YAMAHA

OWNER'S MANUAL

XJR1200

XJR1200K

28199-21

EAA20301

Congratulations on your purchase of the Yamaha XJR1200. 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.

IMPORTANT MANUAL INFORMATION

EAA10603

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

EUU00001

NOTE:

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

IMPORTANT MANUAL INFORMATION

EUU60100

⚠ WARNING

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

EAA00100

XJR1200K
OWNER'S MANUAL

1st Edition, July 1997

Printed in Japan.

TABLE OF CONTENTS

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

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

Safe riding

1. Always make pre-operation checks. Careful checks may help prevent an accident
2. This motorcycle is designed to carry the operator and a passenger.
3. The failure of motorists to detect and recognize motorcycles in traffic is the predominating cause of automobile/motorcycle accidents. Many accidents have been caused by an automobile driver who did not see the motorcycle. Making yourself conspicuous appears to be very effective in reducing the chance of this type of accident.

Therefore:

a. Wear a brightly colored jacket.
b. Use extra caution when you approach and pass through intersections, since intersections are the most likely places for motorcycle accidents.
c. Ride where other motorists can see you Avoid riding in another motorist's "blind spot".

4. Many accidents involve inexperienced operators. In fact, many operators who have been involved in accidents do not even have a current motorcycle license.
   a. Make sure you are qualified. Also, only lend your motorcycle to experienced operators.
   b. Know your skills and limits. Staying within your limits may help you to avoid an accident.
   c. We recommend that you practice riding your motorcycle where there is no traffic until you have become thoroughly familiar with your motorcycle and all of its controls.
5. Many motorcycle accidents have been caused by motorcycle operator errors A typical error made by the operator is veering wide on a turn due to EXCESSIVE SPEED or undercornering (insufficient lean angle for the speed).
   a. Always obey the speed limits and never travel faster than warranted by road and traffic conditions.
   b. Always signal before turning or changing lanes. Make sure other motorists see you.
6. The operator's and passenger's posture are important for proper control.
   a. The operator should keep both hands on the handlebars and both feet on the operator footrests during operation to maintain control of the motorcycle.
   b. The passenger should always hold on to the operator, or the seat strap or grab bar if the motorcycle is so equipped, with both hands and keep both feet on the passenger footrests.
   c. Never carry a passenger unless he or she can firmly place both feet on the passenger footrests
7. Never ride under the influence of alcohol or drugs.
8. This motorcycle is designed for on-road use only. It is not suitable for off-road use.

Protective apparel

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

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

Modification

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

Loading and accessories

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

Loading

The total weight of the operator, passenger, accessories and cargo must not exceed the maximum load limit of 205 kg

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

1. Cargo and accessory weight should be kept as low and close to the motorcycle as possible. Be sure to distribute the weight as evenly as possible on both sides of the machine to minimize imbalance or instability.
2 Shifting weights can create a sudden imbalance. Make sure that accessories and cargo are securely attached to the motorcycle before riding. Recheck accessory mounts and cargo restraints frequently.
3. Never attach any large or heavy items to the handlebars, front forks, or front fender. These items, including such cargo as sleeping bags, duffle bags, or tents, can create unstable handling or slow steering response.

Accessories

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

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

1. Never install accessories or carry cargo that would impair the performance of your motorcycle. Carefully inspect the accessory before using it to make sure it does not in any way reduce ground clearance or cornering clearance, limit suspension travel, steering travel or control operation, or obscure lights or reflectors.

a. Accessories fitted to the handlebar or the front fork area can create instability due to improper weight distribution or aerodynamic changes. If accessories are added to the handlebar or front fork area, they must be as lightweight as possible and should be kept to a minimum.
b. Bulky or large accessories may seriously affect the stability of the motorcycle due to aerodynamic effects. Wind may attempt to lift the motorcycle, or the motorcycle may become unstable in cross winds. These accessories may also cause instability when being passed by or passing large vehicle.
c. Certain accessories can displace the operator from his or her normal riding position. This improper position limits the freedom of movement of the operator and may limit control ability. Therefore such accessories are not recommended.

2. Caution must be used if adding electrical accessories. If these accessories exceed the capacity of the motorcycle's electrical system, an electric failure could result, which could cause a dangerous loss of lights or engine power

Gasoline and exhaust gas

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

a. The engine and exhaust system may be hot. Park the motorcycle in a place where pedestrians or children are not likely to touch these hot areas.
b. Do not park the motorcycle on a slope or soft ground; the motorcycle may fall over.
c Do not park the motorcycle near a flammable source, e.g. a kerosene heater, or near an open flame. The motorcycle could catch fire.

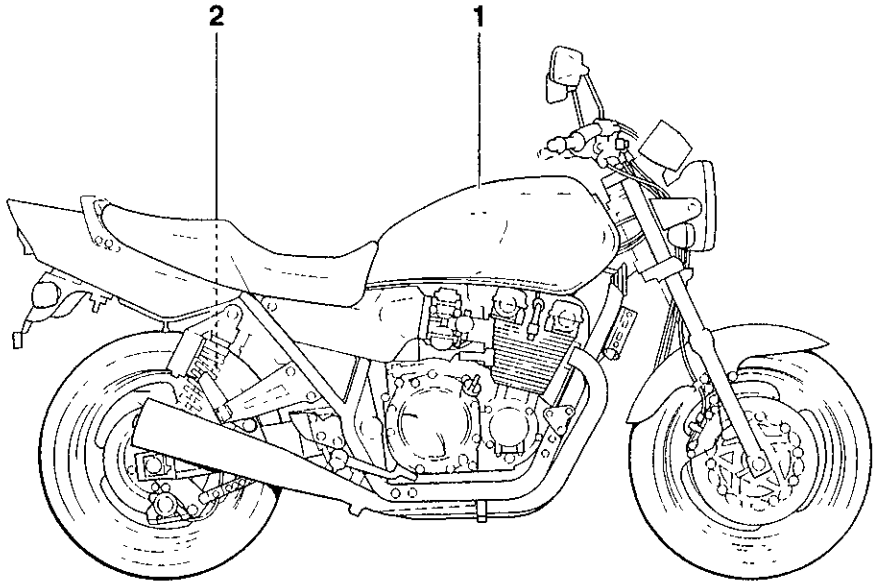
4. When transporting the motorcycle in another vehicle, be sure it is kept upright and that the fuel cock is turned to "ON" or "RES" (for vacuum type)/"OFF" (for manual type). If it should lean over, gasoline may leak out of the carburetor or fuel tank.
5. If you should swallow any gasoline, inhale a lot of gasoline vapor, or allow gasoline to get in your eyes, see your doctor immediately. If any gasoline spills on your skin or clothing, immediately wash it off with soap and water and change your clothes.

EAA40000

LOCATION OF THE IMPORTANT LABELS

1

Please read the following labels carefully before operating this motorcycle.



1

WARNING

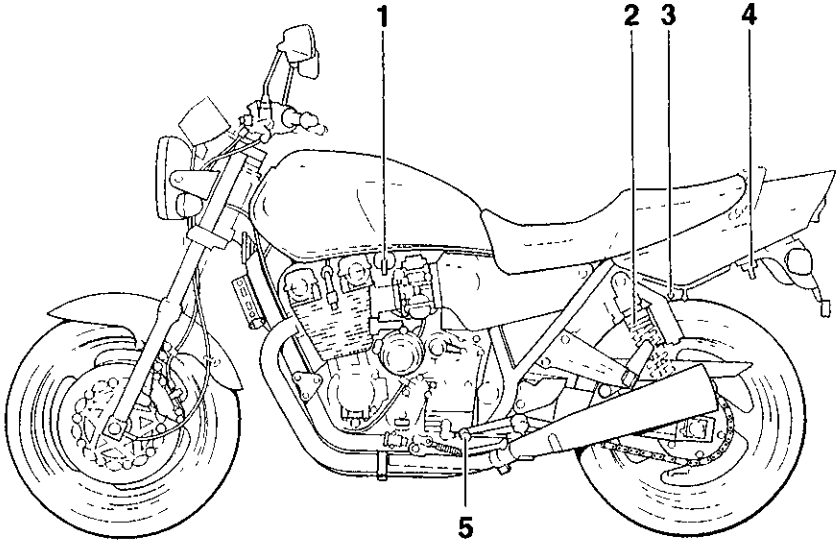
Before you operate this vehicle, read the owner's manual.

English 3HP-21568 00

2

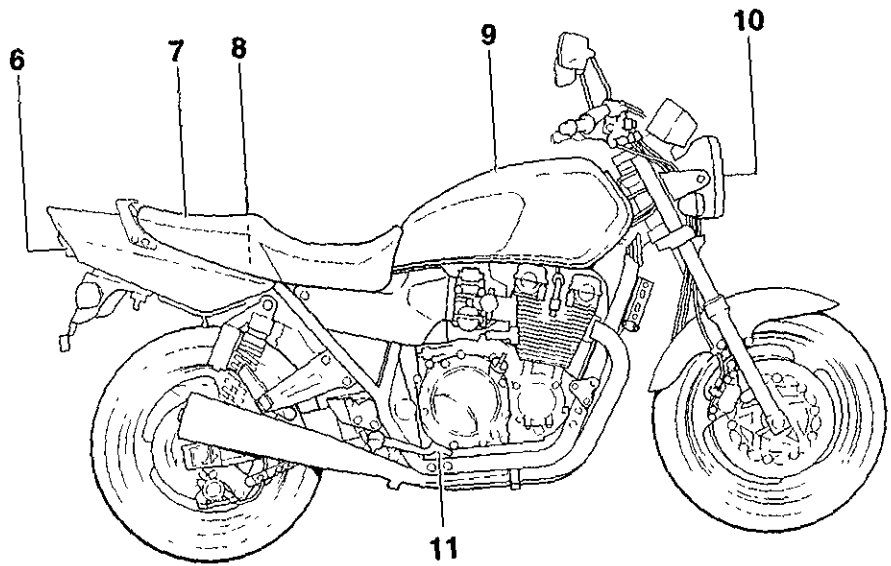
DESCRIPTION

Left view



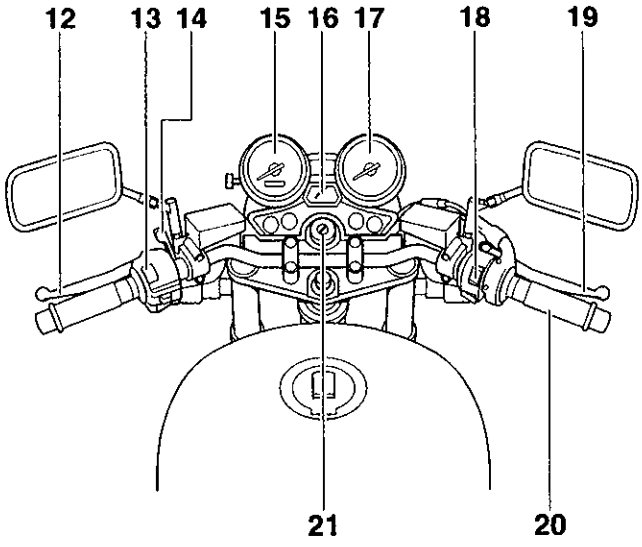
1. Fuel cock (page 3-9)
2. Rear shock absorber spring preload adjusting ring (page 3-13)
3. Luggage strap hooks
4. Helmet holder/seat lock (page 3-11)
5. Shift pedal (page 3-7)

Right view



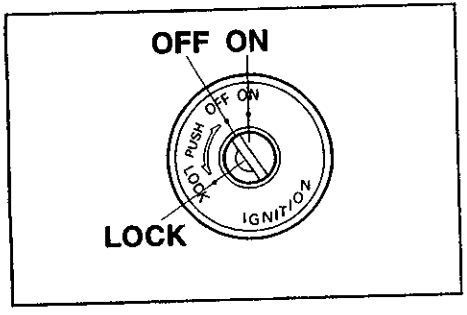
6. Tail/brake light (page 6-26)
7. Seat (page 3-11)
8. Tool kit (page 6-1)
9 Fuel tank (page 3-8)
10. Headlight (page 6-25)
11. Rear brake pedal (page 3-7)

Controls/Instruments



INSTRUMENT AND CONTROL FUNCTIONS

INSTRUMENT AND CONTROL FUNCTIONS



EAB05100

Main switch/Steering lock

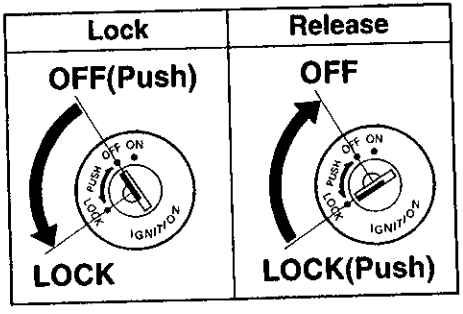
The main switch controls the ignition and lighting systems. Its operation is described below.

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.

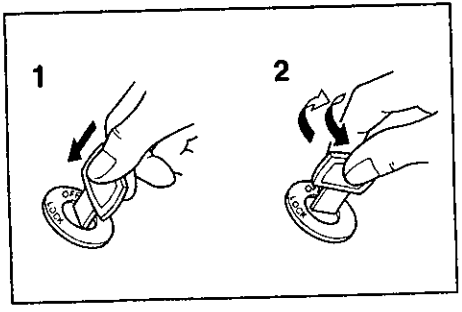
EAB00600

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



EAB04901

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



1 Push
2 Turn

EUUB1900

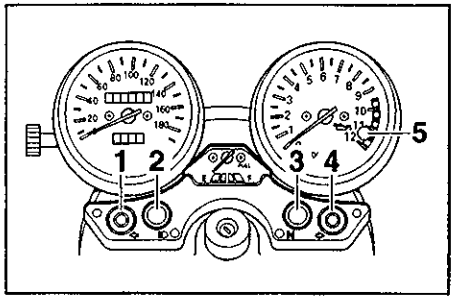
⚠ WARNING

Never turn the key to "OFF" or "LOCK" when the motorcycle is moving. The electrical circuits will be switched off which may result in loss of control or an accident. Be sure the motorcycle is stopped before turning the key to "OFF" or "LOCK".

EUU00700

NOTE:

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



1 Left turn indicator light "⇦"
2 High beam indicator light "≡D"
3 Neutral indicator light "N"
4 Right turn indicator light "⇨"
5 Oil level indicator light "🛢"

EAB10000

Indicator lights

EAB12202

Turn indicator lights "⇦" / "⇨"

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

EAB13100

Neutral indicator light "N"

This indicator comes on when the transmission is in neutral.

EAB13200

High beam indicator light "≡D"

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

EAB13401

Oil level indicator light "🛢"

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

EUU30000

CAUTION:

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

EUU20900

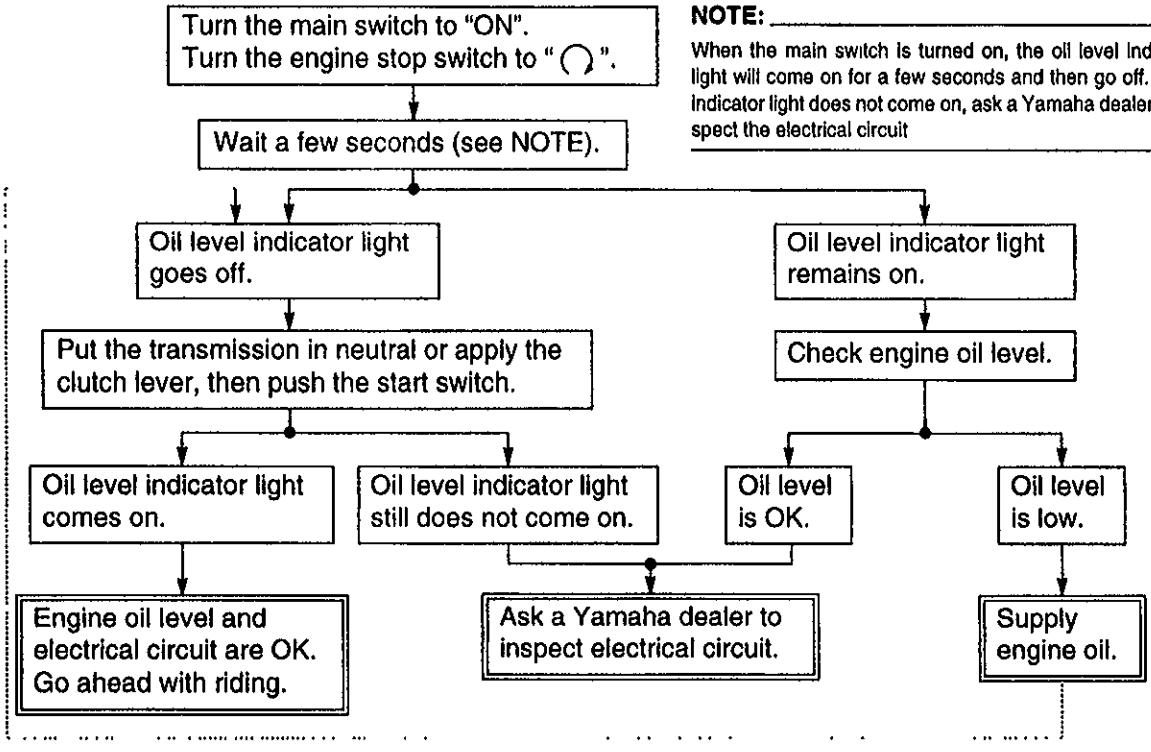
NOTE:

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

3

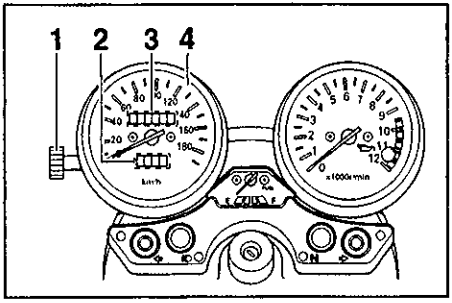
EAB30504

Oil level indicator circuit check



NOTE:

When the main switch is turned on, the oil level indicator light will come on for a few seconds and then go off. If the indicator light does not come on, ask a Yamaha dealer to inspect the electrical circuit

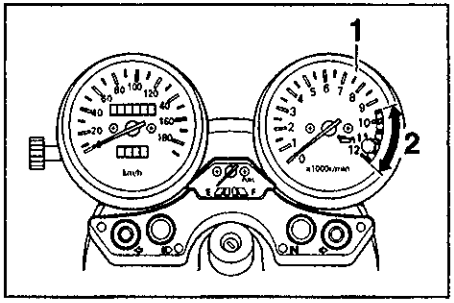


1 Reset knob
2 Trip odometer
3 Odometer
4 Speedometer

EAB40403

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 together with the fuel gauge to estimate how far you can ride on a tank of fuel. This information will enable you to plan fuel stops in the future.



1 Tachometer
2 Red zone

EAB40200

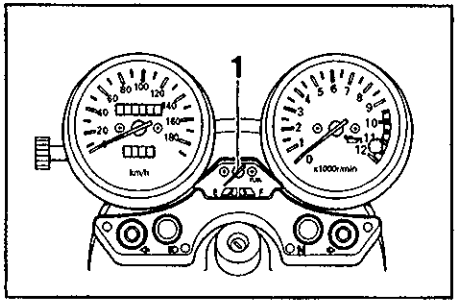
Tachometer

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

EUU30400

CAUTION:

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



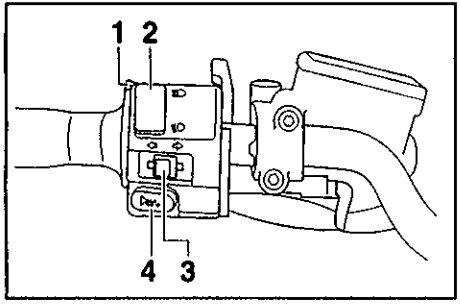
1. Fuel gauge

EAB50201

Fuel gauge

This model is equipped with an electric fuel gauge so the rider can monitor the fuel level in the fuel tank. When the needle indicates "E" (Empty), about 4.5 L remain in the fuel tank.

3



1 Pass switch "PASS"
2 Dimmer switch
3 Turn signal switch
4. Horn switch "📯"

EAB60000

Handlebar switches

EAB63201

Pass switch "PASS"

Press the switch to operate the passing light.

EAB63400

Dimmer switch

Turn the switch to "≡D" for the high beam and to "≡D" for the low beam.

EAB63500

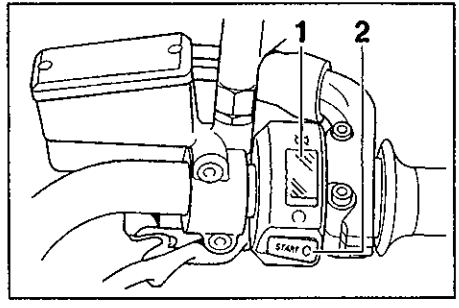
Turn signal switch

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

EAB63700

Horn switch "📯"

Press the switch to sound the horn.



1 Engine stop switch
2 Start switch "⊛"

EAB63800

Engine stop switch

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

EAB64100

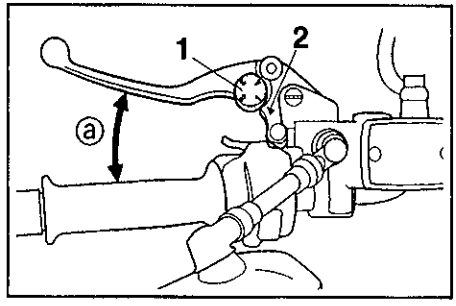
Start switch " ⓢ "

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

EUU30700

CAUTION:

See starting instructions prior to starting the engine.

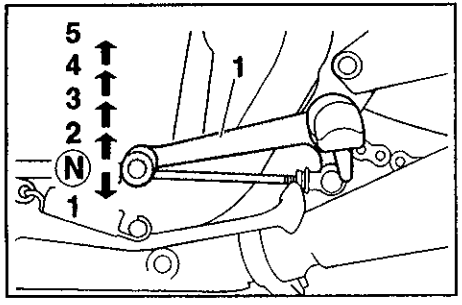


1 Adjusting dial
2 Arrow mark
a Lever distance

EAB70304

Clutch lever

The clutch lever is located on the left handlebar. It is equipped with a clutch lever adjusting dial and a clutch switch, which is integrated into the ignition circuit cut-off system. (Refer to the engine starting procedures for a description of this system.) To disengage the clutch, pull the clutch lever toward the handlebar. To engage the clutch, release the lever. The lever should be pulled rapidly and released slowly for smooth clutch operation. To adjust the distance between the clutch lever and the handlebar grip, turn the clutch adjusting dial while pushing the lever forward. Make sure the setting on the clutch lever adjusting dial is aligned with the arrow mark.



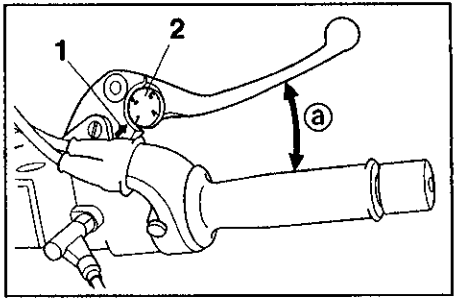
1 Shift pedal
N Neutral

EAB80001

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.

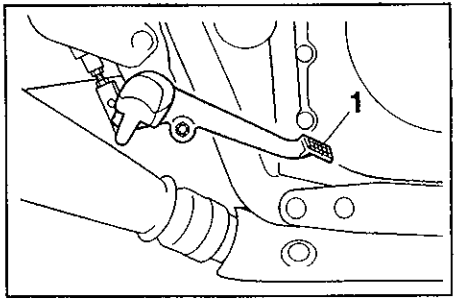


1 Arrow mark
2 Adjusting dial
a Lever distance

EAB90702

Front brake lever

The front brake lever is located on the right handlebar and is equipped with a brake lever adjusting dial. To activate the front brake, pull the lever toward the handlebar. To adjust the front brake lever position, turn the brake lever adjusting dial while pulling the lever forward. Make sure the setting on the brake lever adjusting dial is aligned with the arrow mark.

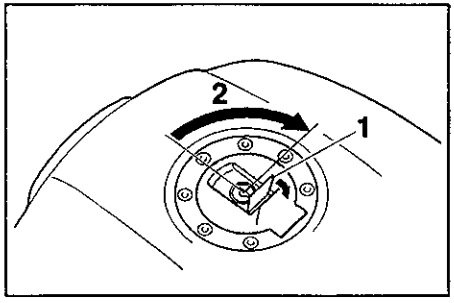


1 Rear brake pedal

EAB90101

Rear brake pedal

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



1 Key cover
2 Open

EAC00501

Fuel tank cap

TO OPEN:

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

TO CLOSE:

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

EUU01200

NOTE:

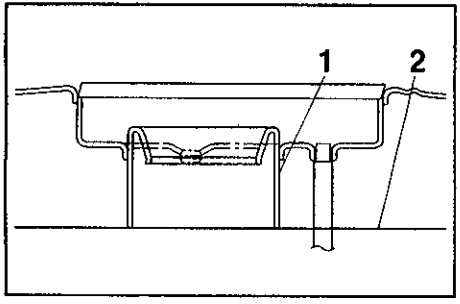
This tank cap cannot be closed unless the key is in the lock. The key cannot be removed if the cap is not locked properly.

EUU61100

⚠ WARNING

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

3



1 Filler tube
2 Fuel level

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.

EUU39302

CAUTION:

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

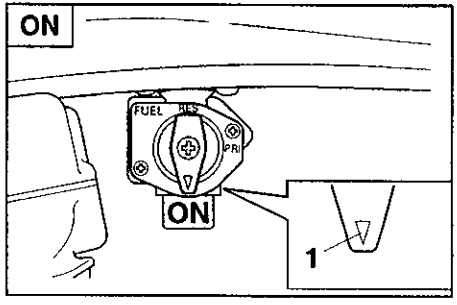
EAE80900

Recommended fuel:
Regular gasoline
For Australia:
Unleaded fuel only
Fuel tank capacity:
Total
21 L
Reserve:
4.5 L

EUU19000

NOTE:

If knocking or pinging occurs, use a different brand of gasoline or higher octane grade



1 Mark

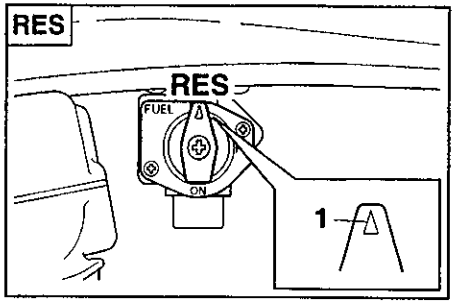
EAC10205

Fuel cock

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

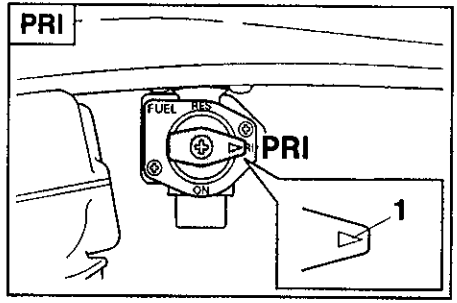
The fuel cock has three positions, which should be set as illustrated.

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



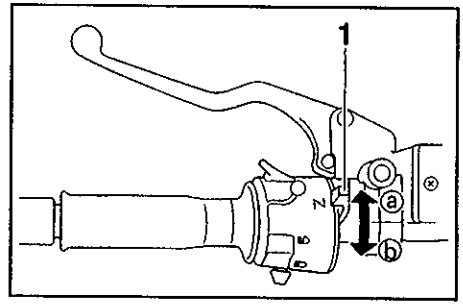
1 Mark

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



1 Mark

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



1 Starter (choke) "|↘|"

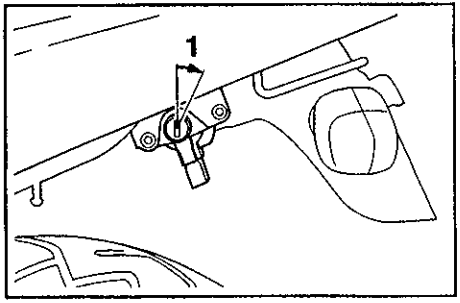
EAC21500

Starter (choke) "|↘|"

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

Move in direction ⓐ to turn on the starter (choke).

Move in direction ⓑ to turn off the starter (choke).

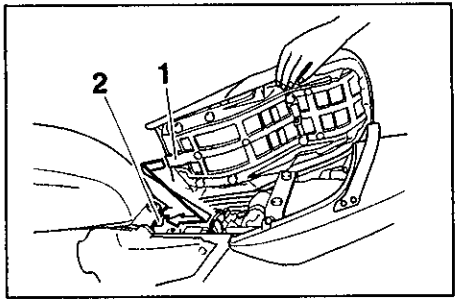


1 Open

EAC43901

Seat

To remove the seat, insert the key in the helmet holder lock and turn it as shown.



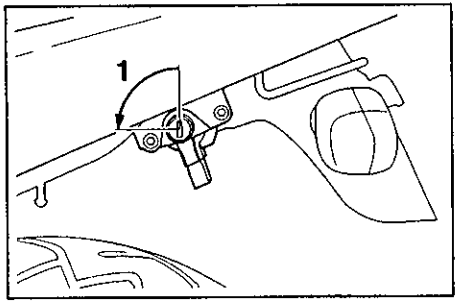
1 Projection
2 Seat holder

To reinstall the seat, insert the projection on the seat front into the seat holder, then push down the seat.

EUU01700

NOTE:

Make sure that the seat is securely fitted.



1 Open

EAC50101

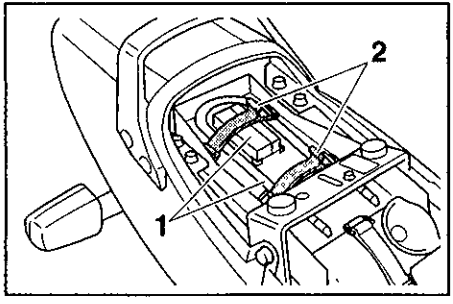
Helmet holder

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

EUU72900

⚠ WARNING

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

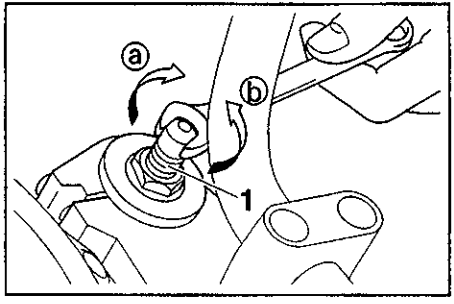


1 U-LOCK
2 Strap (× 2)

EAC75201

Storage compartment

This compartment is designed to store Yamaha genuine U-LOCKS. (Other locks may not fit.) Be sure the lock is fastened securely with the straps when storing it in the compartment. To prevent losing the straps, be sure to secure them even when a U-LOCK is not being stored in the compartment. When storing this Owner's manual or other documents in the compartment, be sure to put them in a vinyl bag so they don't get wet. When washing the motorcycle, be careful not to flood this compartment with water.



1 Spring preload adjusting bolt

EAI56303

Front fork adjustment

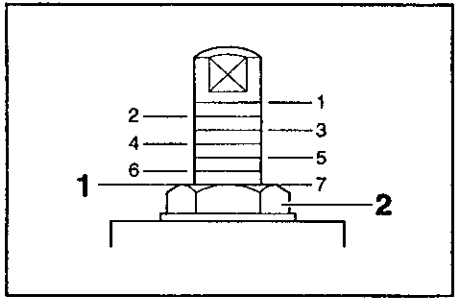
This front fork is equipped with spring preload adjusting bolts.

EUU66902

⚠ WARNING

Each fork leg must be set to the same pressure. Uneven setting can cause poor handling and loss of stability.

Adjust spring preload as follows.
Turn the adjusting bolts in direction ⓐ to increase spring preload and in direction ⓑ to decrease spring preload



1 Setting position
2 Front fork cap

EUU43001

CAUTION:

The grooves are provided to show the adjustment level. Always keep the adjustment level equal on both fork legs.

	Hard				Standard	Soft	
Adjusting position	1	2	3	4	5	6	7

EAI510A0

Rear shock absorbers

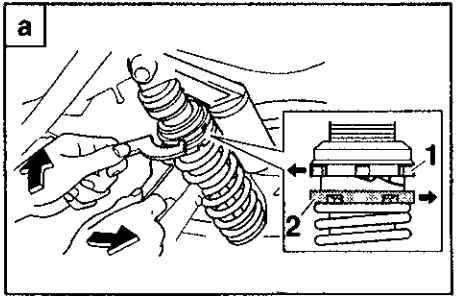
EUU81600

⚠ WARNING

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

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

a



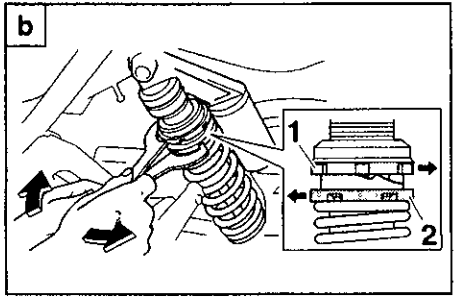
1 Upper adjusting ring
2 Lower adjusting ring

EAI504A3

Rear shock absorber adjustment

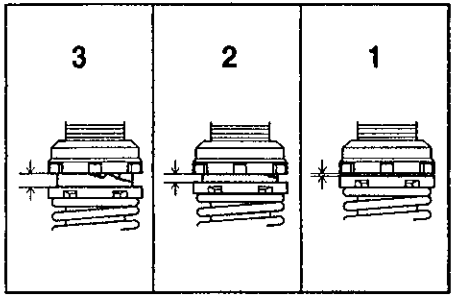
The shock absorbers are equipped with spring preload adjusting rings. To increase spring preload, turn the adjusting rings as shown in illustration [a].

b



1 Upper adjusting ring
2 Lower adjusting ring

To decrease spring preload, turn the adjusting rings as shown in illustration [b].



Adjusting position

	Hard		STD/SOFT
Adjusting position	3	2	1

EUU65200

⚠ WARNING

Always adjust each shock absorber to the same setting. Uneven adjustment can cause poor handling and loss of stability.

EAB55700

Antitheft alarm (optional)

An antitheft alarm can be equipped to this motorcycle. Consult your Yamaha dealer to obtain and install the alarm.

EAD30101

Sidestand

This model is equipped with an ignition circuit cut-off system. The motorcycle must not be ridden when the sidestand is down. The sidestand is located on the left side of the frame. (Refer to page 5-1 for an explanation of this system.)

EUU68901

⚠ 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.

EAD30202

Sidestand/clutch switch operation check

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

EUU69001

3

⚠ WARNING

- **Be sure to use the centerstand during this inspection.**
- **If improper operation is noted, consult a Yamaha dealer.**

TURN MAIN SWITCH TO "ON" AND ENGINE STOP SWITCH TO "○".

↓

TRANSMISSION IS IN GEAR AND SIDESTAND IS UP.

↓

PULL IN CLUTCH LEVER AND PUSH START SWITCH.

↓

ENGINE WILL START.

↓

CLUTCH SWITCH IS OK.

↓

SIDESTAND IS DOWN.

↓

ENGINE WILL STALL

↓

SIDESTAND SWITCH IS OK

PRE-OPERATION CHECKS

EAE00001

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

ITEM	CHECKS	PAGE
Front brake **Rear brake**	• Check operation, fluid level and vehicle for fluid leakage • Fill with DOT 4 brake fluid if necessary	6-16 ~ 6-18
Clutch	• Check operation, fluid level and vehicle for fluid leakage • Fill with DOT 4 brake fluid if necessary.	6-18
Throttle grip and housing	• Check for smooth operation. • Lubricate if necessary	6-20
Engine oil	• Check oil level. • Fill with oil if necessary	6-7 ~ 6-9
Drive chain	• Check chain slack and condition. • Adjust if necessary	6-19 ~ 6-20
Wheels and tires	• Check tire pressure, wear and damage. • Replace if necessary	6-13 ~ 6-16
Control and meter cable	• Check for smooth operation • Lubricate if necessary.	6-20
Brake and shift pedal shafts	• Check for smooth operation. • Lubricate if necessary	6-21
Brake and clutch lever pivots	• Check for smooth operation. • Lubricate if necessary.	6-21
Center and sidestand pivot	• Check for smooth operation • Lubricate if necessary.	6-21
Chassis fasteners	• Make sure that all nuts, bolts and screws are properly tightened. • Tighten if necessary	—

ITEM	CHECKS	PAGE
Fuel tank	• Check fuel level • Fill with fuel if necessary	3-8 ~ 3-9
Lights, signals and switches	• Check for proper operation.	6-25 ~ 6-26

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.

OPERATION AND IMPORTANT RIDING POINTS

EUU67201

⚠ WARNING

1. **Before riding this motorcycle, become thoroughly familiar with all operating controls and their functions. Consult a Yamaha dealer regarding any control or function that you do not thoroughly understand.**
2. **Never start your engine or let it run for any length of time in a closed area. The exhaust fumes are poisonous and can cause loss of consciousness and death within a short time. Always operate your motorcycle in an area with adequate ventilation.**
3. **Before starting out, always be sure the sidestand is up. Failure to retract the sidestand completely can result in a serious accident when you try to turn a corner.**

EAF11204

Starting and warming up a cold engine

EUU02803

NOTE:

This motorcycle is equipped with an ignition circuit cut-off system. The engine can be started only under the following conditions:

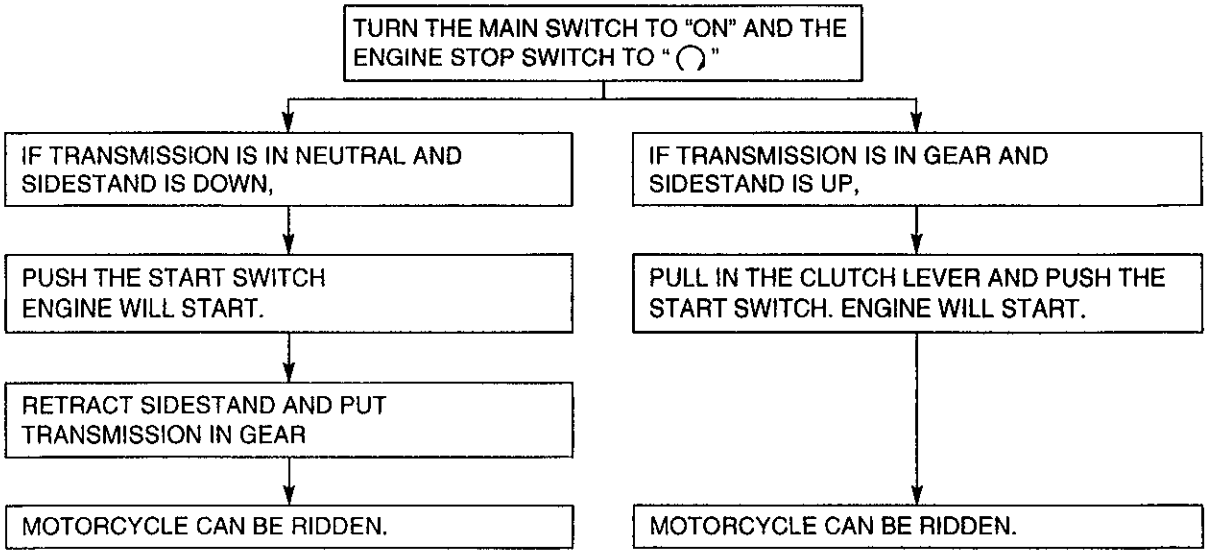
a. The transmission is in neutral.
b. The sidestand is up, the transmission is in gear and the clutch is disengaged.

The motorcycle must not be ridden when the sidestand is down.

EUU69200

⚠ WARNING

Before going through the following steps, check the function of the sidestand switch and clutch switch. (Refer to page 3-15.)


TURN THE MAIN SWITCH TO "ON" AND THE ENGINE STOP SWITCH TO " ◯ "
IF TRANSMISSION IS IN NEUTRAL AND SIDESTAND IS DOWN,
PUSH THE START SWITCH ENGINE WILL START.
RETRACT SIDESTAND AND PUT TRANSMISSION IN GEAR
MOTORCYCLE CAN BE RIDDEN.
IF TRANSMISSION IS IN GEAR AND SIDESTAND IS UP,
PULL IN THE CLUTCH LEVER AND PUSH THE START SWITCH. ENGINE WILL START.
MOTORCYCLE CAN BE RIDDEN.

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

EUU03001

NOTE:

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

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

EUU02501

NOTE:

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

EUU35501

CAUTION:

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

6. After starting the engine, move the starter "|↘|" halfway back to the warming up position.

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.

EUU02701

NOTE:

The engine is warm when it responds normally to the throttle with the starter "|↘|" turned off

EAF10802

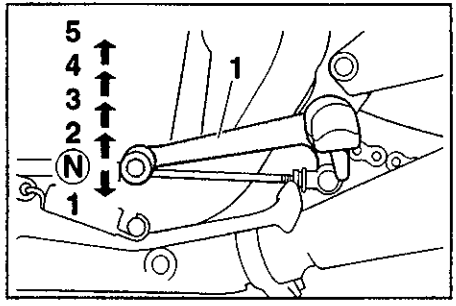
Starting a warm engine

The starter "|↘|" is not required when the engine is warm.

EUU31401

CAUTION:

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



1. Shift pedal
N. Neutral

EAF20004

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.

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

EUU31501

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.**

5

EAF00100

Tips for reducing fuel consumption

Your motorcycle's fuel consumption depends to a large extent on your riding style. The following tips can help reduce fuel consumption:

1. Warm up the engine before riding
2. Turn off the starter "|↘|" as soon as possible.
3. Shift up swiftly and avoid high engine speeds during acceleration.
4. Do not double-clutch or rev the engine while shifting down and avoid high engine speeds with no load on the engine.
5. Turn off the engine instead of letting it idle for an extended length of time, i.e. in traffic jams, at traffic lights or railroad crossings.

EAF30000

Engine break-in

There is never a more important period in the life of your motorcycle than the period between zero and 1,000 km. 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. The various parts in the engine wear and polish themselves to the correct operating clearances. During this period, prolonged full throttle operation, or any condition which might result in excessive heating of the engine, must be avoided.

EAF30702

1. 0 ~ 150 km:
   Avoid operation above 4,000 r/min. Stop the engine and let it cool for 5 to 10 minutes after every hour of operation. Vary the speed of the motorcycle from time to time. Do not operate it at one set throttle position
2. 150 ~ 500 km:
   Avoid prolonged operation above 5,000 r/min Rev the motorcycle freely through the gears, but do not use full throttle at any time.
3. 500 ~ 1,000 km:
   Avoid prolonged full throttle operation. Avoid cruising speeds in excess of 6,500 r/min.

EUU32001

CAUTION:

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

4. 1,000 km and beyond:
   Full throttle can be used.

EUU38701

CAUTION:

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

EAF40001

Parking

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

EUU63001

⚠ WARNING

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

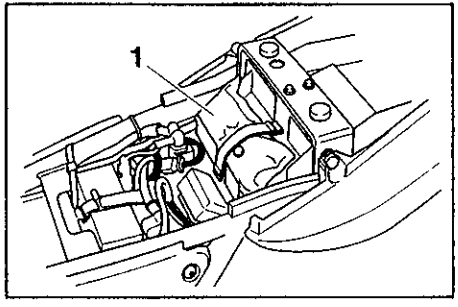
EAH00400

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.

EUU63200

⚠ WARNING

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



1 Tool kit

EAH10300

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.

EUU18500

NOTE:

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

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.

EAH01601

PERIODIC MAINTENANCE AND LUBRICATION

NO.		ITEM	CHECKS AND MAINTENANCE JOBS	INITIAL (1,000 km)	EVERY	
					6,000 km or 6 months (whichever comes first)	12,000 km or 12 months (whichever comes first)
1	*	Fuel line	• Check fuel hoses and vacuum hose for cracks or damage • Replace if necessary.		√	√
2	*	Fuel filter	• Check condition. • Replace if necessary.			√
3		Spark plugs	• Check condition. • Clean, regap or replace if necessary	√	√	√
4	*	Valves	• Check valve clearance. • Adjust if necessary.	Every 24,000 km or 24 months (whichever comes first)		
5		Air filter	• Clean or replace if necessary.		√	√
6	*	Clutch	• Check operation, fluid level and vehicle for fluid leakage. (See NOTE on page 6-5.) • Correct accordingly.		√	√
7	*	Front brake	• Check operation, fluid level and vehicle for fluid leakage (See NOTE on page 6-5) • Correct accordingly • Replace brake pads if necessary.		√	√
8	*	Rear brake	• Check operation, fluid level and vehicle for fluid leakage (See NOTE on page 6-5.) • Correct accordingly • Replace brake pads if necessary		√	√
9	*	Wheels	• Check balance, runout and for damage. • Rebalance or replace if necessary		√	√
10	*	Tires	• Check tread depth and for damage • Replace if necessary. • Check air pressure • Correct if necessary.		√	√

NO.		ITEM	CHECKS AND MAINTENANCE JOBS	INITIAL (1,000 km)	EVERY	
					6,000 km or 6 months (whichever comes first)	12,000 km or 12 months (whichever comes first)
11	*	**Wheel bearings**	• Check bearing for looseness or damage • Replace if necessary.		√	√
12	*	**Swingarm**	• Check swingarm pivoting point for play • Correct if necessary. • Lubricate with molybdenum disulfide grease every 24,000 km or 24 months (whichever comes first)			√
13		**Drive chain**	• Check chain slack • Adjust if necessary Make sure that the rear wheel is properly aligned • Clean and lubricate.	Every 1,000 km and after washing the motorcycle or riding in the rain		
14	*	**Steering bearings**	• Check bearing play and steering for roughness. • Correct accordingly. • Lubricate with lithium soap base grease every 24,000 km or 24 months (whichever comes first).	√		√
15	*	**Chassis fasteners**	• Make sure that all nuts, bolts and screws are properly tightened. • Tighten if necessary.	√	√	√
16		**Sidestand/ centerstand**	• Check operation. • Lubricate and repair if necessary	√	√	√
17	*	**Sidestand switch**	• Check operation. • Replace if necessary	√	√	√
18	*	**Front fork**	• Check operation and for oil leakage • Correct accordingly		√	√
19	*	**Rear shock absorber assemblies**	• Check operation and shock absorbers for oil leakage • Replace shock absorbers assembly if necessary.		√	√
20	*	**Carburetors**	• Check engine idling speed, synchronization and starter operation. • Adjust if necessary.	√	√	√

NO.		ITEM	CHECKS AND MAINTENANCE JOBS	INITIAL (1,000 km)	EVERY	
					6,000 km or 6 months (whichever comes first)	12,000 km or 12 months (whichever comes first)
21		Engine oil	• Check oil level and vehicle for oil leakage. • Correct if necessary. • Change. (Warm engine before draining.)	√	√	√
22		Engine oil filter element	• Replace.	√		√
23	*	AC Generator	• Replace brushes.	Every 100,000 km		

* Since these items require special tools, data and technical skills, they should be serviced by a Yamaha dealer.

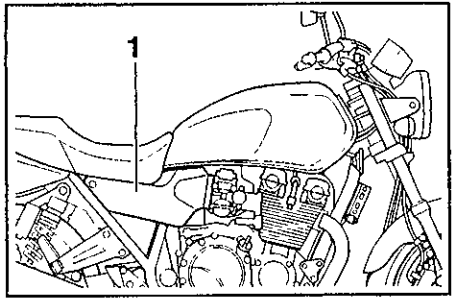
6

EUU21600

NOTE:

- The air filter needs more frequent service if you are riding in unusually wet or dusty areas.
- Brake fluid replacement

1. After disassembling the master cylinder, caliper cylinder or clutch release cylinder, always replace the brake fluid. Check the brake fluid level of the master cylinder and clutch release cylinder regularly and fill as required
2. Replace the oil seals on the inner parts of the master cylinder, caliper cylinder and clutch release cylinder every two years.
3. Replace the brake and clutch hoses every four years or if cracked or damaged

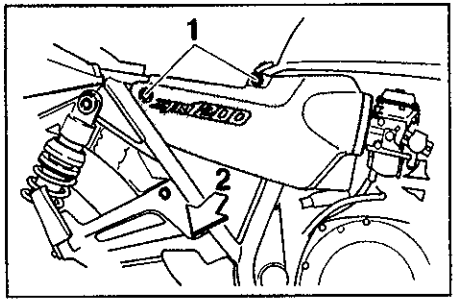


1 Panel A

EAH02401

Panel removal and installation

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



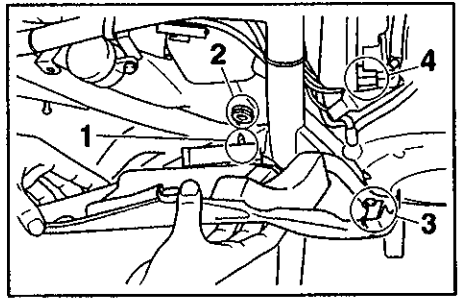
1. Screw (× 2)
2. Pull out

EAC75402

Panel A

Removal:

Remove the seat and panel screws. Then pull the panel outward as shown

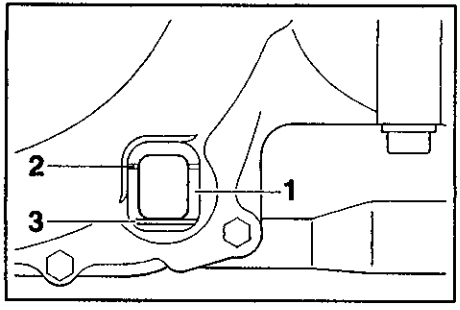


1 Projection
2. Grommet
3 Bracket
4 Hook

Installation:

Insert the projection into the grommet, place the bracket over the hook and tighten the panel screws.

6



1. Oil level window
2 Maximum level mark
3 Minimum level mark

EAH48803

Engine oil

1. Oil level inspection

a. Place the motorcycle on the centerstand. Warm up the engine for several minutes.

EUU03901

NOTE:

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

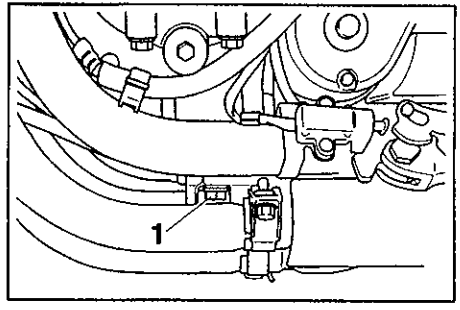
b. With the engine stopped, check the oil level through the level window located at the lower part of the right side crankcase cover.

EUU04000

NOTE:

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

c The oil level should be between the maximum and minimum level marks. If the level is low, add sufficient oil to raise it to the specified level



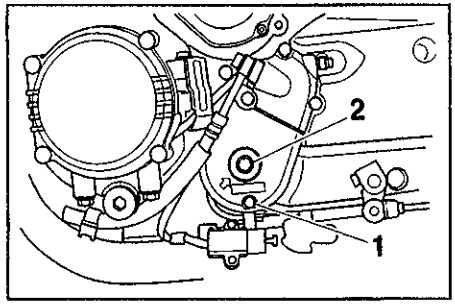
1 Engine oil drain plug

2 Engine oil and oil filter element replacement

a. Warm up the engine for several minutes.

b. Stop the engine. Place an oil pan under the engine and remove the oil filler cap.

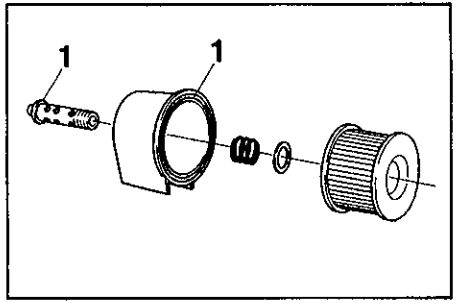
c Remove the drain plug and drain the oil.



1 Oil filter drain screw
2 Oil filter cover bolt

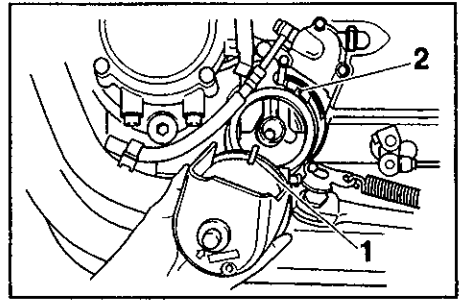
d. Remove the oil filter drain screw, filter cover bolt, filter cover, oil filter and O-ring.
e Reinstall the drain plug and tighten it to the specified torque.

Tightening torque:
Drain plug.
43 Nm (4.3 m kg)



1 Proper O-ring position (× 2)

f. Install the new oil filter and O-ring.
g. Align the projection on the filter cover with the slot in housing and install the filter cover.



1 Projection
2 Slot

h. Tighten the oil filter bolt and oil filter drain screw to the specified torque.

Tightening torque:
Oil filter bolt:
15 Nm (1.5 m·kg)
Oil filter drain screw:
7 Nm (0.7 m·kg)

EUU20300

NOTE:

Make sure the O-rings are seated properly.

i. Fill engine with oil. Install the oil filler cap and tighten.

6

Recommended oil:
See page 8-1.
Oil quantity:
Total amount:
3.0 L
Periodic oil change:
3.35 L
With oil filter replacement:
4.2 L

EUU32401

CAUTION:

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

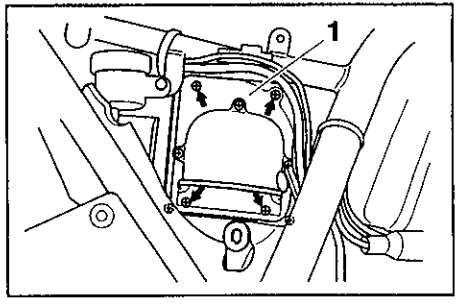
j. Start the engine and warm it up for several minutes. While warming up, check for oil leakage. If oil leakage is found, stop the engine immediately and check for the cause.

k. After the engine is started, the oil level indicator light should go off if oil is filled to the specified level

EUU35101

CAUTION:

If the indicator light flickers or remains on, immediately stop the engine and consult with a Yamaha dealer.



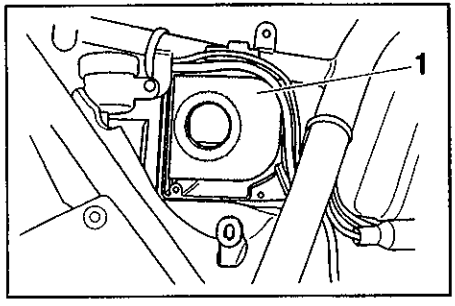
1. Air filter case cover
➡ Screw (× 4)

EAH68902

Air filter

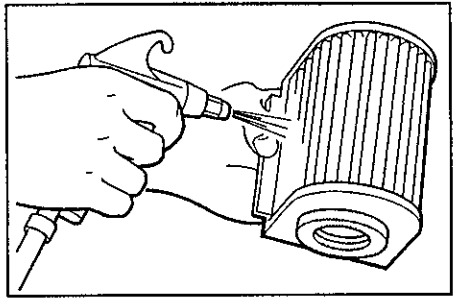
The air filter should be cleaned at the specified intervals. It should be cleaned more frequently if you are riding in unusually wet or dusty areas.

1. Remove the seat and right side panel.
2. Remove the air filter case cover by removing the screws.



1 Air filter

3. Pull out the air filter.



4. Tap the air filter lightly to remove most of the dust and dirt and blow out the remaining dirt with compressed air as shown. If the air filter is damaged, replace it.
5. Reassemble by reversing the removal procedure.

EUU42403

CAUTION:

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

EAH92800

Carburetor adjustment

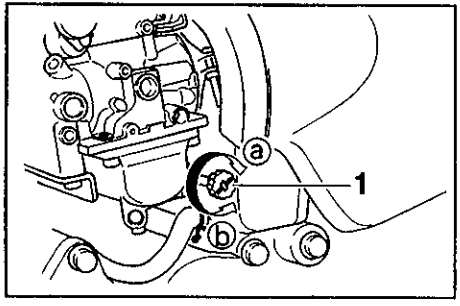
The carburetors are important parts of the engine and require very sophisticated adjustment. Most adjustments should be left to a Yamaha dealer who has the professional knowledge and experience to do so. However, the idle speed may be adjusted by the owner as part of routine maintenance.

EUU47100

CAUTION:

The carburetors were set at the Yamaha factory after many tests. If they are changed, poor engine performance and damage may result.

6



1. Throttle stop screw

EAH90101

Idle speed adjustment

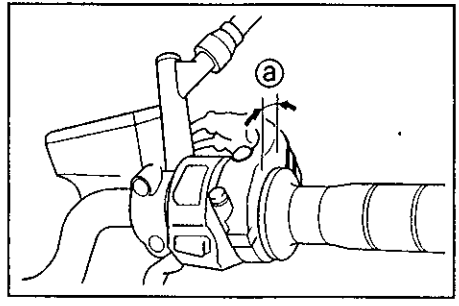
1. Start the engine and warm it up for a few minutes at approximately 1,000 to 2,000 r/min. Occasionally rev the engine to 4,000 to 5,000 r/min. The engine is warm when it quickly responds to the throttle.
2. Set the idle to the specified engine speed by adjusting the throttle stop screw. Turn the screw in direction ⓐ to increase engine speed and in direction ⓑ to decrease engine speed.

Standard idle speed:
1,000 ~1,100 r/min

EUU04500

NOTE:

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



a Free play

EAH92202

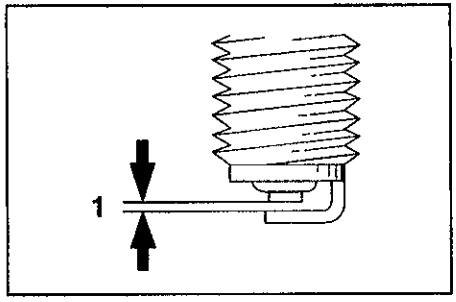
Throttle cable free play inspection

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

EAH90801

Valve clearance adjustment

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



1 Spark plug gap

EAH20102

Spark plug inspection

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

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

Do not attempt to diagnose such problems yourself. Instead, take the motorcycle to a Yamaha dealer. You should periodically remove and inspect the spark plugs because heat and deposits will cause any spark plug to slowly break down and erode. If electrode erosion becomes excessive, or if carbon and other deposits are excessive, you should replace the spark plug with the specified plug.

Specified spark plug:
DPR8EA-9 (NGK)
X24EPR-U9 (DENSO)

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

Spark plug gap:
0.8 ~ 0.9 mm

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

Tightening torque:
Spark plug:
18 Nm (1.8 m·kg)

EUU03802

NOTE:

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

EAE95505*

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.

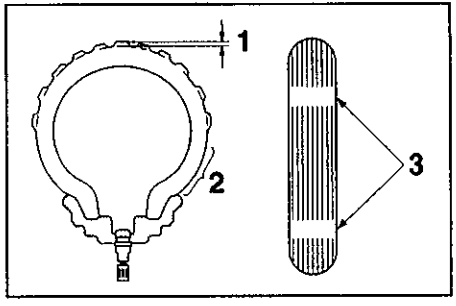
Maximum load*	205 kg	
Cold tire pressure	Front	Rear
Up to 90 kg load*	250 kPa (2.5 kgf/cm^2, 2.5 psi)	250 kPa (2.5 kgf/cm^2, 2.5 psi)
90 kg Maximum load*	250 kPa (2.5 kgf/cm^2, 2.5 psi)	290 kPa (2.9 kgf/cm^2, 2.9 psi)
High speed riding	250 kPa (2.5 kgf/cm^2, 2.5 psi)	290 kPa (2.9 kgf/cm^2, 2.9 psi)

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

EUU67701

⚠ 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.



1 Tread depth
2 Side wall
3 Wear indicator

2. Tire inspection
   Always check the tires before operating the motorcycle. If a tread depth 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

EUU67901

⚠ WARNING

Operating the motorcycle with excessively worn tires decrease riding stability and can lead to loss of control. Have excessively worn tires replaced by a Yamaha dealer immediately. Brakes, tires, and related wheel parts replacement should be left to a Yamaha Service Technician.

Minimum tire tread depth (front and rear)	1.0 mm

EUU12600

NOTE:

These limits may be different by regulation from country to country. If so, conform to the limits specified by the regulations of your own country

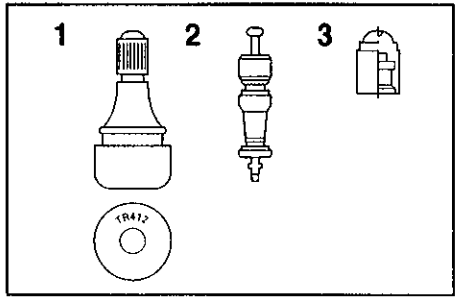
3. Tire information
   This motorcycle is equipped with tubeless tires, tire valves and cast wheels.

6

EUU76700

⚠ WARNING

- **After extensive tests, the tires mentioned below have been approved by Yamaha Motor Co., Ltd. for this model. No guarantee for handling characteristics can be given if tire combinations other than what is approved are used on this motorcycle. The front and rear tires should be of the same manufacture and design.**
- **The use of tire valves and valve cores other than listed below could cause tire deflation during extreme high speed riding. Always use genuine parts or their equivalent for replacement.**
- **Be sure to install the valve caps securely, as these are important to prevent air pressure leakage during extreme high speed riding.**



1 Tire valve
2 Valve core
3 Valve cap with seal

FRONT

Manufacturer	Size	Type
Bridgestone	130/70 ZR17	BT54F
Dunlop	130/70 ZR17	D202F

REAR

Manufacturer	Size	Type
Bridgestone	170/60 ZR17	BT54R
Dunlop	170/60 ZR17	D202L

	Type
Tire valve	TR412
Valve core	#9000A (original)

EUU77602

⚠ WARNING

This motorcycle is fitted with super high-speed running tires. The following points must be observed in order for you to make fully effective use of these tires.

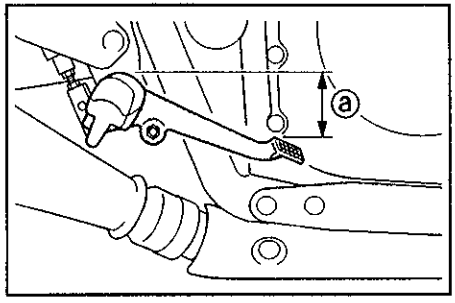
1. **Never fail to use the specified tires in tire replacement. Other tires may have a danger of bursting at super high-speeds.**
2. **New tires have a relatively low grip on the road surface until they have been slightly worn. Therefore, approximately 100 km should be traveled at normal speed before any high-speed riding is done.**
3. **Before any high-speed runs, the tires should be warmed-up sufficiently.**
4. **Always inflate to the correct tire pressure according to the operating conditions.**

EAE95702

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



a Brake pedal height

EAH80402

Rear brake pedal height adjustment

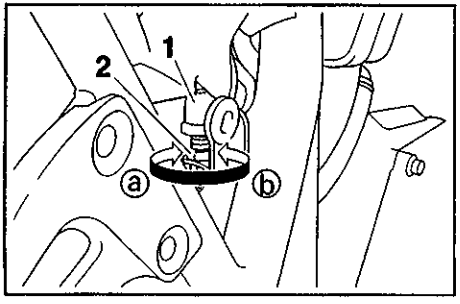
The top of the brake pedal should be positioned 45 mm below the top of the footrest. If not, ask a Yamaha dealer to adjust it.

EUU79300

⚠ WARNING

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

6

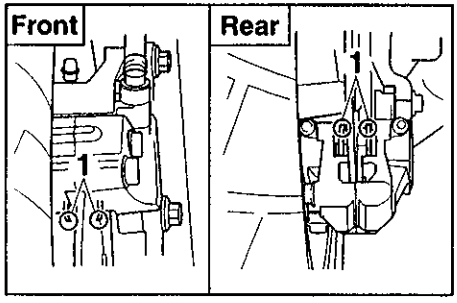


1. Brake light switch
2 Adjusting nut

EAH83302

Brake light switch adjustment

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

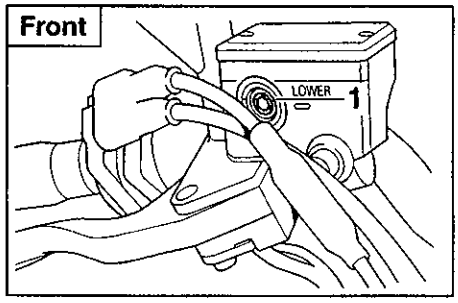


1 Wear indicator (× 2)

EAH83601

Checking the front and rear brake pads

A wear indicator is provided on each brake. This indicator allows checking of brake pad wear without disassembling the brake Apply the brake and inspect the wear indicator. If the indicator is ALMOST in contact with the disc plate, ask a Yamaha dealer to replace the pads.



1 Minimum level mark

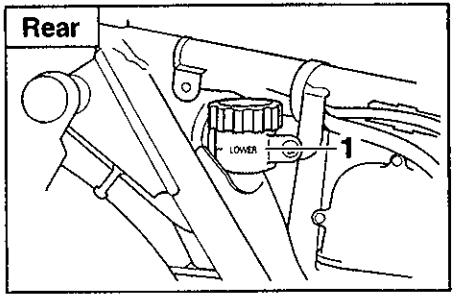
EAH815A1

Inspecting the brake fluid level

Insufficient brake fluid may let air enter the brake or clutch system, possibly causing them to become ineffective. Before riding, check that the brake fluid is above the minimum level and fill when necessary.

Observe these precautions:

1. When checking the fluid level, make sure the top of the master cylinder is level by turning the handlebars.

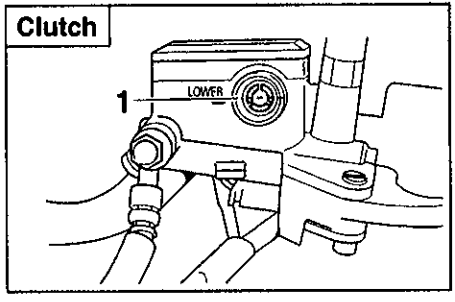


1 Minimum level mark

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

Recommended brake fluid: DOT 4

3 Refill with the same type of brake fluid Mixing fluids may result in a harmful chemical reaction and lead to poor brake or clutch performance.



1 Minimum level mark

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.

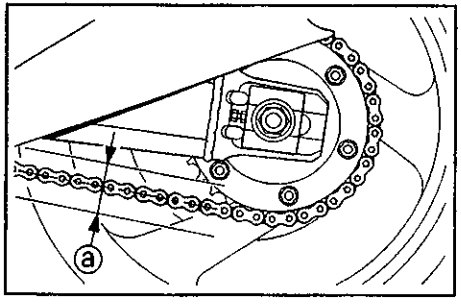
EAH83502

Brake fluid replacement

The brake fluid should be replaced only by trained Yamaha service personnel. Have the Yamaha dealer replace the following components during periodic maintenance or when they are damaged or leaking:

a. oil seals (every two years)
b. brake hoses (every four years)

6



a Free play

EAI40001

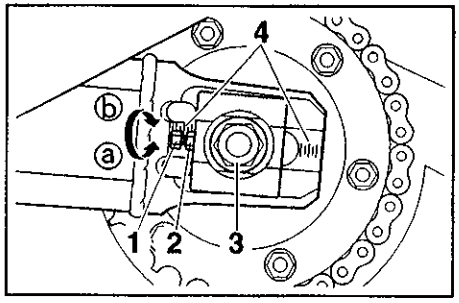
Drive chain slack check

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.

Inspect the drive chain when the motorcycle is on the centerstand. Check the slack at the position shown in the illustration. Normal slack is approximately 20 ~ 30 mm. If the slack exceeds 30 mm, adjust.



1 Locknut
2 Adjusting bolt
3 Axle nut
4 Alignment marks

EAI43201

Drive chain slack adjustment

1. Loosen the axle nut
2. Loosen the locknuts on each side. To tighten the chain, turn the chain adjusting bolt in direction ⓐ. To loosen the chain, turn the adjusting bolt in direction ⓑ and push the wheel forward. Turn each adjusting bolt exactly the same amount to maintain correct axle alignment. There are marks on each side of the swingarm. Use these marks to align the rear wheel.

EUU33301

CAUTION:

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

3. After adjusting, tighten the locknuts and the axle nut to the specified torque.

Tightening torque.
Axle nut.
150 Nm (15.0 m·kg)

EAI40702

Drive chain lubrication

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

EUU48300

CAUTION:

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

EAI10703

Cable inspection and lubrication

EUU64602

WARNING

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

Lubricate the cables and cable ends. If a cable does not operate smoothly, ask a Yamaha dealer to replace it.

Recommended lubricant:
Same as engine 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.

EAI30604

Brake and shift pedal lubrication

Lubricate the pivoting parts.

Recommended lubricant:
Same as engine oil

EAI30703

Brake and clutch lever lubrication

Lubricate the pivoting parts.

Recommended lubricant:
Same as engine oil

EAI30804

Center and sidestand lubrication

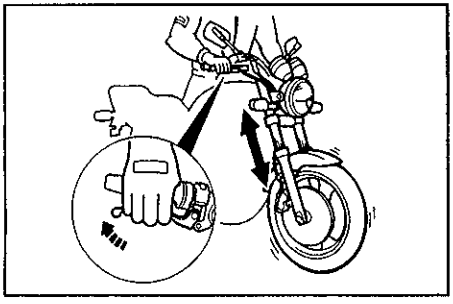
Lubricate the pivoting and mating joints. Check to see that the center and sidestand move up and down smoothly.

Recommended lubricant:
Same as engine oil

EUU69301

⚠ WARNING

If the center and/or sidestand does not move smoothly, consult a Yamaha dealer.



EAI20502

Front fork inspection

EUU65700

⚠ WARNING

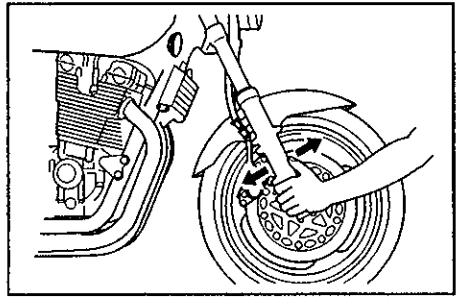
Securely support the motorcycle so there is no danger of it falling over.

1 Visual check
Check for scratches or damage on the inner tube and excessive oil leakage from the front fork.
2 Operation check
Place the motorcycle on a level place.
a. Hold the motorcycle in an upright position and apply the front brake.
b. Push down hard on the handlebars several times and check if the fork rebounds smoothly.

EUU42500

CAUTION:

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



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.

EUU65700

⚠ WARNING

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

6

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.

EAI84907

Battery

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

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

EUU43402

CAUTION:

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

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.

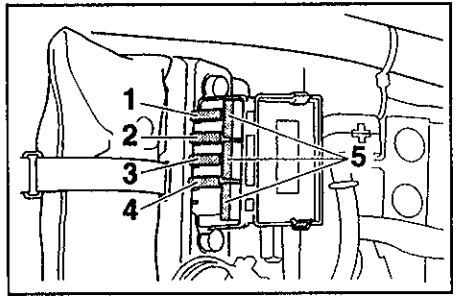
Battery storage

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

EUU43503

CAUTION:

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



1 Main fuse
2 Signaling system fuse
3 Headlight fuse
4 Ignition fuse
5 Spare fuse (× 3)

EAI90305

Fuse replacement

1. The fuse box is located under the seat.
2. If any fuse is blown, turn off the main switch and the switch of the circuit in question. Install a new fuse of specified amperage. Turn on the switches and see if the electrical device operates. If the fuse immediately blows again, consult a Yamaha dealer.

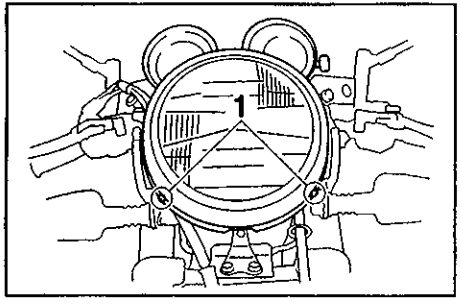
EUU34400

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 fuses:	
Main fuse:	30 A
Ignition fuse:	7.5 A
Signaling system fuse:	15 A
Headlight fuse:	15 A

6



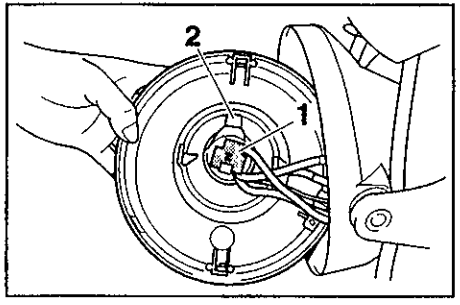
1. Screw (× 2)

EAI88801

Headlight bulb replacement

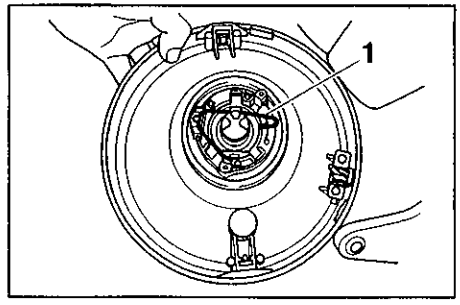
This motorcycle is equipped with a quartz bulb headlight. If the headlight bulb burns out, replace the bulb as follows:

1. Remove the screws holding the headlight assembly.



1 Connector
2 Bulb cover

2. Remove the headlight connector and the bulb cover.



1 Bulb holder

3. Unhook the bulb holder and remove the defective bulb

EUU66002

⚠ WARNING

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

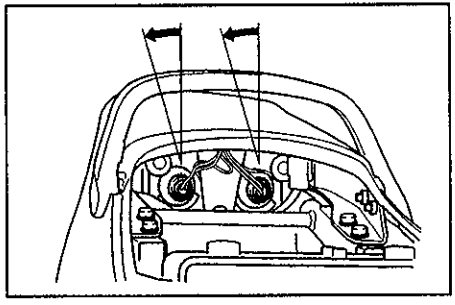
4. Put a new bulb into position and secure it in place with the bulb holder.

EUU34101

CAUTION:

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

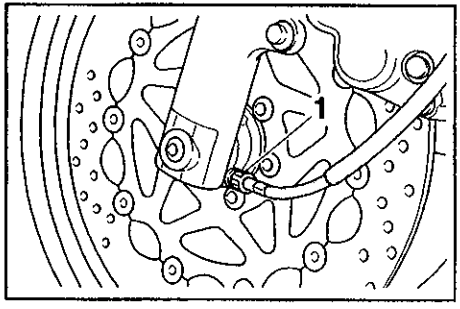
5. Install the bulb cover and the headlight connector. If the headlight beam adjustment is necessary, ask a Yamaha dealer to make that adjustment



EAJ10401

Taillight bulb replacement

1. Remove the seat.
2. To remove the socket, turn it counterclockwise.
3. To remove the defective bulb, turn it counterclockwise
4. Push a new bulb into the socket and turn it clockwise.
5. Install the socket and turn it clockwise.
6. Install the seat.



1 Speedometer cable

EAJ82302

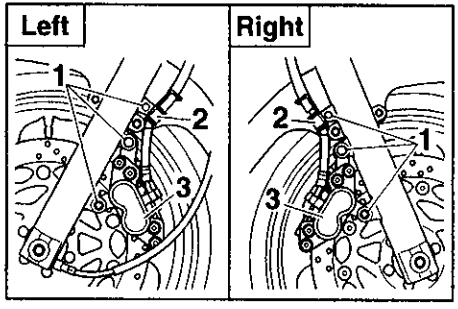
Front wheel removal

EUU66202

⚠ WARNING

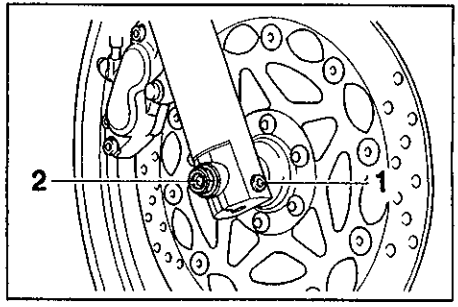
- **It is advisable to have a Yamaha dealer service the wheel.**
- **Securely support the motorcycle so there is no danger of it falling over.**

1. Place the motorcycle on the centerstand.
2. Remove the speedometer cable from the front wheel side.



1 Bolt (× 3)
2 Brake hose holder
3 Caliper

3. Remove the brake hose holders and the calipers by removing the bolts.



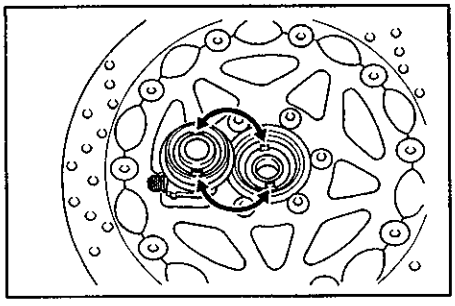
1 Pinch bolt
2 Wheel axle

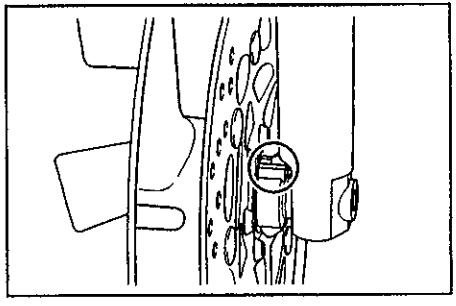
EUU05401

NOTE:

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

4. Loosen the pinch bolt and wheel axle.
5. Elevate the front wheel by placing a suitable stand under the engine.
6. Remove the wheel axle. Make sure the motorcycle is properly supported





EAJ29802

Front wheel installation

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

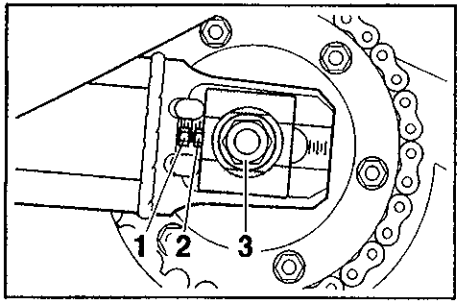
1 Make sure the wheel hub and the speedometer clutch assembly are installed with the projections meshed into the slots.
2. Make sure there is enough gap between the brake pads before setting the calipers or discs
3 Make sure the slot in the speedometer gear unit fits over the stopper on the front fork.
4. Tighten the following parts to the specified torque

Tightening torque.	
Axle:	
	73 Nm (7 3 m·kg)
Caliper bolt:	
	35 Nm (3.5 m·kg)

5. Before tightening the pinch bolt, push down hard on the handlebars several times to check for proper fork operation.
6. Tighten the pinch bolt to the specified torque.

Tightening torque:	
Pinch bolt:	
	19 Nm (1.9 m·kg)

6



1 Locknut
2 Adjusting bolt
3 Axle nut

EAJ65201

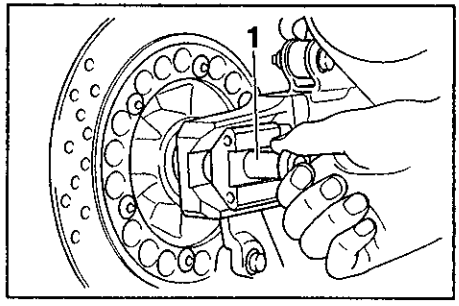
Rear wheel removal

EUU66202

⚠ WARNING

- **It is advisable to have a Yamaha dealer service the wheel.**
- **Securely support the motorcycle so there is no danger of it falling over.**

1. Place the motorcycle on the centerstand.
2. Remove the axle nut.
3. Loosen the locknuts and chain adjusting bolts on each side.



1 Wheel axle

4. While supporting the brake caliper, pull out the wheel axle.
5. Push the wheel forward and remove the drive chain.
6. Remove the wheel assembly

EUU05601

NOTE:

- Do not depress the brake pedal when the disc and caliper are separated
- You do not have to disassemble the chain in order to remove or install the rear wheel.

EAJ38802*

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. Adjust the drive chain.
3. Tighten the following parts to the specified torque

Tightening torque:
Axle nut:
150 Nm (15.0 m·kg)

EAJ50002

Troubleshooting

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

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

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

Troubleshooting chart

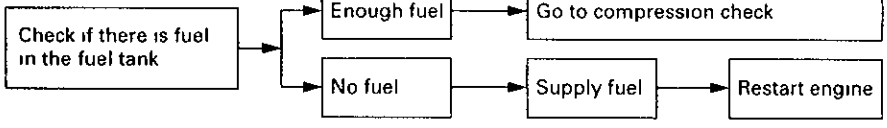
EAJ50300

EUU66300

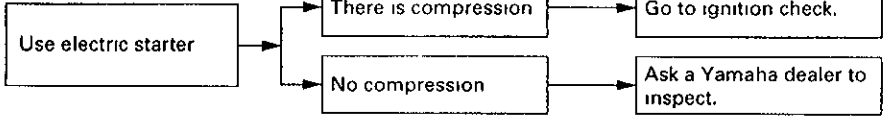
⚠ WARNING

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

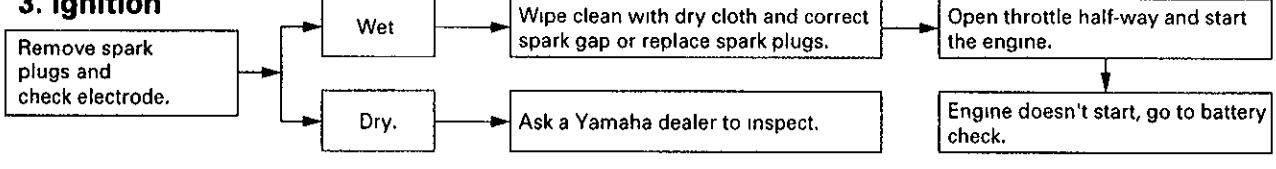
1. Fuel



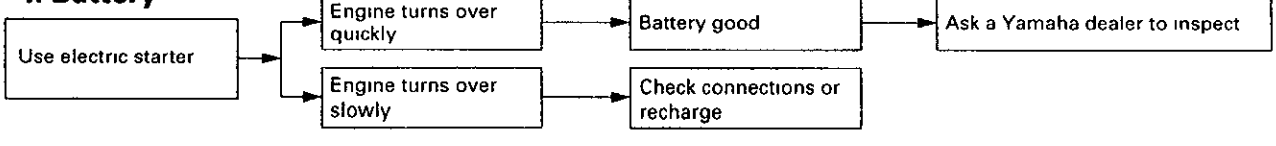
2. Compression



3. Ignition



4. Battery



EAK02002

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

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. After riding on salted roads, wash the motorcycle with cold water immediately. Do not use warm water as it increases the chemical reaction of the salt.
5. Once the majority of the dirt has been hosed off, wash all surfaces with warm water and mild, detergent-type soap. An old toothbrush or bottle brush is handy for hard-to-get-at places.
6. Rinse the motorcycle off immediately with clean water and dry all surfaces with a chamois, clean towel, or soft absorbent cloth.
7. Dry the chain and lubricate it to prevent rust.
8. Clean the seat with a vinyl upholstery cleaner to keep the cover pliable and glossy.
9. 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

7

EAK02105

B. STORAGE

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

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

EUU66400

⚠ WARNING

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

3. Clean the chain and lubricate it (refer to "Drive chain lubrication").
4. Lubricate all control cables.
5. Block up the frame to raise both wheels off the ground.
6. Tie a plastic bag over the exhaust pipe outlets to prevent moisture from entering.
7. If storing in a humid or salt-air atmosphere, coat all exposed metal surfaces with a light film of oil. Do not apply oil to any rubber parts or the seat cover
8. Remove the battery and fully charge it. Store it in a cool, dry place and recharge it once a month. Do not store the battery in an excessively warm or cold place (less than 0°C or more than 30°C). See page 6-24 for battery storage precautions.

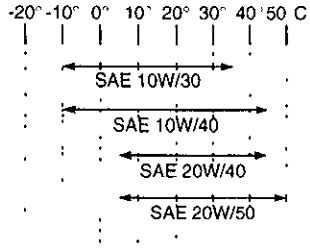
EUU05800

NOTE:

Make any necessary repairs before storing the motorcycle.

Specifications

Model	**XJR1200**
Dimensions:	
Overall length	2,165 mm
Overall width	770 mm
Overall height	1,120 mm
Seat height	790 mm
Wheelbase	1,500 mm
Ground clearance	135 mm
Minimum turning radius	2,800 mm
Basic weight (with oil and full fuel tank)	255 kg
Engine:	
Engine type	Air-cooled 4-stroke, DOHC
Cylinder arrangement	Forward-inclined parallel 4-cylinder
Displacement	1,188 cm^3
Bore × Stroke	77.0 × 63.8 mm
Compression ratio	9.7:1
Starting system	Electric starter
Lubrication system	Wet sump

Engine oil:	
Type	
Classification	API Service "SE", "SF" type or equivalent (e.g. "SF-SE", "SF-SE-CC", "SF-SE-SD" etc.)
Quantity	
Periodic oil change	3.0 L
With oil filter replacement	3.35 L
Total amount	4.2 L
Air filter	Dry type element
Fuel:	
Type	Regular gasoline Unleaded fuel only (for Australia)

Fuel tank capacity		21 L
Reserve amount		4 5 L
Carburetor:		
Type × quantity		BS36 × 4
Manufacturer		MIKUNI
Spark plug:		
Type/Manufacturer		DPR8EA-9/NGK or X24EPR-U9/DENSO
Gap		0 8 ~ 0 9 mm
Clutch type		Wet, multiple-disc
Transmission:		
Primary reduction system		Spur gear
Primary reduction ratio		1 750
Secondary reduction system		Chain drive
Secondary reduction ratio		2 235
Transmission type		Constant mesh 5-speed
Operation		Left foot operation
Gear ratio	1st	2 857
	2nd	2 000
	3rd	1 571
	4th	1 292
	5th	1 115

Chassis:		
Frame type		Double cradle
Caster angle		25 5°
Trail		103 mm
Tire:		
Type		Tubeless
Size		
	Front	130/70 ZR17
	Rear	170/60 ZR17
Manufacturer/model		
	Front	Bridgestone / BT54F
		Dunlop / D202F
	Rear	Bridgestone / BT54R
		Dunlop / D202L
Maximum load*		205 kg
Air pressure (cold tire)·		
Up to 90 kg load*		
	Front	250 kPa, 2.50 kg/cm^2, 2 50 bar
	Rear	250 kPa, 2 50 kg/cm^2; 2 50 bar
90 kg load ~ maximum load*		
	Front	250 kPa, 2 50 kg/cm^2, 2 50 bar
	Rear	290 kPa, 2 90 kg/cm^2, 2.90 bar

High speed riding*		
	Front	250 kPa, 2 50 kg/cm^2, 2 50 bar
	Rear	290 kPa, 2 90 kg/cm^2, 2 90 bar

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

Wheels:

Type		
	Front	Cast
	Rear	Cast
Size		
	Front	17 × MT 3 50
	Rear	17 × MT 3 50

Brakes:

Front:		
	Type	Dual disc brake
	Operation	Right hand operation
	Fluid	DOT 4
Rear:		
	Type	Single disk brake
	Operation	Right foot operation
	Fluid	DOT 4

Suspension:

Front		
	Type	Telescopic fork
	Inner tube outer diameter	43 mm
Rear		
	Type	Swingarm

Shock absorbers:

Front	Coil-air spring / oil damper
Rear	Coil spring / gas-oil damper

Wheel travel:

Front	130 mm
Rear	110 mm

Electrical system:

Ignition system		T.C.I. (digital)
Charging system		
	Type	A.C. generator
	Standard output	12 V, 28 A @ 3,000 rpm
Battery*		
	Type	YTX14-BS
	Voltage, capacity	12 V, 12 AH
Headlight type		Quartz bulb (halogen)

Bulb voltage, wattage × quantity:

Headlight	12 V, 60 W / 55 W × 1
Tail/brake light	12 V, 5 W / 21 W × 2
Auxiliary light	12 V, 4 W × 1
Turn signal light	12 V, 21 W × 4
Meter light	12 V, 1.7 W × 4
Neutral indicator light	12 V, 1 7 W × 1
High beam indicator light	12 V, 3 4 W × 1
Oil level indicator light	12 V, 1 7 W × 1
Turn indicator light	12 V, 1 7 W × 2

Fuses:

Main fuse	30 A
Headlight fuse	15 A
Signaling system fuse	15 A
Ignition fuse	7 5 A

HOW TO USE THE CONVERSION TABLE EAL10001

All specification data in this manual are listed in SI and METRIC UNITS.
Use this table to convert METRIC unit data to IMPERIAL unit data.
Ex.

METRIC		MULTIPLIER		IMPERIAL
**mm	×	0 03937	=	**in
2 mm	×	0 03937	=	0 08 in

CONVERSION TABLE

METRIC TO IMPERIAL			
	Metric unit	Multiplier	Imperial unit
Torque	m kg m kg cm kg cm kg	7 233 86 794 0 0723 0 8679	ft lb in lb ft lb in lb
Weight	kg g	2 205 0 03527	lb oz
Speed	km/hr	0 6214	mph
Distance	km m m cm mm	0 6214 3 281 1 094 0 3937 0 03937	mi ft yd in in
Volume / Capacity	cc (cm^3) cc (cm^3) lt (liter) lt (liter)	0 03527 0 06102 0 8799 0 2199	oz (IMP liq) cu in qt (IMP liq) gal (IMP liq)
Misc	kg/mm kg/cm^2 Centigrade (°C)	55 997 14 2234 9/5 + 32	lb/in psi (lb/in^2) Fahrenheit (°F)

9

EAA61800

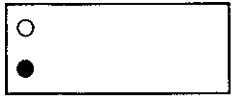
Identification numbers record

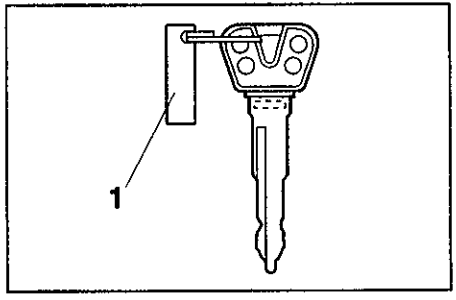
Record the key identification number, vehicle identification number and model label information in the spaces provided for assistance when ordering spare parts from a Yamaha dealer or for reference in case the vehicle is stolen.

1. KEY IDENTIFICATION NUMBER:

2 VEHICLE IDENTIFICATION NUMBER:

3 MODEL LABEL INFORMATION:



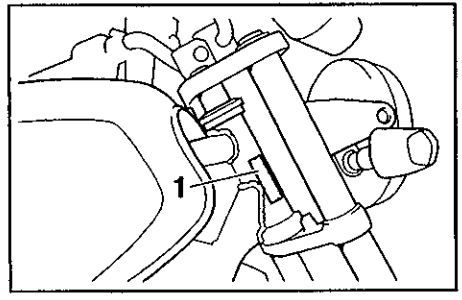


1 Key identification number

EAA61500

Key identification number

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



1 Vehicle identification number

EAA80001

Vehicle identification number

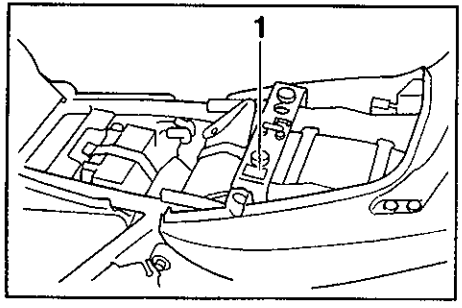
The vehicle identification number is stamped into the steering head pipe. Record this number in the space provided.

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.

9



1 Model label

EAA62200

Model label

The model label is affixed to the frame under the seat. (See page 3-11 for seat removal procedures.) Record the information on this label in the space provided. This information will be needed to order spare parts from your Yamaha dealer.

EAL00800

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.

9

INDEX

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