



MASTER COPY

OWNER'S MANUAL

XJR1300

XJR1300P

28199-24

Congratulations on your purchase of the Yamaha XJR1300. 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 concerning the operation or maintenance of your motorcycle, please consult a Yamaha dealer.

IMPORTANT MANUAL INFORMATION

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



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



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



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

NOTE:

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

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 you have any questions concerning this manual, please consult your Yamaha dealer

IMPORTANT MANUAL INFORMATION

EW000002

 **WARNING**

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

IMPORTANT MANUAL INFORMATION

EAU04229

**XJR1300P
OWNER'S MANUAL
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SAFETY INFORMATION

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 THIS MOTORCYCLE.

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 approaching and passing through intersections, since intersections are the most likely places for motorcycle accidents to occur.
- c. Ride where other motorists can see you. Avoid riding in another motorist's blind spot.



SAFETY INFORMATION

- 4 Many motorcycle 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 that you are qualified and that you only lend your motorcycle to other qualified 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 the motorcycle and all of its controls.
- 5 Many motorcycle accidents have been caused by error of the motorcycle operator. 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 limit and never travel faster than warranted by road and traffic conditions
 - b. Always signal before turning or changing lanes. Make sure that other motorists can see you
- 6 The posture of the operator and passenger is important for proper control
 - a. The operator should keep both hands on the handlebar and both feet on the operator footrests during operation to maintain control of the motorcycle
 - b. The passenger should always hold onto the operator, seat strap, or grab bar, if 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 other drugs.
8. This motorcycle is designed for on-road use only, therefore, it is not suitable for off-road use



SAFETY INFORMATION

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 in your unprotected eyes could contribute to an impairment of vision which could delay seeing a hazard.
3. The use of a jacket, heavy boots, trousers, gloves, etc., is effective in preventing or reducing abrasions or lacerations.
4. Never wear loose-fitting clothes, otherwise they could catch on the control levers, footrests, or wheels and cause injury or an 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. Passengers should also observe the precautions mentioned above.

Modifications

Modifications made to this motorcycle not approved by Yamaha, or the removal of original equipment, may render the 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 motorcycle is changed. To avoid the possibility of an accident, use extreme caution when adding cargo or accessories to your motorcycle. Use extra care when riding a motorcycle that 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 203 kg. When loading within this weight limit, keep the following in mind:

1. Cargo and accessory weight should be kept as low and close to the motorcycle as possible. Make sure to distribute the weight as evenly as possible on both sides of the motorcycle 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. Check accessory mounts and cargo restraints frequently.
3. Never attach any large or heavy items to the handlebar, front fork, or front fender. These items, including such cargo as sleeping bags, duffel 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 that may be available, you must personally be responsible for the proper selection, installation and use of non-Yamaha accessories. Use extreme caution when selecting and installing any accessories.

Keep the following guidelines in mind, as well as those provided under “Loading” when mounting accessories.

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 that 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.

SAFETY INFORMATION

- 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 passing or being passed by large vehicles.
 - c. Certain accessories can displace the operator from his or her normal riding position. This improper position limits the freedom of movement of the operator and may limit control ability, therefore, such accessories are not recommended.
2. Use caution when adding electrical accessories. If electrical 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 the engine off 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 the engine off before leaving the motorcycle unattended and remove the key from the main switch. When parking the motorcycle, note the following:
 - a. The engine and exhaust system may be hot, therefore, 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, otherwise it may fall over.
 - c. Do not park the motorcycle near a flammable source (e.g. a kerosene heater, or near an open flame), otherwise it could catch fire.



SAFETY INFORMATION

- 4 When transporting the motorcycle in another vehicle, make sure that 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 into your eyes, see your doctor immediately. If any gasoline spills on your skin or clothing, immediately wash the affected area with soap and water and change your clothes

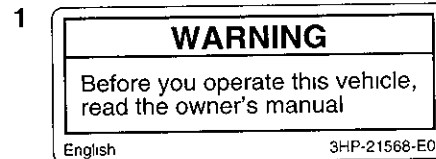
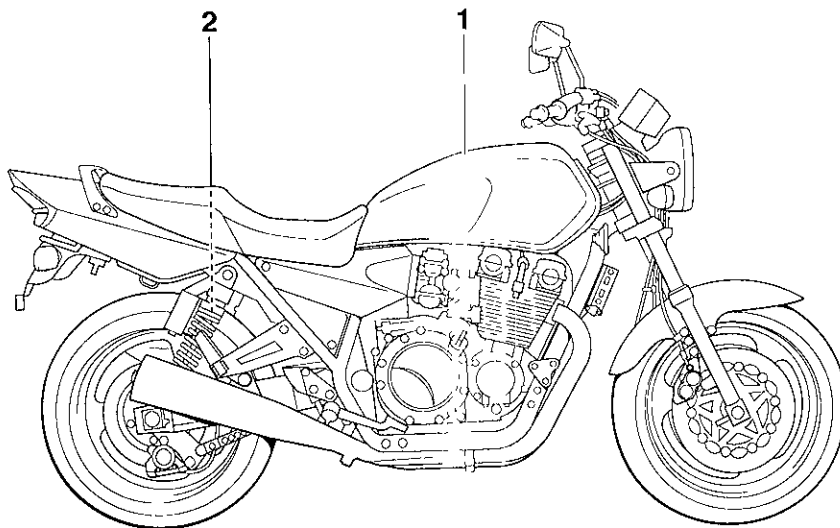
SAFETY INFORMATION

EAU02977

Location of important labels

Please read the following important labels carefully before operating this motorcycle

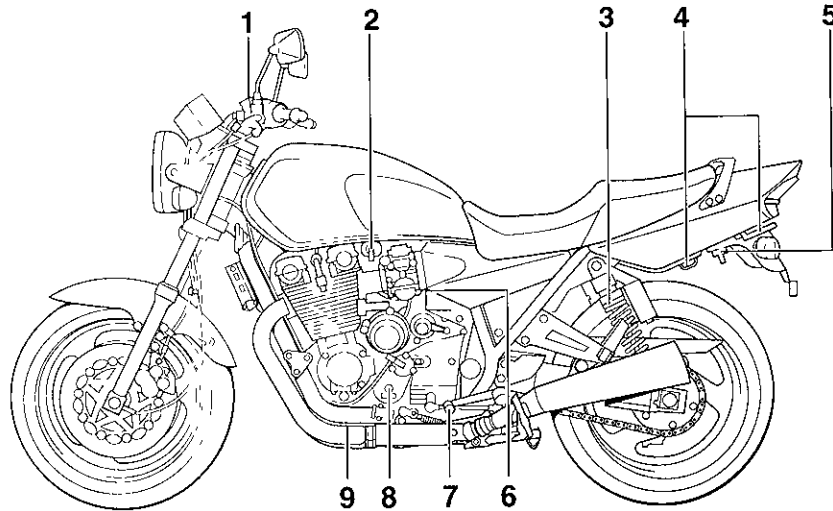
1



Left view 2-1
Right view.. 2-2
Controls and instruments 2-3

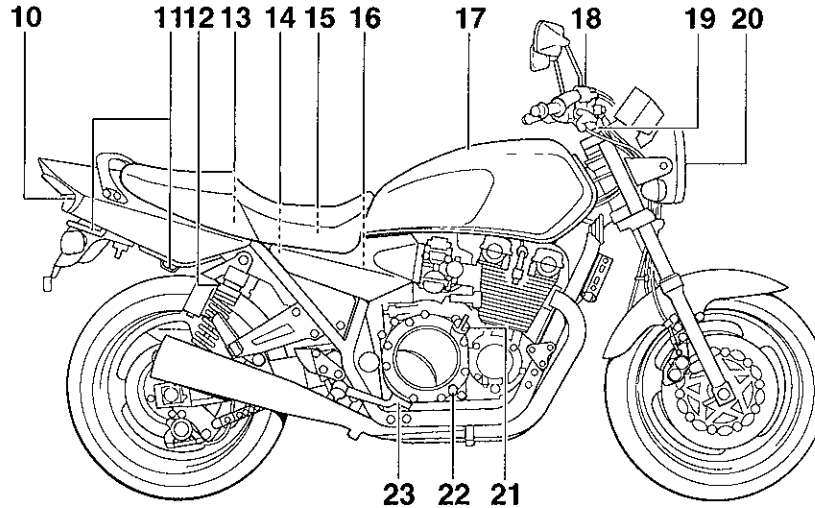
DESCRIPTION

Left view



- | | |
|---|-------------------|
| 1 Clutch fluid reservoir | (page 6-20) |
| 2 Fuel cock | (page 3-9) |
| 3. Shock absorber assembly spring preload adjusting rings | (page 3-13) |
| 4. Luggage strap holders | (page 3-14) |
| 5. Helmet holder/seat lock | (page 3-10, 3-11) |
| 6 Throttle stop screw | (page 6-13) |
| 7. Shift pedal | (page 3-5) |
| 8. Engine oil filter element | (page 6-9) |
| 9 Engine oil drain bolt | (page 6-8) |

Right view

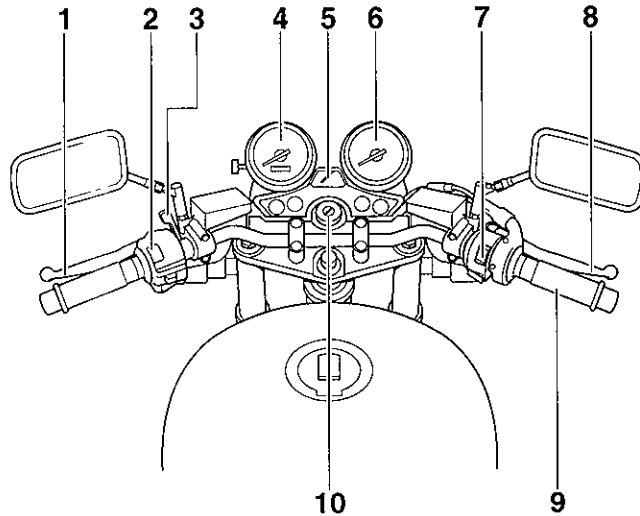


- | | | | |
|--|-------------------|---|-------------|
| 10. Tail/brake light | (page 6-31) | 16 Air filter element | (page 6-11) |
| 11. Luggage strap holders | (page 3-14) | 17 Fuel tank | (page 3-7) |
| 12 Shock absorber assembly spring preload adjusting rings | (page 3-13) | 18 Front brake fluid reservoir | (page 6-19) |
| 13 Owner's tool kit | (page 6-1) | 19. Front fork spring preload adjusting bolt | (page 3-12) |
| 14 Rear brake fluid reservoir | (page 6-20) | 20 Headlight | (page 6-29) |
| 15 Fuses, battery | (page 6-27, 6-29) | 21 Engine oil filler cap | (page 6-8) |
| | | 22. Engine oil level check window | (page 6-8) |
| | | 23. Brake pedal | (page 3-6) |

DESCRIPTION

Controls and instruments

2



- 1 Clutch lever
- 2. Left handlebar switches
- 3. Starter (choke) lever
- 4 Speedometer unit
- 5. Fuel gauge
- 6 Tachometer

- (page 3-5)
- (page 3-3)
- (page 3-10)
- (page 3-2)
- (page 3-3)
- (page 3-3)

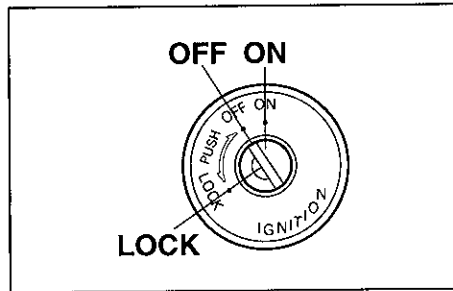
- 7. Right handlebar switches
- 8 Brake lever
- 9. Throttle grip
- 10. Main switch/steering lock

- (page 3-4)
- (page 3-6)
- (page 6-13)
- (page 3-1)

INSTRUMENT AND CONTROL FUNCTIONS

| | |
|---|------|
| Main switch/steering lock | 3-1 |
| Indicator and warning lights | 3-2 |
| Speedometer unit | 3-2 |
| Tachometer | 3-3 |
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| Shift pedal | 3-5 |
| Brake lever | 3-6 |
| Brake pedal | 3-6 |
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| Fuel cock | 3-9 |
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3



EAU00029

Main switch/steering lock

The main switch/steering lock controls the ignition and lighting systems, and is used to lock the steering. The various positions are described below.

ON

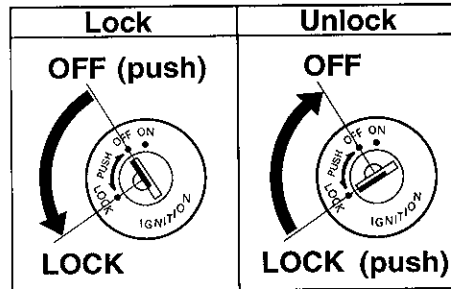
EAU00030

All electrical systems are supplied with power, and the headlight, meter lighting and taillight come on, and the engine can be started. The key cannot be removed.

OFF

EAU00038

All electrical systems are off. The key can be removed.



EAU00041

LOCK

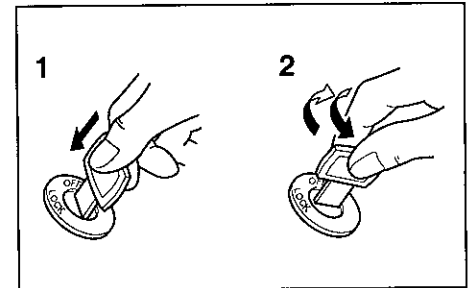
The steering is locked, and all electrical systems are off. The key can be removed.

To lock the steering

- 1 Turn the handlebars all the way to the left or right
- 2 Push the key in from the "OFF" position, and then turn it to "LOCK" while still pushing it.
- 3 Remove the key.

To unlock the steering

Push the key into the main switch, and then turn it to "OFF" while still pushing it



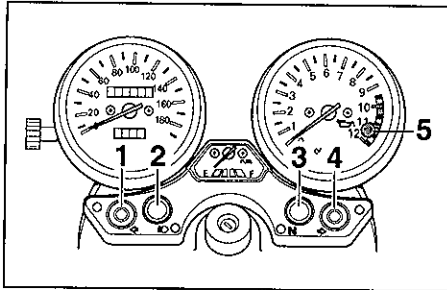
- 1 Push
- 2 Turn





EW000016

WARNING

Never turn the key to "OFF" or "LOCK" while the motorcycle is moving, otherwise the electrical systems will be switched off, which may result in loss of control or an accident. Make sure that the motorcycle is stopped before turning the key to "OFF" or "LOCK".

INSTRUMENT AND CONTROL FUNCTIONS



- 1 Left turn signal indicator light “”
- 2 High beam indicator light “”
- 3 Neutral indicator light “**N**”
- 4 Right turn signal indicator light “”
- 5 Oil level warning light “”

EAU03034

Indicator and warning lights

EAU04121

Turn signal indicator lights “” and “”

The corresponding indicator light flashes when the turn signal switch is pushed to the left or right.

EAU00063

High beam indicator light “”

This indicator light comes on when the high beam of the headlight is switched on.

EAU00061

Neutral indicator light “**N**”


This indicator light comes on when the transmission is in the neutral position

EAU03201

Oil level warning light “”

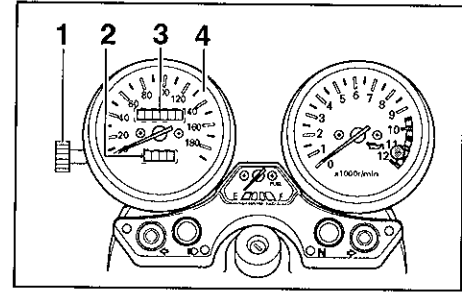
This warning light comes on when the engine oil level is low.

The electrical circuit of the warning light can be checked according to the following procedure

- 1 Set the engine stop switch to “” and turn the key to “ON”
2. Shift the transmission into the neutral position or pull the clutch lever.
3. Push the start switch. If the warning light does not come on while pushing the start switch, have a Yamaha dealer check the electrical circuit

NOTE: _____

Even if the oil level is sufficient, the warning light may flicker when riding on a slope or during sudden acceleration or deceleration, but this is not a malfunction.



- 1 Tripmeter reset knob
- 2 Tripmeter
- 3 Odometer
- 4 Speedometer

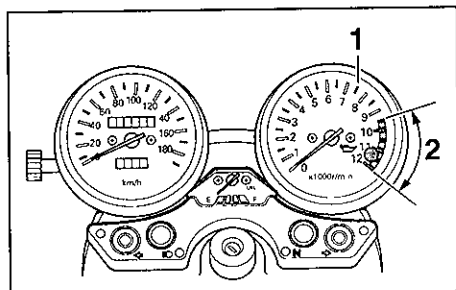
EAU00097

Speedometer unit

The speedometer unit is equipped with a speedometer, an odometer and a tripmeter. The speedometer shows riding speed. The odometer shows the total distance traveled. The tripmeter shows the distance traveled since it was last set to zero with the reset knob. The tripmeter can be used together with the fuel gauge to estimate the distance that can be traveled with a full tank of fuel. This information will enable you to plan future fuel stops.

INSTRUMENT AND CONTROL FUNCTIONS

3



- 1 Tachometer
- 2 Tachometer red zone

EAU00101

Tachometer

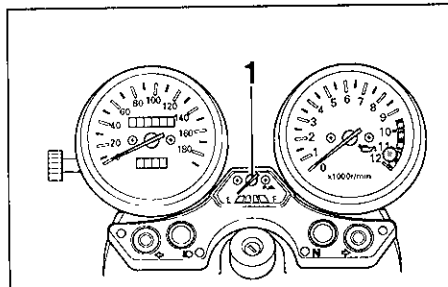
The electric tachometer allows the rider to monitor the engine speed and keep it within the ideal power range

EC000003

CAUTION

Do not operate the engine in the tachometer red zone.

Red zone: 9,500 r/min and above



- 1 Fuel gauge

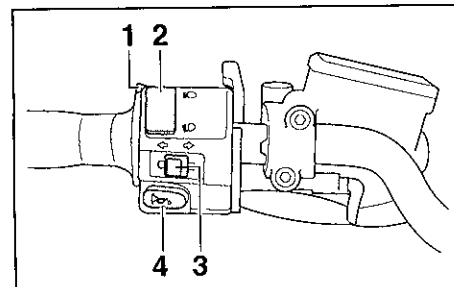
EAU00110

Fuel gauge

The fuel gauge indicates the amount of fuel in the fuel tank. The needle moves towards "E" (Empty) as the fuel level decreases. When the needle reaches "E", approximately 4.5 L of fuel remain in the fuel tank. If this occurs, refuel as soon as possible.

NOTE:

Do not allow the fuel tank to empty itself completely.



- 1 Pass switch "PASS"
- 2 Dimmer switch "☰" / "☷"
- 3 Turn signal switch "↵" / "↶"
- 4 Horn switch "🔊"

EAU00118

Handlebar switches

EAU00120

Pass switch "PASS"

Press this switch to flash the headlight

EAU03888

Dimmer switch "☰" / "☷"

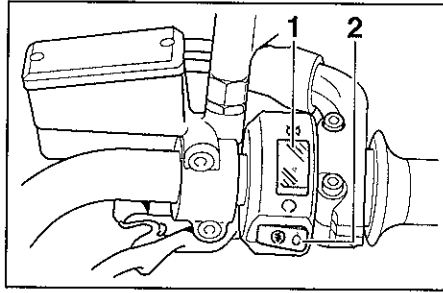
Set this switch to "☰" for the high beam and to "☷" for the low beam

INSTRUMENT AND CONTROL FUNCTIONS

Turn signal switch “↵” / “⇨”

EAU03889

To signal a right-hand turn, push this switch to “⇨”. To signal a left-hand turn, push this switch to “↵”. When released, the switch returns to the center position. To cancel the turn signal lights, push the switch in after it has returned to the center position.



- 1 Engine stop switch “○” / “⊗”
- 2 Start switch “⚡”

Horn switch “🔊”

EAU00129

Press this switch to sound the horn.

Engine stop switch “○” / “⊗”

EAU03890

Set this switch to “○” before starting the engine. Set this switch to “⊗” to stop the engine in case of an emergency, such as when the motorcycle overturns or when the throttle cable is stuck.

Start switch “⚡”

EAU00143

Push this switch to crank the engine with the starter.

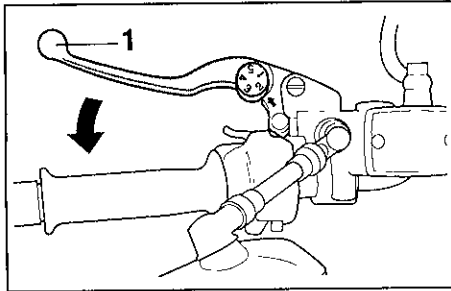
EC000005

CAUTION

See page 5-1 for starting instructions prior to starting the engine.

INSTRUMENT AND CONTROL FUNCTIONS

3

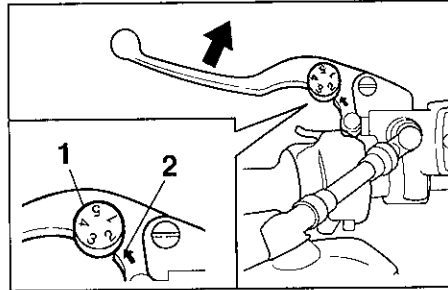


1 Clutch lever

EAU00153

Clutch lever

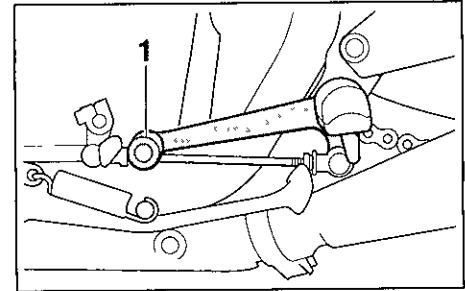
The clutch lever is located at the left handlebar grip. To disengage the clutch, pull the lever toward the handlebar grip. To engage the clutch, release the lever. The lever should be pulled rapidly and released slowly for smooth clutch operation.



1 Clutch lever position adjusting dial
2 Arrow mark

The clutch lever is equipped with a clutch lever position adjusting dial. To adjust the distance between the clutch lever and the handlebar grip, turn the adjusting dial while holding the lever pushed away from the handlebar grip. Make sure that the appropriate setting on the adjusting dial is aligned with the arrow mark on the clutch lever.

The clutch lever is equipped with a clutch switch, which is part of the ignition circuit cut-off system. (See page 3-15 for an explanation of the ignition circuit cut-off system.)



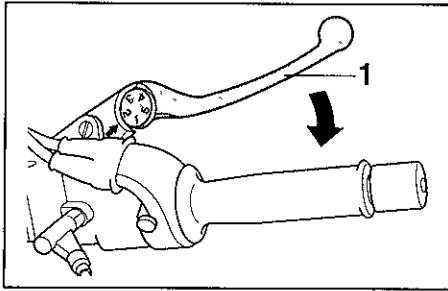
1 Shift pedal

EAU00157

Shift pedal

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

INSTRUMENT AND CONTROL FUNCTIONS

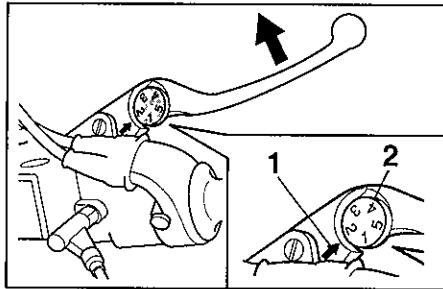


1 Brake lever

EAU00181

Brake lever

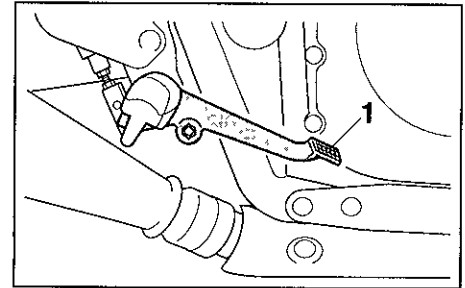
The brake lever is located at the right handlebar grip. To apply the front brake, pull the lever toward the handlebar grip.



1 Arrow mark

2 Brake lever position adjusting dial

The brake lever is equipped with a position adjusting dial. To adjust the distance between the brake lever and the handlebar grip, turn the adjusting dial while holding the lever pushed away from the handlebar grip. Make sure that the appropriate setting on the adjusting dial is aligned with the arrow mark on the brake lever.



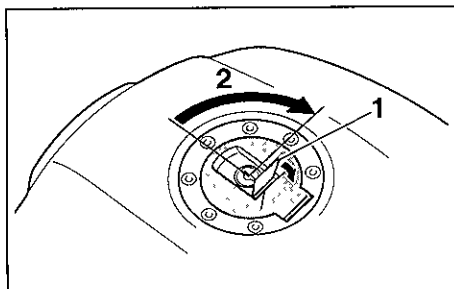
1 Brake pedal

EAU00162

Brake pedal

The brake pedal is on the right side of the motorcycle. To apply the rear brake, press down on the brake pedal.

INSTRUMENT AND CONTROL FUNCTIONS



- 1 Fuel tank cap lock cover
- 2 Unlock

EAU02935

Fuel tank cap

To open the fuel tank cap

Open the fuel tank cap lock cover, insert the key into the lock, and then turn it 1/4 turn clockwise. The lock will be released and the fuel tank cap can be opened.

To close the fuel tank cap

1. Push the fuel tank cap into position with the key inserted in the lock.

- 2 Turn the key counterclockwise to the original position, remove it, and then close the lock cover

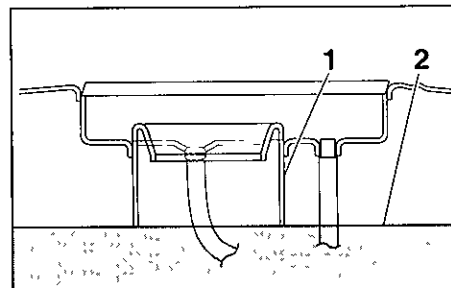
NOTE:

The fuel tank cap cannot be closed unless the key is in the lock. In addition, the key cannot be removed if the cap is not properly closed and locked.

EWA00025

WARNING

Make sure that the fuel tank cap is properly closed before riding.



- 1 Fuel tank filler tube
- 2 Fuel level

EAU03753

Fuel

Make sure that there is sufficient fuel in the tank. Fill the fuel tank to the bottom of the filler tube as shown.

EW000130

WARNING

- Do not overfill the fuel tank, otherwise it may overflow when the fuel warms up and expands.
- Avoid spilling fuel on the hot engine.

INSTRUMENT AND CONTROL FUNCTIONS

EAU00185

CAUTION:

Immediately wipe off spilled fuel with a clean, dry, soft cloth, since fuel may deteriorate painted surfaces or plastic parts.

EAU04312

Recommended fuel:
UNLEADED GASOLINE ONLY
Fuel tank capacity:
Total amount.
21 L
Reserve amount:
4.5 L

ECA00104

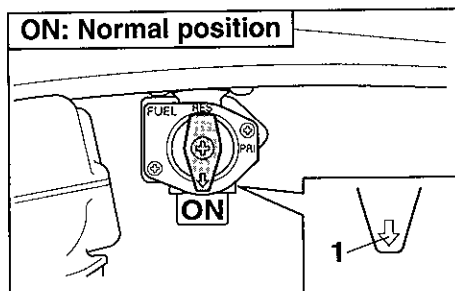
CAUTION:

Use only unleaded gasoline. The use of leaded gasoline will cause severe damage to internal engine parts, such as the valves and piston rings, as well as to the exhaust system.

Your Yamaha engine has been designed to use regular unleaded gasoline with a research octane number of 91 or higher. If knocking (or pinging) occurs, use a gasoline of a different brand or premium unleaded fuel. Use of unleaded fuel will extend spark plug life and reduce maintenance costs.

INSTRUMENT AND CONTROL FUNCTIONS

3



1 Arrow mark positioned over "ON"

EAU00207

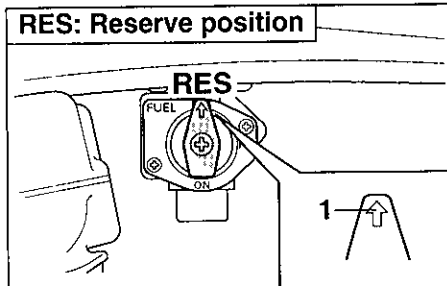
Fuel cock

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

The fuel cock lever positions are explained as follows and shown in the illustrations.

ON

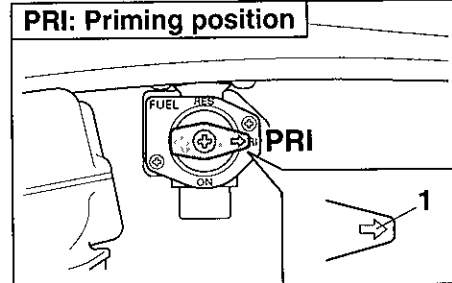
With the fuel cock lever in this position, fuel flows to the carburetors when the engine is running. Turn the fuel cock lever to this position when starting the engine and riding.



1 Arrow mark positioned over "RES"

RES

This indicates reserve. With the fuel cock lever in this position, the fuel reserve is made available. Quickly turn the fuel cock lever to this position if you run out of fuel while riding, otherwise the engine may stall and will have to be primed (see "PRI"). After turning the fuel cock lever to "RES", refuel as soon as possible and be sure to turn the fuel cock lever back to "ON".

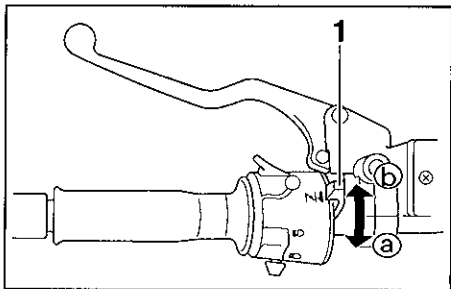


1 Arrow mark positioned over "PRI"

PRI

This indicates prime. With the fuel cock lever in this position, the engine can be "primed". Turn the fuel cock lever to this position when the engine has been allowed to run out of fuel. This sends fuel directly to the carburetors, which will make starting easier. After the engine has started, be sure to turn the lever to "ON" (or "RES" if you have not refueled yet).

INSTRUMENT AND CONTROL FUNCTIONS



1 Starter (choke) lever “|∩|”

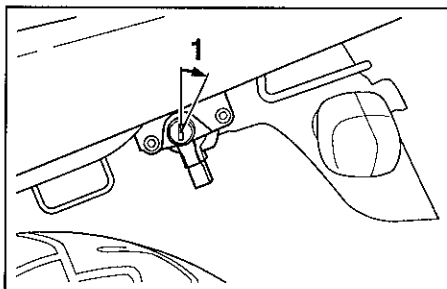
EAU03839

Starter (choke) lever “|∩|”

Starting a cold engine requires a richer air-fuel mixture, which is supplied by the starter (choke).

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

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



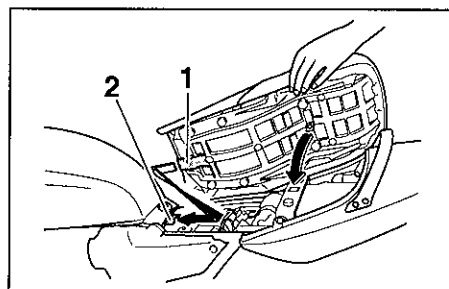
1 Unlock

EAU04406

Seat

To remove the seat

1. Insert the key into the seat lock, and then turn it as shown
2. Pull the seat off.



1 Projection
2 Seat holder

To install the seat

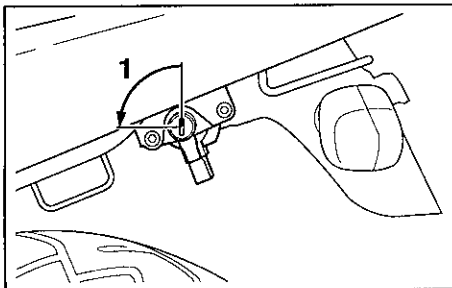
1. Insert the projection on the front of the seat into the seat holder as shown
2. Push the rear of the seat down to lock it in place
3. Remove the key.

NOTE:

Make sure that the seat is properly secured before riding

INSTRUMENT AND CONTROL FUNCTIONS

3



1 Unlock

EAU04291

Helmet holder

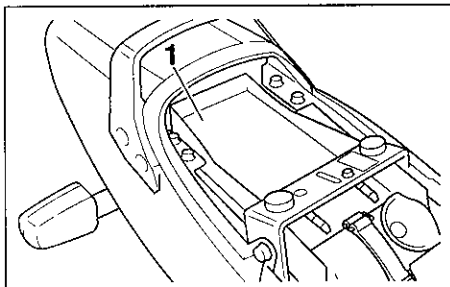
To open the helmet holder, insert the key into the seat lock, and then turn the key as shown.

To lock the helmet holder, turn the key to the original position, and then remove it

EW000030

! WARNING

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



1 Storage compartment

EAU04101

Storage compartment

The storage compartment is located under the seat. (See page 3-10 for seat removal and installation procedures)

EWA00005

! WARNING

- Do not exceed the load limit of 3 kg for the storage compartment.
- Do not exceed the maximum load of 203 kg for the vehicle.

When storing the owner's manual or other documents in the storage compartment, be sure to wrap them in a plastic bag so that they will not get wet. When washing the motorcycle, be careful not to let any water enter the storage compartment.

INSTRUMENT AND CONTROL FUNCTIONS

Adjusting the front fork

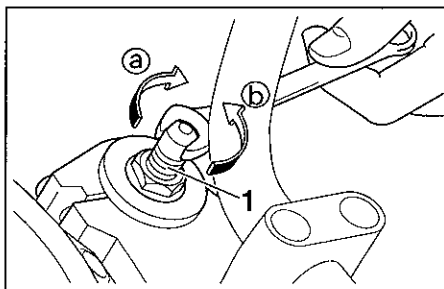
EAU00285

This front fork is equipped with spring preload adjusting bolts

EW000035

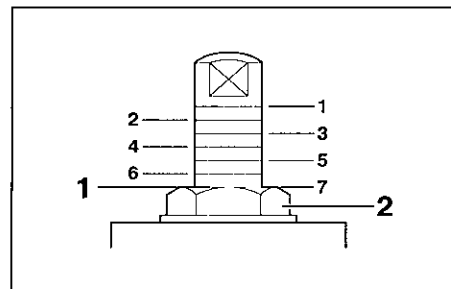
! WARNING

Always adjust both fork legs equally, otherwise poor handling and loss of stability may result.



1 Spring preload adjusting bolt

Adjust the spring preload as follows
To increase the spring preload and thereby harden the suspension, turn the adjusting bolt on each fork leg in direction (a). To decrease the spring preload and thereby soften the suspension, turn the adjusting bolt on each fork leg in direction (b).



1 Current setting
2 Front fork cap bolt

NOTE:
Align the appropriate groove on the adjusting mechanism with the top of the front fork cap bolt.

| | Setting |
|----------------|---------|
| Minimum (soft) | 7 |
| Standard | 5 |
| Maximum (hard) | 1 |

INSTRUMENT AND CONTROL FUNCTIONS

Adjusting the shock absorber assemblies

EAU04407

Each shock absorber assembly is equipped with a spring preload adjusting ring.

EC000015

3

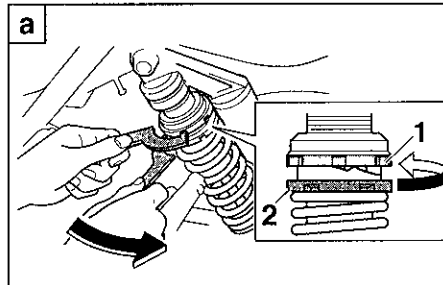
CAUTION

Never attempt to turn an adjusting mechanism beyond the maximum or minimum settings.

EW000040

! WARNING

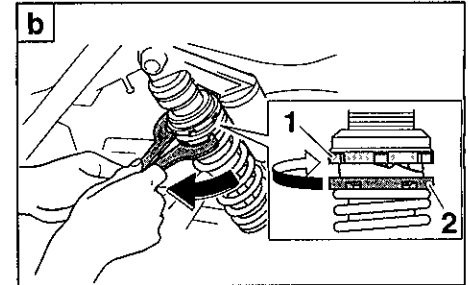
Always adjust both shock absorber assemblies equally, otherwise poor handling and loss of stability may result.



- 1 Upper ring
- 2 Lower ring (spring preload adjusting ring)

Adjust the spring preload as follows, using the special wrenches included along with the owner's tool kit

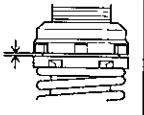
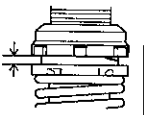
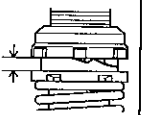
To increase the spring preload and thereby harden the suspension, hold the upper ring in place while turning the lower ring (adjusting ring) on each shock absorber assembly as shown in illustration **a**



- 1 Upper ring
- 2 Lower ring (spring preload adjusting ring)

To decrease the spring preload and thereby soften the suspension, hold the upper ring in place while turning the lower ring (adjusting ring) on each shock absorber assembly as shown in illustration **b**

INSTRUMENT AND CONTROL FUNCTIONS

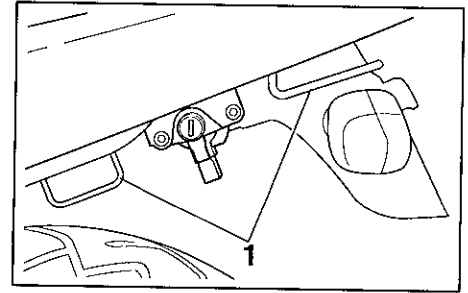
| Setting | | |
|--|---|---|
| Minimum (soft)/ standard | Medium | Maximum (hard) |
| 1 | 2 | 3 |
|  |  |  |

EAU00316

⚠ WARNING

These shock absorbers contain highly pressurized nitrogen gas. For proper handling 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.

- Do not tamper with or attempt to open the gas cylinders.
- Do not subject the shock absorbers to an open flame or other high heat sources, otherwise they may explode due to excessive gas pressure.
- Do not deform or damage the gas cylinders in any way, as this will result in poor damping performance.
- Always have a Yamaha dealer service the shock absorbers.



1 Luggage strap holder (x 4)

EAU04276

Luggage strap holders

There are four luggage strap holders, two of which can be turned out for easier access

INSTRUMENT AND CONTROL FUNCTIONS

EAU00330

Sidestand

The sidestand is located on the left side of the frame. Raise the sidestand or lower it with your foot while holding the motorcycle upright.

NOTE:

3

The built-in sidestand switch is part of the ignition circuit cut-off system, which cuts the ignition in certain situations (See further down for an explanation of the ignition circuit cut-off system)

EW000044

WARNING

The motorcycle must not be ridden with the sidestand down, or if the sidestand cannot be properly moved up (or does not stay up), otherwise the sidestand could contact the ground and distract the operator, resulting in a possible loss of control. Yamaha's ignition circuit cut-off system has been designed to assist the operator in fulfilling the responsibility of raising the sidestand before starting off. Therefore, check this system regularly as described below and have a Yamaha dealer repair it if it does not function properly.

EAU03741

Ignition circuit cut-off system

The ignition circuit cut-off system (comprising the sidestand switch, clutch switch and neutral switch) has the following functions.

- It prevents starting when the transmission is in gear and the sidestand is up, but the clutch lever is not pulled
- It prevents starting when the transmission is in gear and the clutch lever is pulled, but the sidestand is still down.
- It cuts the running engine when the transmission is in gear and the sidestand is moved down

Periodically check the operation of the ignition circuit cut-off system according to the following procedure

INSTRUMENT AND CONTROL FUNCTIONS

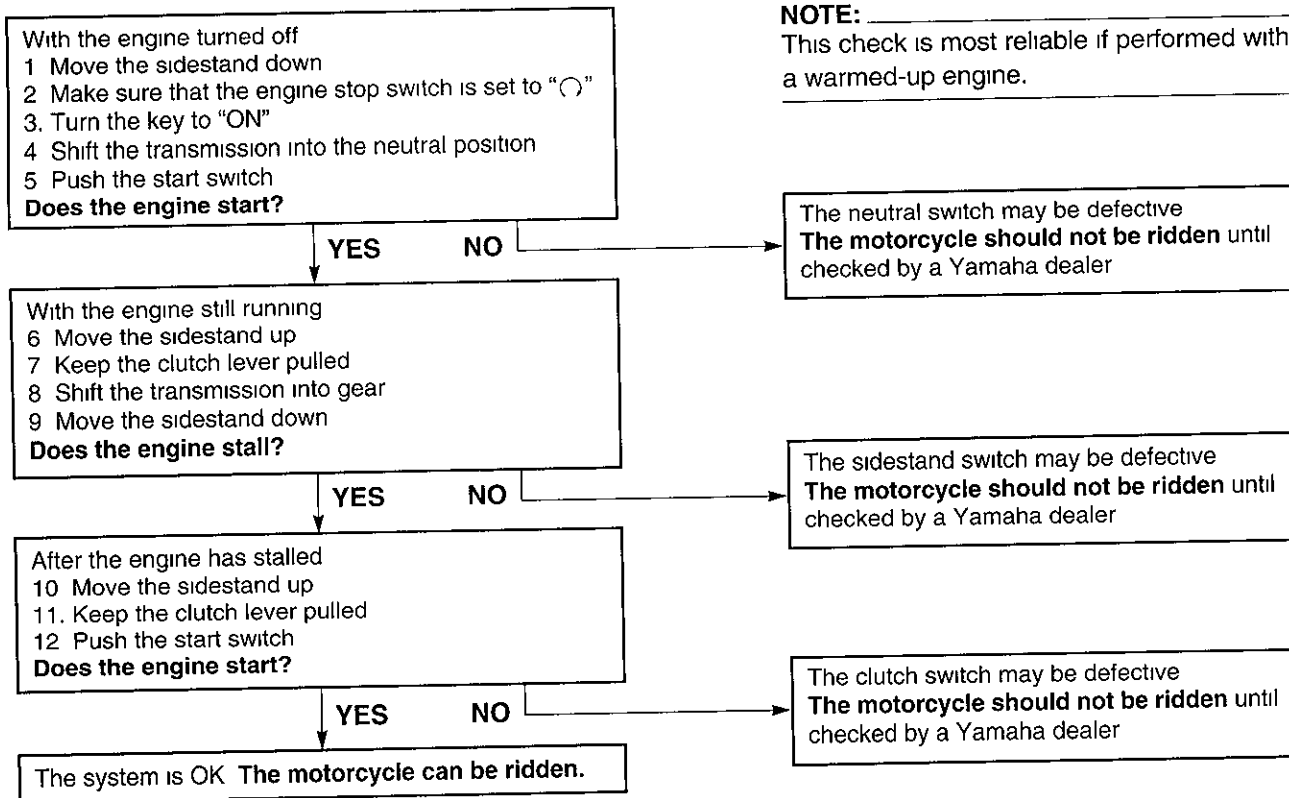
EW000046

 **WARNING**

- The vehicle must be placed on the centerstand during this inspection.
 - If a malfunction is noted, have a Yamaha dealer check the system before riding.
-

INSTRUMENT AND CONTROL FUNCTIONS

3



Pre-operation check list 4-1

PRE-OPERATION CHECKS

The condition of a vehicle is the owner's responsibility. Vital components can start to deteriorate quickly and unexpectedly, even if the vehicle remains unused (for example, as a result of exposure to the elements). Any damage, fluid leakage or loss of tire air pressure could have serious consequences. Therefore, it is very important, in addition to a thorough visual inspection, to check the following points before each ride.

Pre-operation check list

| ITEM | CHECKS | PAGE |
|----------------|---|-----------|
| Fuel | <ul style="list-style-type: none">• Check fuel level in fuel tank• Refuel if necessary• Check fuel line for leakage | 3-7-3-8 |
| Engine oil | <ul style="list-style-type: none">• Check oil level in engine• If necessary, add recommended oil to specified level• Check vehicle for oil leakage | 6-7-6-8 |
| Front brake | <ul style="list-style-type: none">• Check operation• If soft or spongy, have Yamaha dealer bleed hydraulic system• Check fluid level in reservoir• If necessary, add recommended brake fluid to specified level• Check hydraulic system for leakage | 6-19-6-21 |
| Rear brake | <ul style="list-style-type: none">• Check operation• If soft or spongy, have Yamaha dealer bleed hydraulic system• Check fluid level in reservoir• If necessary, add recommended brake fluid to specified level• Check hydraulic system for leakage | 6-17-6-21 |
| Clutch | <ul style="list-style-type: none">• Check operation• If soft or spongy, have Yamaha dealer bleed hydraulic system• Check fluid level in reservoir• If necessary, add recommended fluid to specified level• Check hydraulic system for leakage | 6-19-6-21 |
| Throttle grip | <ul style="list-style-type: none">• Make sure that operation is smooth• Check free play• If necessary, have Yamaha dealer make adjustment or lubricate | 6-13 |
| Control cables | <ul style="list-style-type: none">• Make sure that operation is smooth• Lubricate if necessary | 6-23 |

PRE-OPERATION CHECKS

| ITEM | CHECKS | PAGE |
|---|--|-----------------|
| Drive chain | <ul style="list-style-type: none"> • Check chain slack • Adjust if necessary • Check chain condition • Lubricate if necessary | 6-21-6-22, 6-23 |
| Wheels and tires | <ul style="list-style-type: none"> • Check for damage • Check tire condition and tread depth • Check air pressure • Correct if necessary | 6-14-6-17 |
| Brake and shift pedals | <ul style="list-style-type: none"> • Make sure that operation is smooth • Lubricate pedal pivoting points if necessary | 6-24 |
| Brake and clutch levers | <ul style="list-style-type: none"> • Make sure that operation is smooth • Lubricate lever pivoting points if necessary | 6-24 |
| Centerstand, sidestand | <ul style="list-style-type: none"> • Make sure that operation is smooth • Lubricate pivots if necessary | 6-25 |
| Chassis fasteners | <ul style="list-style-type: none"> • Make sure that all nuts, bolts and screws are properly tightened • Tighten if necessary | — |
| Instruments, lights, signals and switches | <ul style="list-style-type: none"> • Check operation • Correct if necessary | — |
| Sidestand switch | <ul style="list-style-type: none"> • Check operation of ignition circuit cut-off system • If system is defective, have Yamaha dealer check vehicle | 3-15 |

NOTE:

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

EWA00033

⚠ WARNING

If any item in the Pre-operation check list is not working properly, have it inspected and repaired before operating the motorcycle.

OPERATION AND IMPORTANT RIDING POINTS

| | |
|--|-----|
| Starting and warming up a cold engine | 5-1 |
| Starting a warm engine | 5-2 |
| Shifting | 5-3 |
| Tips for reducing fuel consumption | 5-3 |
| Engine break-in | 5-4 |
| Parking | 5-4 |

EAU00373

EAU01091*

NOTE: _____

When the transmission is in the neutral position, the neutral indicator light should be on, otherwise have a Yamaha dealer check the electrical circuit

- 4 Turn on the starter (choke) and completely close the throttle (See page 3-10 for starter (choke) operation.)
- 5 Start the engine by pushing the start switch.

NOTE: _____

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

5

! WARNING

- Become thoroughly familiar with all operating controls and their functions before riding. Consult a Yamaha dealer regarding any control or function that you do not thoroughly understand.
- Never start the engine or operate it in a closed area for any length of time. Exhaust fumes are poisonous, and inhaling them can cause loss of consciousness and death within a short time. Always make sure that there is adequate ventilation.
- Before starting out, make sure that the sidestand is up. If the sidestand is not raised completely, it could contact the ground and distract the operator, resulting in a possible loss of control.

Starting and warming up a cold engine

In order for the ignition circuit cut-off system to enable starting, one of the following conditions must be met

- The transmission is in the neutral position
- The transmission is in gear with the clutch lever pulled and the sidestand up

EW000054

! WARNING

- Before starting the engine, check the function of the ignition circuit cut-off system according to the procedure described on page 3-17.
 - Never ride with the sidestand down.
- 1 Turn the fuel cock lever to "ON"
 - 2 Turn the key to "ON" and make sure that the engine stop switch is set to "○"
 - 3 Shift the transmission into the neutral position

OPERATION AND IMPORTANT RIDING POINTS

EC000034

CAUTION:

The oil level warning light should come on when the start switch is pushed, and it should go off when the start switch is released. If the oil level warning light flickers or remains on after starting, immediately stop the engine, and then check the engine oil level and the vehicle for oil leakage. If necessary, add engine oil, and then check the warning light again. If the warning light does not come on when pushing the start switch, or if it does not go off after starting with sufficient engine oil, have a Yamaha dealer check the electrical circuit.

- 6 After starting the engine, move the starter (choke) lever back halfway

ECA00055

CAUTION:

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

7. When the engine is warm, turn the starter (choke) off

NOTE:

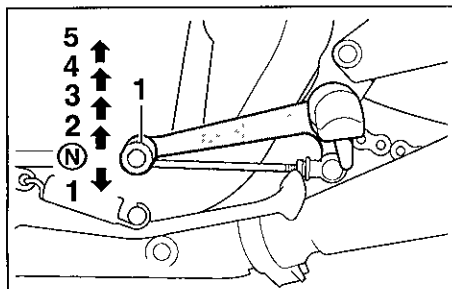
The engine is warm when it responds normally to the throttle with the starter (choke) turned off

EAU01258

Starting a warm engine

Follow the same procedure as for starting a cold engine with the exception that the starter (choke) is not required when the engine is warm.

OPERATION AND IMPORTANT RIDING POINTS



1 Shift pedal
N Neutral position

EAU00423

5

Shifting

Shifting gears lets you control the amount of engine power available for starting off, accelerating, climbing hills, etc

The gear positions are shown in the illustration

NOTE:

To shift the transmission into the neutral position, press the shift pedal down repeatedly until it reaches the end of its travel, and then slightly raise it.

EC000048

CAUTION

- Even with the transmission in the neutral position, do not coast for long periods of time with the engine off, and do not tow the motorcycle for long distances. The transmission is properly lubricated only when the engine is running. Inadequate lubrication may damage the transmission.
- Always use the clutch while changing gears to avoid damaging the engine, transmission, and drive train, which are not designed to withstand the shock of forced shifting.

EAU00424

Tips for reducing fuel consumption

Fuel consumption depends largely on your riding style. Consider the following tips to reduce fuel consumption:

- Thoroughly warm up the engine
- Turn the starter (choke) off as soon as possible
- Shift up swiftly, and avoid high engine speeds during acceleration.
- Do not rev the engine while shifting down, and avoid high engine speeds with no load on the engine.
- Turn the engine off instead of letting it idle for an extended length of time (e.g., in traffic jams, at traffic lights or at railroad crossings)

OPERATION AND IMPORTANT RIDING POINTS

Engine break-in

EAU01128

There is never a more important period in the life of your engine than the period between 0 and 1,600 km. For this reason, you should read the following material carefully.

Since the engine is brand new, do not put an excessive load on it for the first 1,600 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 that might result in engine overheating must be avoided.

0–1,000 km

EAU03749*

Avoid prolonged operation above 4,000 r/min

1,000–1,600 km

Avoid prolonged operation above 5,000 r/min

EC000052*

CAUTION:

After 1,000 km of operation, the engine oil must be changed and the oil filter element replaced.

1,600 km and beyond

The vehicle can now be operated normally

EC000053

CAUTION:

- Keep the engine speed out of the tachometer red zone.
- If any engine trouble should occur during the engine break-in period, immediately have a Yamaha dealer check the vehicle.

Parking

EAU00460

When parking, stop the engine, and then remove the key from the main switch

EW000058

! WARNING

- Since the engine and exhaust system can become very hot, park in a place where pedestrians or children are not likely to touch them.
- Do not park on a slope or on soft ground, otherwise the motorcycle may overturn.

PERIODIC MAINTENANCE AND MINOR REPAIR

| | | | |
|--|------|--|------|
| Owner's tool kit | 6-1 | Checking and lubricating the throttle grip and cable | 6-24 |
| Periodic maintenance and lubrication chart | 6-2 | Checking and lubricating the brake and shift pedals | 6-24 |
| Removing and installing the panel | 6-5 | Checking and lubricating the brake and clutch levers | 6-24 |
| Checking the spark plugs | 6-6 | Checking and lubricating the centerstand and sidestand | 6-25 |
| Engine oil and oil filter element | 6-7 | Checking the front fork | 6-25 |
| Cleaning the air filter element | 6-11 | Checking the steering | 6-26 |
| Adjusting the carburetors | 6-12 | Checking the wheel bearings | 6-27 |
| Adjusting the engine idling speed | 6-13 | Battery | 6-27 |
| Adjusting the throttle cable free play | 6-13 | Replacing the fuses | 6-29 |
| Adjusting the valve clearance | 6-14 | Replacing the headlight bulb | 6-29 |
| Tires | 6-14 | Replacing a tail/brake light bulb | 6-31 |
| Cast wheels | 6-17 | Replacing a turn signal light bulb | 6-31 |
| Adjusting the brake pedal position | 6-17 | Front wheel | 6-32 |
| Rear brake light switch adjustment | 6-18 | Rear wheel | 6-34 |
| Checking the front and rear brake pads | 6-19 | Troubleshooting | 6-36 |
| Checking the brake and clutch fluid levels | 6-19 | Troubleshooting chart | 6-37 |
| Changing the brake and clutch fluids | 6-21 | | |
| Drive chain slack | 6-21 | | |
| Lubricating the drive chain | 6-23 | | |
| Checking and lubricating the cables | 6-23 | | |

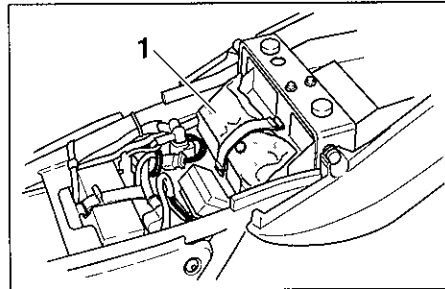
EAU00464

Safety is an obligation of the owner. Periodic inspection, adjustment and lubrication will keep your vehicle in the safest and most efficient condition possible. The most important points of inspection, adjustment, and lubrication are explained on the following pages. The intervals given in the periodic maintenance and lubrication chart should be simply considered as a general guide under normal riding conditions. However, **DEPENDING ON THE WEATHER, TERRAIN, GEOGRAPHICAL LOCATION, AND INDIVIDUAL USE, THE MAINTENANCE INTERVALS MAY NEED TO BE SHORTENED.**

EW000060

⚠ WARNING

If you are not familiar with motorcycle maintenance work, have a Yamaha dealer do it for you.



1 Owner's tool kit

EAU03758

Owner's tool kit

The owner's tool kit is located under the seat (See page 3-10 for seat removal and installation procedures.) The service information included in this manual and the tools provided in the owner's tool kit are intended to assist you in the performance of preventive maintenance and minor repairs. However, additional tools such as a torque wrench may be necessary to perform certain maintenance work correctly.

NOTE:

If you do not have the tools or experience required for a particular job, have a Yamaha dealer perform it for you.

EW000063

⚠ WARNING

Modifications not approved by Yamaha may cause loss of performance and render the vehicle unsafe for use. Consult a Yamaha dealer before attempting any changes.

PERIODIC MAINTENANCE AND MINOR REPAIR

EAU03685

Periodic maintenance and lubrication chart

NOTE:

- The annual checks must be performed every year, except if a kilometer-based maintenance is performed instead.
- From 50,000 km, repeat the maintenance intervals starting from 10,000 km.
- Items marked with an asterisk should be performed by a Yamaha dealer as they require special tools, data and technical skills

| NO. | ITEM | CHECK OR MAINTENANCE JOB | ODOMETER READING (× 1,000 km) | | | | | ANNUAL CHECK |
|-----|--------------------|---|-------------------------------|----|----|----|----|--------------|
| | | | 1 | 10 | 20 | 30 | 40 | |
| 1 | * Fuel line | • Check fuel hoses and vacuum hose for cracks or damage | | √ | √ | √ | √ | √ |
| 2 | * Fuel filter | • Check condition | | | √ | | √ | |
| 3 | Spark plugs | • Check condition • Clean and regap | | √ | | √ | | |
| | | • Replace | | | √ | | √ | |
| 4 | * Valves | • Check valve clearance • Adjust | Every 20,000 km | | | | | |
| 5 | Air filter element | • Clean | | √ | | √ | | |
| | | • Replace | | | √ | | √ | |
| 6 | * Clutch | • Check operation, fluid level and vehicle for fluid leakage (See NOTE on page 6-4) | √ | √ | √ | √ | √ | |
| 7 | * Front brake | • Check operation, fluid level and vehicle for fluid leakage (See NOTE on page 6-4) | √ | √ | √ | √ | √ | √ |
| | | • Replace brake pads | Whenever worn to the limit | | | | | |
| 8 | * Rear brake | • Check operation, fluid level and vehicle for fluid leakage (See NOTE on page 6-4) | √ | √ | √ | √ | √ | √ |
| | | • Replace brake pads | Whenever worn to the limit | | | | | |

6

PERIODIC MAINTENANCE AND MINOR REPAIR

| NO. | ITEM | CHECK OR MAINTENANCE JOB | ODOMETER READING (× 1,000 km) | | | | | ANNUAL CHECK |
|-----|-----------------------------|---|---|----|----|----|----|--------------|
| | | | 1 | 10 | 20 | 30 | 40 | |
| 9 | * Brake hoses | • Check for cracks or damage | | √ | √ | √ | √ | √ |
| | | • Replace (See NOTE on page 6-4) | Every 4 years | | | | | |
| 10 | * Wheels | • Check runout and for damage | | √ | √ | √ | √ | |
| 11 | * Tires | • Check tread depth and for damage | | √ | √ | √ | √ | √ |
| | | • Replace if necessary • Check air pressure • Correct if necessary | | | | | | |
| 12 | * Wheel bearings | • Check bearing for looseness or damage | | √ | √ | √ | √ | |
| 13 | * Swingarm | • Check operation and for excessive play | | √ | √ | √ | √ | |
| | | • Lubricate with lithium-soap-based grease | Every 50,000 km | | | | | |
| 14 | Drive chain | • Check chain slack • 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 | | | | | |
| 15 | * Steering bearings | • Check bearing play and steering for roughness | √ | √ | √ | √ | √ | |
| | | • Lubricate with lithium-soap-based grease | Every 20,000 km | | | | | |
| 16 | * Chassis fasteners | • Make sure that all nuts, bolts and screws are properly tightened | | √ | √ | √ | √ | √ |
| 17 | Sidestand, centerstand | • Check operation • Lubricate | | √ | √ | √ | √ | √ |
| 18 | * Sidestand switch | • Check operation | √ | √ | √ | √ | √ | √ |
| 19 | * Front fork | • Check operation and for oil leakage | | √ | √ | √ | √ | |
| 20 | * Shock absorber assemblies | • Check operation and shock absorbers for oil leakage | | √ | √ | √ | √ | |
| 21 | * Carburetors | • Check starter (choke) operation • Adjust engine idling speed and synchronization | √ | √ | √ | √ | √ | √ |
| 22 | Engine oil | • Change • Check oil level and vehicle for oil leakage | √ | √ | √ | √ | √ | √ |

PERIODIC MAINTENANCE AND MINOR REPAIR

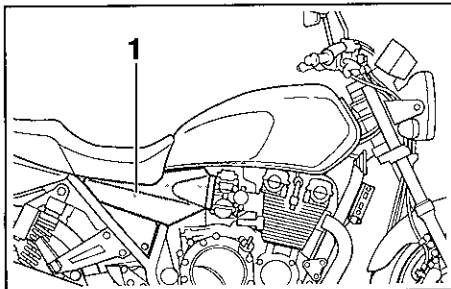
| NO. | ITEM | CHECK OR MAINTENANCE JOB | ODOMETER READING (× 1,000 km) | | | | | ANNUAL CHECK |
|-----|---------------------------------|--|-------------------------------|----|----|----|----|--------------|
| | | | 1 | 10 | 20 | 30 | 40 | |
| 23 | Engine oil filter element | • Replace | √ | | √ | | √ | |
| 24 | * Front and rear brake switches | • Check operation | √ | √ | √ | √ | √ | √ |
| 25 | Moving parts and cables | • Lubricate | | √ | √ | √ | √ | √ |
| 26 | * Lights, signals and switches | • Check operation • Adjust headlight beam | √ | √ | √ | √ | √ | √ |

EAU04408

NOTE:

- The air filter needs more frequent service if you are riding in unusually wet or dusty areas
- Hydraulic brake and clutch service
 - Regularly check and, if necessary, correct the brake and clutch fluid levels
 - Every two years replace the internal components of the brake master cylinders and calipers as well as clutch master and release cylinders, and change the brake and clutch fluids.
 - Replace the brake and clutch hoses every four years and if cracked or damaged

PERIODIC MAINTENANCE AND MINOR REPAIR



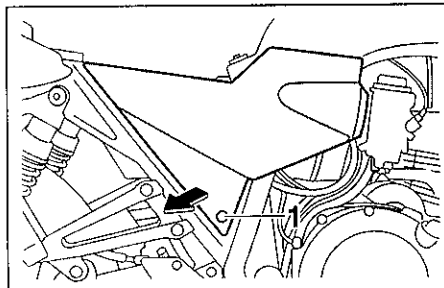
1 Panel A

EAU01777

Removing and installing the panel

The panel shown above needs to be removed to perform some of the maintenance jobs described in this chapter. Refer to this section each time the panel needs to be removed and installed.

6



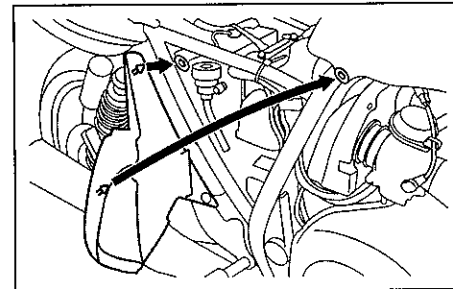
1 Screw

EAU01691

Panel A

To remove the panel

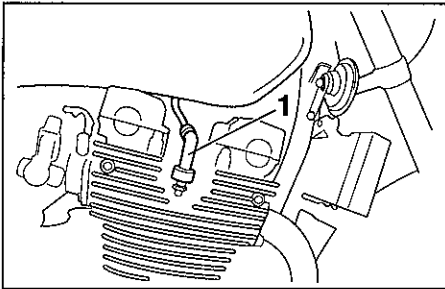
- 1 Remove the seat. (See page 3-10 for seat removal and installation procedures.)
- 2 Remove the screw, and then take the panel off.



To install the panel

- 1 Place the panel in the original position, and then install the screw.
- 2 Install the seat.

PERIODIC MAINTENANCE AND MINOR REPAIR



1 Spark plug cap (x 4)

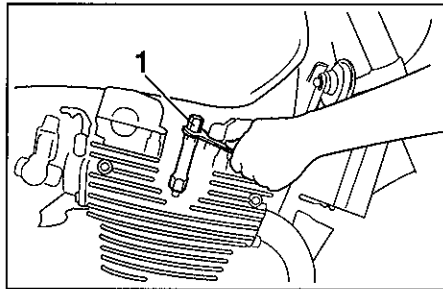
EAU03329

Checking the spark plugs

The spark plugs are important engine components, which are easy to check. Since heat and deposits will cause any spark plug to slowly erode, the spark plugs should be removed and checked in accordance with the periodic maintenance and lubrication chart. In addition, the condition of the spark plugs can reveal the condition of the engine

To remove a spark plug

- 1 Remove the spark plug cap



1 Spark plug wrench

2. Remove the spark plug as shown, with the spark plug wrench included in the owner's tool kit.

To check the spark plugs

1. Check that the porcelain insulator around the center electrode on each spark plug is a medium-to-light tan (the ideal color when the motorcycle is ridden normally).
2. Check that all spark plugs installed in the engine have the same color

NOTE:

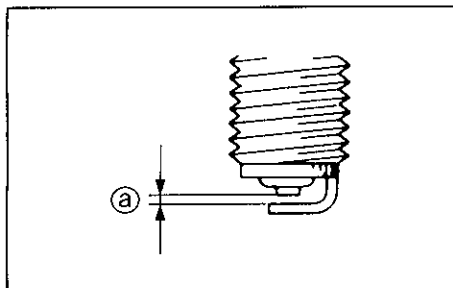
If any spark plug shows a distinctly different color, the engine could be defective. Do not attempt to diagnose such problems yourself. Instead, have a Yamaha dealer check the motorcycle

- 3 Check each spark plug for electrode erosion and excessive carbon or other deposits, and replace it if necessary

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

PERIODIC MAINTENANCE AND MINOR REPAIR

EAU04409



a Spark plug gap

To install a spark plug

- 1 Measure the spark plug gap with a wire thickness gauge and, if necessary, adjust the gap to specification

Spark plug gap
0.8–0.9 mm

- 2 Clean the surface of the spark plug gasket and its mating surface, and then wipe off any grime from the spark plug threads.

- 3 Install the spark plug with the spark plug wrench, and then tighten it to the specified torque.

Tightening torque
Spark plug
17.5 Nm (1.75 m·kgf)

NOTE:

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

- 4 Install the spark plug cap.

Engine oil and oil filter element

The engine oil level should be checked before each ride. In addition, the oil must be changed and the oil filter element replaced at the intervals specified in the periodic maintenance and lubrication chart.

To check the engine oil level

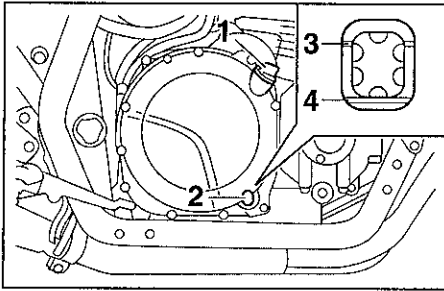
- 1 Place the motorcycle on the centerstand.

NOTE:

Make sure that the motorcycle is positioned straight up when checking the oil level. A slight tilt to the side can result in a false reading.

- 2 Start the engine, warm it up for several minutes, and then turn it off.

PERIODIC MAINTENANCE AND MINOR REPAIR

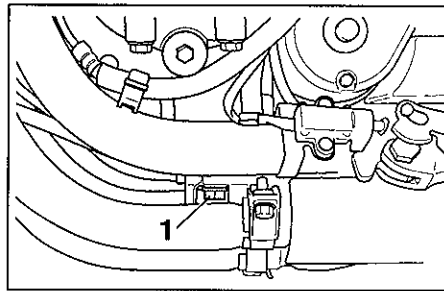


- 1 Engine oil filler cap
- 2 Engine oil level check window
- 3 Maximum level mark
- 4 Minimum level mark

- 3 Wait a few minutes until the oil settles, and then check the oil level through the check window located at the bottom-right side of the crankcase.

NOTE: _____
The engine oil should be between the minimum and maximum level marks

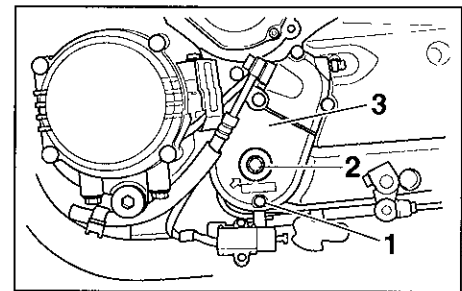
- 4 If the engine oil is below the minimum level mark, add sufficient oil of the recommended type to raise it to the correct level



- 1 Engine oil drain bolt

To change the engine oil (with or without oil filter element replacement)

- 1 Start the engine, warm it up for several minutes, and then turn it off
- 2 Place an oil pan under the engine to collect the used oil
- 3 Remove the engine oil filler cap and drain bolt to drain the oil from the crankcase

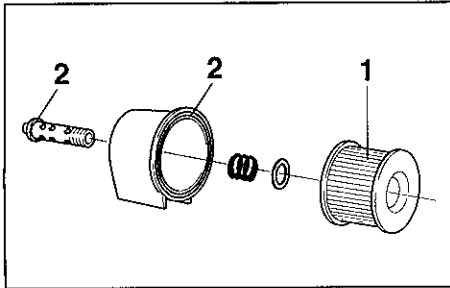


- 1 Oil filter element drain screw
- 2 Bolt
- 3 Oil filter element cover

NOTE: _____
Skip steps 4–8 if the oil filter element is not being replaced

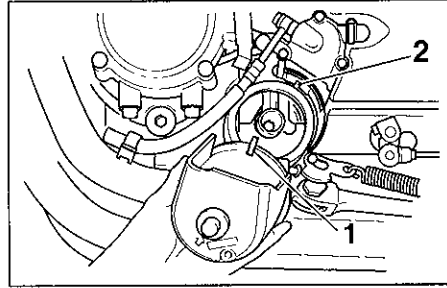
4. Remove the oil filter element drain screw to drain the oil from the oil filter element
- 5 Remove the oil filter element cover by removing the bolt

PERIODIC MAINTENANCE AND MINOR REPAIR



- 1 Oil filter element
- 2 O-ring (x 2)

6. Remove and replace the oil filter element and O-ring



- 1 Projection
- 2 Slot

7 Install the oil filter element cover by aligning the projection on the cover with the slot in the crankcase, installing the bolt, then tightening it to the specified torque

Tightening torque.
Oil filter element cover bolt
15 Nm (1.5 m.kgf)

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

8 Install the oil filter element drain screw, and then tighten it to the specified torque

Tightening torque.
Oil filter element drain screw.
7 Nm (0.7 m.kgf)

9. Install the engine oil drain bolt, and then tighten it to the specified torque

Tightening torque
Engine oil drain bolt
43 Nm (4.3 m.kgf)

10. Add the specified amount of the recommended engine oil, and then install and tighten the oil filler cap.

PERIODIC MAINTENANCE AND MINOR REPAIR

Recommended engine oil:

See page 8-1

Oil quantity:

Without oil filter element
replacement

3.0 L

With oil filter element
replacement:

3.35 L

Total amount (dry engine)

4.2 L

ECA00105

CAUTION

- In order to prevent clutch slippage (since the engine oil also lubricates the clutch), do not mix any chemical additives with the oil or use oils of grade "CD" or higher. In addition, do not use oils labeled "ENERGY CONSERVING II" or higher.
- Make sure that no foreign material enters the crankcase.

- 11 Start the engine, and then let it idle for several minutes while checking it for oil leakage. If oil is leaking, immediately turn the engine off and check for the cause.

NOTE:

After the engine is started, the engine oil level warning light should go off if the oil level is sufficient.

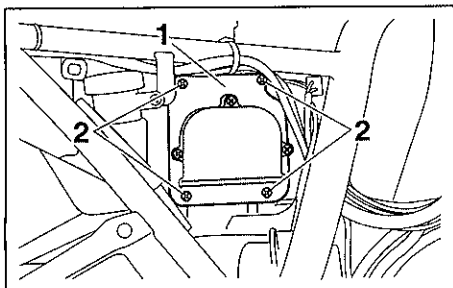
EC000067

CAUTION

If the oil level warning light flickers or remains on, immediately turn the engine off and have a Yamaha dealer check the vehicle.

12. Turn the engine off, and then check the oil level and correct it if necessary.

PERIODIC MAINTENANCE AND MINOR REPAIR



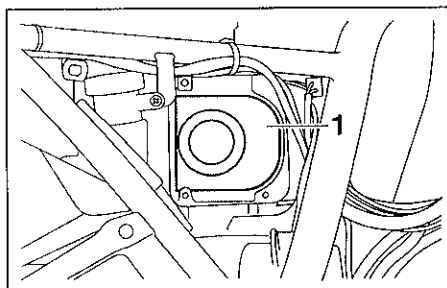
- 1 Air filter case cover
- 2 Screw (x 4)

EAU01070*

Cleaning the air filter element

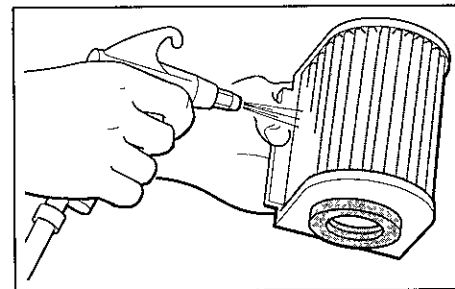
The air filter element should be cleaned at the intervals specified in the periodic maintenance and lubrication chart. Clean the air filter element more frequently if you are riding in unusually wet or dusty areas.

- 1 Remove the seat. (See page 3-10 for seat removal and installation procedures)
2. Remove panel A. (See page 6-5 for panel removal and installation procedures)
3. Remove the air filter case cover by removing the screws



- 1 Air filter element

- 4 Pull the air filter element out



5. Lightly tap the air filter element to remove most of the dust and dirt, and then blow the remaining dirt out with compressed air as shown. If the air filter element is damaged, replace it.
- 6 Insert the air filter element into the air filter case.

PERIODIC MAINTENANCE AND MINOR REPAIR

EC000082*

EAU00630

CAUTION

- **Make sure that the air filter element is properly seated in the air filter case.**
- **The engine should never be operated without the air filter element installed, otherwise the pistons and/or cylinders may become excessively worn.**

- 7 Install the air filter case cover by installing the screws
- 8 Install the panel and the seat.

Adjusting the carburetors

The carburetors are important parts of the engine and require very sophisticated adjustment. Therefore, most carburetor adjustments should be left to a Yamaha dealer, who has the necessary professional knowledge and experience. The adjustment described in the following section, however, may be serviced by the owner as part of routine maintenance.

EC000095

CAUTION

The carburetors have been set and extensively tested at the Yamaha factory. Changing these settings without sufficient technical knowledge may result in poor performance of or damage to the engine.

PERIODIC MAINTENANCE AND MINOR REPAIR

Adjusting the engine idling speed

EAU00632

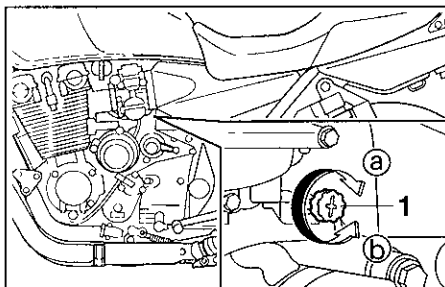
The engine idling speed must be checked and, if necessary, adjusted as follows at the intervals specified in the periodic maintenance and lubrication chart

- 1 Start the engine and warm it up for several minutes at 1,000–2,000 r/min while occasionally revving it to 4,000–5,000 r/min

NOTE:

The engine is warm when it quickly responds to the throttle

6



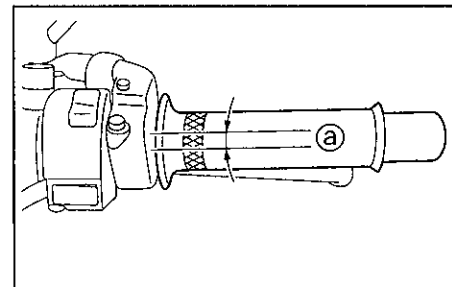
1 Throttle stop screw

- 2 Check the engine idling speed and, if necessary, adjust it to specification by turning the throttle stop screw. To increase the engine idling speed, turn the screw in direction (a). To decrease the engine idling speed, turn the screw in direction (b)

Engine idling speed
950–1,150 r/min

NOTE:

If the specified idling speed cannot be obtained as described above, have a Yamaha dealer make the adjustment



a Throttle cable free play

EAU00635

Adjusting the throttle cable free play

The throttle cable free play should measure 3–5 mm at the throttle grip. Periodically check the throttle cable free play and, if necessary, have a Yamaha dealer adjust it

PERIODIC MAINTENANCE AND MINOR REPAIR

EAU00637

Adjusting the valve clearance

The valve clearance changes with use, resulting in improper air-fuel mixture and/or engine noise. To prevent this from occurring, the valve clearance must be adjusted by a Yamaha dealer at the intervals specified in the periodic maintenance and lubrication chart.

EAU03296

Tires

To maximize the performance, durability, and safe operation of your motorcycle, note the following points regarding the specified tires

Tire air pressure

The tire air pressure should be checked and, if necessary, adjusted before each ride.

EW000082

WARNING

- The tire air pressure must be checked and adjusted on cold tires (i.e., when the temperature of the tires equals the ambient temperature).
- The tire air pressure must be adjusted in accordance with the riding speed and with the total weight of rider, passenger, cargo, and accessories approved for this model.

Tire air pressure
(measured on cold tires)

| Load* | Front | Rear |
|-------------------|---|---|
| Up to 90 kg | 250 kPa (2.50 kgf/cm ² , 2.50 bar) | 250 kPa (2.50 kgf/cm ² , 2.50 bar) |
| 90 kg—maximum | 250 kPa (2.50 kgf/cm ² , 2.50 bar) | 290 kPa (2.90 kgf/cm ² , 2.90 bar) |
| High-speed riding | 250 kPa (2.50 kgf/cm ² , 2.50 bar) | 290 kPa (2.90 kgf/cm ² , 2.90 bar) |

| | |
|---------------|--------|
| Maximum load* | 203 kg |
|---------------|--------|

* Total weight of rider, passenger, cargo and accessories

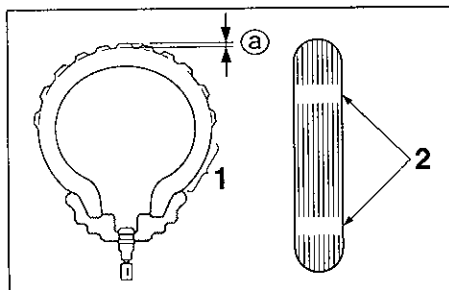
PERIODIC MAINTENANCE AND MINOR REPAIR

EW000083

⚠ 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 that the total weight of the cargo, rider, passenger, and accessories (cowling, 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.

6



- 1 Tire sidewall
- 2 Tire wear indicator
- a Tire tread depth

Tire inspection

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

EW000079

⚠ WARNING

- Have a Yamaha dealer replace excessively worn tires. Besides being illegal, operating the motorcycle with excessively worn tires decreases riding stability and can lead to loss of control.
- The replacement of all wheel- and brake-related parts, including the tires, should be left to a Yamaha dealer, who has the necessary professional knowledge and experience.

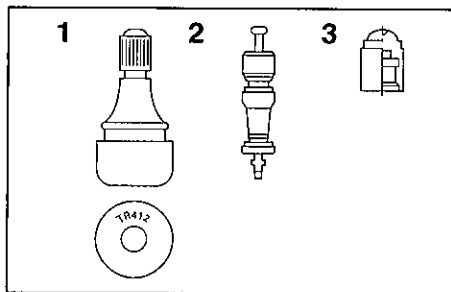
| | |
|--|--------|
| Minimum tire tread depth (front and rear) | 1 0 mm |
|--|--------|

NOTE:

The tire tread depth limits may differ from country to country. Always comply with the local regulations.

PERIODIC MAINTENANCE AND MINOR REPAIR

EAU00684



- 1 Tire air valve
- 2 Tire air valve core
- 3 Tire air valve cap with seal

Tire information

This motorcycle is equipped with cast wheels and tubeless tires with valves.

EW000080

WARNING

- The front and rear tires should be of the same make and design, otherwise the handling characteristics of the motorcycle cannot be guaranteed.
- After extensive tests, only the tires listed below have been approved for this model by Yamaha Motor Co., Ltd.

- Always make sure that the valve caps are securely installed to prevent air pressure leakage.
- Use only the tire valves and valve cores listed below to avoid tire deflation during a high-speed ride.

FRONT

| Manufacturer | Size | Model |
|--------------|----------------------|-------------|
| Dunlop | 120/70ZR17 (58W) | D220F ST M |
| | 120/70ZR17 M/C (58W) | |
| Michelin | 120/70ZR17 (58W) | MACADAM90XE |
| | 120/70ZR17 M/C (58W) | |

REAR

| Manufacturer | Size | Model |
|--------------|----------------------|-------------|
| Dunlop | 180/55ZR17 (73W) | D220 ST M |
| | 180/55ZR17 M/C (73W) | |
| Michelin | 180/55ZR17 (73W) | MACADAM90XE |
| | 180/55ZR17 M/C (73W) | |

| FRONT & REAR | |
|----------------|-------------------|
| Tire air valve | TR412 |
| Valve core | #9000A (original) |

WARNING

This motorcycle is fitted with super-high-speed tires. Note the following points in order to make the most efficient use of these tires.

- Use only the specified replacement tires. Other tires may run the danger of bursting at super high speeds.
- Brand-new tires can have a relatively poor grip on certain road surfaces until they have been "broken in". Therefore, it is advisable before doing any high-speed riding to ride conservatively for approximately 100 km after installing a new tire.
- The tires must be warmed up before a high-speed run.
- Always adjust the tire air pressure according to the operating conditions.

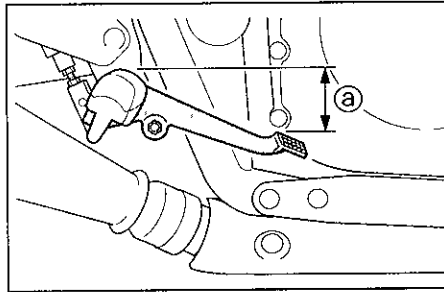
PERIODIC MAINTENANCE AND MINOR REPAIR

EAU03773

Cast wheels

To maximize the performance, durability, and safe operation of your motorcycle, note the following points regarding the specified wheels

- The wheel rims should be checked for cracks, bends or warpage before each ride. If any damage is found, have a Yamaha dealer replace the wheel. Do not attempt even the smallest repair to the wheel. A deformed or cracked wheel must be replaced.
- The wheel should be balanced whenever either the tire or wheel has been changed or replaced. An unbalanced wheel can result in poor performance, adverse handling characteristics, and a shortened tire life.
- 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 Distance between brake pedal and footrest

EAU00712

Adjusting the brake pedal position

The top of the brake pedal should be positioned approximately 40 mm below the top of the footrest as shown. Periodically check the brake pedal position and, if necessary, have a Yamaha dealer adjust it.

EW000109

⚠ WARNING

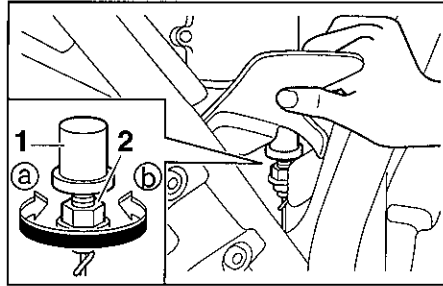
A soft or spongy feeling in the brake pedal can indicate the presence of air in the hydraulic system. If there is air in the hydraulic system, have a Yamaha dealer bleed the system before operating the motorcycle. Air in the hydraulic system will diminish the braking performance, which may result in loss of control and an accident.

EAU01756

Rear brake light switch adjustment

The rear brake light switch, which is activated by the brake pedal, is properly adjusted when the brake light comes on just before braking takes effect. If necessary, adjust the brake light switch as follows

1. Remove panel A (See page 6-5 for panel removal and installation procedures.)

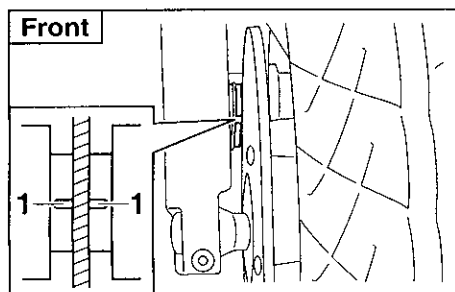


1 Rear brake light switch

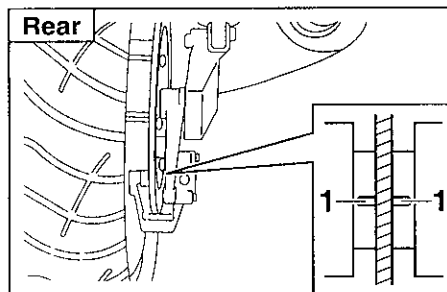
2 Rear brake light switch adjusting nut

2. Turn the adjusting nut while holding the rear brake light switch in place. To make the brake light come on earlier, turn the adjusting nut in direction Ⓐ To make the brake light come on later, turn the adjusting nut in direction Ⓑ
3. Install the panel

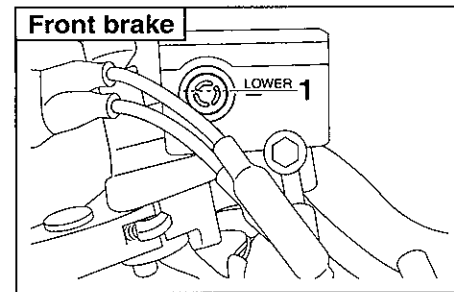
PERIODIC MAINTENANCE AND MINOR REPAIR



1 Brake pad wear indicator groove



1 Brake pad wear indicator groove



1 Minimum level mark

Checking the front and rear brake pads

EAU01314

The front and rear brake pads must be checked for wear at the intervals specified in the periodic maintenance and lubrication chart. Each brake pad is provided with a wear indicator groove, which allows you to check the brake pad wear without having to disassemble the brake.

To check the brake pad wear, check the wear indicator grooves. If a brake pad has worn to the point that the wear indicator groove has almost disappeared, have a Yamaha dealer replace the brake pads as a set.

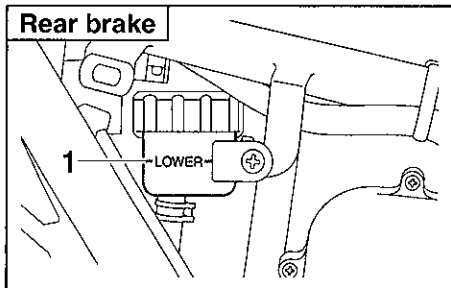
Checking the brake and clutch fluid levels

EAU04169

Insufficient brake fluid may allow air to enter the brake or clutch systems, possibly causing them to become ineffective.

Before riding, check that the brake fluid is above the minimum level mark and replenish if necessary. A low brake fluid level may indicate worn brake pads and/or brake system leakage. If the brake level is low, be sure to check the brake pads for wear and the brake system for leakage.

PERIODIC MAINTENANCE AND MINOR REPAIR



1 Minimum level mark

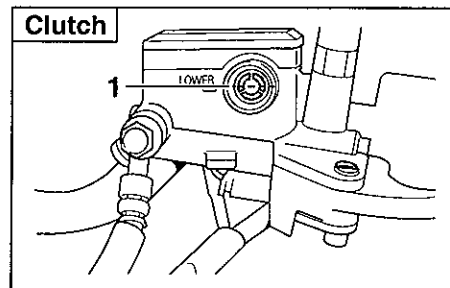
NOTE:

The rear brake fluid reservoir is located behind panel A. (See page 6-5 for panel removal and installation procedures)

Observe these precautions:

- When checking the fluid level, make sure that the top of the brake or clutch fluid reservoir is level
- Use only the recommended quality brake fluid, otherwise the rubber seals may deteriorate, causing leakage and poor braking or clutch performance.

Recommended brake and clutch fluid DOT 4 brake fluid



1 Minimum level mark

- Refill with the same type of brake fluid. Mixing fluids may result in a harmful chemical reaction and lead to poor braking or clutch performance
- The brake or clutch fluid reservoir diaphragm will lose its shape from the negative pressure if the fluid level goes down too far. Be sure to return the diaphragm to its original shape before installing it into the brake or clutch fluid reservoir.

PERIODIC MAINTENANCE AND MINOR REPAIR

EAU03984

EAU00745

- Be careful that water does not enter the brake or clutch fluid reservoir when refilling. Water will significantly lower the boiling point of the fluid and may result in vapor lock
- Brake fluid may deteriorate painted surfaces or plastic parts. Always clean up spilled fluid immediately.
- As the brake pads wear, it is normal for the brake fluid level to gradually go down. However, if the brake fluid level goes down suddenly, have a Yamaha dealer check the cause.

Changing the brake and clutch fluids

Have a Yamaha dealer change the brake and clutch fluids at the intervals specified in the NOTE after the periodic maintenance and lubrication chart. In addition, have the oil seals of the brake and clutch master cylinders and calipers as well as the brake and clutch hoses replaced at the intervals listed below or whenever they are damaged or leaking

- Oil seals: Replace every two years
- Brake and clutch hoses. Replace every four years

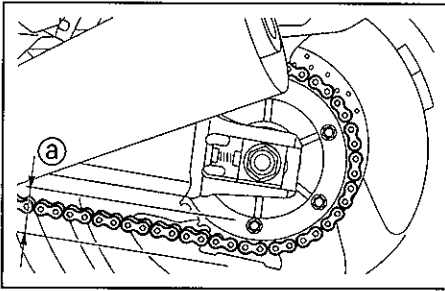
Drive chain slack

The drive chain slack should be checked before each ride and adjusted if necessary.

To check the drive chain slack

- 1 Place the motorcycle on the centerstand.

PERIODIC MAINTENANCE AND MINOR REPAIR

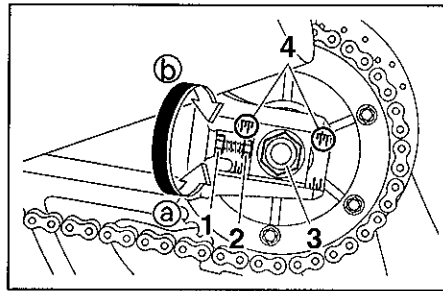


a Drive chain slack

2. Shift the transmission into the neutral position
3. Spin the rear wheel several times to locate the tightest portion of the drive chain
4. Measure the drive chain slack as shown.

Drive chain slack
20–30 mm

5. If the drive chain slack is incorrect, adjust it as follows



- 1 Locknut
- 2 Drive chain slack adjusting bolt
- 3 Axle nut
- 4 Alignment marks

EAU03608

To adjust the drive chain slack

1. Loosen the axle nut and the locknut on each side of the swingarm
2. To tighten the drive chain, turn the adjusting bolt on each side of the swingarm in direction (a). To loosen the drive chain, turn the adjusting bolt on each side of the swingarm in direction (b), and then push the rear wheel forward

NOTE:

Using the alignment marks on each side of the swingarm, make sure that both chain pullers are in the same position for proper wheel alignment.

EC000096

CAUTION:

Improper drive chain slack will overload the engine as well as other vital parts of the motorcycle and can lead to chain slippage or breakage. To prevent this from occurring, keep the drive chain slack within the specified limits.

3. Tighten the locknuts, and then tighten the axle nut to the specified torque.

Tightening torque:

Axle nut
150 Nm (15.0 m·kgf)

PERIODIC MAINTENANCE AND MINOR REPAIR

Lubricating the drive chain

EAU03006

The drive chain must be cleaned and lubricated at the intervals specified in the periodic maintenance and lubrication chart, otherwise it will quickly wear out, especially when riding in dusty or wet areas. Service the drive chain as follows.

EC000007

CAUTION:

The drive chain must be lubricated after washing the motorcycle or riding in the rain.

1. Clean the drive chain with kerosene and a small soft brush

ECA00053

CAUTION:

To prevent damaging the O-rings, do not clean the drive chain with steam cleaners, high-pressure washers or inappropriate solvents.

2. Wipe the drive chain dry
3. Thoroughly lubricate the drive chain with a special O-ring chain lubricant

ECA00052

CAUTION:

Do not use engine oil or any other lubricants for the drive chain, as they may contain substances that could damage the O-rings.

EAU02962

Checking and lubricating the cables

The operation of all control cables and the condition of the cables should be checked before each ride, and the cables and cable ends should be lubricated if necessary. If a cable is damaged or does not move smoothly, have a Yamaha dealer check or replace it.

Recommended lubricant.
Engine oil

EW000112

WARNING

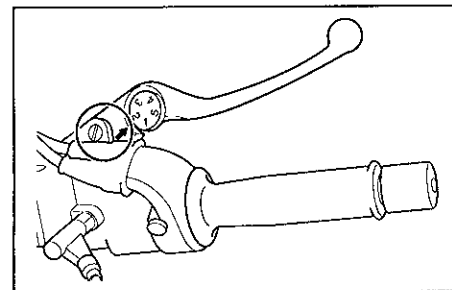
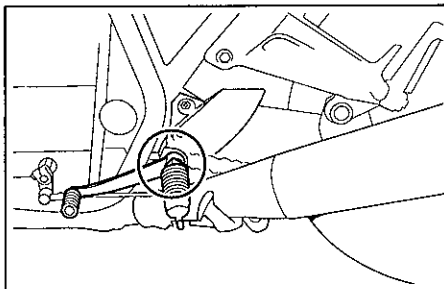
Damage to the outer sheath may interfere with proper cable operation and will cause the inner cable to rust. Replace a damaged cable as soon as possible to prevent unsafe conditions.

PERIODIC MAINTENANCE AND MINOR REPAIR

Checking and lubricating the throttle grip and cable

EAU04034

The operation of the throttle grip should be checked before each ride. In addition, the cable should be lubricated or replaced at the intervals specified in the periodic maintenance chart.



Checking and lubricating the brake and shift pedals

EAU03370

The operation of the brake and shift pedals should be checked before each ride, and the pedal pivots should be lubricated if necessary.

Recommended lubricant
Lithium-soap-based grease
(all-purpose grease)

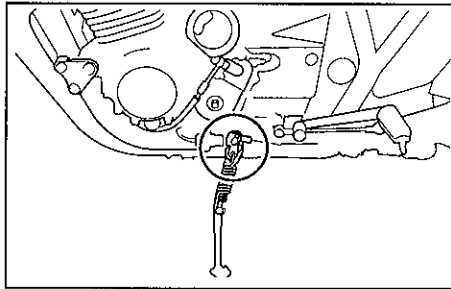
Checking and lubricating the brake and clutch levers

EAU03164

The operation of the brake and clutch levers should be checked before each ride, and the lever pivots should be lubricated if necessary.

Recommended lubricant
Lithium-soap-based grease
(all-purpose grease)

PERIODIC MAINTENANCE AND MINOR REPAIR



Recommended lubricant:
Lithium-soap-based grease
(all-purpose grease)

EAU03371

Checking and lubricating the centerstand and sidestand

The operation of the centerstand and sidestand should be checked before each ride, and the pivots and metal-to-metal contact surfaces should be lubricated if necessary.

EW000114

⚠ WARNING

If the centerstand or sidestand does not move up and down smoothly, have a Yamaha dealer check or repair it.

EAU02939

Checking the front fork

The condition and operation of the front fork must be checked as follows at the intervals specified in the periodic maintenance and lubrication chart

To check the condition

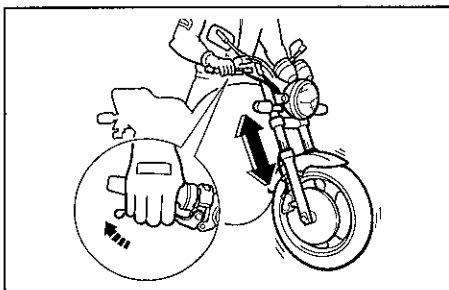
EW000115

⚠ WARNING

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

Check the inner tubes for scratches, damage and excessive oil leakage

PERIODIC MAINTENANCE AND MINOR REPAIR



To check the operation

1. Place the motorcycle on a level surface and hold it in an upright position.
2. While applying the front brake, push down hard on the handlebars several times to check if the front fork compresses and rebounds smoothly

EC000098

CAUTION:

If any damage is found or the front fork does not operate smoothly, have a Yamaha dealer check or repair it.

EAU00794

Checking the steering

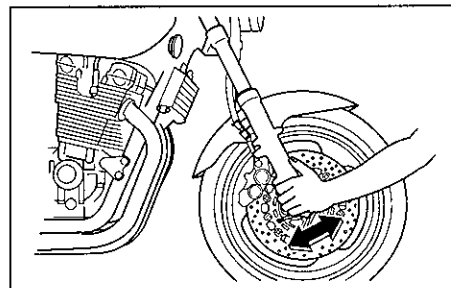
Worn or loose steering bearings may cause danger. Therefore, the operation of the steering must be checked as follows at the intervals specified in the periodic maintenance and lubrication chart

1. Place a stand under the engine to raise the front wheel off the ground

EW000115

WARNING

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



2. Hold the lower ends of the front fork legs and try to move them forward and backward. If any free play can be felt, have a Yamaha dealer check or repair the steering

PERIODIC MAINTENANCE AND MINOR REPAIR

Checking the wheel bearings

EAU01144

The front and rear wheel bearings must be checked at the intervals specified in the periodic maintenance and lubrication chart. If there is play in the wheel hub or if the wheel does not turn smoothly, have a Yamaha dealer check the wheel bearings.

Battery

EAU00800

This motorcycle is equipped with a sealed-type (MF) battery, which does not require any maintenance. There is no need to check the electrolyte or to add distilled water.

EC000101

CAUTION:

Never attempt to remove the battery cell seals, as this would permanently damage the battery.

EW000116

WARNING

- Electrolyte is poisonous and dangerous since it contains sulfuric acid, which causes severe burns. Avoid any contact with skin, eyes or clothing and always shield your eyes when working near batteries. In case of contact, administer the following FIRST AID.

- **EXTERNAL:** Flush with plenty of water.
 - **INTERNAL:** Drink large quantities of water or milk and immediately call a physician.
 - **EYES:** Flush with water for 15 minutes and seek prompt medical attention.
 - Batteries produce explosive hydrogen gas. Therefore, keep sparks, flames, cigarettes, etc., away from the battery and provide sufficient ventilation when charging it in an enclosed space.
 - **KEEP THIS AND ALL BATTERIES OUT OF THE REACH OF CHILDREN.**
-

PERIODIC MAINTENANCE AND MINOR REPAIR

EC000102

To charge the battery

Have a Yamaha dealer charge the battery as soon as possible if it seems to have discharged. Keep in mind that the battery tends to discharge more quickly if the motorcycle is equipped with optional electrical accessories.

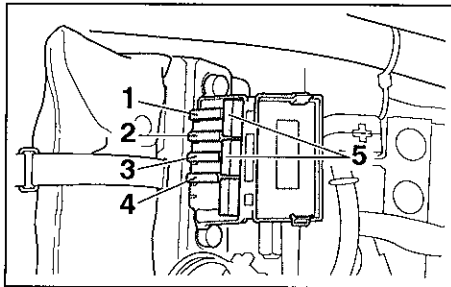
To store the battery

- 1 If the motorcycle will not be used for more than one month, remove the battery, fully charge it, and then place it in a cool, dry place.
- 2 If the battery will be stored for more than two months, check it at least once a month and fully charge it if necessary.
- 3 Fully charge the battery before installation.
- 4 After installation, make sure that the battery leads are properly connected to the battery terminals.

CAUTION

- **Always keep the battery charged. Storing a discharged battery can cause permanent battery damage.**
- **To charge a sealed-type (MF) battery, a special (constant-voltage) battery charger is required. Using a conventional battery charger will damage the battery. If you do not have access to a sealed-type (MF) battery charger, have a Yamaha dealer charge your battery.**

PERIODIC MAINTENANCE AND MINOR REPAIR



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

EAU04410

6

Replacing the fuses

The fuse box is located under the seat (See page 3-10 for seat removal and installation procedures.)

If a fuse is blown, replace it as follows

- 1 Turn the key to "OFF" and turn off the electrical circuit in question.
- 2 Remove the blown fuse, and then install a new fuse of the specified amperage.

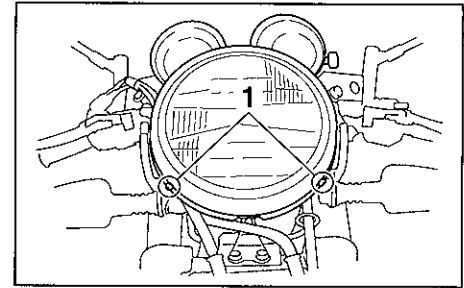
| Specified fuses | |
|-----------------------|------|
| Main fuse: | 40 A |
| Ignition fuse | 15 A |
| Signaling system fuse | 15 A |
| Headlight fuse | 15 A |

EC000103

CAUTION!

Do not use a fuse of a higher amperage rating than recommended to avoid causing extensive damage to the electrical system and possibly a fire.

- 3 Turn the key to "ON" and turn on the electrical circuit in question to check if the device operates
- 4 If the fuse immediately blows again, have a Yamaha dealer check the electrical system.



- 1 Screw (x 2)

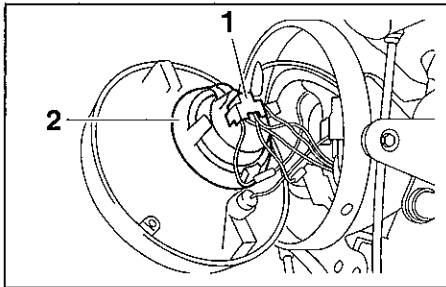
EAU04189

Replacing the headlight bulb

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

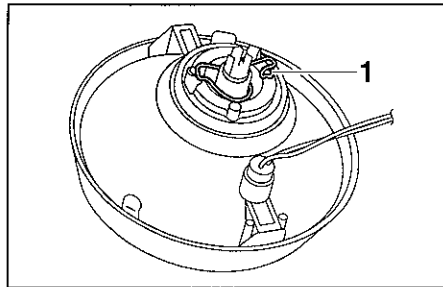
1. Remove the headlight unit by removing the screws

PERIODIC MAINTENANCE AND MINOR REPAIR



- 1 Headlight coupler
- 2 Bulb cover

2 Disconnect the headlight coupler, and then remove the bulb cover.



- 1 Headlight bulb holder

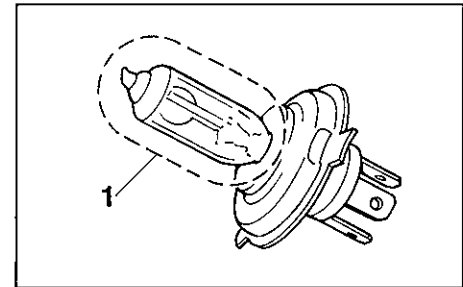
3. Unhook the headlight bulb holder, and then remove the defective bulb

EW000119

⚠ WARNING

Headlight bulbs get very hot. Therefore, keep flammable products away from a lit headlight bulb, and do not touch the bulb until it has cooled down.

4 Place a new headlight bulb into position, and then secure it with the bulb holder



- 1 Do not touch this area

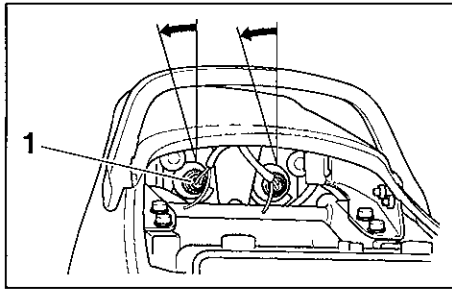
EC000105

CAUTION:

Do not touch the glass part of the headlight bulb to keep it free from oil, otherwise the transparency of the glass, the luminosity of the bulb, and the bulb life will be adversely affected. Thoroughly clean off any dirt and fingerprints on the headlight bulb using a cloth moistened with alcohol or thinner.

- 5 Install the headlight bulb cover, and then connect the coupler
- 6 Install the headlight unit by installing the screws.
- 7 Have a Yamaha dealer adjust the headlight beam if necessary

PERIODIC MAINTENANCE AND MINOR REPAIR

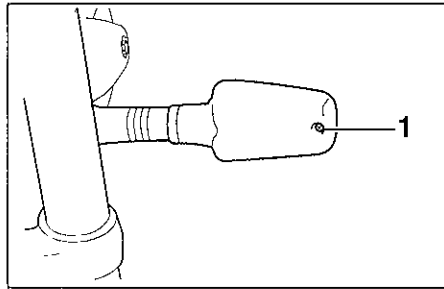


1 Tail/brake light bulb socket

EAU04411

Replacing a tail/brake light bulb

- 1 Remove the seat (See page 3-10 for seat removal and installation procedures.)
- 2 Remove the socket (together with the bulb) by turning it counter-clockwise
3. Remove the defective bulb by pushing it in and turning it counter-clockwise.
4. Insert a new bulb into the socket, push it in, and then turn it clockwise until it stops
- 5 Install the socket (together with the bulb) by turning it clockwise
- 6 Install the seat

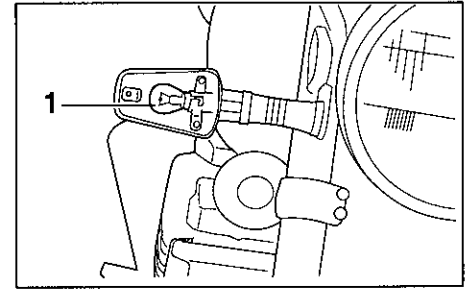


1 Screw

EAU03497

Replacing a turn signal light bulb

- 1 Remove the turn signal light lens by removing the screw.



1 Turn signal light bulb

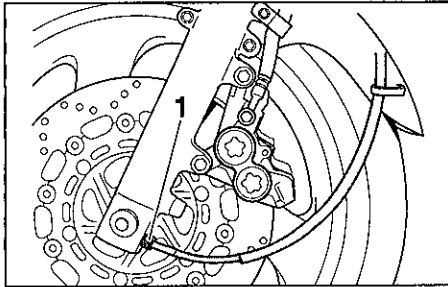
2. Remove the defective bulb by pushing it in and turning it counter-clockwise
3. Insert a new bulb into the socket, push it in, and then turn it clockwise until it stops.
4. Install the lens by installing the screw

ECA00065

CAUTION:

Do not overtighten the screw, otherwise the lens may break.

PERIODIC MAINTENANCE AND MINOR REPAIR



1 Speedometer cable

EAU00412

Front wheel

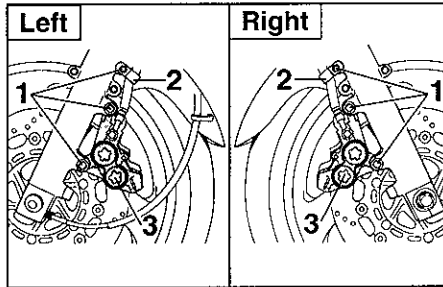
To remove the front wheel

EW000122

WARNING

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

- 1 Disconnect the speedometer cable from the front wheel



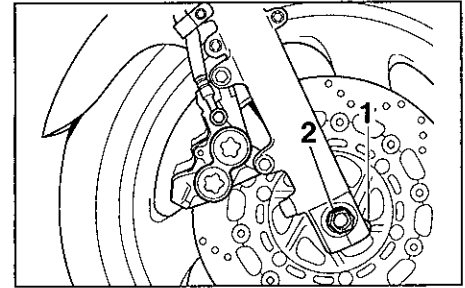
- 1 Bolt (x 3)
- 2 Brake hose holder
- 3 Front brake caliper

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

ECA00047

CAUTION

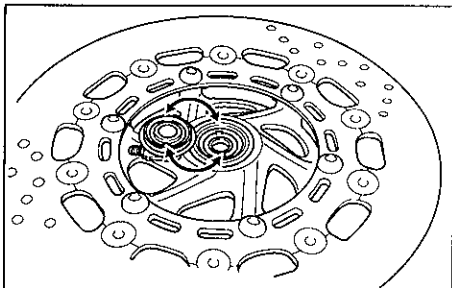
Do not pull the brake lever after the brake caliper has been removed, otherwise the brake pads will be forced shut.



- 1 Front wheel axle pinch bolt
- 2 Wheel axle

4. Loosen the front wheel axle pinch bolt, then the wheel axle
5. Place the motorcycle on the centerstand
6. Pull the wheel axle out, and then remove the wheel

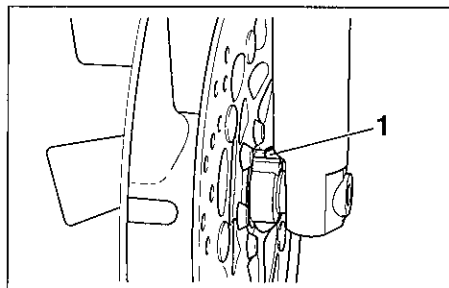
PERIODIC MAINTENANCE AND MINOR REPAIR



EAU04360

To install the front wheel

1. Install the speedometer gear unit into the wheel hub so that the projections mesh with the slots



1 Speedometer gear unit retainer

- 2 Lift the wheel up between the fork legs

NOTE:

Make sure that the slot in the speedometer gear unit fits over the retainer on the fork leg

- 3 Insert the wheel axle
- 4 Install the brake calipers by installing the bolts

NOTE:

Make sure that there is enough space between the brake pads before installing the brake calipers onto the brake discs

- 5 Install the brake hose holders by installing the bolts
6. Take the motorcycle off the centerstand so that the front wheel is on the ground.
7. Tighten the wheel axle, then the front wheel axle pinch bolt and the brake caliper bolts to the specified torques

Tightening torques:

Wheel axle

72 Nm (7.2 m·kgf)

Front wheel axle pinch bolt:

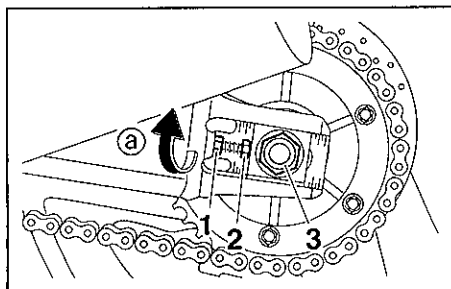
20 Nm (2.0 m·kgf)

Brake caliper bolt:

40 Nm (4.0 m·kgf)

- 8 Connect the speedometer cable
- 9 Push down hard on the handlebar several times to check for proper fork operation.

PERIODIC MAINTENANCE AND MINOR REAR



- 1 Locknut
- 2 Drive chain slack adjusting bolt
- 3 Axle nut

EAU04413

Rear wheel

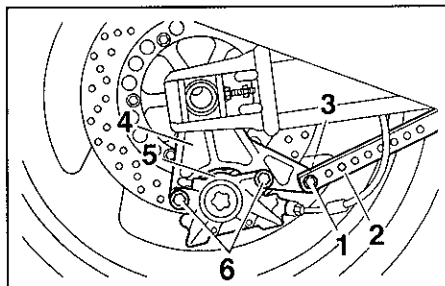
To remove the rear wheel

EW000122

WARNING

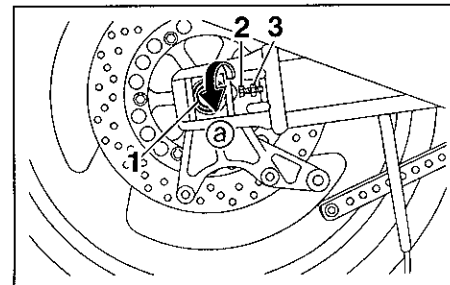
- It is advisable to have a Yamaha dealer service the wheel.
- Securely support the motorcycle so that there is no danger of it falling over.

1. Loosen the axle nut and the brake caliper bolts



- 1 Bolt
- 2 Brake torque rod
- 3 Nut
- 4 Brake caliper bracket
- 5 Brake caliper
- 6 Bolt (× 2)

- 2 Disconnect the brake torque rod from the brake caliper bracket by removing the nut and the bolt
3. Place the motorcycle on the centerstand.



- 1 Wheel axle
- 2 Drive chain slack adjusting bolt
- 3 Locknut

- 4 Remove the axle nut and the brake caliper by removing the bolts

ECA00082

CAUTION:

Do not apply the brake after the brake caliper has been removed, otherwise the brake pads will be forced shut.

5. Loosen the locknuts, and then turn the drive chain slack adjusting bolt on each side of the swingarm fully in direction @.
- 6 Push the wheel forward, and then remove the drive chain from the rear sprocket.

PERIODIC MAINTENANCE AND MINOR REPAIR

NOTE:

The drive chain does not need to be disassembled in order to remove and install the rear wheel

7. While supporting the wheel and the brake caliper bracket, pull the wheel axle out
- 8 Remove the brake caliper bracket and the wheel

EAU03895

To install the rear wheel

- 1 Place the wheel and the brake caliper bracket in the original position.
- 2 Insert the wheel axle through the brake caliper bracket and wheel from the right-hand side, and then install the axle nut
- 3 Install the drive chain onto the rear sprocket, and then adjust the drive chain slack (See page 6-22 for drive chain slack adjustment procedures)
- 4 Connect the brake torque rod to the brake caliper bracket by installing the bolt and the nut.
- 5 Install the brake caliper by installing the bolts

7. Tighten the axle nut, brake caliper bolts and brake torque rod nut to the specified torques

Tightening torques:

Axle nut

150 Nm (15.0 m.kgf)

Brake caliper bolt

40 Nm (4.0 m.kgf)

Brake torque rod nut

23 Nm (2.3 m.kgf)

NOTE:

Make sure that there is enough space between the brake pads before installing the brake caliper onto the brake disc.

- 6 Take the motorcycle off the centerstand so that the rear wheel is on the ground.

PERIODIC MAINTENANCE AND MINOR REPAIR

EAU01008

Troubleshooting

Although Yamaha motorcycles receive a thorough inspection before shipment from the factory, trouble may occur during operation. Any problem in the fuel, compression, or ignition systems, for example, can cause poor starting and loss of power.

The following troubleshooting chart represents a quick and easy procedure for checking these vital systems yourself. However, should your motorcycle require any repair, take it to a Yamaha dealer, whose skilled technicians have the necessary tools, experience, and know-how to service the motorcycle properly.

Use only genuine Yamaha replacement parts. Imitation parts may look like Yamaha parts, but they are often inferior, have a shorter service life and can lead to expensive repair bills.

PERIODIC MAINTENANCE AND MINOR REPAIR

EAJ01297

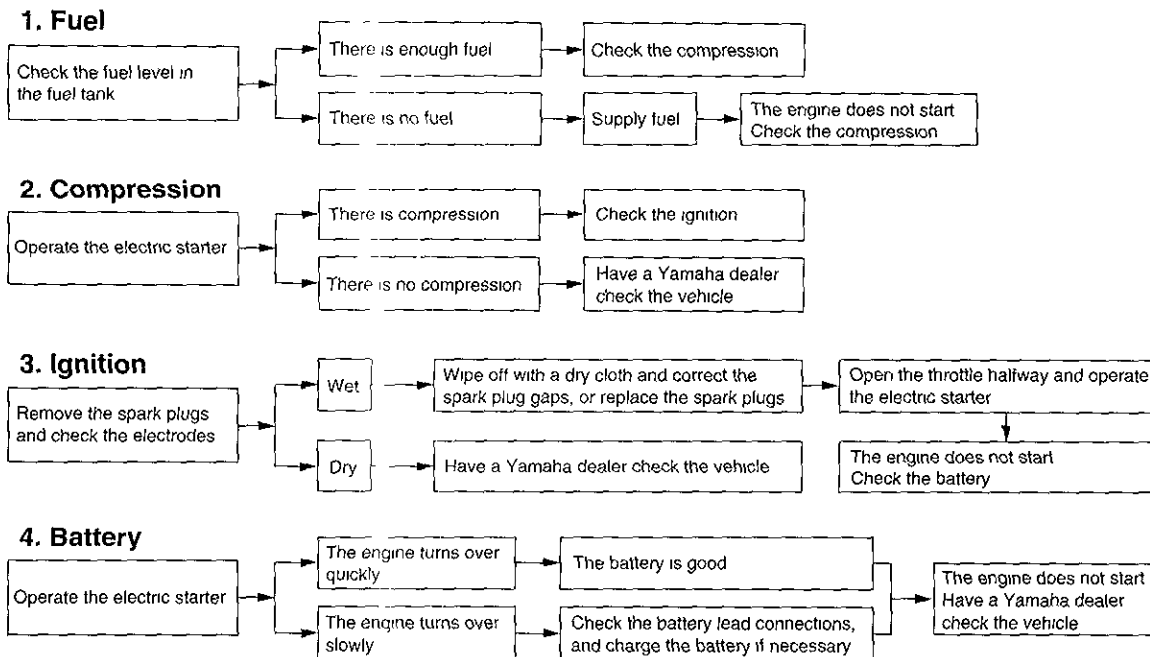
Troubleshooting chart

EW000125



WARNING

Keep away from open flames and do not smoke while checking or working on the fuel system.



MOTORCYCLE CARE AND STORAGE

| | |
|---------------|-----|
| Care | 7-1 |
| Storage | 7-4 |

Care

While the open design of a motorcycle reveals the attractiveness of the technology, it also makes it more vulnerable. Rust and corrosion can develop even if high-quality components are used. A rusty exhaust pipe may go unnoticed on a car, however, it detracts from the overall appearance of a motorcycle. Frequent and proper care does not only comply with the terms of the warranty, but it will also keep your motorcycle looking good, extend its life and optimize its performance.

7

Before cleaning

- 1 Cover the muffler outlets with plastic bags after the engine has cooled down.
- 2 Make sure that all caps and covers as well as all electrical couplers and connectors, including the spark plug caps, are tightly installed.
- 3 Remove extremely stubborn dirt, like oil burnt onto the crankcase, with a degreasing agent and a brush, but never apply such products onto seals, gaskets, sprockets, the drive chain and wheel axles. Always rinse the dirt and degreaser off with water.

Cleaning

ECA00010

CAUTION:

- **Avoid using strong acidic wheel cleaners, especially on spoked wheels. If such products are used on hard-to-remove dirt, do not leave the cleaner on the affected area any longer than instructed. Also, thoroughly rinse the area off with water, immediately dry it, and then apply a corrosion protection spray.**
- **Improper cleaning can damage windshields, cowlings, panels and other plastic parts. Use only a soft, clean cloth or sponge with mild detergent and water to clean plastic.**

MOTORCYCLE CARE AND STORAGE

- Do not use any harsh chemical products on plastic parts. Be sure to avoid using cloths or sponges which have been in contact with strong or abrasive cleaning products, solvent or thinner, fuel (gasoline), rust removers or inhibitors, brake fluid, antifreeze or electrolyte.
- Do not use high-pressure washers or steam-jet cleaners since they cause water seepage and deterioration in the following areas: seals (of wheel and swing-arm bearings, fork and brakes), electric components (couplers, connectors, instruments, switches and lights), breather hoses and vents.

- For motorcycles equipped with a windshield: Do not use strong cleaners or hard sponges as they will cause dulling or scratching. Some cleaning compounds for plastic may leave scratches on the windshield. Test the product on a small hidden part of the windshield to make sure that it does not leave any marks. If the windshield is scratched, use a quality plastic polishing compound after washing.

After normal use

Remove dirt with warm water, a mild detergent, and a soft, clean sponge, and then rinse thoroughly with clean water. Use a toothbrush or bottlebrush for hard-to-reach areas. Stubborn dirt and insects will come off more easily if the area is covered with a wet cloth for a few minutes before cleaning.

After riding in the rain, near the sea or on salt-sprayed roads

Since sea salt or salt sprayed on roads during winter are extremely corrosive in combination with water, carry out the following steps after each ride in the rain, near the sea or on salt-sprayed roads

NOTE:

Salt sprayed on roads in the winter may remain well into spring

- 1 Clean the motorcycle with cold water and a mild detergent, after the engine has cooled down.

ECA00012

CAUTION:

Do not use warm water since it increases the corrosive action of the salt.

2. After drying the motorcycle, apply a corrosion protection spray on all metal, including chrome- and nickel-plated, surfaces to prevent corrosion

MOTORCYCLE CARE AND STORAGE

EWA00001

ECA00013

After cleaning

1. Dry the motorcycle with a chamois or an absorbing cloth
2. Immediately dry the drive chain and lubricate it to prevent it from rusting
3. Use a chrome polish to shine chrome, aluminum and stainless-steel parts, including the exhaust system (Even the thermally induced discoloring of stainless-steel exhaust systems can be removed through polishing.)
4. To prevent corrosion, it is recommended to apply a corrosion protection spray on all metal, including chrome- and nickel-plated, surfaces
5. Use spray oil as a universal cleaner to remove any remaining dirt
6. Touch up minor paint damage caused by stones, etc.
7. Wax all painted surfaces
8. Let the motorcycle dry completely before storing or covering it.

WARNING

- **Make sure that there is no oil or wax on the brakes or tires. If necessary, clean the brake discs and brake linings with a regular brake disc cleaner or acetone, and wash the tires with warm water and a mild detergent.**
- **Before operating the motorcycle, test its braking performance and cornering behavior.**

CAUTION

- **Apply spray oil and wax sparingly and make sure to wipe off any excess.**
- **Never apply oil or wax to any rubber and plastic parts, but treat them with a suitable care product.**
- **Avoid using abrasive polishing compounds as they will wear away the paint.**

NOTE:

Consult a Yamaha dealer for advice on what products to use

MOTORCYCLE CARE AND STORAGE

Storage

Short-term

Always store your motorcycle in a cool, dry place and, if necessary, protect it against dust with a porous cover.

ECA00014

CAUTION:

- **Storing the motorcycle in a poorly ventilated room or covering it with a tarp, while it is still wet, will allow water and humidity to seep in and cause rust.**
- **To prevent corrosion, avoid damp cellars, stables (because of the presence of ammonia) and areas where strong chemicals are stored.**

Long-term

Before storing your motorcycle for several months:

1. Follow all the instructions in the "Care" section of this chapter.
2. Turn the fuel cock lever to "ON".
3. Drain the carburetor float chambers by loosening the drain bolts; this will prevent fuel deposits from building up. Pour the drained fuel into the fuel tank
4. Fill up the fuel tank and add fuel stabilizer (if available) to prevent the fuel tank from rusting and the fuel from deteriorating.
5. Perform the following steps to protect the cylinders, piston rings, etc from corrosion.

- a. Remove the spark plug caps and spark plugs
- b. Pour a teaspoonful of engine oil into each spark plug bore
- c. Install the spark plug caps onto the spark plugs, and then place the spark plugs on the cylinder head so that the electrodes are grounded (This will limit sparking during the next step)
- d. Turn the engine over several times with the starter. (This will coat the cylinder walls with oil)
- e. Remove the spark plug caps from the spark plugs, and then install the spark plugs and the spark plug caps.

EWA00003

WARNING

To prevent damage or injury from sparking, make sure to ground the spark plug electrodes while turning the engine over.

MOTORCYCLE CARE AND STORAGE

6. Lubricate all control cables and the pivoting points of all levers and pedals as well as of the sidestand/centerstand.
7. Check and, if necessary, correct the tire air pressure, and then lift the motorcycle so that both of its wheels are off the ground. Alternatively, turn the wheels a little every month in order to prevent the tires from becoming degraded in one spot.
8. Cover the muffler outlets with plastic bags to prevent moisture from entering them.
9. Remove the battery and fully charge it. Store it in a cool, dry place and charge it once a month. Do not store the battery in an excessively cold or warm place (less than 0 °C or more than 30 °C). For more information on storing the battery, see page 6-28.

NOTE: _____
Make any necessary repairs before storing the motorcycle

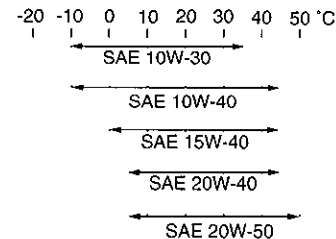
| | |
|-----------------------|-----|
| Specifications | 8-1 |
| Conversion table | 8-5 |

Specifications

| | |
|---|--------------------------------------|
| Model | XJR1300 |
| Dimensions | |
| Overall length | 2,175 mm |
| Overall width | 775 mm |
| Overall height | 1,115 mm |
| Seat height | 790 mm |
| Wheelbase | 1,510 mm |
| Ground clearance | 120 mm |
| Minimum turning radius | 2,800 mm |
| Basic weight (with oil and full fuel tank) | 247 kg |
| Engine | |
| Engine type | Air-cooled 4-stroke, DOHC |
| Cylinder arrangement | Forward-inclined parallel 4-cylinder |
| Displacement | 1,251 cm ³ |
| Bore × Stroke | 79.0 × 63.8 mm |
| Compression ratio | 9.7:1 |
| Starting system | Electric starter |
| Lubrication system | Wet sump |

Engine oil

Type



Recommended engine oil classification

API Service SE, SF, SG or higher

CAUTION

Be sure to use motor oils that do not contain anti-friction modifiers. Passenger car motor oils (often labeled "ENERGY CONSERVING II") contain anti-friction additives which will cause clutch and/or starter clutch slippage, resulting in reduced component life and poor engine performance

Quantity

| | |
|--|--------|
| Without oil filter element replacement | 3.0 L |
| With oil filter element replacement | 3.35 L |
| Total amount (dry engine) | 4.2 L |

SPECIFICATIONS

| | |
|--|--|
| Air filter | Dry element |
| Fuel | |
| Type | UNLEADED GASOLINE ONLY |
| Fuel tank capacity | 21 L |
| Fuel reserve amount | 4.5 L |
| Carburetor | |
| Manufacturer | MIKUNI |
| Model × quantity | BSR37 × 4 |
| Spark plug | |
| Manufacturer/model | NGK / DPR8EA-9 or DENSO / X24EPR-U9 |
| 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 | 2.167 |
| Number of drive chain sprocket teeth (front/rear) | 18/39 |
| Transmission type | Constant-mesh 5-speed |
| Operation | Left foot |

| | |
|-------------------|-------|
| 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 | 100 mm |

Tires

| | |
|--------------------|---|
| Front | |
| Type | Tubeless tire |
| Size | 120/70ZR17 (58W) 120/70ZR17 M/C (58W) |
| Manufacturer/model | Dunlop / D220F ST M Michelin / MACADAM90XE |
| Rear | |
| Type | Tubeless tire |
| Size | 180/55ZR17 (73W) 180/55ZR17 M/C (73W) |
| Manufacturer/model | Dunlop / D220 ST M Michelin / MACADAM90XE |

SPECIFICATIONS

| | |
|---|---|
| Maximum load* | 203 kg |
| Tire air pressure (measured on cold tires) | |
| Up to 90 kg* | |
| Front | 250 kPa (2.50 kgf/cm ² , 2.50 bar) |
| Rear | 250 kPa (2.50 kgf/cm ² , 2.50 bar) |
| 90 kg–maximum* | |
| Front | 250 kPa (2.50 kgf/cm ² , 2.50 bar) |
| Rear | 290 kPa (2.90 kgf/cm ² , 2.90 bar) |
| High-speed riding | |
| Front | 250 kPa (2.50 kgf/cm ² , 2.50 bar) |
| Rear | 290 kPa (2.90 kgf/cm ² , 2.90 bar) |

* Total weight of rider, passenger, cargo and accessories

Wheels

| | |
|-------|------------------|
| Front | |
| Type | Cast wheel |
| Size | 17 × MT 3.50 |
| | 17 M/C × MT 3.50 |
| Rear | |
| Type | Cast wheel |
| Size | 17 × MT 5.50 |
| | 17 M/C × MT 3.50 |

Brakes

| | |
|-----------|-------------------|
| Front | |
| Type | Dual disc brake |
| Operation | Right hand |
| Fluid | DOT 4 |
| Rear | |
| Type | Single disc brake |
| Operation | Right foot |
| Fluid | DOT 4 |

Suspension

| | |
|-------|-----------------|
| Front | Telescopic fork |
| Rear | Swingarm |

Springs/shock absorbers

| | |
|-------|------------------------------|
| Front | Coil 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 | 13.5 V, 28 A @ 5,000 r/min |

| | |
|---|-----------------------|
| Battery | |
| Model | GT14B-4 |
| Voltage, capacity | 12 V, 12 Ah |
| Headlight type | Quartz bulb (halogen) |
| Bulb voltage, wattage × quantity | |
| Headlight | 12 V, 60/55 W × 1 |
| Tail/brake light | 12 V, 5/21 W × 2 |
| Turn signal light | 12 V, 21 W × 4 |
| Meter lighting | 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 warning light | 12 V, 1.7 W × 1 |
| Turn signal indicator light | 12 V, 1.7 W × 2 |
| Fuses | |
| Main fuse | 40 A |
| Headlight fuse | 15 A |
| Signaling system fuse | 15 A |
| Ignition fuse | 15 A |

SPECIFICATIONS

EAU03941

Conversion table

All specification data in this manual are listed in SI and METRIC UNITS.

Use this table to convert METRIC unit values to IMPERIAL unit values

Example

| METRIC VALUE | CONVERSION FACTOR | | IMPERIAL VALUE |
|--------------|-------------------|---|----------------|
| 2 mm | × 0.03937 | = | 0.08 in |

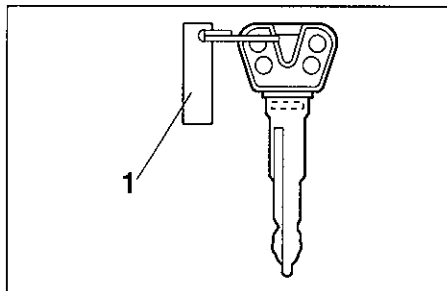
Conversion table

| METRIC SYSTEM TO IMPERIAL SYSTEM | | | |
|----------------------------------|-----------------------|-------------------|---------------------------|
| | Metric unit | Conversion factor | Imperial unit |
| Torque | m kgf | × 7.233 | ft lb |
| | m kgf | × 86.794 | in lb |
| | cm kgf | × 0.0723 | ft lb |
| | cm kgf | × 0.8679 | in lb |
| Weight | kg | × 2.205 | lb |
| | g | × 0.03527 | oz |
| Speed | km/h | × 0.6214 | mi/h |
| Distance | km | × 0.6214 | mi |
| | m | × 3.281 | ft |
| | m | × 1.094 | yd |
| | cm | × 0.3937 | in |
| | mm | × 0.03937 | in |
| Volume, Capacity | cc (cm ³) | × 0.03527 | oz (IMP liq) |
| | cc (cm ³) | × 0.06102 | cu in |
| | L (liter) | × 0.8799 | qt (IMP liq) |
| | L (liter) | × 0.2199 | gal (IMP liq) |
| Miscellaneous | kg/mm | × 55.997 | lb/in |
| | kgf/cm ² | × 14.2234 | psi (lb/in ²) |
| | °C | × 1.8 + 32 | °F |

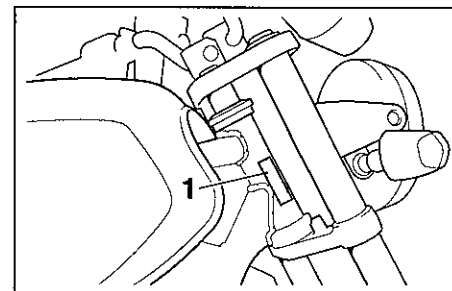
Identification numbers

EAU02944

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



1 Key identification number



1 Vehicle identification number

1 KEY IDENTIFICATION NUMBER

2 VEHICLE IDENTIFICATION NUMBER

3. MODEL LABEL INFORMATION

EAU01041

Key identification number

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

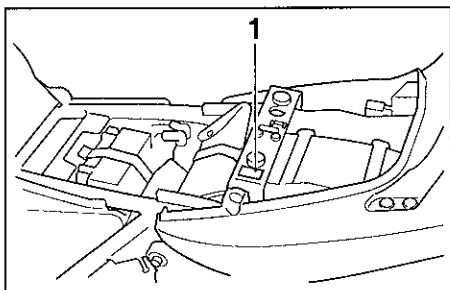
EAU01043

Vehicle identification number

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

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 area.

EAU01388



1 Model label

EAU01050

Model label

The model label is affixed to the frame under the seat. (See page 3-10 for seat removal and installation procedures.) Record the information on this label in the space provided. This information will be needed when ordering spare parts from a Yamaha dealer.

Motorcycle 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

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