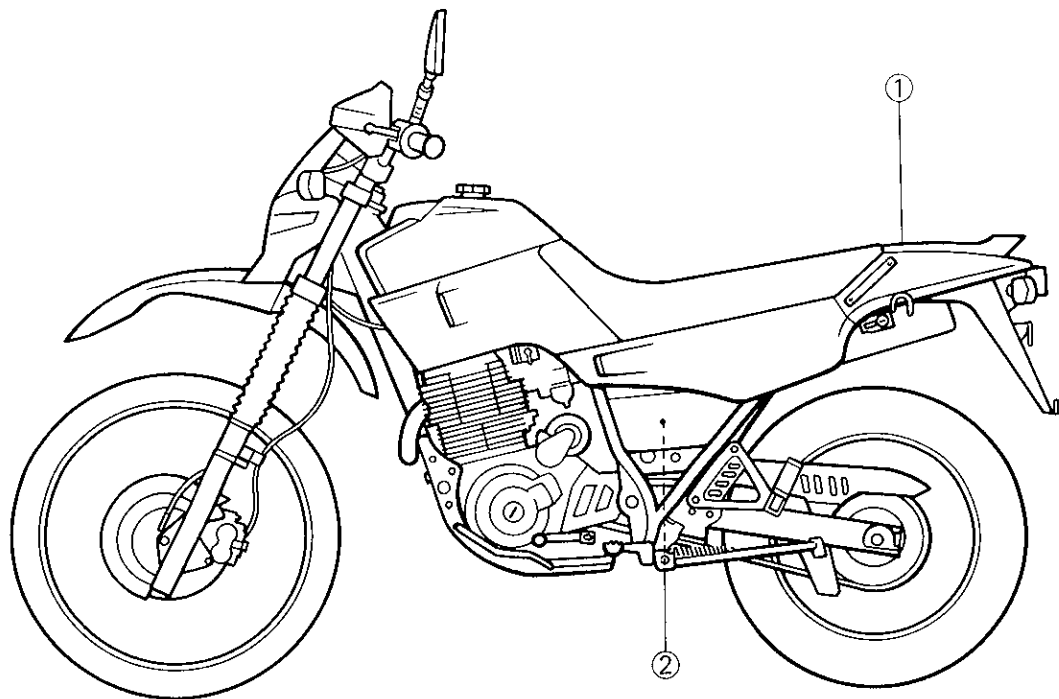
GASOLINE AND EXHAUST GAS

1. **GASOLINE IS HIGHLY FLAMMABLE:**
 - a. Always turn off the engine when refueling.

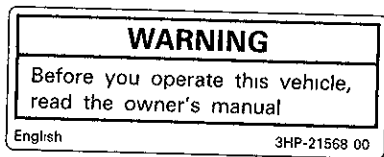
- b. Take care not to spill any gasoline on the engine or exhaust pipe(s)/muffler(s) when refueling.
 - c. Never refuel while smoking or in the vicinity of an open flame.
2. Never start the engine or let it run for any length of time in a closed area. The exhaust fumes are poisonous and may cause loss 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 pipe(s)/muffler(s) 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(s) 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 eye(s), 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

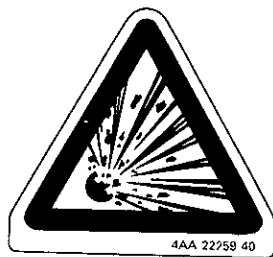
Please read the following labels carefully before operating this motorcycle



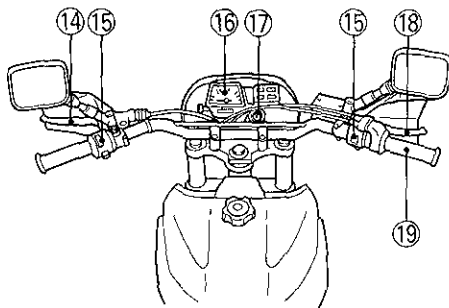
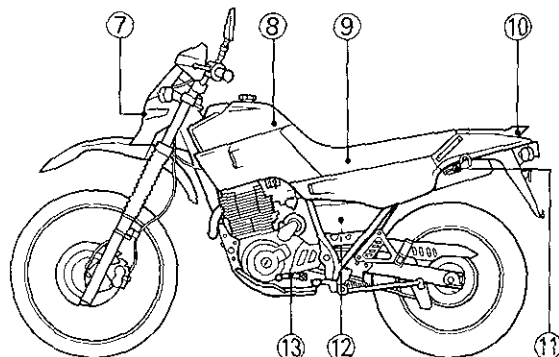
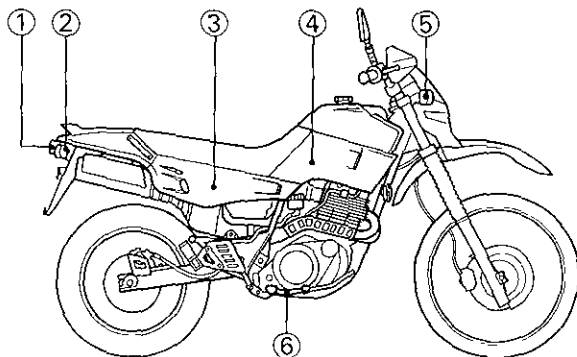
①



②



DESCRIPTION



- | | |
|-----------------------|-------------------------|
| 1 Tail/Brake light | 11 Helmet holder |
| 2 Rear flasher light | 12 Monocross suspension |
| 3 Side cover | 13 Shift pedal |
| 4 Air duct | 14 Clutch lever |
| 5 Front flasher light | 15 Handlebar switches |
| 6 Brake pedal | 16 Speedometer |
| 7 Headlight | 17 Main switch |
| 8 Fuel tank | 18 Brake lever |
| 9 Seat | 19 Throttle grip |
| 10 Rear carrier | |

MOTORCYCLE IDENTIFICATION

EAA60401

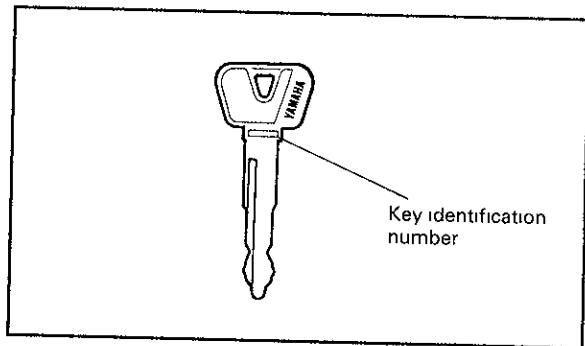
Identification numbers record

1. KEY IDENTIFICATION NUMBER:

2. VEHICLE IDENTIFICATION NUMBER:

3. ENGINE SERIAL NUMBER

Your key identification number is stamped on your key as shown in the following illustration. Record this number in the space provided for reference if you need a new key



Record your vehicle identification number and engine serial number in the spaces provided to assist you in ordering spare parts from your Yamaha dealer or for reference in case your vehicle is stolen.

EAA80000

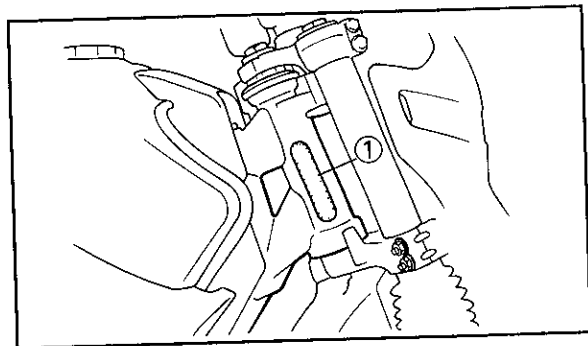
Vehicle identification number

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.

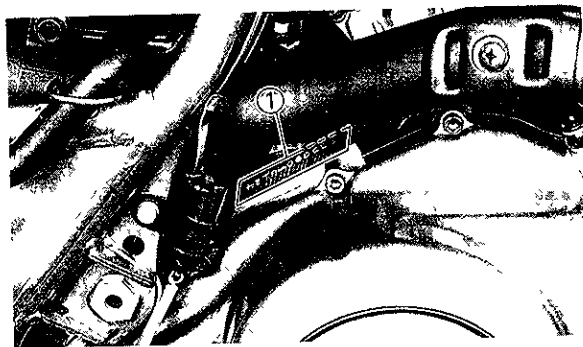


1 Vehicle identification number

EAA70001

Engine serial number

The engine serial number is stamped into the crankcase.



1 Engine serial number

EUU00300

NOTE: _____

The first three digits of these numbers are for model identification, the remaining digits are the unit production number. Keep a record of these numbers for reference when ordering parts from a Yamaha dealer.

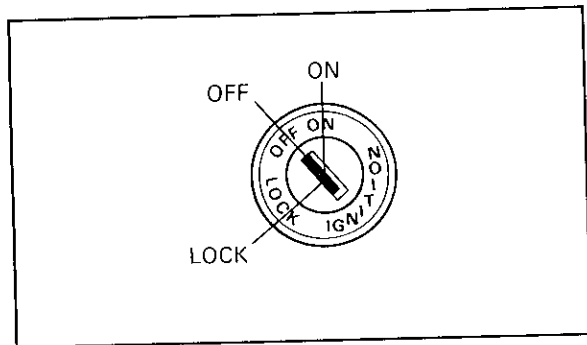
EAB00000

CONTROL FUNCTIONS

EAB00100

Main switch

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



EAB01300

ON:

Electrical circuits are switched on, and the headlight, meter light, and taillight 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.

EAB00701

LOCK:

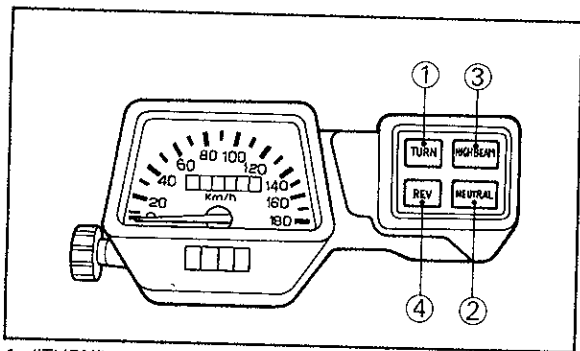
The steering is locked in this position, and all electrical circuits are switched off. The key can be removed in this position. Refer to "Steering lock" (page 5-10) for operation instructions.

EUU00700

NOTE:

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

Indicator lights



- 1 "TURN" indicator light
- 2 "NEUTRAL" indicator light
- 3 "HIGH BEAM" indicator light
- 4 "REV" indicator light

EAB12200

"TURN" indicator light (green):

This indicator flashes when the turn switch is "ON".

EAB10200

"NEUTRAL" indicator light (green):

This indicator comes on when the transmission is in neutral.

EAB10300

"HIGH BEAM" indicator light (blue):

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

EAB12000

"REV." indicator light (red):

This model is equipped with an Over-Revolution indicator light. This indicator light comes on when the engine revs beyond specifications. The table below shows the approximate respective speeds at which the indicator light will come on.

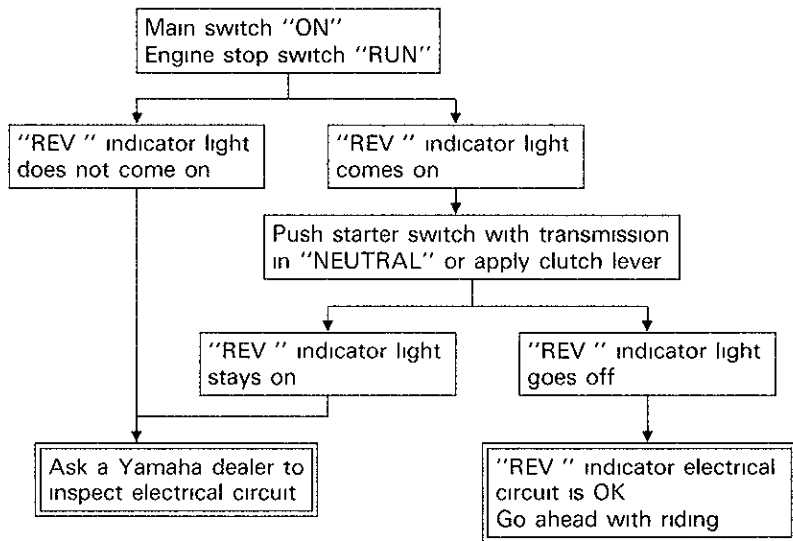
Gear position	km/h (mi/h)
1st	50(31)
2nd	80 (50)
3rd	105 (65)
4th	135 (84)
5th	165 (103)

CAUTION:

Reduce engine speed when "REV." indicator light comes on; otherwise, engine damage may result.

The circuit of this indicator light can be checked by the following procedure.

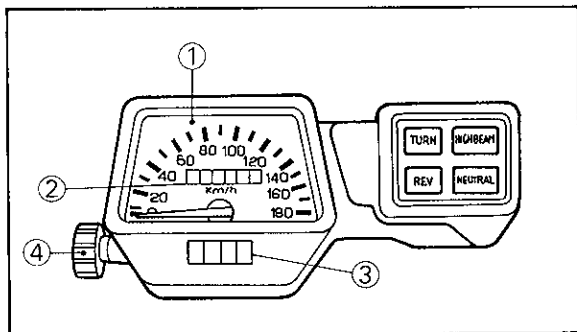
"REV." indicator light circuit check



Speedometer

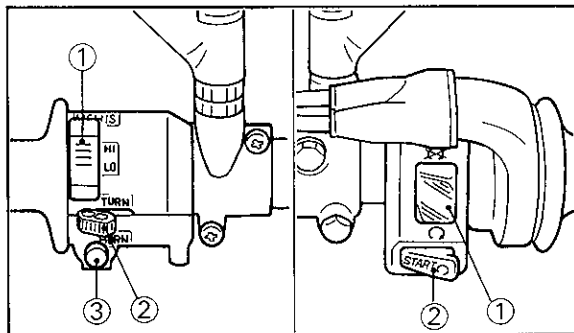
The speedometer shows riding speed. This speedometer is equipped with an odometer and trip odometer. The trip odometer can be reset to "0" with the reset knob.

Use the odometer to estimate how far you can ride on a tank of fuel before going to "RESERVE". This information will enable you to plan fuel stops in the future.



- | | |
|-----------------|--------------|
| 1 Speedometer | 2 Odometer |
| 3 Trip odometer | 4 Reset knob |

Handlebar switches:



- | | |
|----------------------------|------------------------|
| 1 "LIGHTS" (Dimmer) switch | 1 "ENGINE STOP" switch |
| 2 "TURN" signal switch | 2 "START" switch |
| 3 "HORN" switch | |

EAB60100

"LIGHTS" (Dimmer) switch

Turn the switch to "HI" for the high beam and to "LO" for the low beam.

EAB60501

"TURN" signal switch

This is a three-position switch. The center position is off; turn to the "L" to turn on the left flasher and to the "R" for the right flasher. Be sure to turn the switch off after completing a turn



EAB60200

"HORN" switch

Press the switch to sound the horn.

EAB60901

"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.

EAB60701

"START" switch

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

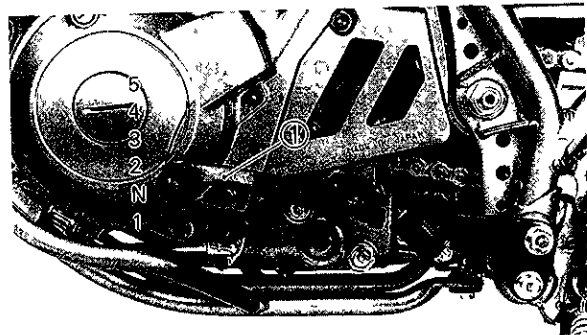
EUU30700

CAUTION: _____

See starting instructions prior to starting the engine.

Clutch lever

The clutch lever is located on the left handlebar, and the starting circuit cutoff switch 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 starting circuit cutoff switch.)



N Neutral

1 Shift pedal

Shift pedal

This motorcycle is equipped with a constant-mesh 5-speed transmission. The shift pedal is located on the left side of the engine and is used in combination with the clutch when shifting.

Front brake lever

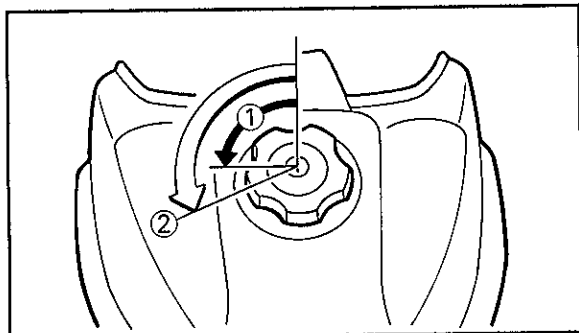
The front brake lever is located on the right handlebar. Pull it toward the handlebar to apply the front brake.

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.

Fuel tank cap**TO OPEN:**

Insert the key and turn it 1/4 turn counterclockwise. Turn the cap 1/3 turn counterclockwise and remove it from the tank.



1 Unlock

2 Open

TO CLOSE:

Put the cap in the filler neck and turn it 1/3 turn clockwise. Lock the cap by turning the key 1/4 turn clockwise, and remove the key.

NOTE: _____

The tank cap cannot be reinstalled unless it is unlocked. The key must remain in the cap until the cap is properly installed and locked onto the fuel tank.

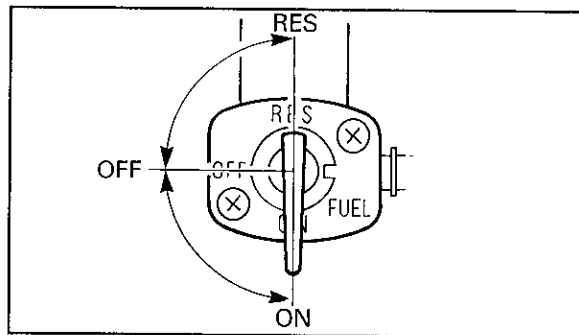
⚠ WARNING _____

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

Fuel cock

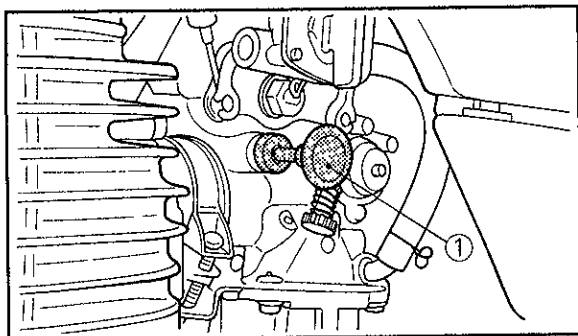
The fuel cock supplies fuel from the tank to the carburetor(s) while filtering it also. The fuel cock has three positions:

- OFF:** With the lever in this position, fuel will not flow. Always return the lever to this position when the engine is not running.
- ON.** With the lever in this position, fuel flows to the carburetor. Normal riding is done with the lever in this position.
- RES:** This indicates reserve. If you run out of fuel while riding, move the lever to this position. **FILL THE TANK AT THE FIRST OPPORTUNITY. BE SURE TO SET THE LEVER TO "ON" AFTER REFUELLING.**

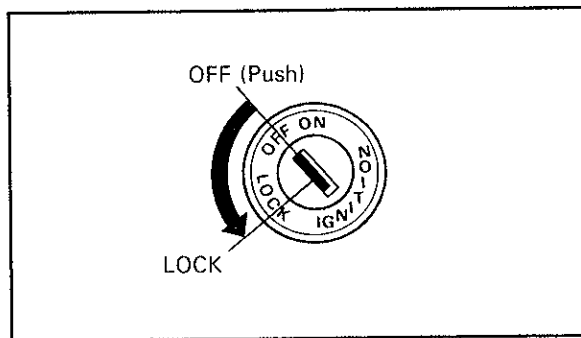


Starter knob (CHOKE)

Starting a cold engine requires a richer air-fuel mixture. A separate starter circuit supplies this mixture. Pull the starter knob out to open the circuit for starting. When the engine has warmed up, push the knob in to close the circuit.



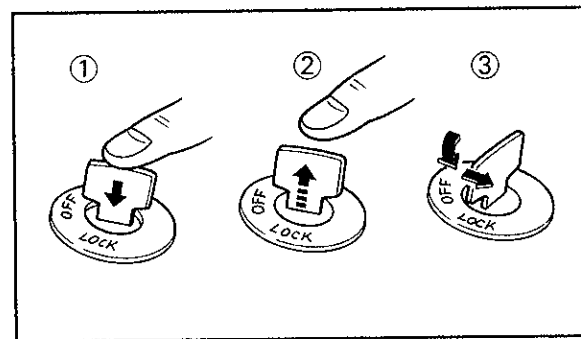
1 Starter knob (CHOKE)



EAC30401

Steering lock

The steering is locked when the main switch is turned to "LOCK." To lock the steering, turn the handlebars all the way to the left. With the key at "OFF", push it into the main switch and release it, turn it counterclockwise to "LOCK," and remove it. To release the lock, turn the key to "OFF".



1 Push

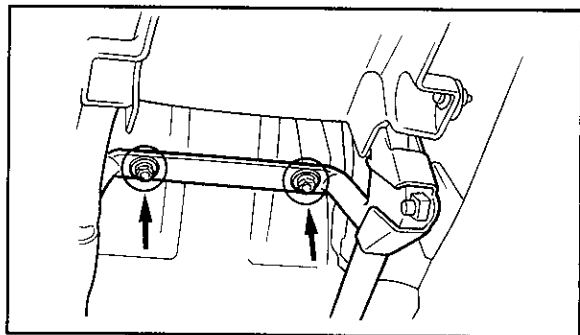
2 Release

3 Turn

EUU61400

⚠ WARNING

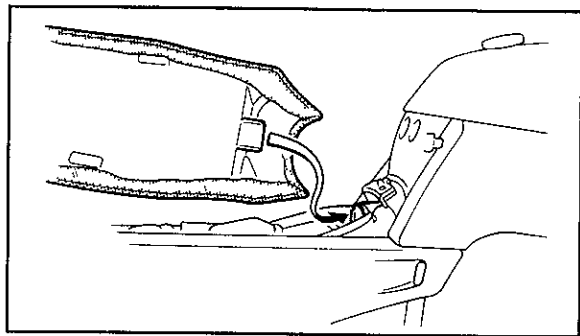
Never turn the key to "LOCK" when the motorcycle is moving.



EAC41501

Seat

To remove the seat, remove the bolts. When reinstalling the seat, insert the lobe(s) on the seat front into the receptacle(s) on the frame, then tighten the bolts.



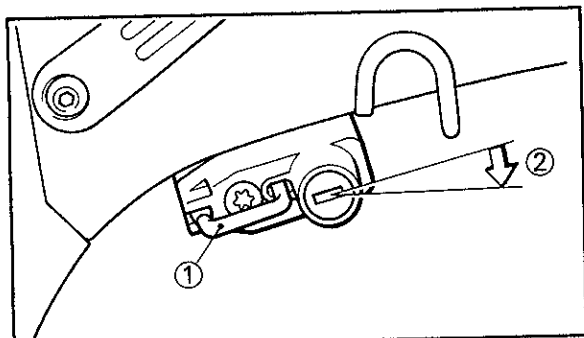
EUU01700

NOTE:

Make sure that the seat is securely fitted.

Helmet holder

To open the helmet holder, insert the key in the lock and turn it as shown. To lock the helmet holder, replace the holder in its original position.



1 Helmet holder

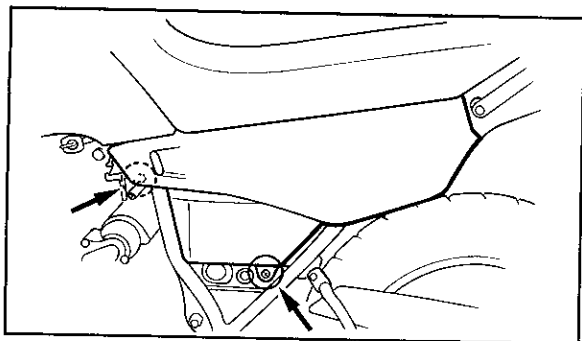
2 Open

⚠ WARNING

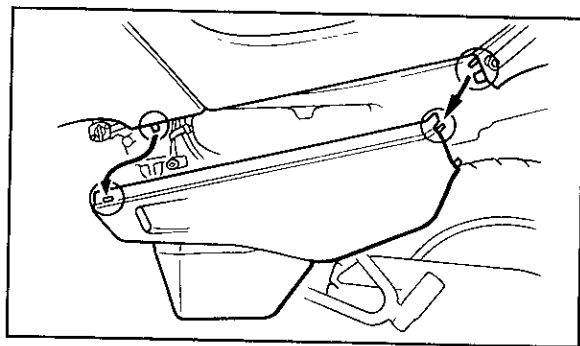
Never ride with a helmet in the helmet holder. The helmet may hit objects, causing loss of control and possibly an accident.

Side cover

1. Remove the screw.
2. Pull the front portion of the side cover outward to remove the projection from the grommet.



3. Pull the front portion of the side cover downward. Then pull forward to remove.



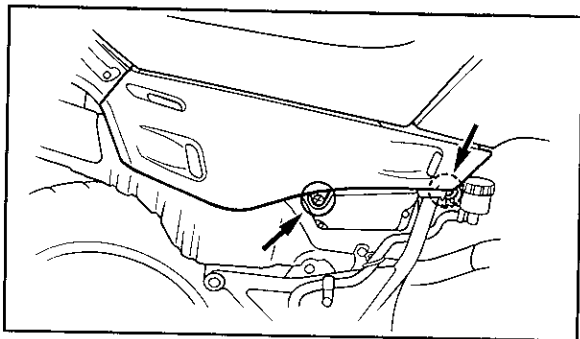
4. To install, reverse the above steps.

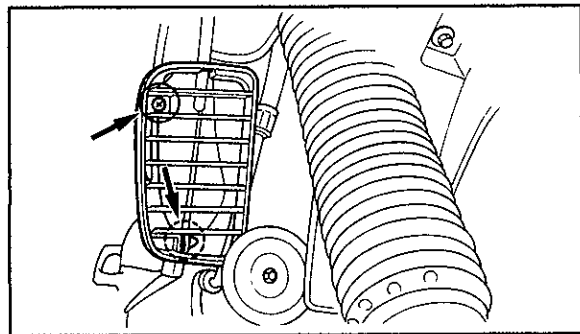
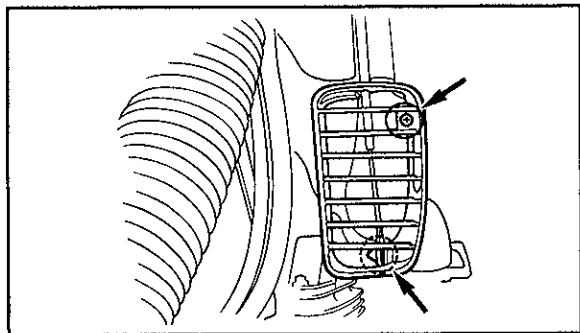
EAD70600

Air duct

Removal:

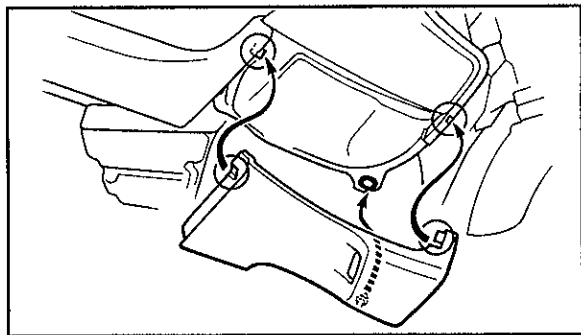
- 1 Remove the side cover.
2. Remove the screw.
- 3 Pull the bottom portion of the air duct outward to remove the projection from the grommet.
Then pull forward to remove.





Installation:

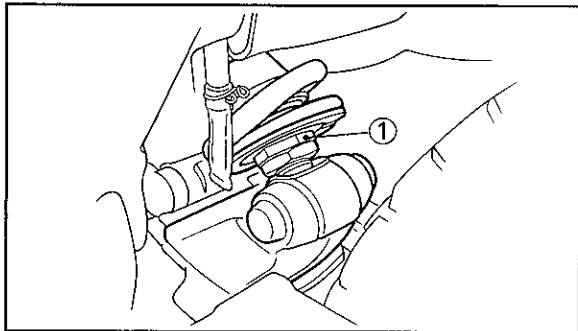
1. Install the air duct rear indent onto the holding bracket and the front indent onto the fuel tank.



2. Push the projection into the grommet and tighten the screw.
3. Install the side cover.

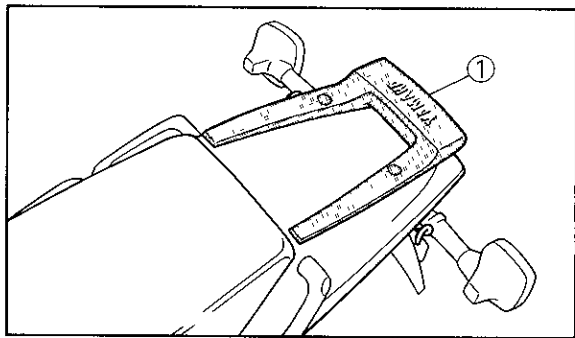
Rear shock absorber

The spring preload of the rear shock absorber can be adjusted to suit the rider's preference, motorcycle's load (ex optional accessories etc.) and road conditions. Refer to page 8-27 for proper adjustment procedures.



1 Spring preload adjuster

Rear carrier



1 Rear carrier

⚠ WARNING

**Do not exceed maximum load.
Maximum load: 3 kg (7 lbs)**

Sidestand

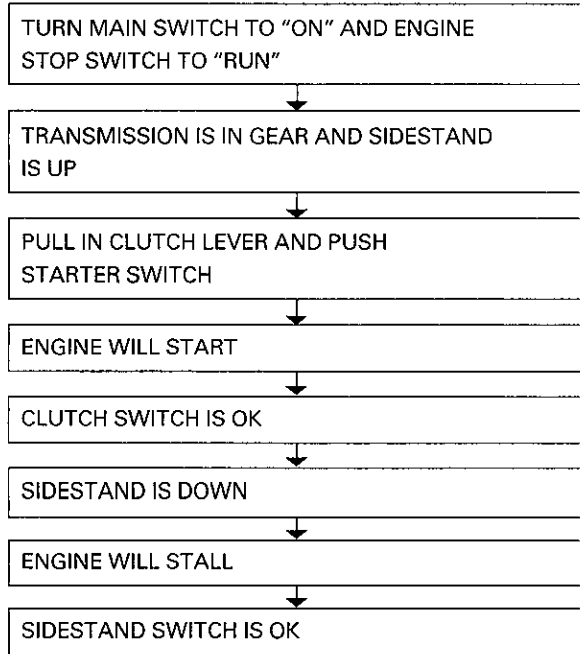
This model is equipped with an ignition circuit cut-off system. The motorcycle must not be ridden when the sidestand is down. The sidestand is located on the left side of the frame. (Refer to page 7-3 for an explanation of this system.)

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.



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

PRE-OPERATION CHECKS

Before using this motorcycle, check the following points:

Item	Routine	Page
Front brake	Check operation, free play, fluid level, and fluid leakage Top-up with DOT #4 (or #3) brake fluid if necessary.	6-3 ~ 6-4, 8-15 ~ 8-20
Rear brake	Check operation, free play, fluid level, and fluid leakage. Top-up with DOT #4 brake fluid if necessary.	
Clutch	Check operation, condition and free play Adjust if necessary.	6-4, 8-20 ~ 8-21
Throttle grip/Housing	Check for smooth operation Lubricate/Adjust if necessary.	6-4, 8-13, 8-24
Engine oil	Check oil level/Add oil as required	6-4 ~ 6-5, 8-6 ~ 8-10
Drive chain	Check chain slack and condition Adjust if necessary	6-5, 8-21 ~ 8-23
Wheels/Tires	Check tire pressure, wear, damage and spoke tightness.	6-5 ~ 6-8, 8-34 ~ 8-39
Control/Meter cables	Check for smooth operation. Lubricate if necessary	8-24
Brake and shift pedal shafts	Check for smooth operation Lubricate if necessary	8-24
Brake and clutch lever pivots	Check for smooth operation. Lubricate if necessary	8-25
Sidestand pivot	Check for smooth operation. Lubricate if necessary	8-25
Fittings/fasteners	Check all chassis fittings and fasteners Tighten/Adjust, if necessary	6-8, 8-5
Fuel tank	Check fuel level/top-up as required	6-9
Lights and signals	Check for proper operation	6-8, 8-32 ~ 8-34

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

If any item in the Pre-Operation Check is not working properly, have it inspected and repaired before operating the motorcycle

Brakes (See page 8-15 for details)**1 Brake lever and brake pedal**

Check for correct free play in the front brake lever and correct rear brake pedal height. Adjust if necessary. 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. Add fluid if necessary.

Recommended brake fluid: DOT #4

EUU13400

NOTE:

If DOT #4 is not available, #3 can be used for the front brake only.

- 3. Check the disc pads.**
Refer to page 8-18.

EUU02201

NOTE:

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

EAE10701

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 cylinder(s).

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 (See page 8-20 for details)

Check the free play in the clutch lever, and make sure the clutch operates properly. If the free play is incorrect, adjust it.

Throttle grip (See page 8-13 for details)

Turn the throttle grip to see if it operates properly, and check the free play. Make sure the grip returns by spring force when released. Ask a Yamaha dealer to make any necessary adjustments.

Engine oil (See page 8-6 for details)

Make sure the engine oil is at the specified level. Add oil as necessary.

Recommended oil:

SAE 20W40 type SE motor oil

Oil quantity:

Total amount:

3.3 L (2.9 Imp qt, 3.5 US qt)

Periodic oil change:

2.7 L (2.4 Imp qt, 2.9 US qt)

With oil filter replacement:

2.8 L (2.5 Imp qt, 3.0 US qt)

NOTE:

Recommended engine oil classification; API Service "SE", "SF" type or equivalent (e.g. "SF-SE", "SF-SE-CC", "SF-SE-SD" etc.).

EAE50001

Chain (See page 8-21 for details)

Check the general condition of the chain and the chain slack before every ride. Lubricate and adjust the chain as necessary.

EAE91302

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.

EUU67500

⚠ WARNING

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.

Basic weight With oil and full fuel tank	168 kg (370 lbs)	
Maximum load*	182 kg (401 lbs)	
Cold tire pressure	Front	Rear
Up to 90 kg (198 lbs) load*	150 kPa (1.5 kgf/cm ² , 22 psi)	150 kPa (1.5 kgf/cm ² , 22 psi)
90 kg (198 lbs) load~ Maximum load*	150 kPa (1.5 kgf/cm ² , 22 psi)	200 kPa (2.0 kgf/cm ² , 28 psi)
Off-road riding	125 kPa (1.25 kgf/cm ² , 18 psi)	125 kPa (1.25 kgf/cm ² , 18 psi)
High speed riding	150 kPa (1.5 kgf/cm ² , 22 psi)	150 kPa (1.5 kgf/cm ² , 22 psi)

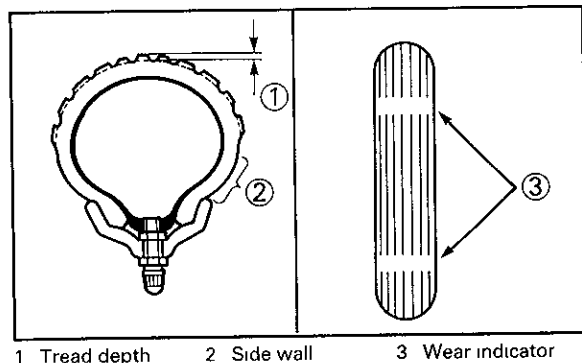
*Load is the total weight of cargo, rider, passenger, and accessories

⚠ 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.



FRONT

Manufacturer	Size	Type
BRIDGESTONE	90/90-21 54S	TW41
DUNLOP	90/90-21 54S	TRAIL MAX

REAR

Manufacturer	Size	Type
BRIDGESTONE	120/90-17 64S	TW42B
DUNLOP	120/90-17 64S	TRAIL MAX

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

EUU70000


WARNING

1. 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 be left to a Yamaha Service Technician.

2. Patching a punctured tube is not recommended. If it is absolutely necessary to do so, use great care and replace the tube as soon as possible with a good quality replacement.

EAE93400

Wheels

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 wheel; be sure the spokes are tight and undamaged. 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. After installing a tire, ride conservatively to allow the tire to seat itself on the rim properly. Failure to allow proper seating may cause tire failure, resulting in damage to the motorcycle and injury to the rider

EAE85000

Fittings/Fasteners

Always check the tightness of chassis fittings and fasteners before a ride. Use the chart on page 8-5 to find the correct torque.

EAE70000

Lights and signals

Check the headlight, flasher lights, taillight, brake light, meter lights, and all the indicator lights to make sure they are in working condition.

EAE70700

Switches

Check the operation of the headlight switch, turn switch, brake light switch, horn switch, starter switch, main switch, etc.

EAE80000

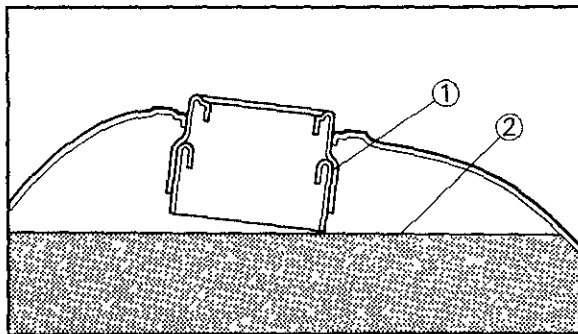
Fuel

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.

EAE80900

Recommended fuel: Regular gasoline
For Australia: Unleaded fuel only
Fuel tank capacity:
Total:
13.0 L (2.9 Imp gal, 3.4 US gal)
Reserve:
2.0 L (0.4 Imp gal, 0.5 US gal)

OPERATION AND IMPORTANT RIDING POINTS

EUU67200

WARNING

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.

EUU62800

WARNING

1. 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.
 2. 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.
-

Starting and warming up a cold engine

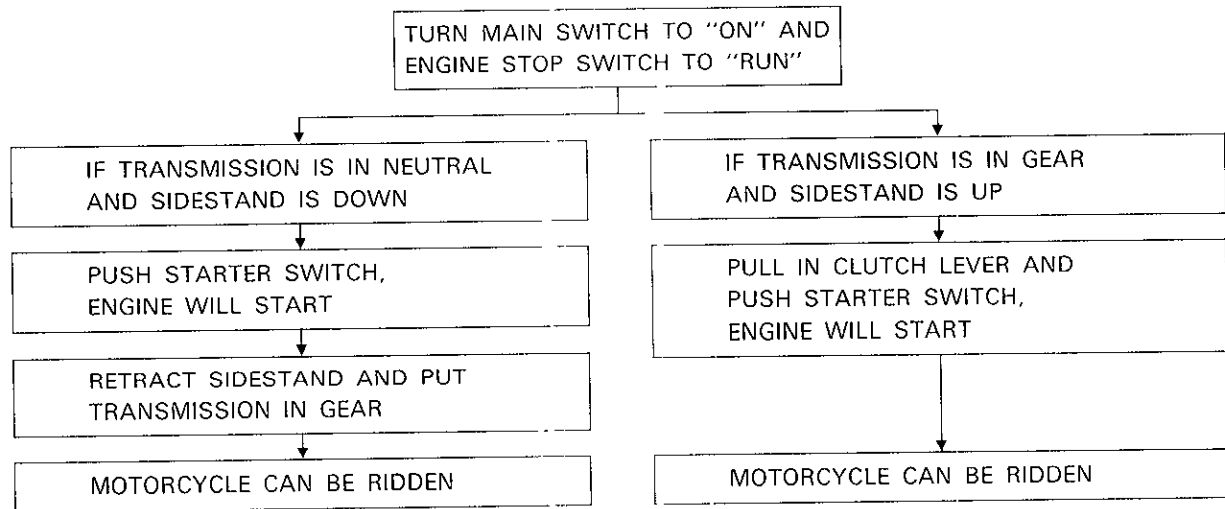
NOTE: _____

This motorcycle is equipped with a starting and an ignition circuit cut-off switch.

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 5-17.)



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

EUU03000

NOTE: _____

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

4. Fully open the starter (CHOKE) and completely close the throttle grip.
5. Start the engine by pushing the starter switch.

EUU02500

NOTE: _____

If the engine fails to start, release the starter 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.

6. After starting the engine, turn back the starter (CHOKE) to warming up position (about halfway).

EUU02600

NOTE: _____

For maximum engine life, always warm up the engine before starting off. Never accelerate hard with a cold engine!

7. After warming up the engine, turn off the starter completely.

EUU02700

NOTE: _____

The engine is warm when it responds normally to the throttle with the starter turned off.

Starting a warm engine

The starter (CHOKE) is not required when the engine is warm

CAUTION

See "Break-in section" prior to operating the motorcycle for the first time.

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 5-7)

To shift into NEUTRAL, depress the shift pedal repeatedly until it reaches the end of its travel (you will feel a stop when you are in first gear), 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.
-

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.

1. 0~150 km (0~100 mi):

Avoid operation above 1/3 throttle. 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 (100~300 mi):
Avoid prolonged operation above 1/2 throttle. 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 cruising speeds in excess of 3/4 throttle

CAUTION: _____

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

4. 1,000 km (600 mi) and beyond:
Avoid prolonged full throttle operation. Vary speeds occasionally.

CAUTION: _____

If any engine trouble should occur during the break-in period, consult a Yamaha dealer immediately.

Parking

When parking the motorcycle, stop the engine and remove the ignition key. Turn the fuel cock to "OFF" whenever stopping the engine.



The muffler and exhaust pipe are 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.

PERIODIC MAINTENANCE AND MINOR REPAIR

EAH00400

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 maintenance and lubrication schedule chart should be considered strictly as a guide to general maintenance and lubrication intervals.

YOU MUST TAKE INTO CONSIDERATION THAT WEATHER, TERRAIN, GEOGRAPHICAL LOCATIONS, AND A VARIETY OF INDIVIDUAL USES ALL TEND TO DEMAND THAT EACH OWNER ALTER THIS TIME SCHEDULE TO SHORTER INTERVALS TO MATCH THE ENVIRONMENT. The most important points of motorcycle inspection, adjustment, and lubrication are explained in the following pages.

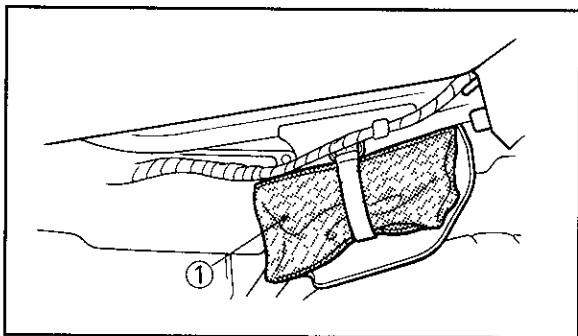


If you are not familiar with motorcycle service, this work should be done by a Yamaha dealer.

EAH10101

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

EUU67100

⚠ WARNING

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

EUU18500

NOTE:

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

PERIODIC MAINTENANCE/LUBRICATION

Unit km (miles)

ITEM	REMARKS	BREAK-IN 1,000 (600)	EVERY	
			6,000 (4,000) or 6 months	12,000 (8,000) or 12 months
Valve(s)*	Check valve clearance Adjust if necessary	○	○	○
Spark plug(s)	Check condition Clean or replace if necessary	○	○	○
Air filter	Clean Replace if necessary		○	○
Carburetor*	Check idle speed/starter operation Adjust if necessary	○	○	○
Fuel line*	Check fuel hose for cracks or damage Replace if necessary		○	○
Engine oil	Replace (Warm engine before draining)	○	○	○
Engine oil filter/ Oil strainer*	Replace filter element and clean oil strainer	○	○	○
Brake*	Check operation/fluid leakage/See NOTE (page 8-4) Correct if necessary		○	○
Clutch	Check operation Adjust if necessary		○	○
Rear arm pivot*	Check rear arm assembly for looseness Correct if necessary Moderately repack ***	○	○	○
Rear suspension link pivots*	Check operation Moderately repack ***	○	○	○
Wheels*	Check balance/damage/runout/spoke tightness Repair if necessary		○	○
Wheel bearings*	Check bearing assembly for looseness/damage Replace if damaged		○	○

ITEM	REMARKS	BREAK-IN 1,000 (600)	EVERY	
			6,000 (4,000) or 6 months	12,000 (8,000) or 12 months
Steering bearing*	Check bearing assembly for looseness Correct if necessary Moderately repack every 24,000 (16,000) or 24 months **	○		○
Front forks*	Check operation/oil leakage Repair if necessary		○	○
Rear shock absorber*	Check operation/oil leakage Repair if necessary		○	○
Drive chain	Check chain slack/alignment Adjust if necessary Clean and lube	EVERY 500 (300)		
Fittings/Fasteners*	Check all chassis fittings and fasteners Correct if necessary	○	○	○
Sidestand*	Check operation Repair if necessary	○	○	○
Sidestand switch*	Check operation Clean or replace if necessary	○	○	○

* It is recommended that these items be serviced by a Yamaha dealer

** Medium weight wheel bearing grease

*** Lithium soap base grease

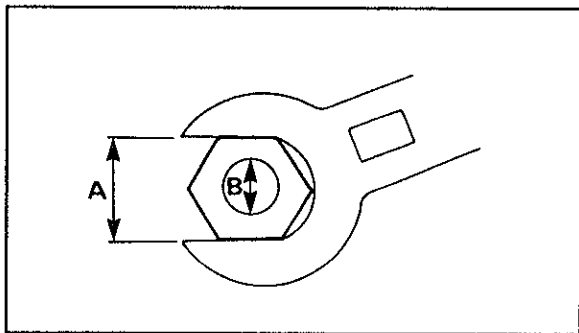
NOTE:

Brake fluid replacement.

- 1 When disassembling the master cylinder or caliper cylinder, replace the brake fluid. Normally check the brake fluid level and add the fluid as required.
2. On the inner parts of the master cylinder and caliper cylinder, replace the oil seals every two years
3. Replace the brake hoses every four years, or of cracked or damaged

Torque specifications

Use a torque wrench to tighten these items. It is recommended that these items be checked occasionally, especially before a long trip. Always check the tightness of these items whenever they are loosened for any reason.



A (Nut)	B (Bolt)	General torque specifications		
		Nm	m • kg	ft • lb
10 mm	6 mm	6	0.6	4.3
12 mm	8 mm	15	1.5	11
14 mm	10 mm	30	3.0	22
17 mm	12 mm	55	5.5	40
19 mm	14 mm	85	8.5	61
22 mm	16 mm	130	13.0	94

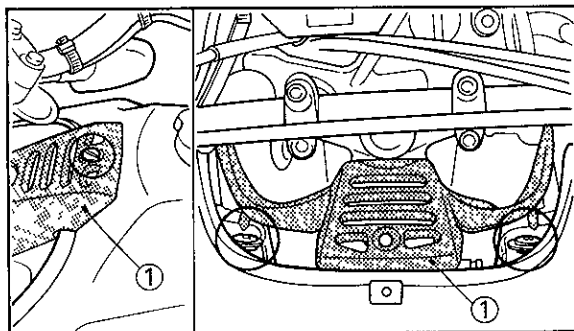
Item	Torque		
	Nm	m • kg	ft • lb
Spark plug	17.5	1.75	12.5
Engine oil drain bolt (Crankcase)	30	3.0	22
Engine oil drain bolt (Oil tank)	18	1.8	13
Oil filter cover screw	10	1.0	7.2
Air bleed screw	5	0.5	3.6
Front wheel axle	58	5.8	42
Axe holder nut	9	0.9	6.5
Rear wheel axle nut	90	9.0	65
Caliper bracket bolt	45	4.5	33
Rear arm end bolt	3	0.3	2.2

Engine oil

A dry sump lubrication system is used on this model. That is, oil is supplied to the engine by means of the feed pump and returned to the oil tank by means of the scavenging pump. Therefore, the oil level can be checked at the oil tank.

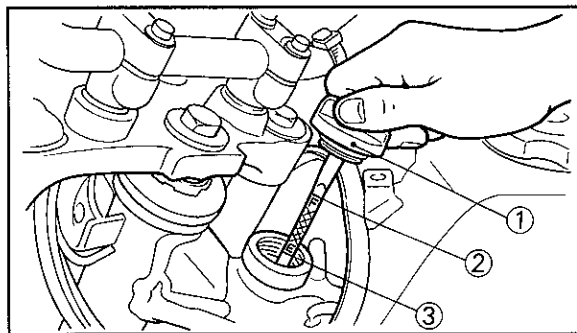
1 Oil level measurement

- Place the motorcycle on a level place and hold it in an upright position.
- Remove the screw, pull out the projections from the grommets to remove the cover.



1 Cover

- Remove the oil tank cap/dipstick, and check the oil level.



1 Oil tank cap/dipstick
3 Minimum oil level

2 Maximum oil level

EUU16400

NOTE:

When checking, reinsert the oil tank cap/ dipstick without screwing it in. Remove the oil tank cap/ dipstick again and check the oil level. For accuracy, check with the motorcycle held upright on a level place.

- d. If the oil level is between the minimum and maximum level lines marked on the oil tank cap/dipstick, the engine may be started. If there is no oil on the oil tank cap/dipstick, add oil up to the minimum level.
- e. Start the engine and warm up until the oil temperature rises to approximately 70°C (158°F).
- f. Idle the engine for at least 10 seconds while keeping the motorcycle upright. Then stop the engine and check the oil level while keeping the motorcycle upright.
- g. Fill oil to the maximum level line.

EUU30000

CAUTION

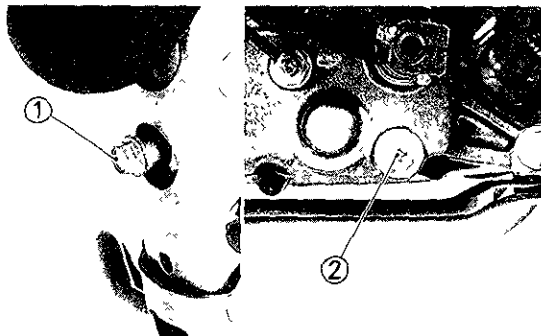
Do not run the motorcycle until you know it has sufficient engine oil.

EUU71501

WARNING

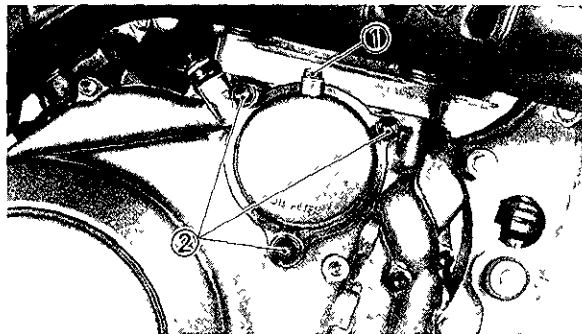
Never attempt to remove the oil tank cap/dipstick just after high-speed operation. The heated oil could spout out, causing danger. Wait until the oil cools down to approximately 70°C (158°F).

- 2. Engine oil replacement
 - a. Start the engine and stop after a few minutes of warm-up.
 - b. Place an oil pan under the engine.
 - c. Remove the oil tank cap/dipstick, drain bolts (at two places), and air bleed screw.



1 Drain bolt (oil tank)

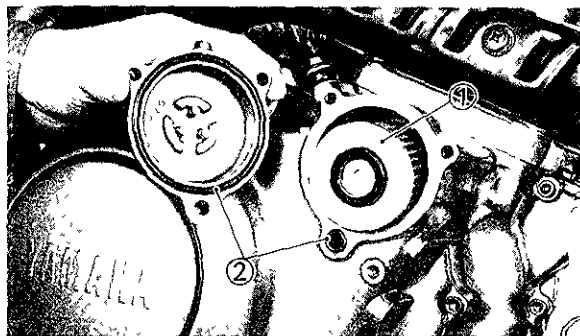
2 Drain bolt (crankcase)



1 Air bleed screw

2 Filter cover screws

- d Check each gasket. If damaged, replace.
- e. Remove the filter cover screws and the oil filter cover. Replace the filter element.



1 Filter element

2 O-rings

EUU06800

NOTE: _____

The oil filter cover is secured by three screws. The lower one should be removed so that the filter cavity will drain.

- f Check O-ring(s) for damage. Replace if damaged.

- g. Install drain bolts (at two places), filter cover, screws and air bleed screw.

Tightening torque:

Drain bolt (crankcase):

30 Nm (3.0 m•kg, 22 ft•lb)

Drain bolt (oil tank):

18 Nm (1.8 m•kg, 13 ft•lb)

Filter cover screw:

10 Nm (1.0 m•kg, 7.2 ft•lb)

Air bleed screw:

5 Nm (0.5 m•kg, 3.6 ft•lb)

- h. Fill engine with oil. Install the oil tank cap/dipstick and tighten.

Recommended oil:

SAE 20W40 type SE motor oil

Oil quantity:

Total amount.

3.3 L (2.9 Imp qt, 3.5 US qt)

Periodic oil change:

2.7 L (2.4 Imp qt, 2.9 US qt)

With oil filter replacement:

2.8 L (2.5 Imp qt, 3.0 US qt)

EUJ08000

NOTE: _____

Recommended engine oil classification; API Service "SE", "SF" type or equivalent (e.g. "SF-SE", "SF-SE-CC", "SF-SE-SD" etc).

- i. Start the engine and warm up for a few minutes. While warming up, check for oil leakage. If oil leakage is found, stop the engine immediately and check for the cause.
- j Stop the engine and check the oil level

EUU37701

CAUTION:

After replacing the engine oil, be sure to check the oil pressure as described below.

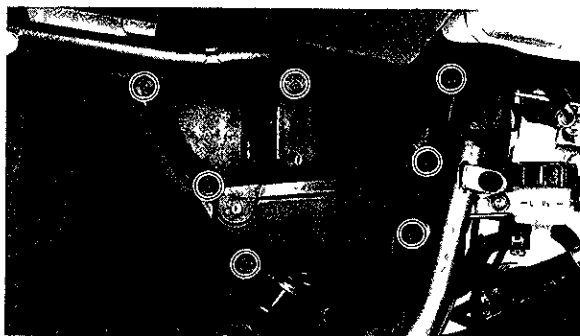
1. Remove the air bleed screw from the oil filter cover.
2. Start the engine and keep it idling until oil flows out of the bleed hole. If no oil comes out after one minute, turn off the engine immediately so it will not seize. In such a case go to the nearest Yamaha dealer for repairs.
3. After checking, tighten the air bleed screw securely.

EAH64601

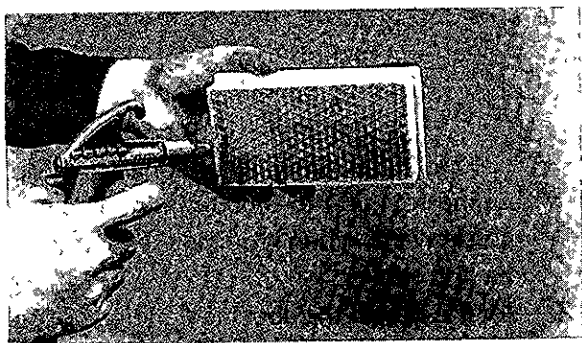
Air filter

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

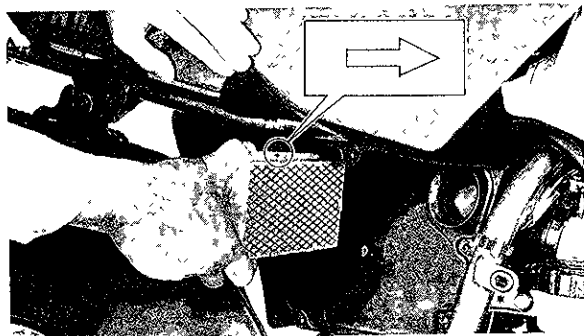
1. Remove the side cover and air duct.
- 2 Remove the air filter case fitting screws and the filter case cover.



- 3 Pull out the element
4. Tap the element lightly to remove most of the dust and dirt and blow out the remaining dirt with compressed air from the mesh side of the element. If the element is damaged, replace it.



5. Install the element with the arrow mark on the top pointing inward.



6. Reassemble by reversing the removal procedure.

EUU35701

CAUTION: _____

Make sure the element is properly seated in the filter case.

EUU42400

CAUTION: _____

The engine should never be run without the air filter element installed; excessive piston and/or cylinder wear may result.

Carburetor adjustment

The carburetor is a vital part of the engine and requires very sophisticated adjustment. Most adjustments should be left to a Yamaha dealer who has the professional knowledge and experience to do so. However, the following may be serviced by the owner as part of routine maintenance.

EJU13700

NOTE:

A diagnostic tachometer must be used for this procedure.

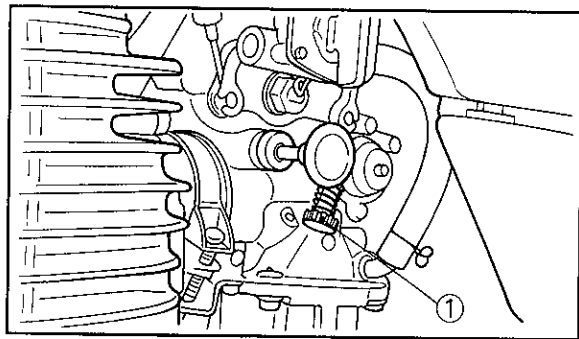
EJU33001

CAUTION:

The carburetor was set at the Yamaha factory after many tests. If the settings are changed, poor engine performance and damage may result.

Idle speed adjustment

- 1 Attach the tachometer. Start the engine and warm it up for a few minutes (normally, 1 or 2 minutes) at approximately 1,000 to 2,000 r/min. Occasionally rev the engine to 4,000 to 5,000 r/min. The engine is warm when it quickly responds to the throttle.
2. Set the idle to the specified engine speed by adjusting the throttle stop screw; turn the screw in to increase engine speed, and out to decrease engine speed.



1 Throttle stop screw

Standard idle speed.
1,200 ~ 1,400 r/min

EUU04500

NOTE: _____

If the specified idle speed cannot be obtained by performing the above adjustment, consult a Yamaha dealer.

EAH92200

Throttle cable adjustment

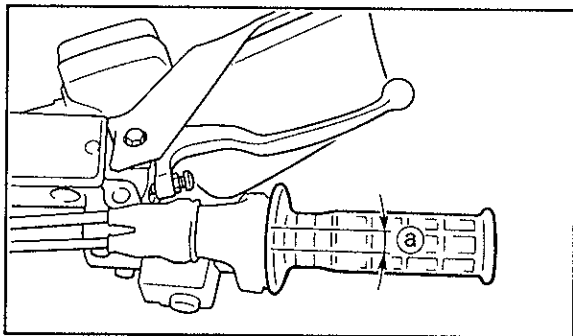
EUU06400

NOTE: _____

Before adjusting the throttle cable free play, the engine idling speed should be adjusted.

The throttle cable should have a specified free play in the turning direction at the grip flange. If the free play is incorrect, ask a Yamaha dealer to make adjustment.

Free play:
3 ~ 5 mm (0.12 ~ 0.20 in)



a 3~5 mm (0.12~0.20 in)

Valve clearance adjustment

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

Spark plug inspection

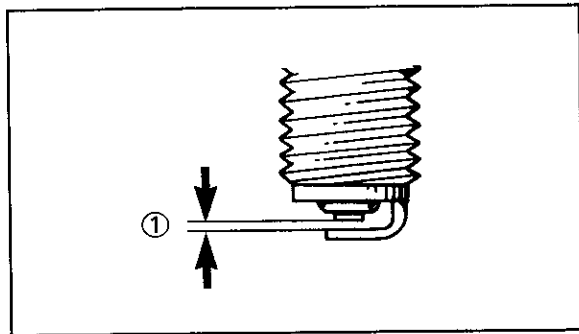
The spark plug is an important engine component and is easy to inspect. The condition of the spark plug can indicate the condition of the engine.

The ideal color on the white porcelain insulator around the center electrode is a medium to light tan color for a motorcycle that is being ridden normally. Do not attempt to diagnose any 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 the spark

plugs to slowly break down and erode. If electrode erosion becomes excessive, or if carbon and other deposits are excessive, you should replace the spark plugs with the specified plug.

Standard spark plug:
DPR8EA-9 or DPR9EA-9 (NGK)

Before installing the spark plug, measure the electrode gap with a wire thickness gauge and adjust the gap to specification as necessary.



1 Spark plug gap

Spark plug gap:

0.8~0.9 mm (0.031~0.035 in)

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

Spark plug torque:

17.5 Nm (1.75 m•kg, 12.5 ft•lb)

EUU03801

NOTE:

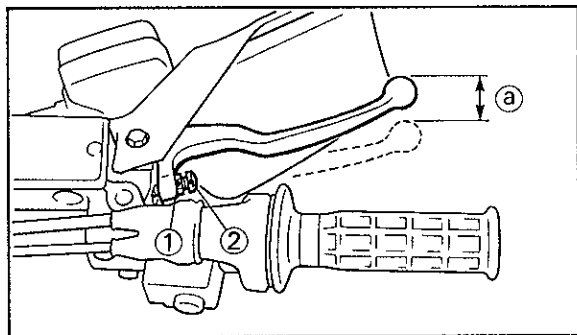
If a torque wrench is not available when you are installing a spark plug, a good estimate of the correct torque is 1/4 to 1/2 turn past finger tight. Have the spark plug torqued to the correct value as soon as possible with a torque wrench.

EAH80100

Front brake adjustment

The free play at the end of the front brake lever should be 2~5 mm (0.08~0.20 in).

1. Loosen the lock nut.



1 Lock nut

2 Adjuster

a 2~5 mm (0.08~0.20 in)

2. Turn the adjuster so that the brake lever movement at the lever end is 2~5 mm (0.08~0.20 in) before the adjuster contacts the master cylinder piston.
3. After adjusting, tighten the lock nut.

EUU63600

⚠ WARNING

Check the brake lever free play. Be sure the brake is working properly.

EUU64100

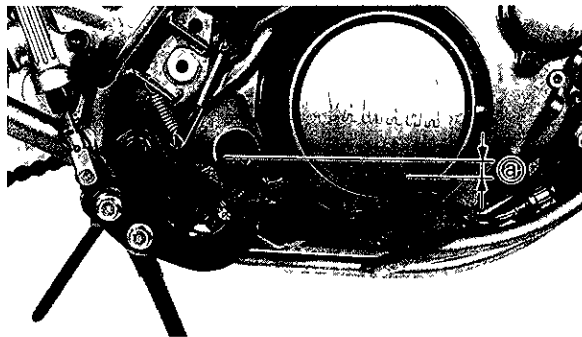
⚠ WARNING

A soft or spongy feeling in the brake lever 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.

EAH80401

Rear brake adjustment

The top of the brake pedal should be positioned 10 mm (0.4 in) below the top of the footrest. If not, ask a Yamaha dealer to adjust it.



a Pedal height 10 mm (0.4 in)

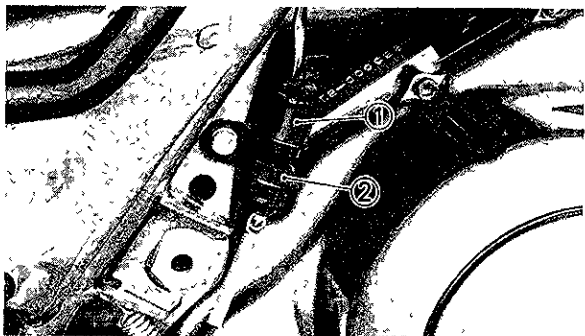
⚠ WARNING

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 brake light switch is operated by movement of the brake pedal. To adjust, hold the main body of the switch so it does not rotate and turn the adjusting nut.

Proper adjustment is achieved when the brake light comes on just before the brake begins to take effect.



1 Main body

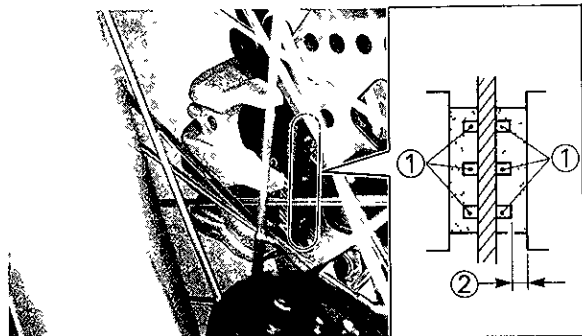
2 Adjusting nut

Checking the front and rear brake pads

Check the brake pads for damage and wear.

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

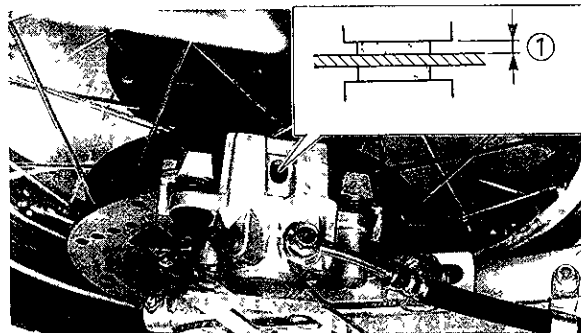


1 Wear indicator

2 Wear limit 1.0 mm (0.04 in)

REAR

Remove the cap and inspect the pads.
If the thickness is less than the specified value,
have a Yamaha dealer replace the pads



1 Wear limit 0.8 mm (0.031 in)

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 lower level and replenish 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.

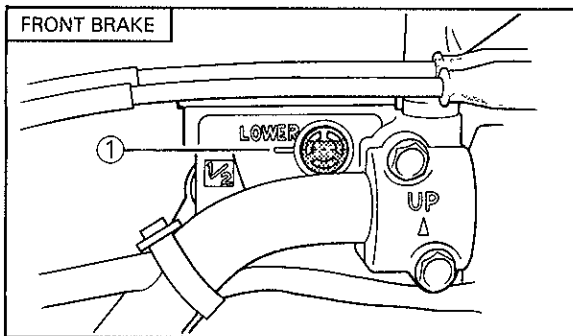
2. Use only the designated quality brake fluid. Otherwise, the rubber seals may deteriorate, causing leakage and poor brake performance

Recommended brake fluid: DOT #4

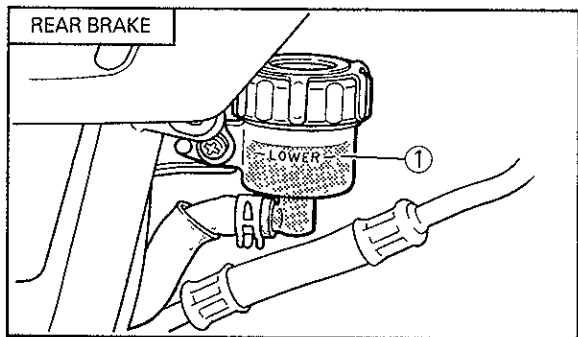
EUU13400

NOTE:

If DOT#4 is not available, #3 can be used for the front brake only.



1 Lower level



1 Lower level

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.

Brake fluid replacement

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

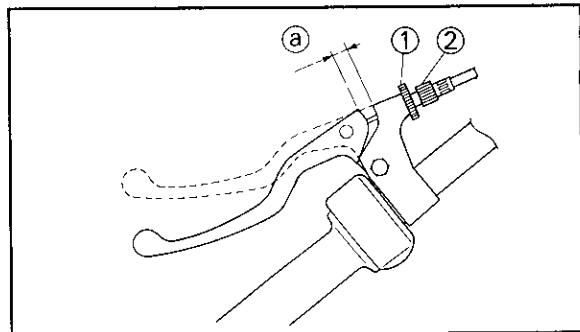
Clutch adjustment

The clutch lever free play should be adjusted to 2~3 mm (0.08~0.12 in) at the clutch lever. If the free play is incorrect, adjust as follows

Free play:

2~3 mm (0.08~0.12 in)

- Loosen the lock nut at the handlebar.



1 Lock nut

2 Adjuster

a 2~3 mm
(0.08~0.12 in)

- Turn the adjuster in or out until proper lever free play is obtained.
- Tighten the lock nut.
- If the free play is still incorrect, make an adjustment at the crankcase side.

EAI40801

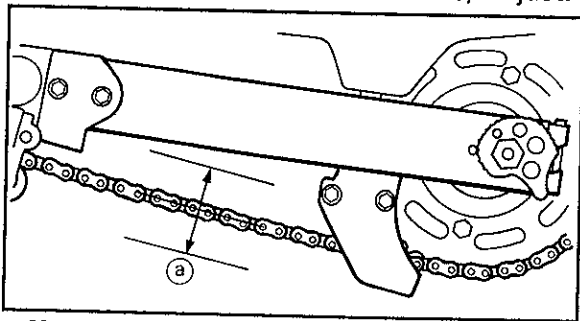
Drive chain slack check

EUU04801

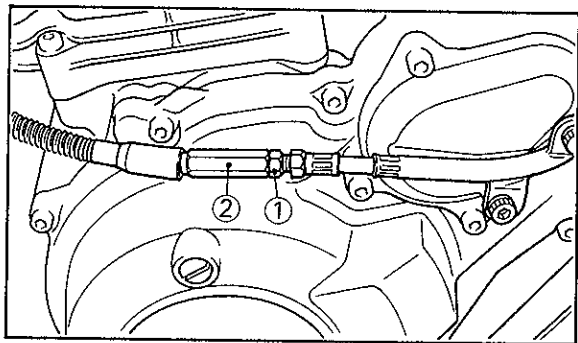
NOTE: _____

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.



a 30~40 mm (1.2~1.6 in)



1 Lock nut

2 Adjuster

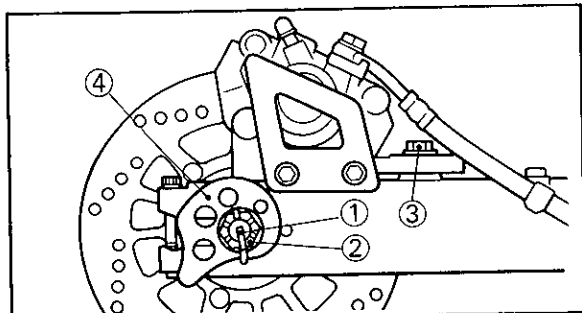
EUU17800

NOTE: _____

If proper adjustment cannot be obtained or the clutch does not work correctly, ask a Yamaha dealer to inspect the internal clutch mechanism.

Drive chain slack adjustment

1. Remove the cotter pin from the axle nut.



- | | |
|------------------------|----------------|
| 1 Cotter pin | 2 Axle nut |
| 3 Caliper bracket bolt | 4 Chain puller |

2. Loosen the axle nut and caliper bracket bolt.
3. Turn both left and right chain pullers the same amount.
Make sure that they are in the same position for proper wheel alignment.

CAUTION:

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

4. After adjusting, be sure to tighten the loosened parts

Tightening torque:

Axle nut:

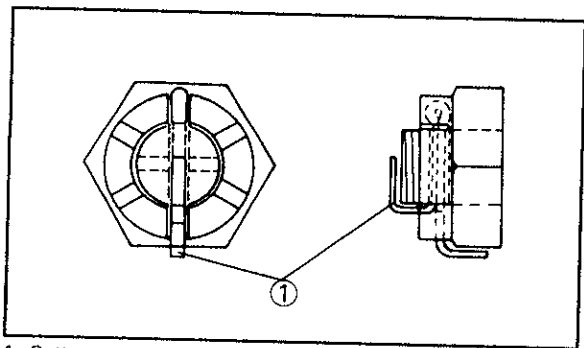
90 Nm (9.0 m•kg, 65 ft•lb)

Caliper bracket bolt:

45 Nm (4.5 m•kg, 33 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 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.

EAI40701

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.

EAI10701

Cable inspection and lubrication

EJU64601

WARNING

Damage to the outer housing of cables may allow internal rusting and cause interfere 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:
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.

EAI30601

Brake and shift pedals

Lubricate the pivoting parts.

Recommended lubricant:
SAE 10W30 motor oil

EAI30700

Brake and clutch levers

Lubricate the pivoting parts.

Recommended lubricant:
SAE 10W30 motor oil

EAI31300

Rear suspension

Lubricate the pivoting parts.

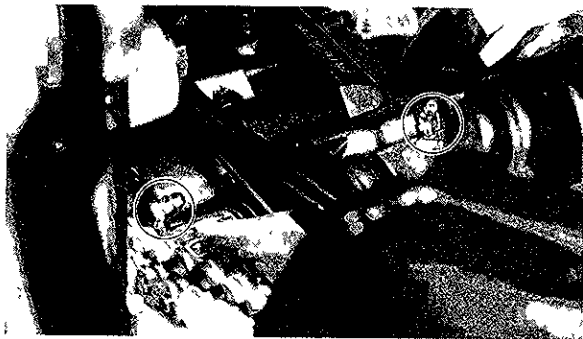
Recommended lubricant:
Lithium soap base grease

EAI31101

Sidestand

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

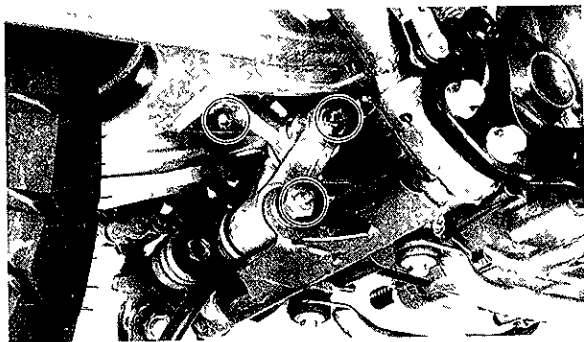
Recommended lubricant:
SAE 10W30 motor oil



EUU70401

⚠ WARNING

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



EAI20501

Front fork inspection

EUU65700

WARNING

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

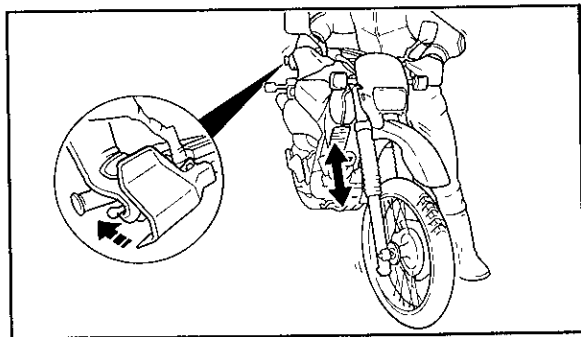
1. Visual check

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

2. Operation check

Place the motorcycle on a level place.

- Hold the motorcycle in an upright position and apply the front brake.
- Stroke the front forks up and down several times.

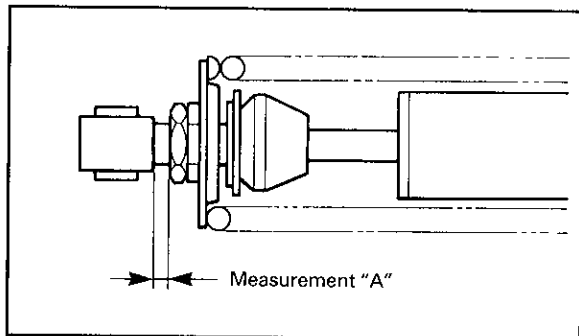


EUU42500

CAUTION

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

- 3 Turn adjuster in direction **(B)** to increase spring preload and in direction **(A)** to decrease spring preload.
One complete turn of the adjuster will change the preload 1 mm (0.04 in)



Measurement "A"

Standard length (installed):

8.9 mm (0.35 in)

Minimum length (installed):

3.4 mm (0.13 in)

Maximum length (installed):

14.4 mm (0.57 in)

EUU36300

CAUTION:

Never attempt to turn the adjuster beyond the maximum or minimum setting.

Tightening torque:

42 Nm (4.2 m•kg, 30 ft•lb)

EUU36400

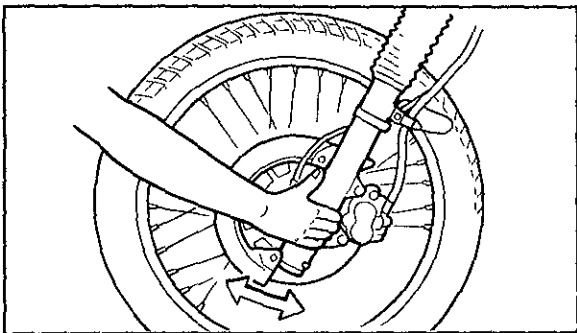
CAUTION:

Always tighten the lock nut against the spring adjuster and torque the lock nut to specification.

EAI60301

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.



EUJ65700

⚠ WARNING

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

EAI60201

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 Maintenance Schedule.

EAI64901

Battery

This motorcycle is equipped with a "Sealed type" battery. Therefore, it is not necessary to check the electrolyte or add distilled water in the battery. If the battery seems to have discharged, consult a Yamaha dealer.

EUU43401

CAUTION:

Do not try to remove the sealing caps of the battery cells. You may damage the battery.

EUU65800

! 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.

EAIB5000

Battery maintenance

- 1 When the motorcycle is not used for a month or longer, remove the battery and store it in a cool, dark place. Completely recharge the battery before reinstallation.

EUU43500

CAUTION:

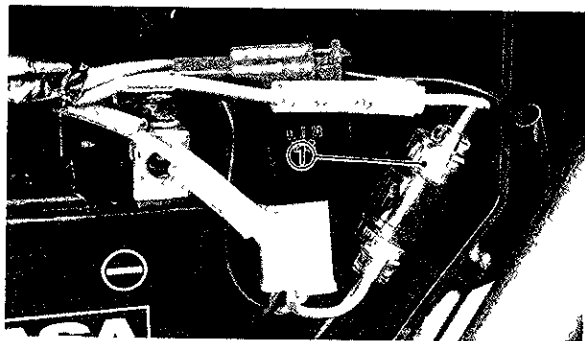
A special battery charger (constant voltage/ampere or constant voltage) is required for recharging the sealed type battery. Using a conventional battery charger may shorten the battery life.

2. Always make sure the connections are correct when reinstalling the battery. The red(positive) lead is for the \oplus terminal and the black(negative) lead is for the \ominus terminal. Always connect the red(positive) lead first, then connect the black(negative) lead.

EAI91001

Fuse replacement

If a fuse is blown, turn off the ignition switch and the switch of the circuit in question. Install a new fuse of proper amperage. Turn on the switches and see if the electrical device operates. If the fuse immediately blows again, consult a Yamaha dealer.



1 Fuse

EUU34400

CAUTION

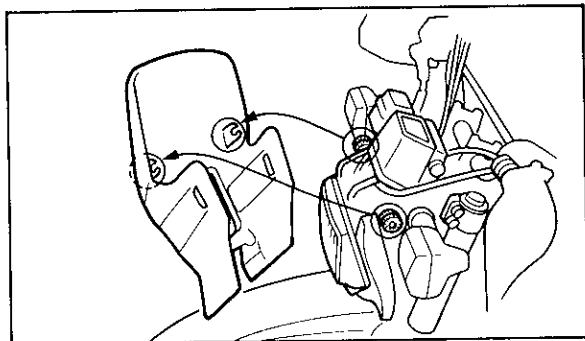
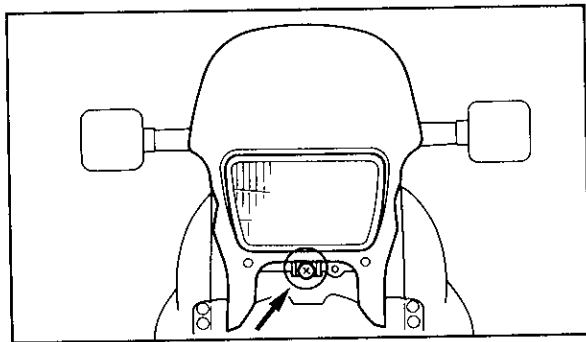
Do not use fuses of higher amperage rating than those recommended. Substitution of a fuse of improper rating can cause extensive electrical system damage and possibly a fire.

Specified fuse: 20A

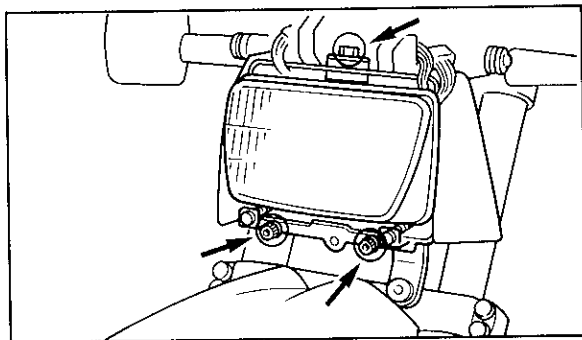
Headlight bulb replacement

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

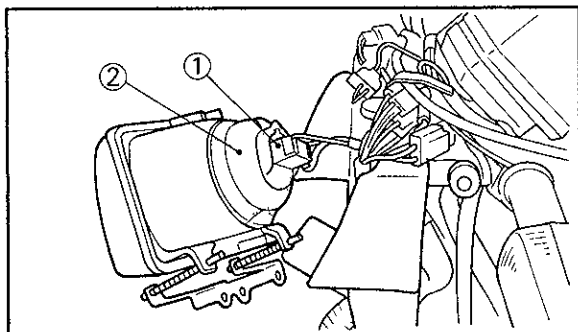
1. Remove the screw, pull out the projections from the grommets to remove the cowling.



2. Remove the headlight unit assembly.



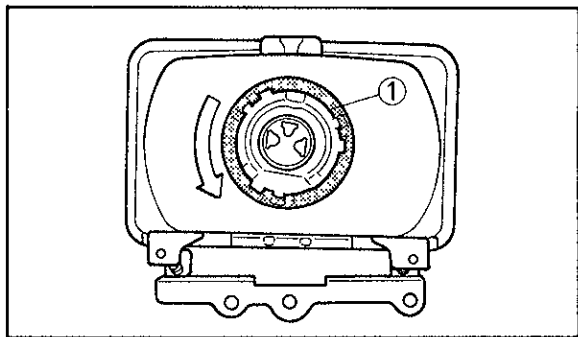
3. Disconnect the headlight lead(s) and remove the cover.



1 Headlight lead

2 Cover

4. Turn the bulb holder counterclockwise to remove it and remove the defective bulb.



1 Bulb holder

EUU66001



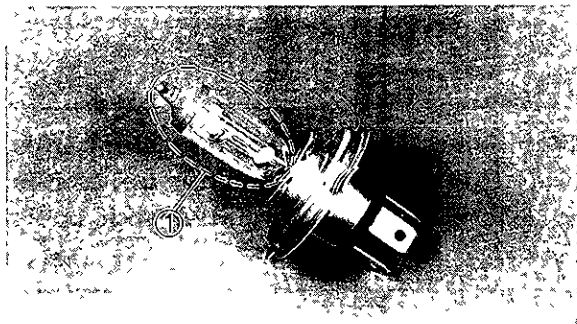
WARNING

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

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

CAUTION!

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



1 Don't touch

6. Install the cover.
7. Connect the headlight leads.

8. Install the light unit assembly and cowl-
ing. If the headlight beam adjustment is
necessary, ask a Yamaha dealer to make
adjustment.

EAJ25402

Front wheel removal

EJU66201

WARNING

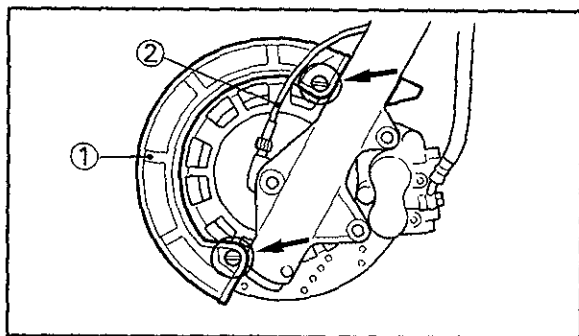
It is advisable to have a Yamaha dealer service the wheel.

EJU65700

WARNING

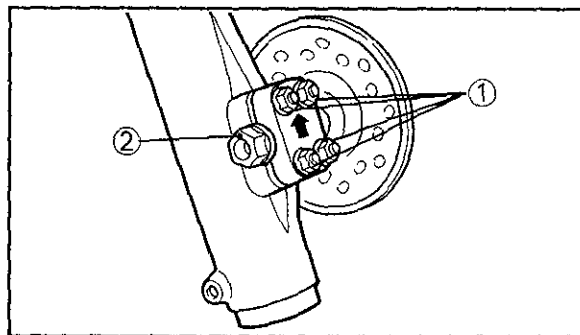
Securely support the motorcycle so there is no danger of it falling over.

1. Remove the disc cover.
2. Remove the speedometer cable from the front wheel side.



1 Disc cover 2 Speedometer cable

3. Elevate the front wheel by placing a suitable stand under the engine.
4. Loosen the wheel axle holder nuts.



1 Axle holder nuts 2 Axle

5. Remove the wheel axle and the front wheel. Make sure the motorcycle is properly supported.

EUU05400

NOTE: _____

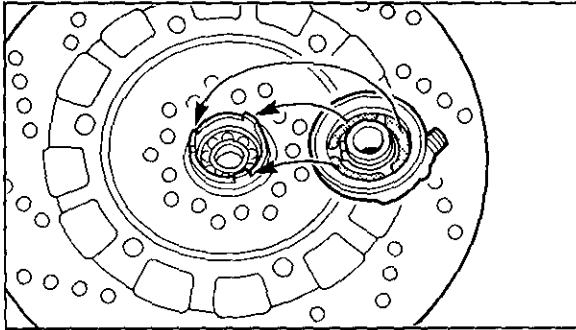
Do not depress the brake lever when the disc is off the caliper as the brake pads will be forced shut

Front wheel installation

When installing the front wheel, reverse the removal procedure.

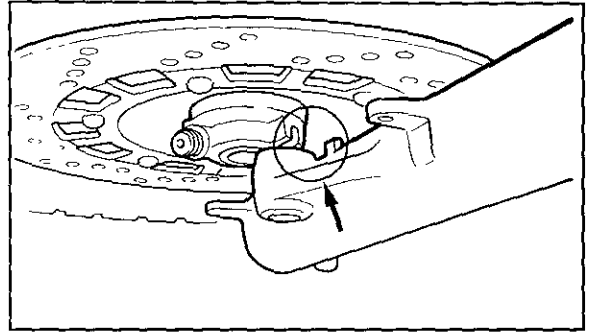
Pay attention to the following points.

1. Make sure the wheel hub and the speedometer gear unit are installed with the projections meshed into the slots.



2. Make sure there is enough gap between the brake pads before inserting the brake disc(s).

3. Make sure the slot in the speedometer gear unit fits over the stopper on the front fork outer tube.



4. Make sure the wheel axle is properly torqued.

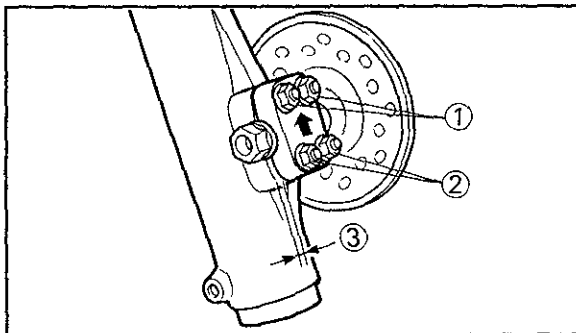
Tightening torque:

58 Nm (5.8 m•kg, 42.0 ft•lb)

5. Before tightening the holder nuts, stroke the front fork several times to check for proper fork operation.

6. Tighten the axle holder nuts; first the upper and then lower ones.

When tightened in this sequence, there should be a gap formed at the bottom of the axle holder.



1 1st 2 2nd 3 Gap

Axle holder nut torque:
9 Nm (0.9 m•kg, 6.5 ft•lb)

EAJ37201

Rear wheel removal

EUU66201

⚠ WARNING

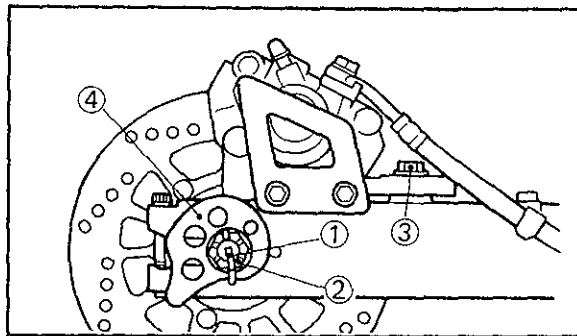
It is advisable to have a Yamaha dealer service the wheel.

EUU65700

⚠ WARNING

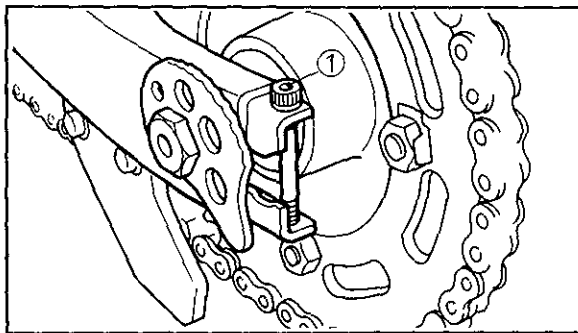
Securely support the motorcycle so there is no danger of it falling over.

1. Remove the cotter pin from the axle nut.



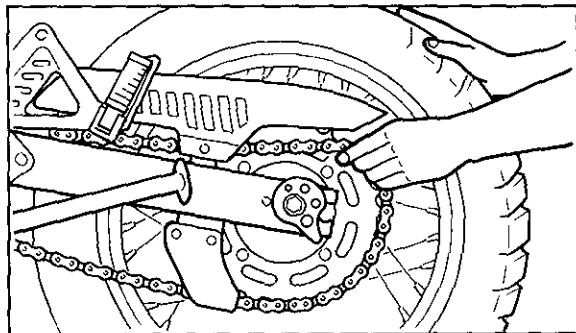
1 Cotter pin 2 Axle nut
8-37 3 Caliper bracket bolt 4 Chain puller

2. Loosen the axle nut, caliper bracket bolt and chain pullers.
3. Elevate the rear wheel by placing a suitable stand under the engine.
4. Remove the axle nut and rear arm end bolt.



1 Rear arm end bolt

5. Push the wheel forward and remove the drive chain.



6. Pull out the wheel axle and remove the wheel assembly by pulling backwards

EUU05501

NOTE: _____

Do not depress the brake pedal when the disc and caliper are separated.

EUU05600

NOTE: _____

You do not have to disassemble the chain in order to remove or install the rear wheel.

Rear wheel installation

When installing the rear wheel, reverse the removal procedure. Pay attention to the following points.

1. Make sure there is enough gap between the brake pads before inserting the brake disc.
2. Make sure the rear wheel axle is inserted from the left-hand side and that the chain pullers are installed with the punched side outward.
3. Adjust the drive chain.
4. Make sure the following parts are properly torqued, and a new cotter pin is installed.

Tightening torque:

Axle nut:

90 Nm (9.0 m•kg, 65 ft•lb)

Caliper bracket bolt.

45 Nm (4.5 m•kg, 33 ft•lb)

Rear arm end bolt:

3 Nm (0.3 m•kg, 2.2 ft•lb)



Always use a new cotter pin on the axle nut.

Troubleshooting

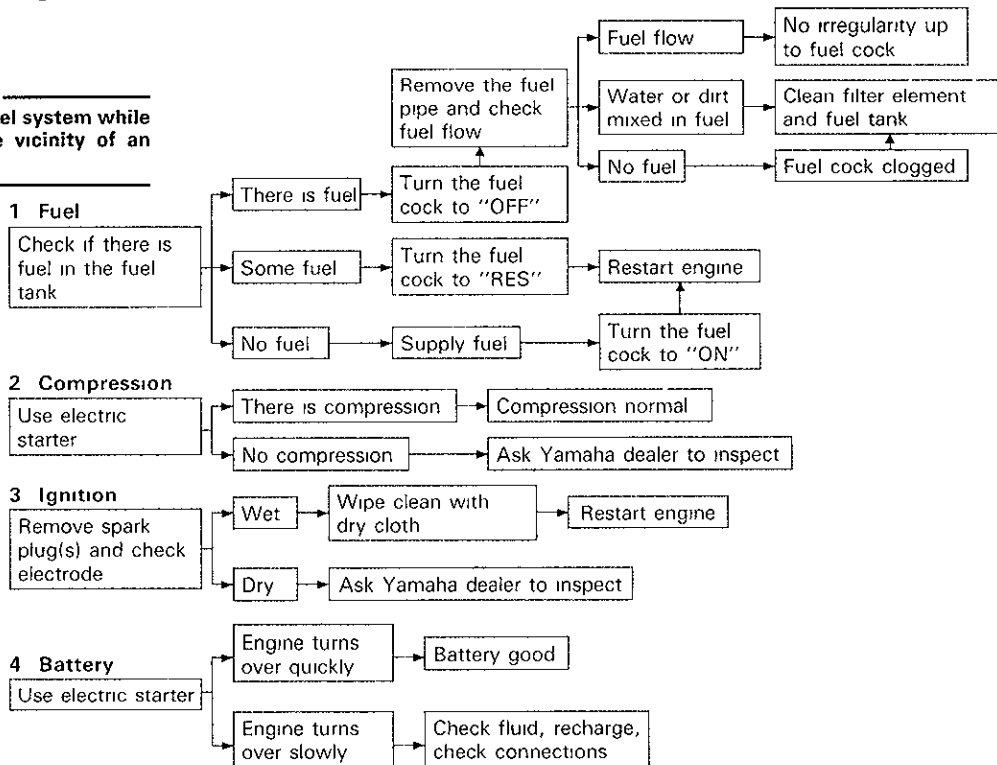
Although Yamaha motorcycles receive a rigid inspection before shipment from the factory, trouble may occur during operation. Any problem in the fuel, compression, or ignition systems can cause poor starting and loss of power. The troubleshooting chart describes a quick, easy procedure for making checks. 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

EJU66300

⚠ WARNING

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



CLEANING AND STORAGE

EAK00902

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 plug(s) 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.

EUU34602

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

7. Clean the seat with a vinyl upholstery cleaner to keep the cover pliable and glossy.
8. 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. When finished, start the engine and let it idle for several minutes.

EAK01200

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. Drain the fuel tank, fuel lines, and carburetor float bowl(s).

2. Remove the empty fuel tank, pour a cup of SAE 10W30 or 20W40 motor oil in the tank, shake the tank to coat the inner surfaces thoroughly and drain off the excess oil. Reinstall the tank.
3. Remove the spark plug, pour about one tablespoon of SAE 10W30 or 20W40 motor oil in the spark plug hole and reinstall the spark plug. Turn the engine over several times (ground spark plug lead wires) to coat the cylinder walls with oil.

EUU66400



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

4. Remove the drive chain. Thoroughly clean the chain with kerosene and lubricate it. Reinstall the chain or store it in a plastic bag (tied to frame for safe-keeping).
5. Lubricate all control cables.
6. Block up the frame to raise both wheels off the ground.
7. Tie a plastic bag over the exhaust pipe outlet to prevent moisture from entering.
8. 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.
9. Remove the battery and charge it. Store it in a 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)).

NOTE:

Make any necessary repairs before storing the motorcycle

SPECIFICATIONS

Model	XT600EG
Dimension Overall length Overall width Overall height Seat height Wheel base Minimum ground clearance	2,220 mm (87.4 in) 820 mm (32.3 in) 1,245 mm (49.0 in) 855 mm (33.7 in) 1,445 mm (56.9 in) 235 mm (9.3 in)
Basic weight: With oil and full fuel tank	168 kg (370 lbs)
Minimum turning radius	2,200 mm (86.6 in)
Engine: Type Model Cylinder arrangement Displacement Bore×Stroke Compression ratio Starting system Lubrication system	Air cooled 4-stroke, gasoline, SOHC 3WR6 Single cylinder, Forward inclined 595 cm ³ 95.0×84.0 mm (3.74×3.31 in) 8.5 : 1 Electric starter Dry sump

Model	XT600EG
Engine oil (4-cycle) Type Capacity Periodic oil change With oil filter replacement Total amount	SAE 20W40 type SE motor oil 2.7 L (2.4 Imp qt, 2.9 US qt) 2.8 L (2.5 Imp qt, 3.0 US qt) 3.3 L (2.9 Imp qt, 3.5 US qt)
Air filter:	Dry type element
Fuel: Type Tank capacity Reserve amount	Regular gasoline For Australia: Unleaded fuel only 13.0 L (2.9 Imp gal, 3.4 US gal) 2.0 L (0.4 Imp gal, 0.5 US gal)
Carburetor Type/manufacturer	Y26PV/TEIKEI

Model	XT600EG
Spark plug. Type/manufacturer Gap	DPR8EA-9 or DPR9EA-9/NGK 0.8~0.9 mm (0.031~0.035 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	Spur gear 71/34 (2 088) Chain drive 45/15 (3 000) Constant mesh 5-speed Left foot operation 31/12 (2.583) 27/17 (1 588) 24/20 (1 200) 21/22 (0.954) 19/24 (0 792)

Model	XT600EG
Chassis Frame type Caster angle Trail	Diamond 27.75° 116 mm (4.6 in)
Tire: Type Size — Front Rear	With tube 90/90-21 54S 120/90-17 64S
Brake. Front brake type Operation Rear brake type Operation	Single, Disc brake Right hand operation Single, Disc brake Right foot operation
Suspension: Front Rear	Telescopic fork Swingarm (Monocross suspension)
Shock Absorber: Front Rear	Air, Coil spring, Oil damper Gas, Coil spring, Oil damper

Model	XT600EG
Wheel travel. Front Rear	225 mm (8.9 in) 200 mm (7.9 in)
Electrical. Ignition system Generator system Battery type/capacity	T C.I. (Digital) AC magneto generator YTX9-BS/12V 8AH
Headlight type:	Quartz bulb
Bulb wattage/quantity: Headlight Tail/brake light Flasher light Meter light	12V 60W/55W × 1 12V 5W/21W × 1 12V 21W × 4 12V 3.4W × 1
Indicator light wattage/quantity: "NEUTRAL" "HIGH BEAM" "TURN" "REV."	12V 3.4W × 1 12V 3.4W × 1 12V 3.4W × 1 12V 3.4W × 1

**NOISE REGULATION (FOR Australia)
"TAMPERING WITH NOISE CONTROL
SYSTEM PROHIBITED"**

Owners are warned that the law may prohibit:

- (a) 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; and
- (b) The use of the vehicle after such device or element of design has been removed or rendered inoperative by any person

YAMAHA MOTOR CO.,LTD.

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WIRING DIAGRAM

