YAMAHA

USO E MANUTENZIONE
OWNER'S MANUAL
MANUEL DU PROPRIÉTAIRE
BEDIENUNGSANLEITUNG
MANUAL DEL PROPIETARIO

Bulldog

BT1100

5JN-F8199-A0

INTRODUCTION

Welcome to the Yamaha world of motorcycling!

As the owner of a BT1100, you are benefiting from Yamaha's vast experience and newest technology regarding the design and manufacture of high-quality products, which have earned Yamaha a reputation for dependability.

Please take the time to read this manual thoroughly, so as to enjoy all advantages of your BT1100. The owner's manual does not only instruct you in how to operate, inspect and maintain your motorcycle, but also in how to safeguard yourself and others from trouble and injury.

In addition, the many tips given in this manual will help keep your motorcycle in the best possible condition. If you have any further questions, do not hesitate to contact your Yamaha dealer.

The Yamaha team wishes you many safe and pleasant rides. So, remember to put safety first!

IMPORTANT MANUAL INFORMATION

EAU00005

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

	The Safety Alert Symbol means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!
⚠ WARNING	**Failure to follow WARNING instructions could result in severe injury or death to the motorcycle operator, a bystander, or a person inspecting or repairing the motorcycle.**
CAUTION:	**A CAUTION indicates special precautions that must be taken to avoid damage to the motorcycle.**
NOTE	A NOTE provides key information to make procedures easier or clearer.

NOTE:

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

EAUBOOOO

BT1100
OWNER'S MANUAL

Printed in Italy.

EAU00009

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GIVE SAFETY THE RIGHT OF WAY

GIVE SAFETY THE RIGHT OF WAY

EAU00021

EW000015

1

Motorcycles are fascinating vehicles, which can give you an unsurpassed feeling of power and freedom. However, they also impose certain limits, which you must accept; even the best motorcycle does not ignore the laws of physics.

Regular care and maintenance are essential for preserving value and operating condition of your motorcycle. Moreover, what is true for the motorcycle is also true for the rider: good performance depends on being in good shape. Riding under the influence of medication, drugs and alcohol is, of course, out of the question. Motorcycle riders—more than car drivers—must always be at their mental and physical best. Under the influence of even small amounts of alcohol, there is a tendency to take dangerous risks.

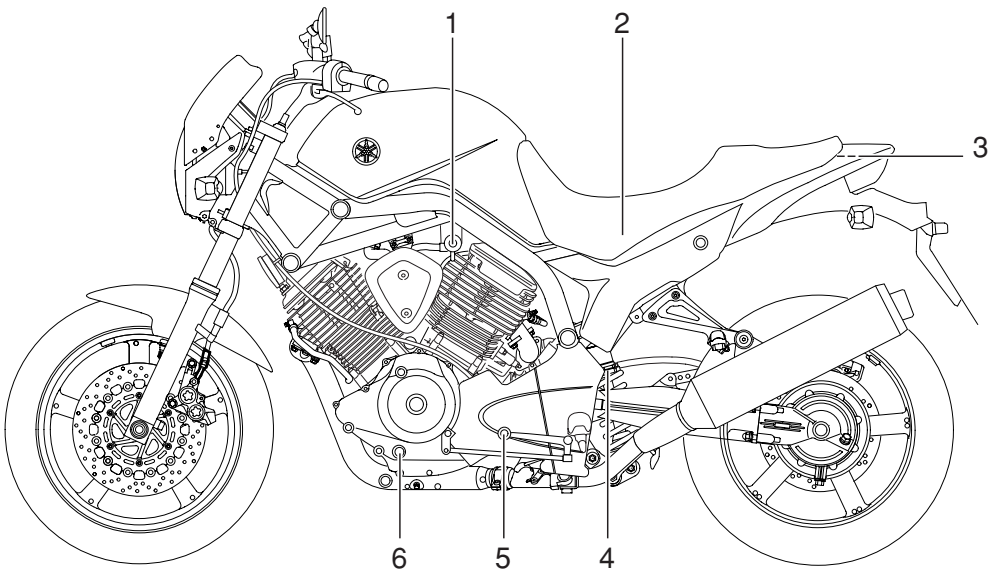
Protective clothing is as essential for the motorcycle rider as seat belts are for car drivers and passengers. Always wear a complete motorcycle suit (whether made of leather or tear-resistant synthetic materials with protectors), sturdy boots, motorcycle gloves and a properly fitting helmet. Optimum protective wear, however, should not encourage carelessness. Although full-coverage helmets and suits, in particular, create an illusion of total safety and protection, motorcyclists will always be vulnerable. Riders who lack critical self-control run the risk of going too fast and are apt to take chances. This is even more dangerous in wet weather. The good motorcyclist rides safely, predictably and defensively—avoiding all dangers, including those caused by others.

Enjoy your ride!

DESCRIPTION

DESCRIPTION

Left view



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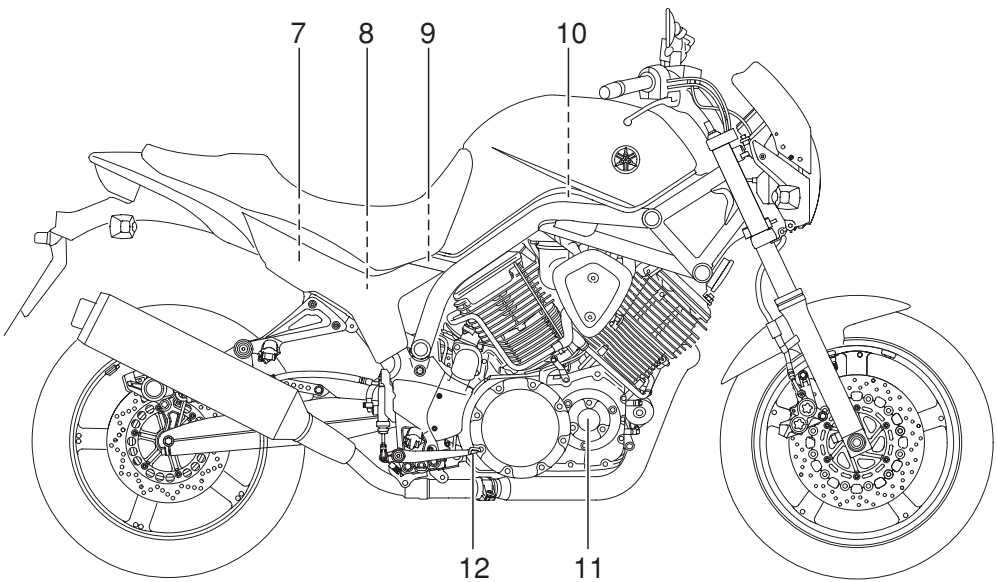

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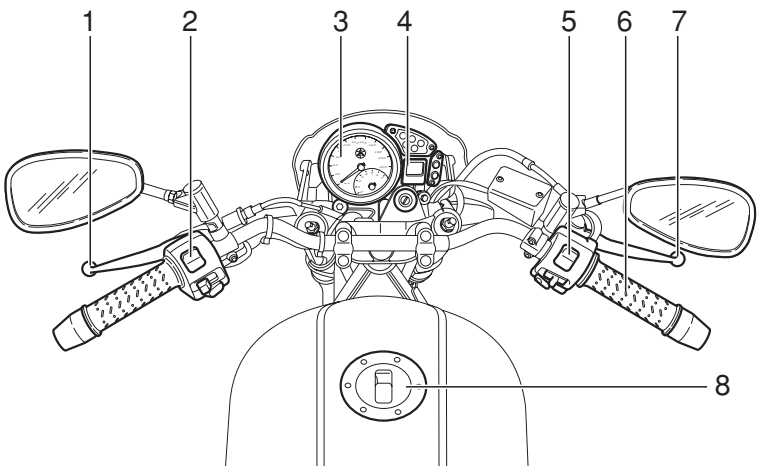
DESCRIPTION

Controls and instruments



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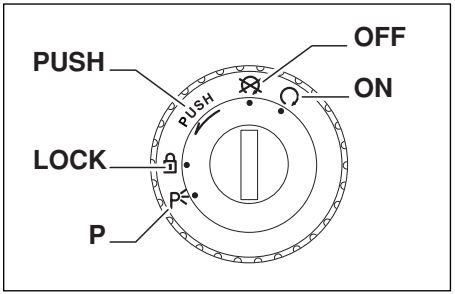
INSTRUMENT AND CONTROL FUNCTIONS

INSTRUMENT AND CONTROL FUNCTIONS



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.

EAU00036

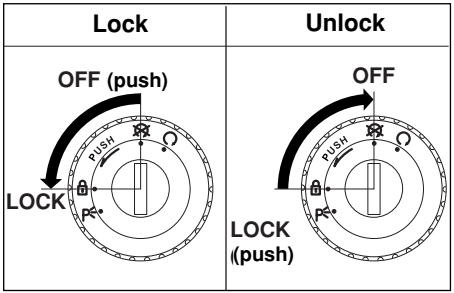
ON

All electrical systems are supplied with power, and the engine can be started. The key cannot be removed.

EAU00038

OFF

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



EAU00040

LOCK

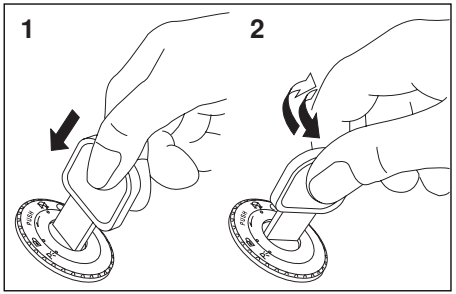
The steering is locked, and all electrical systems are off. The key can be removed.

To lock the steering

1. Turn the handlebars all the way to the left.
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 in, 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).

EAU01590

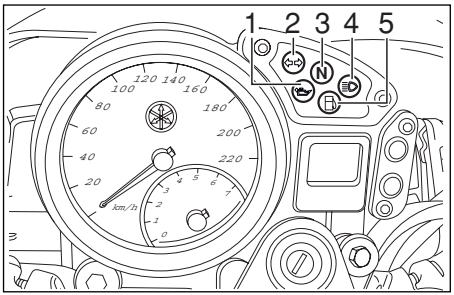
P (Parking)

The steering is locked, and the taillight and auxiliary light are on, but all other electrical systems are off. The key can be removed. The steering must be locked before the key can be turned to "P".

ECA00043

CAUTION:

Do not use the parking position for an extended length of time, otherwise the battery may discharge.



1. Oil level warning light "
2. Turn signal indicator light "
3. Neutral indicator light "N"
4. High beam indicator light "
5. Fuel level warning light "

EAU03034

Indicator and warning lights

EAUB0001

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. Turn the key to "" (ON). The warning light should come on for a few seconds.
2. If the warning light does not come on, 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.

NOTE:

This model is equipped with a self-diagnosis device for the oil level warning light circuit. (See page 3-6 for an explanation of the self-diagnosis device).

EAU00057

Turn signal indicator light "

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

EAU00061

Neutral indicator light "N"

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

3

EAU00027

EAU00063

High beam indicator light "≡D"

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

EAUB0002

Fuel level warning light "⛽"

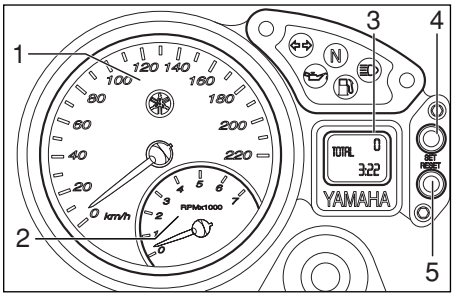
This warning light comes on when the fuel level drops below approximately 5.8 L. When this occurs, refuel as soon as possible.

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

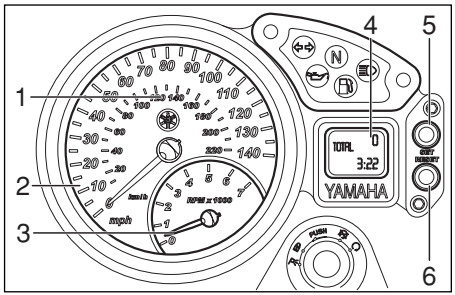
1. Turn the key to "ON" (ON).
2. If the warning light does not come on, have a Yamaha dealer check the electrical circuit.

NOTE:

This model is equipped with a self-diagnosis device for the fuel level warning light circuit. (See page 3-6 for an explanation of the self-diagnosis device).



1. Speedometer set to km/h
2. Tachometer
3. Odometer/ tripmeter/ fuel reserve tripmeter/ clock display
4. "SET" button
5. "RESET" button



1. Speedometer set to km/h
2. Speedometer set to mph
3. Tachometer
4. Odometer/ tripmeter/ fuel reserve tripmeter/ clock display
5. "SET" button
6. "RESET" button

EAUB0003

Speedometer unit

The speedometer unit is equipped with the following:

- a speedometer (which shows riding speed)
- a tachometer (which shows engine r/min)
- an odometer (which shows the total distance traveled)
- two tripmeters (which show the distance traveled since they were last set to zero)
- a fuel reserve tripmeter (which shows the distance traveled on the fuel reserve)
- an oil change indicator (which is displayed when the oil needs to be changed)
- a clock.

NOTE:

Depending on the market where the motorcycle is sold, the speedometer can be set to either mph or km/h. When the speedometer is set to mph, the odometer counts in miles (1 mile = 1.61 km).

Odometer and tripmeter modes

Pushing the "SET" button switches the display between the odometer mode "ODO" and the tripmeter modes "TRIP 1" and "TRIP 2" in the following order: ODO → TRIP 1 → TRIP 2 → ODO

When the fuel warning light comes on, the display will automatically change to the fuel reserve tripmeter mode "TRIP F" and start counting the distance traveled from that point. In that case, pushing the "SET" button switches the display between the various tripmeter and odometer modes in the following order: TRIP F → TRIP 1 → TRIP 2 → ODO → TRIP F

To reset a tripmeter, select it by pushing the "SET" button, and then push the "RESET" button for at least one second. If you do not reset the fuel reserve tripmeter manually, it will reset itself automatically and the display will return to the prior mode after refueling and traveling several kilometers.

Oil change indicator

At the initial 1,000 km (620 mi) and every 10,000 km (6,200 mi) thereafter, the message "OIL CHANGE" appears in the display for a few seconds when the key is turned to "ON", to indicate that the engine oil should be changed.

After changing the engine oil, reset the oil change indicator.

If the engine oil is changed before the oil change indicator appears in the display (i.e. before the periodic oil change interval has been reached), the indicator must be reset after the oil change for the next periodic oil change to be indicated at the correct time.

NOTE:

When the message "OIL CHANGE" appears in the display, be sure to change the engine oil as soon as possible. In addition to these kilometer-based oil changes, be sure to have a Yamaha dealer perform the annual checks specified in the periodic maintenance and lubrication chart on page 6-2.

To reset the periodic maintenance and lubrication indicator:

1. Turn the key to "⚿" (OFF).
2. Push the "RESET" button and hold it down while turning the key to "⚿" (ON).

Clock mode

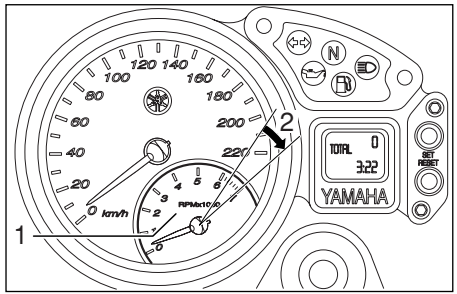
NOTE:

The clock can only be set while the speedometer unit is in the odometer mode.

To set the clock:

1. Turn the key to "⚿" (ON).
2. Push the "RESET" button and "SET" button together for at least two seconds.
3. When the hour digits start flashing, push the "RESET" button to set the hours (between 1 and 12).
4. Push the "SET" button, and the first of the two minute digits will start flashing.
5. Push the "RESET" button to set the first minute digit (between 0 and 5).
6. Push the "SET" button, and the second of the two minute digits will start flashing.
7. Push the "RESET" button to set the second minute digit (between 0 and 9).
8. Push the "SET" button, and then release it to start the clock.

NOTE:
The clock can only be set when the motorcycle is stopped. The clock does not automatically adjust for Daylight Saving Time. Therefore, when the time changes from Standard Time to Daylight Saving Time (and vice versa), the clock must be set manually.



1. Tachometer
2. 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: 6,400 r/min and above.

EAUB0004

Self-diagnosis device

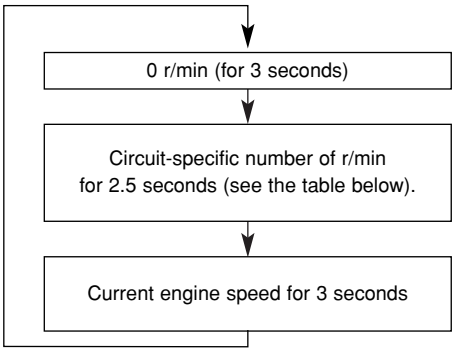
NOTE:
When the key is turned to "ON" (ON), the tachometer and speedometer needles should move to the maximum, then back to zero. In addition, the oil level warning light and fuel level warning light should come on for a few seconds, then go off. If the tachometer or speedometer needle does not move as described or either of the warning lights does not come on, have a Yamaha dealer check the electrical circuits.

This model is equipped with a self-diagnosis device for the following electrical circuits:

- speedometer
- tachometer
- oil level warning light
- throttle position sensor
- speed sensor.

EAU00027

If any of the above circuits are defective, the tachometer will repeatedly display the following error code:



Use the chart below to identify the faulty electrical circuit.

Specific r/min	Faulty electrical circuit
3,000 r/min	Throttle position sensor
4,000 r/min	Speed sensor

If the tachometer displays such an error code, note the circuit-specific number of r/min, and then have a Yamaha dealer check the motorcycle.

EC000004

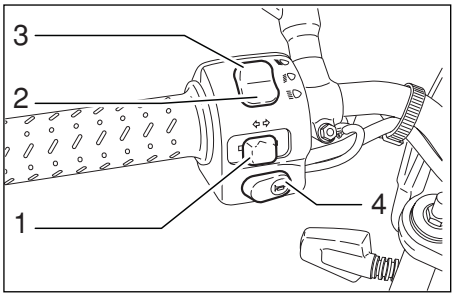
CAUTION:

When the tachometer displays an error code, the motorcycle should be checked as soon as possible in order to avoid engine damage.

EAU00109

Anti-theft alarm (optional)

This motorcycle can be equipped with an optional anti-theft alarm by a Yamaha dealer. Contact a Yamaha dealer for more information.



1. Turn signal switch "⇦⇨"
2. Pass switch "≣D"
3. Dimmer switch "≣D / ≣D"
4. Horn switch "📯"

EAU00118

Handlebar switches

EAU03889

Turn signal switch "⇦⇨"

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.

EAU00119

Pass switch "≣D"

Press this switch to flash the headlight.

EAU00121

Dimmer switch "≣D / ≣D"

Set this switch to "≣D" for the high beam and to "≣D" for the low beam.

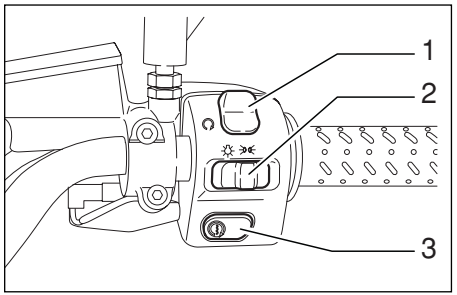
EAU00129

Horn switch "📯"

Press this switch to sound the horn.

3

EAU00027



1. Engine stop switch "/"
2. Light switch "/-/●"
3. Start switch "⏲"

EAU03890

Engine stop switch "/"

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.

EAU03898

Light switch "/-/●"

Set this switch to "" to turn on the auxiliary light, meter lighting and taillight. Set the switch to "" to turn on the headlight also. Set the switch to "●" to turn off all the lights.

EAU00143

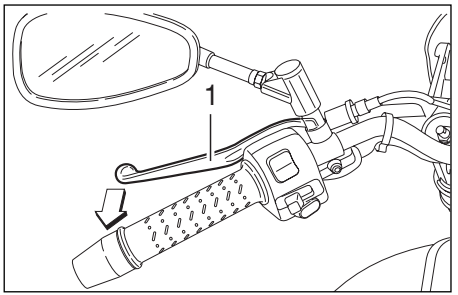
Start switch "⏲"

Push this switch to crank the engine with the starter.

EC000005

CAUTION:

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

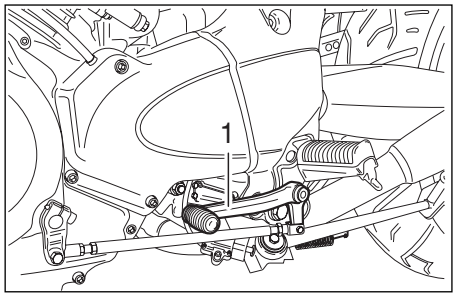


1. Clutch lever

EAU00152

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. The clutch lever is equipped with a clutch switch, which is part of the ignition circuit cut-off system. (See page 3-18 for an explanation of the ignition circuit cut-off system).

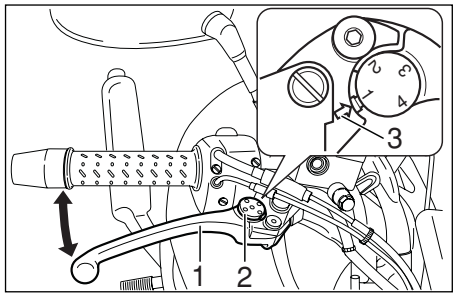


1. Shift pedal

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.



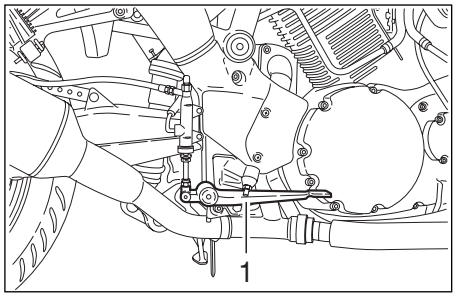
1. Brake lever
2. Position adjusting dial
3. Arrow mark

EAU00161

Brake lever

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

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.



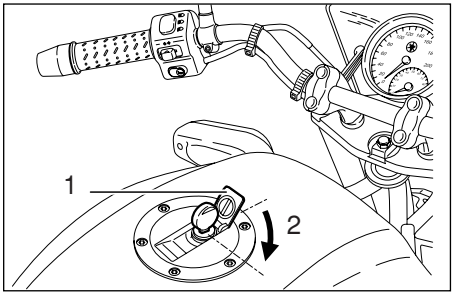
1. Brake pedal

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.

EAU00027



1. Lock cover
2. Open

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

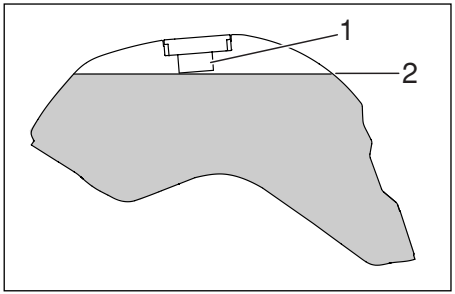
1. Push the fuel tank cap into position with the key inserted in the lock.
2. Turn the key counterclockwise to the original position, remove it, and then close the lock cover.

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.

⚠ WARNING EWA00025

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.

⚠ WARNING EW000130

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

EAU00185

CAUTION:

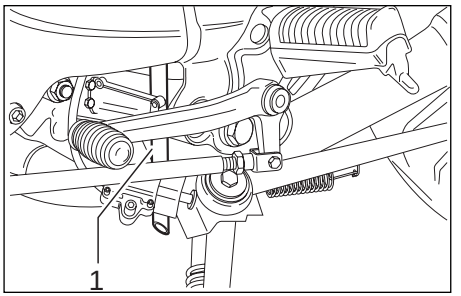
Immediately wipe off spilled fuel with a clean, dry, soft cloth, since fuel may deteriorate painted surfaces or plastic parts.

EAU00191

Recommended fuel:
Regular unleaded gasoline with a research octane number of 91 or higher
Fuel tank capacity:
Total amount:
20 L
Reserve amount:
5.8 L

NOTE:

If knocking (or pinging) occurs, use gasoline of a different brand or with a higher octane grade.

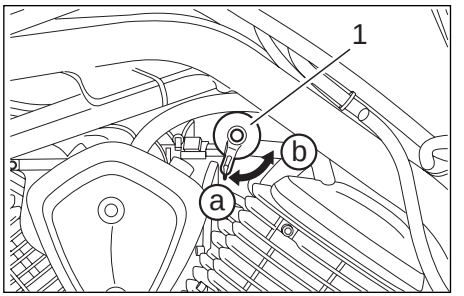


1. Fuel tank breather hose

EAU02955

Fuel tank breather hose

Before operating the motorcycle:
Check the fuel tank breather hose connection.
Check the fuel tank breather hose for cracks or damage, and replace it if damaged.
Make sure that the end of the fuel tank breather hose is not blocked, and clean it if necessary.



1. Starter (choke) lever

EAU03839

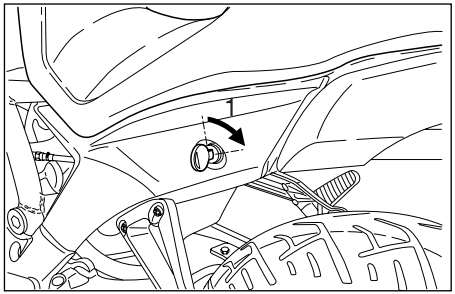
Starter (choke) lever

Starting a cold engine requires a richer air-fuel mixture, which is supplied by the starter (choke).
Move the lever in direction (b) to turn on the starter (choke).
Move the lever in direction (a) to turn off the starter (choke).

ECA00038

CAUTION:

Do not use the starter (choke) for more than 3 minutes as the exeaust pipe may discolor from excessive heat. In addition, extended use of the starter (choke) will cause afterburning. If this occurs, turn off the starter (choke).



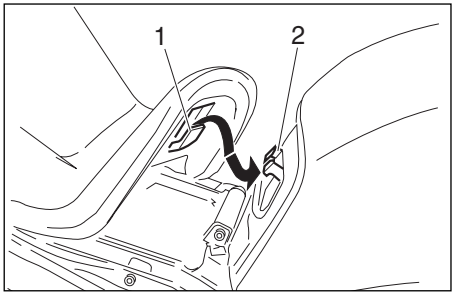
1. Open

EAU01726

Seat

To remove the seat

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



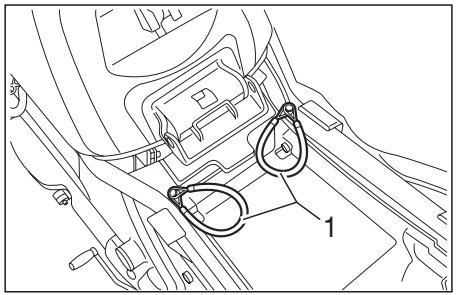
1. Projection
2. Seat holder

To install the seat

1. Insert the projections on the front of the seat into the seat holders 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.



1. Helmet holders

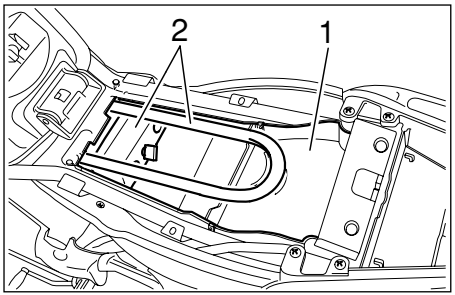
EAUB0005

Helmet holders

The helmet holders are located under the seat. Each of the two helmet-holding cables provided can be used to secure a helmet to either helmet holder

To secure a helmet to a helmet holder

1. Remove the seat. (See page 3-13 for removal and installation procedures).
2. Pass the helmet holding cable through the buckle on the helmet strap as shown, and then hook the cable loop over the helmet holder.
3. Install the seat.



1. Storage compartment
2. Yamaha U-LOCK

EWA00015

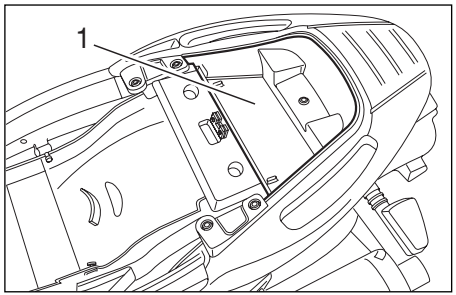
⚠ WARNING

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

EAUB0006

Storage compartment

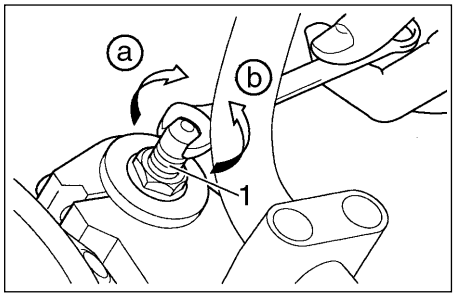
The storage compartment is located under the seat. (See page 3-13 for seat removal and installation procedures).
This storage compartment is designed to hold a genuine Yamaha U-LOCK. (Other locks may not fit).



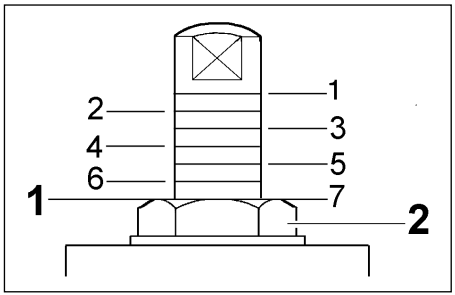
1. Tool kit compartment

The tool kit is located at the back of the storage compartment and held in place with a strap.
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.

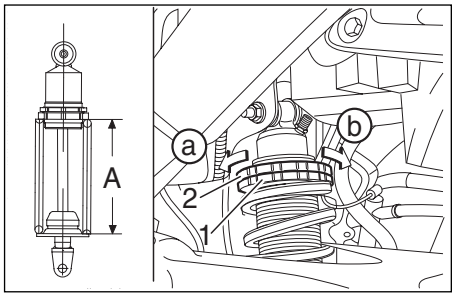
EAU00027



1. Spring preload adjusting bolt



1. Setting
2. Front fork cap bolt



1. Spring preload adjusting nut
2. Locknut

EAU00285

Adjusting the front fork

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.

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 ⓐ. To decrease the spring preload and thereby soften the suspension, turn the adjusting bolt on each fork leg in direction ⓑ.

NOTE:

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

	Minimum (soft)				Standard	Maximum (hard)	
Setting	1	2	3	4	5	6	7

EAUB0007

Adjusting the shock absorber assembly

This shock absorber assembly is equipped with a spring preload adjusting nut.

EC000015

CAUTION:

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

Adjust the spring preload as follows.

1. Loosen the locknut.
2. To increase the spring preload and thereby harden the suspension, turn the adjusting nut in direction ⓐ. To

decrease the spring preload and thereby soften the suspension, turn the adjusting nut in direction ⓑ.

NOTE:

Use the special wrench included in the owner's tool kit to make the adjustment.
The spring preload setting is determined by measuring distance A, shown in the illustration. The longer distance A is, the higher the spring preload; the shorter distance A is, the lower the spring preload. With each complete turn of the adjusting nut, distance A changes by 1.5 mm.

Spring preload:
Minimum (soft):
Distance A = 170 mm
Standard:
Distance A = 162 mm
Maximum (hard):
Distance A = 154 mm

3. Tighten the locknut to the specified torque.

Tightening torque:
Locknut:
45 Nm (4.5 m•kg)

EAU00315

⚠ WARNING

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

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

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:

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.

EAU03720

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.

EW000045

⚠ WARNING

If a malfunction is noted, have a Yamaha dealer check the system before riding.

With the engine turned off:
1. Move the sidestand down.
2. Make sure that the engine stop switch is set to "Ω".
3. Turn the key to "Ω" (ON).
4. Shift the transmission into the neutral position.
5. Push the start switch.

Does the engine start?

YES **NO** → The neutral switch may be defective. **The motorcycle should not be ridden** until checked by a Yamaha dealer.

With the engine still running:
6. Move the sidestand up.
7. Keep the clutch lever pulled.
8. Shift the transmission into gear.
9. Move the sidestand down.

Does the engine stall?

YES **NO** → The sidestand switch may be defective. **The motorcycle should not be ridden** until checked by a Yamaha dealer.

After the engine has stalled:
10. Move the sidestand up.
11. Keep the clutch lever pulled.
12. Push the start switch.

Does the engine start?

YES **NO** → The clutch switch may be defective. **The motorcycle should not be ridden** until checked by a Yamaha dealer.

The system is OK. **The motorcycle can be ridden.**

NOTE:
This check is most reliable if performed with a warmed-up engine.

PRE-OPERATION CHECKS

PRE-OPERATION CHECKS

EAU01114

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.

EAU03439

Pre-operation check list

ITEM	CHECK	PAGE
Fuel	• Check fuel level in fuel tank. • Refuel if necessary. • Check fuel line for leakage.	3-11
Engine oil	• Check oil level in engine. • If necessary, add recommended oil to specified level. • Check vehicle for oil leakage.	6-6
Final gear oil	• Check vehicle for oil leakage.	6-8
Front brake	• 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.	3-10, 6-19
Rear brake	• 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.	3-10, 6-19

ITEM	CHECK	PAGE
Clutch	• Check operation. • Lubricate cable if necessary. • Check lever free play. • Adjust if necessary.	3-9, 6-17, 6-23
Throttle grip	• Make sure that operation is smooth. • Lubricate throttle grip, housing and cables if necessary. • Check free play. • If necessary, have Yamaha dealer make adjustment.	6-13, 6-22
Control cables	• Make sure that operation is smooth. • Lubricate if necessary.	6-22
Wheels and tires	• Check for damage. • Check tire condition and tread depth. • Check air pressure. • Correct if necessary.	6-13, 6-16
Brake and shift pedals	• Make sure that operation is smooth. • Lubricate pedal pivoting points if necessary.	6-23
Brake and clutch levers	• Make sure that operation is smooth. • Lubricate lever pivoting points if necessary.	6-23
Sidestand	• Make sure that operation is smooth. • Lubricate pivot if necessary.	6-24
Chassis fasteners	• Make sure that all nuts, bolts and screws are properly tightened. • Tighten if necessary.	–
Instruments, lights, signals and switches	• Check operation. • Correct if necessary.	3-2, 3-3, 3-8, 3-9
Engine stop switch	• Check operation.	3-9
Sidestand switch	• Check operation of ignition circuit cut-off system. • If system is defective, have Yamaha dealer check vehicle.	3-18

PRE-OPERATION CHECKS

EAU01114

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.

⚠ WARNING

EWA00033

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

EAU00372

EAU00373

⚠ 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.**

EAU03818

Starting the 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 3-18.**
- **Never ride with the sidestand down.**

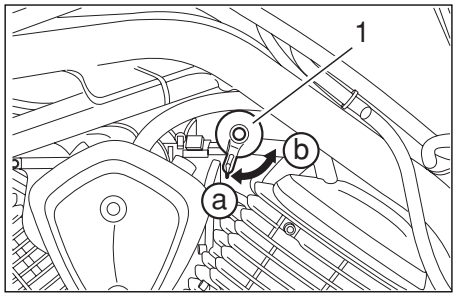
1. Turn the key to "ON" (ON) and make sure that the engine stop switch is set to "ON".

EC000035

CAUTION:

If the fuel level warning light comes on, check the fuel level, and, if necessary, refuel as soon as possible.

2. Shift the transmission into the neutral position.
   When the transmission is in the neutral position, the neutral indicator light should be on, otherwise have a Yamaha dealer check the electrical circuit.
3. Turn the starter (choke) on and completely close the throttle. (See page 3-12 for starter (choke) operation).



1. Starter (choke) lever
a. Starter (choke) turned on
b. Starter (choke) turned off

4. 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.

EC000038

CAUTION:

The oil level warning light and fuel level warning light should come on when the start switch is pushed, and they 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.
If the fuel level warning light remains on after starting, stop the engine, and then check the fuel level. If necessary, refuel as soon as possible, 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 fuel, have a Yamaha dealer check the electrical circuit.

5. After starting the engine, move the starter (choke) knob/lever back halfway.

ECA00045

CAUTION:

For maximum engine life, never accelerate hard when the engine is cold!

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

NOTE:

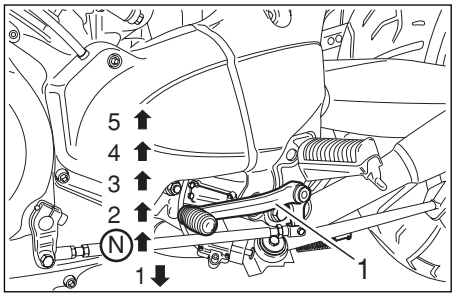
The engine is warm when it responds normally to the throttle with the starter (choke) turned off.

EAU00372

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.



1. Shift pedal
N. Neutral position

EAU00423

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.**

5

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).

EAU01128

Engine break-in

There is never a more important period in the life of your engine than the period between 0 and 1,600 km (1,000 mi). 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 (1,000 mi). The various parts in the engine wear and polish themselves to the correct operating clearances. During this period, prolonged full-throttle operation or any condition that might result in engine overheating must be avoided.

EAU01171

0-1,000 km (0-600 mi)
Avoid prolonged operation above 1/3 throttle.

1,000-1,600 km (600-1,000 mi)
Avoid prolonged operation above 1/2 throttle.

EC000056

CAUTION:

After 1,000 km (600 mi) of operation, the engine oil and final gear oil must be changed, and the oil filter cartridge/element replaced.

1,600 km (1,000 mi) and beyond
The vehicle can now be operated normally.

EC000049

CAUTION:

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

5

EAU00460

Parking

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

⚠ WARNING EW000058

- **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

EAU00462

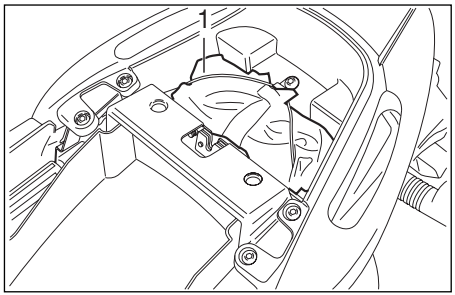
EAU00464

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.

⚠ WARNING EW000060

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



1. Owner's tool kit

EAU01129

Owner's tool kit

The owner's tool kit is located inside the storage compartment (see page 3-13 for storage compartment opening 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.

⚠ WARNING EW000063

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.

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 (x 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		**Spurk plugs**	• Check condition. • Clean and regap.		√		√		
			• Replace.			√		√	
4	*	**Valves**	• Check valve clearance. • Adjust.		√	√	√	√	
5		**Air filter element**	• Clean.		√		√		
			• Replace.			√		√	
6		**Clutch**	• Check operation. • Adjust.	√	√	√	√	√	
7	*	**Front brake**	• Check operation,fluid level and vehicle for fluid leakeage. (See NOTE on page 6-4).	√	√	√	√	√	√
			• Replace brake pads.	Whenever worm to the limit					

6

EAU00462

NO.		ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING (x 1,000 km)					ANNUAL CHECK
				1	10	20	30	40	
8	*	**Rear brake**	• Check operation, fluid level and vehicle for fluid leakage. (See NOTE on page 6-4).	√	√	√	√	√	√
			• Replace brake pads.	Whenever worm to the limit					
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.		√	√	√	√	
			• Lubrificate with lithium-soap-based grease.	Every 50,000 km					
14	*	**Steering bearings**	• Check bearing play and steering for roughness.	√	√	√	√	√	
			• Lubrificate with lithium-soap-based grease.	Every 20,000 km					
15	*	**Chassis fasteners**	• Make sure that all nuts, bolts and screws are properly tightened.		√	√	√	√	√
16		**Sidestand**	• Check operation. • Lubricate.		√	√	√	√	√
17	*	**Sidestand switch**	• Check operation and for oil leakage.	√	√	√	√	√	√
18	*	**Front fork**	• Check operation and for oil leakage.		√	√	√	√	
19	*	**Rear shock absorber assembly**	• Check operation and shock absorber for oil leakage.		√	√	√	√	

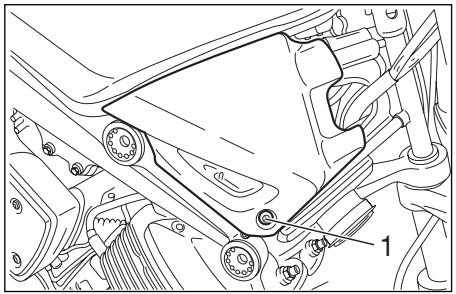
NO.		ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING (x 1,000 km)					ANNUAL CHECK
				1	10	20	30	40	
20	*	**Rear suspension relay arm and connecting arm pivoting points**	• Check operation.		√	√	√	√	
			• Lubricate with lithium-soap-based grease.			√		√	
21	*	**Carburators**	• Check starter (choke) operation. • Adjust engine idling speed and synchronization.	√	√	√	√	√	√
22		**Engine oil**	• Change.	√	√	√	√	√	√
23		**Engine oil filter element**	• Replace.	√		√		√	
24		**Final gear oil**	• Check oil level and vehicle for oil leakage.	√	√		√		
			• Change.	√		√		√	
25		**Moving parts and cables**	• Lubricate.		√	√	√	√	√
26	*	**Air induction system**	• Check the air cut valve and reed valve for damage. • Replace the entire air induction system if necessary.		√	√	√	√	√
27	*	**Lights, signals and switches**	• Check operation. • Adjust headlight beam.	√	√	√	√	√	√

EAU03884

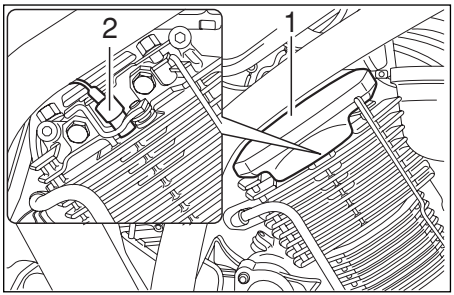
NOTE:

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

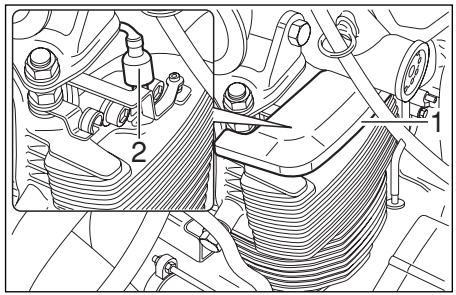
EAU00462



1. Panel mounting screw



1. Rear cylinder spark plug cover
2. Spark plug cap



1. Front cylinder spark plug cover
2. Spark plug cap

EAU01122

Removing and installing panels

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

EAU00488

Panel

To remove the panel

Remove the screw, and then pull the panel off as shown.

To install the panel

Place the panel in the original position, and then install the screw.

EAU01673

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 appropriate spark plug cover (rear right or front left) by pulling it off as shown.
2. Remove the spark plug cap.
3. Remove the spark plug as shown, with the spark plug wrench included in the owner's tool kit.

To check the spark plugs

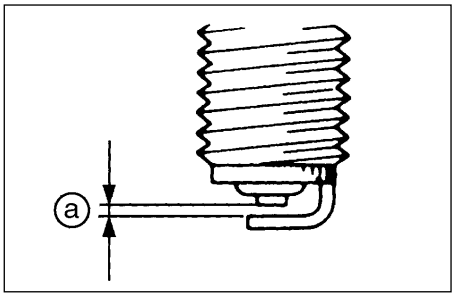
1. Check that the porcelain insulator around the center electrode on each spark plug is a medium-to-light tan (the ideal color when the motorcycle is ridden normally).
2. Check that all spark plugs installed in the engine have the same color.

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:
BPR7ES (NGK) or
W22EPR-U (DENSO)



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:
0.7-0.8 mm

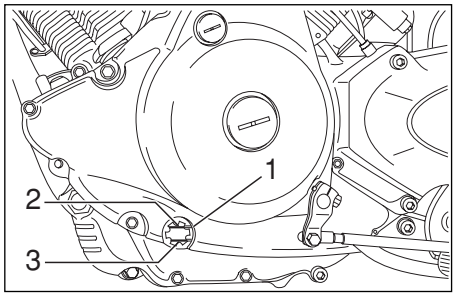
2. Clean the surface of the spark plug gasket and its mating surface, and then wipe off any grime from the spark plug threads.
3. Install the spark plug with the spark plug wrench, and then tighten it to the specified torque.

Tightening torque:
Spark plug:
20 Nm (2.0 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.
5. Place the spark plug cover in the original position.



1. Engine oil level window
2. Maximum level mark
3. Minimum level mark

EAU01712

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

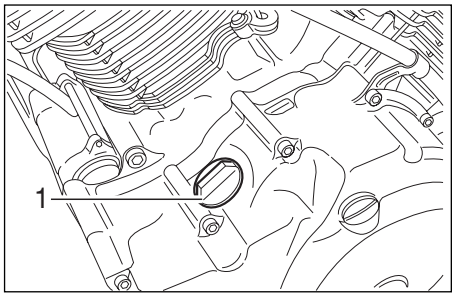
1. Place the motorcycle on a level surface and hold it in an upright position.

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

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

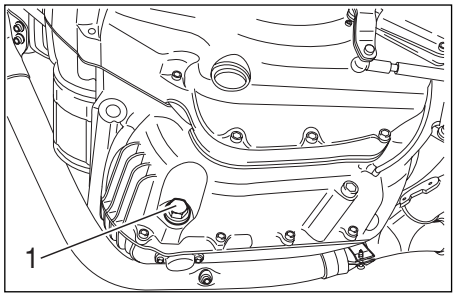
4. If the engine oil is below the minimum level mark, add sufficient oil of the recommended type to raise it to the correct level.



1. Engine oil filler cap

To change the engine oil 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. Engine oil drain bolt

4. 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)

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

Recommended engine oil:
See page 8-1.
Oil quantity:
Without oil filter element replacement:
3.0 L
With oil filter element replacement:
3.1 L
Total amount (dry engine):
3.6 L

EC000072

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 a higher grade than "CD". In addition, do not use oils labeled "ENERGY CONSERVING II" or higher.**
- **Make sure that no foreign material enters the crankcase.**

6. 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.

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

NOTE:

Have a Yamaha dealer replace the oil filter element when necessary.

6

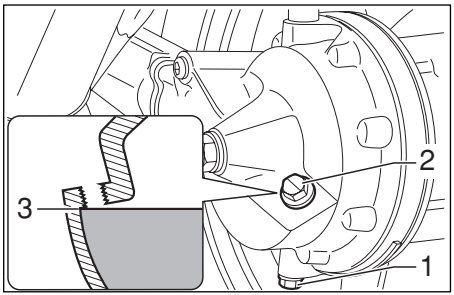
EAU04083

Final gear oil

The final gear case must be checked for oil leakage before each ride. If any leakage is found, have a Yamaha dealer check and repair the motorcycle. In addition, the final gear oil level must be checked and the oil changed as follows at the intervals specified in the periodic maintenance and lubrication chart.

⚠ WARNING EW000066

- **Make sure that no foreign material enters the final gear case.**
- **Make sure that no oil gets on the tire or wheel.**



1. Final gear oil drain bolt
2. Final gear oil filler bolt
3. Oil level

To check the final gear oil level

1. Place the motorcycle on a level surface and hold it in an upright position.

NOTE:

- The final gear oil level must be checked on a cold engine.
- 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. Remove the oil filler bolt, and then check the oil level in the final gear case.

NOTE:

The oil level should be at the brim of the filler hole.

3. If the oil is below the brim of the filler hole, add sufficient oil of the recommended type to raise it to the correct level.

To change the final gear oil

1. Place an oil pan under the final gear case to collect the used oil.
2. Remove the oil filler bolt and drain bolt to drain the oil from the final gear case.

3. Install the final gear oil drain bolt, and then tighten it to the specified torque.

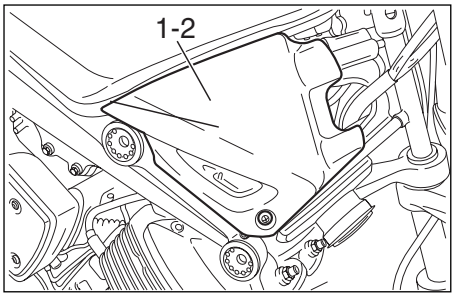
Tightening torque:
Final gear oil drain bolt:
23 Nm (2.3 m·kgf)

4. Add the recommended final gear oil to the brim of the filler hole.

Recommended final gear oil:
Hypoid gear oil SAE 80 (API GL4) or multi-grade hypoid gear oil SAE 80W-90
Oil quantity:
0.2 L

NOTE:
GL4 is a quality rating. Hypoid gear oils rated GL5 or GL6 may also be used.

5. Install and tighten the oil filler bolt.



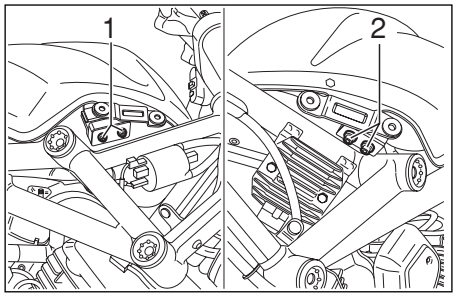
1. Left panel
2. Right panel

6. Check the final gear case for oil leakage. If oil is leaking, check for the cause.

EAUB0008

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.

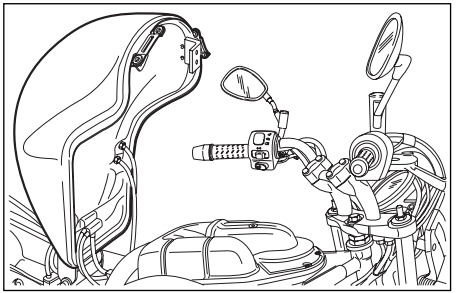


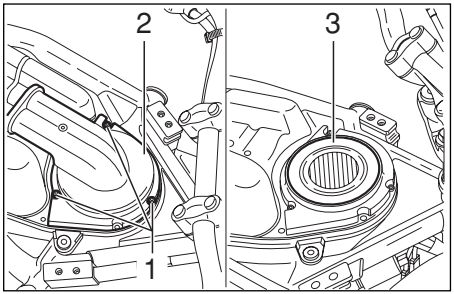
1. Fuel tank right bolt (x 2)
2. Fuel tank left bolt (x 2)

1. Remove the seat. (See page 3-13 for seat removal and installation procedures).
2. Remove panels 1 and 2. (See page 6-5 for panel removal and installation procedures).
3. Remove the fuel tank bolts.

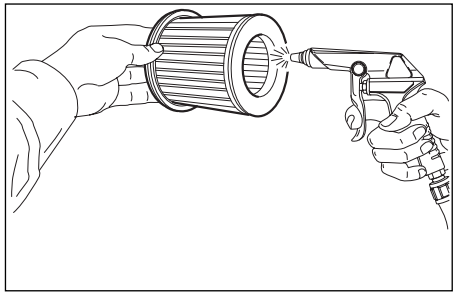
6

EAU00462





1. Screw
2. Air filter case cover
3. Air filter



4. Lift the fuel tank to position it away from the air filter case. (Do not disconnect the fuel hoses!).

⚠ WARNING EW000071

Make sure that the fuel tank is well supported.
Do not tilt or pull the fuel tank too much, otherwise the fuel hoses may come loose, which could cause fuel leakage.

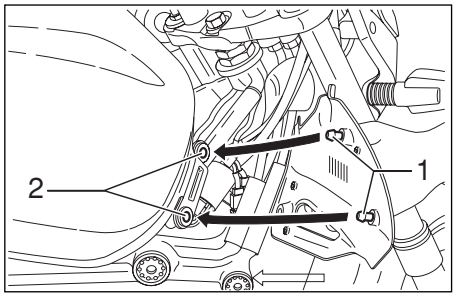
5. Remove the air filter case cover by removing the screws.
6. Pull the air filter element out.
7. Lightly tap the air filter element to remove most of the dust and dirt, and then blow the remaining dirt out with compressed air as shown. If the air filter element is damaged, replace it.
8. Insert the air filter element into the air filter case.

ECA00089

CAUTION:

The engine should never be operated without the air filter element installed, otherwise the piston(s) and/or cylinder(s) may become excessively worn.

9. Install the air filter case cover by installing the screws.
10. Install the fuel tank by installing the bolts.
11. Install the panels.



1. Pin (x 2)
2. Pin seat (x 2)

EWA00052

⚠ WARNING

Before installing the fuel tank, make sure that the fuel hoses are not damaged. If any fuel hose is damaged, do not start the engine but have a Yamaha dealer replace the hose, otherwise fuel may leak.
Make sure that the fuel hoses are properly connected and routed, and not pinched.
Be sure to place the fuel tank breather hose in the original position.

12. Install the seat.

EAU00630

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.

EAU01168

Adjusting the engine idling speed

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

NOTE:

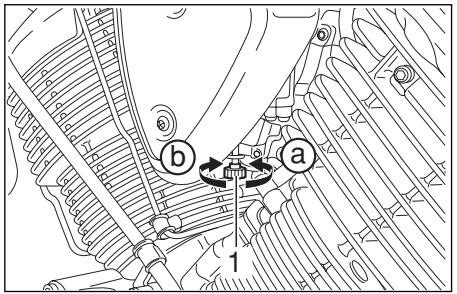
A diagnostic tachometer is needed to make this adjustment.

1. Attach the tachometer to the spark plug lead.
2. 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

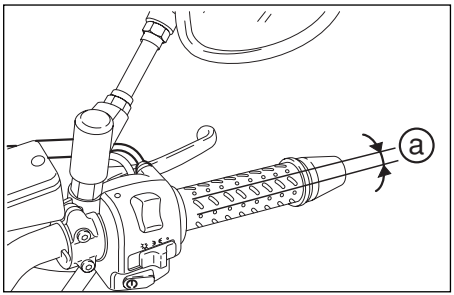


1. Throttle stop screw

3. 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 ⓐ. To decrease the engine idling speed, turn the screw in direction ⓑ.

Engine idling speed:
950-1,050 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.

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.

EAU00658

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.

⚠ WARNING EW000082

- **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	230 kPa 2.30 kg/cm² 2.30 bar	250 kPa 2.50 kg/cm² 2.50 bar
90 kg-maximum	250 kPa 2.50 kg/cm² 2.50 bar	270 kPa 2.70 kg/cm² 2.70 bar

Maximum load*	200 kg

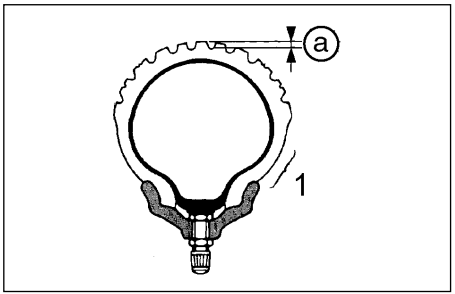
* Total weight of rider, passenger, cargo and accessories.

⚠ WARNING EWA00012

Because loading has an enormous impact on the handling, braking, performance and safety characteristics of your motorcycle, you should keep the following precautions in mind.

- **NEVER OVERLOAD THE MOTORCYCLE! Operation of an overloaded motorcycle may result in tire damage, loss of control, or severe injury. Make sure that the total weight of rider, passenger, cargo, and accessories does not exceed the specified maximum load for the vehicle.**
- **Do not carry along loosely packed items, which can shift during a ride.**
- **Securely pack the heaviest items close to the center of the motorcycle and distribute the weight evenly on both sides.**
- **Adjust the suspension and tire air pressure with regard to the load.**
- **Check the tire condition and air pressure before each ride.**

6



1. Tire sidewall
a. Tire tread depth

Tire inspection

The tires must be checked before each ride. If the center tread depth reaches the specified limit, if the tire has a nail or glass fragments in it, or if the sidewall is cracked, have a Yamaha dealer replace the tire immediately.

Minimum tire tread depth (front and rear)	1.6 mm

NOTE:

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

⚠ WARNING EW000079

- **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.**

Tire information

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

⚠ WARNING EW000080

- **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	Type
Dunlop	120/70-ZR17 (58W)	D205F TL
Metzeler	120/70-ZR17 (58W)	MEZ3F TL

REAR

Manufacturer	Size	Type
Dunlop	170/60-ZR17 (72W)	D205 TL
Metzeler	170/60-ZR17 (72W)	MEZ3 TL

EAU00684

⚠ 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 (60 mi) 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.**

EAU03773

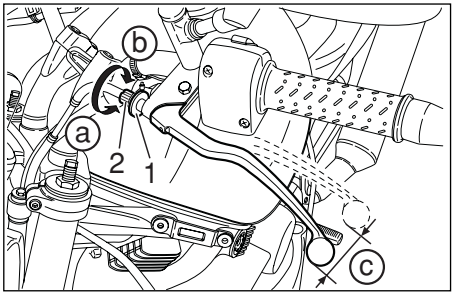
Cast wheels

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.



1. Locknut
2. Free play adjusting bolt
c. Clutch lever free play

EAU00692

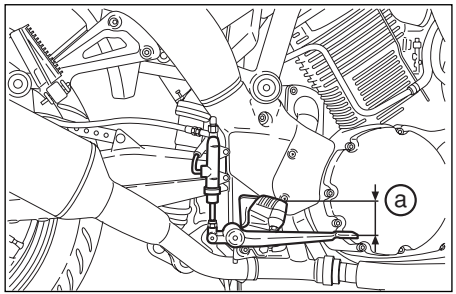
Adjusting the clutch lever free play

The clutch lever free play should measure 5-10 mm as shown. Periodically check the clutch lever free play and, if necessary, adjust it as follows.

1. Loosen the locknut at the clutch lever.
2. To increase the clutch lever free play, turn the adjusting bolt in direction ⓐ. To decrease the clutch lever free play, turn the adjusting bolt in direction ⓑ.
3. Tighten the locknut.

NOTE:

If the specified free play cannot be obtained as described above or if the clutch does not operate correctly, have a Yamaha dealer check the internal clutch mechanism.



a. Distance between brake pedal and footrest

EAU00712

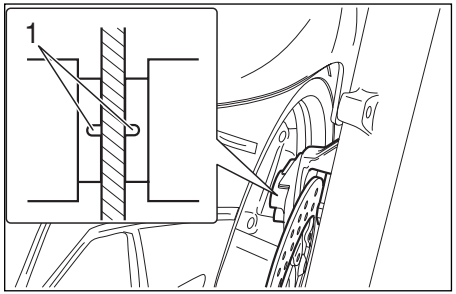
Adjusting the brake pedal position

The top of the brake pedal should be positioned approximately 43 mm below the top of the footrest as shown. Periodically check the brake pedal position and, if necessary, have a Yamaha dealer adjust it.

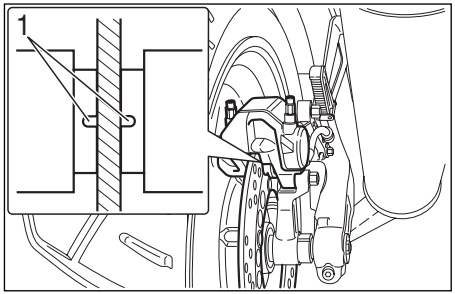
EW000109

⚠ WARNING

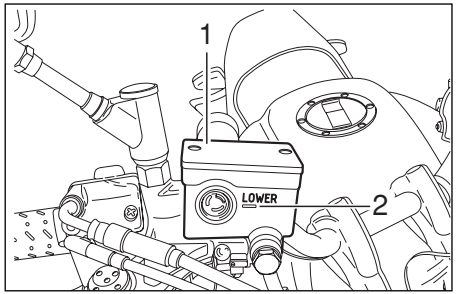
A soft or spongy feeling in the brake pedal can indicate the presence of air in the hydraulic system. If there is air in the hydraulic system, have a Yamaha dealer bleed the system before operating the motorcycle. Air in the hydraulic system will diminish the braking performance, which may result in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



1. Front brake pad wear indicator groove



1. Rear brake pad wear indicator groove



1. Front brake master cylinder
2. Minimum level mark

EAU00715

Checking the front and rear brake pads

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, which allows you to check the brake pad wear without having to disassemble the brake.

To check the brake pad wear, check the position of the wear indicator while applying the brake. If a brake pad has worn to the point that the wear indicator almost touches the brake disc, have a Yamaha dealer replace the brake pads as a set.

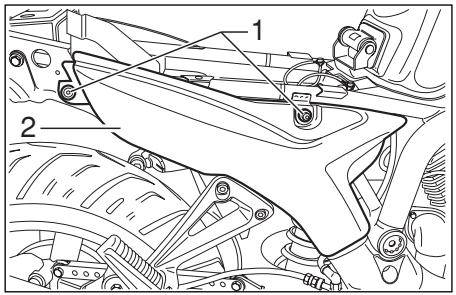
EAU03776

Checking the brake fluid level

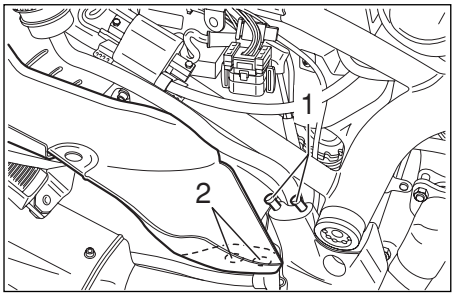
Insufficient brake fluid may allow air to enter the brake system, possibly causing it to become ineffective.

Before riding, check that the brake fluid is above the minimum level mark and replenish if necessary.

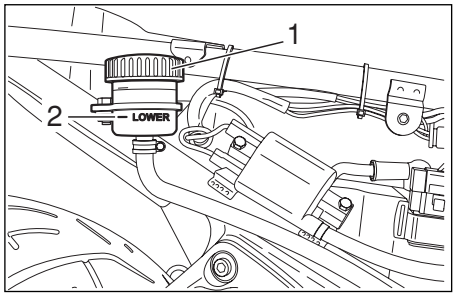
A low brake fluid level may indicate worn brake pads and/or brake system leakage. If the brake level is low, be sure to check the brake pads for wear and the brake system for leakage.



1. Screw (x 2)
2. Right panel



1. Pin (x 2)
2. Pin seat (x 2)



1. Rear brake fluid reservoir
2. Minimum level mark

Observe these precautions:

- When checking the fluid level, make sure that the top of the brake fluid reservoir is level.
- Use only the recommended quality brake fluid, otherwise the rubber seals may deteriorate, causing leakage and poor braking performance.
- Refill with the same type of brake fluid. Mixing fluids may result in a harmful chemical reaction and lead to poor braking performance.

Recommended brake fluid: DOT 4

- Be careful that water does not enter the brake 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.

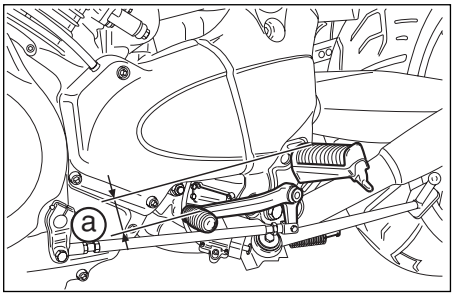
- As the brake pads wear, it is normal for the brake fluid level to gradually go down. However, if the brake fluid level goes down suddenly, have a Yamaha dealer check the cause.

EAU03976

Changing the brake fluid

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

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



a. Distance between shift pedal and footrest

EAUB0011

Adjusting the shift pedal position

The top of the shift pedal should be positioned approximately 45 mm below the top of the footrest as shown.

Periodically check the shift pedal position and, if necessary, have a Yamaha dealer adjust it.

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.

EAU03209

Checking and lubricating the throttle grip and cable

The operation of the throttle grip and the condition of the throttle cable should be checked before each ride, and the cable should be lubricated or replaced if necessary.

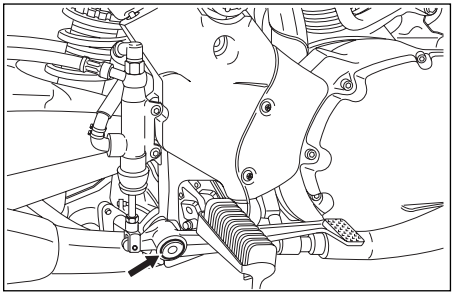
NOTE:

Since the throttle grip must be removed to access the throttle cable end, the throttle grip and the cable should always be lubricated at the same time.

1. Remove the throttle grip by removing the screws.
2. Disconnect the throttle cable, hold it up, and then apply several drops of oil to the cable end, allowing it to trickle into the sheath.
3. Connect the throttle cable, and then grease the inside of the throttle grip housing.
4. Grease the metal-to-metal contact surface of the throttle grip, and then install the grip by installing the screws.

Recommended lubricant:
Throttle cable:
Engine oil
Throttle grip housing and grip:
Lithium-soap-based grease (all-purpose grease)

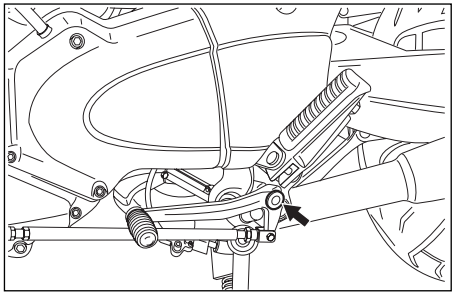
6



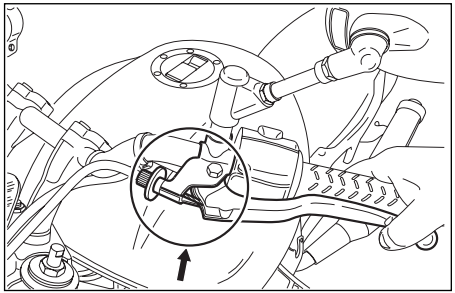
EAU03370

Checking and lubricating the brake and shift pedals

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)

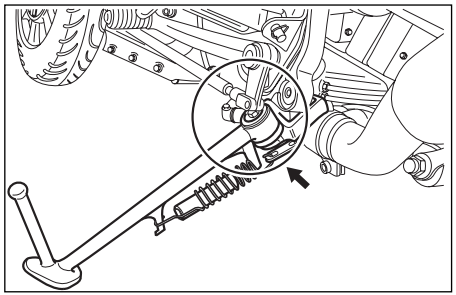


EAU03164

Checking and lubricating the brake and clutch levers

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)



EAU03165

Checking and lubricating the sidestand

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

⚠ WARNING EW000113

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

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

EAU02939

Checking the front fork

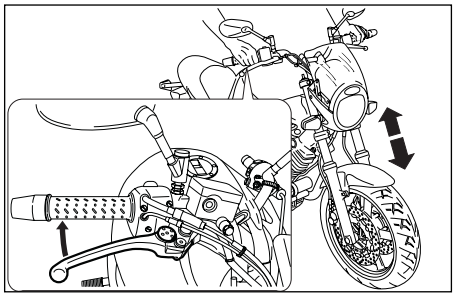
The condition and operation of the front fork must be checked as follows at the intervals specified in the periodic maintenance and lubrication chart.

To check the condition

⚠ WARNING EW000115

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.



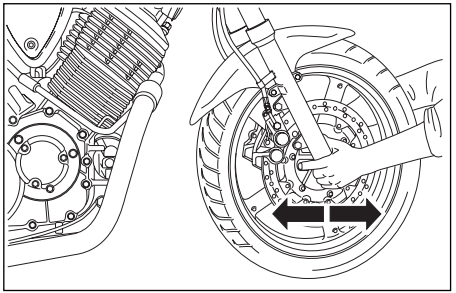
To check the operation

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.

CAUTION: EC000098

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

6



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.

EAU01144

Checking the wheel bearings

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.

EAU00800

Battery

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.

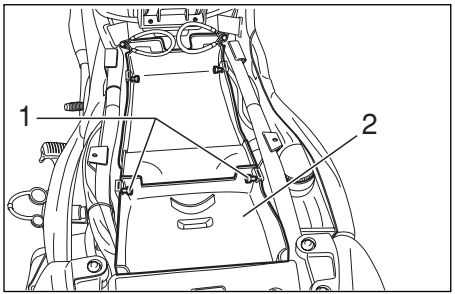
EC000101

CAUTION:

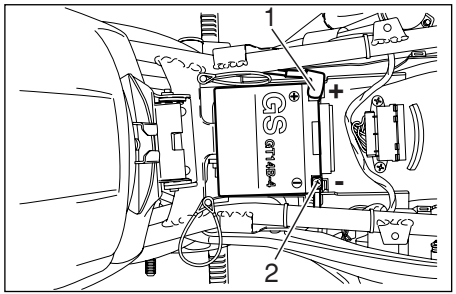
Never attempt to remove the battery cell seals, as this would permanently damage the battery.

⚠ WARNING EW000116

- **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.**



1. Screw (x 2)
2. Storage compartment



1. Positive battery terminal
2. Negative battery terminal

6

EAU00462

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.

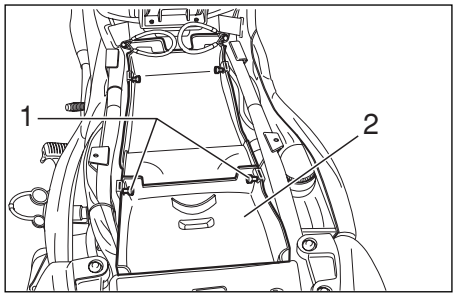
To store the battery

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.

EC000102

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.**



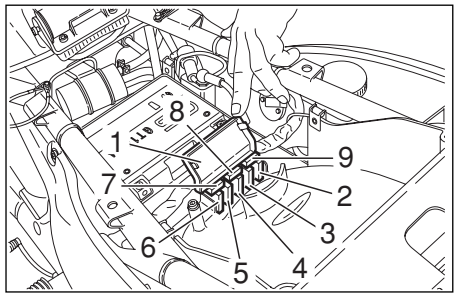
1. Screw (x 2)
2. Storage compartment

EAUB0012

Replacing the fuses

The fuse box is located under the seat. (See page 3-13 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.



1. Fuse box cover
2. Main fuse
3. Headlight fuse
4. Signaling system fuse
5. Ignition fuse
6. Backup fuse (odometer)
7. Carburetor heater fuse
8. Spare fuse (x 4)

Specified fuses:	
Main fuse:	30 A
Backup fuse (odometer):	5 A
Ignition fuse:	10 A
Headlight fuse:	15 A
Carburetor heater fuse	15 A
Signaling system fuse:	10 A

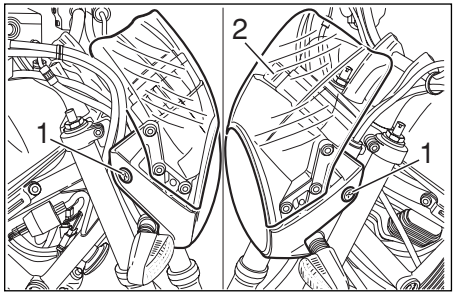
EC000103

CAUTION:

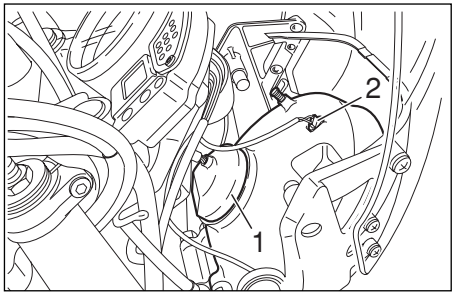
Do not use a fuse of a higher amperage rating than recommended to avoid causing extensive damage to the electrical system and possibly a fire.

3. Turn the key to "Ω" (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.

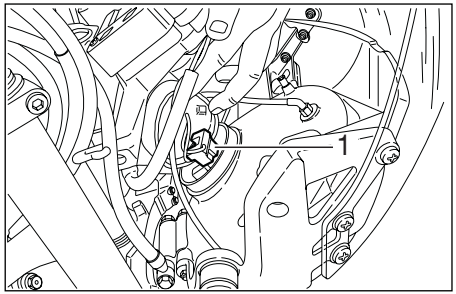
6



1. Screw (x 2)
2. Cowling



1. Headlight bulb cover
2. Auxiliary light bulb holder



1. Headlight coupler

EAUB0013

Replacing the headlight and auxiliary light bulb

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

NOTE:

Skip steps 6-10 if only the headlight bulb is being replaced. Skip steps 2-5 if only the auxiliary light bulb is being replaced.

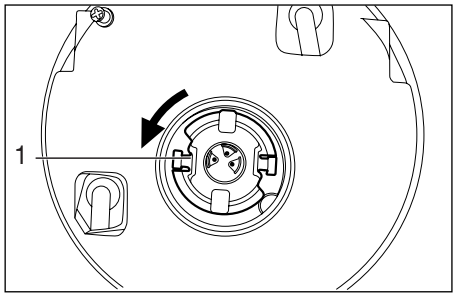
1. Remove the headlight by removing the screws, then tilt the cowling forward.
2. Disconnect the headlight coupler and the auxiliary light leads, and then remove the headlight bulb cover.
3. Remove the headlight bulb holder by turning it counterclockwise, and then remove the defective bulb.

EW000119

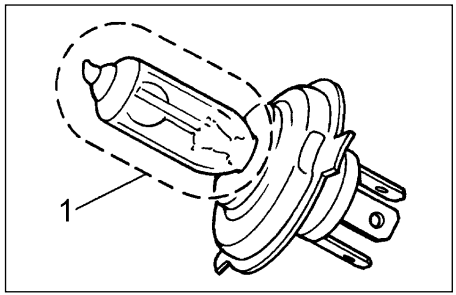
⚠ WARNING

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.

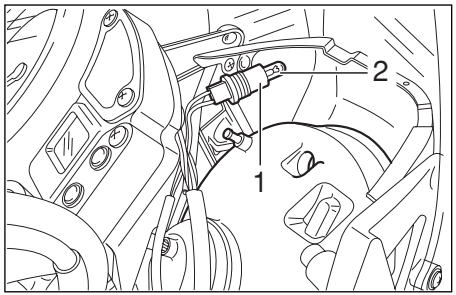
4. Place a new bulb into position, and then secure it with the bulb holder.



1. Headlight bulb holder



1. Do not touch this area



1. Auxiliary light bulb holder
2. Auxiliary light bulb

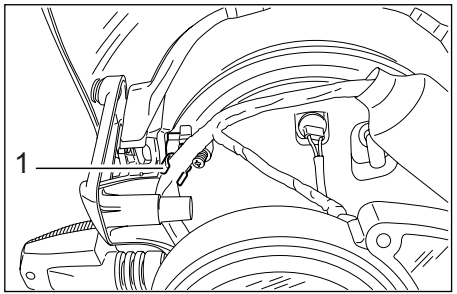
EC000105

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 and auxiliary light leads.
6. Remove the socket (together with the bulb) by turning it counterclockwise.
7. Remove the defective bulb by pushing it in and turning it counterclockwise.
8. Insert a new bulb into the socket, push it in, and then turn it clockwise until it stops.
9. Install the socket (together with the bulb) by turning it clockwise.
10. Connect the auxiliary light bulb leads.
11. Tilt the cowling back to the original position, and then install the headlight by installing the screws.

EAU00462

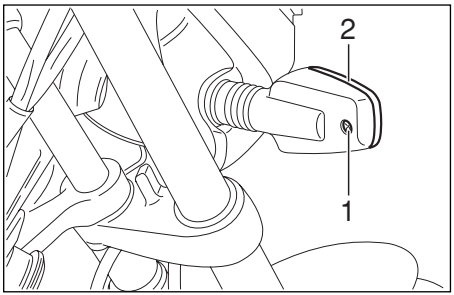


1. Leads guide

NOTE:

Before installing the headlight, be sure to hook the headlight and auxiliary light bulb leads into the guide to the left of the headlight as shown.

12. Have a Yamaha dealer adjust the headlight beam if necessary.



1. Screw
2. Turn signal light len

EAU03497

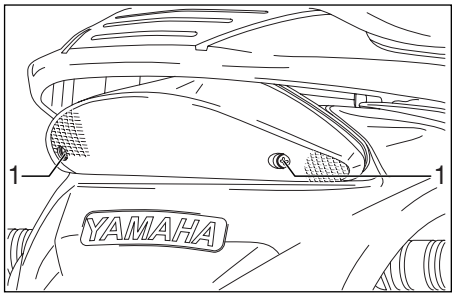
Replacing a turn signal light bulb

1. Remove the turn signal light lens by removing the screw.
2. Remove the defective bulb by pushing it in and turning it counterclockwise.
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.

EC000065

CAUTION:

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



1. Screw (x 2)

EAU01623

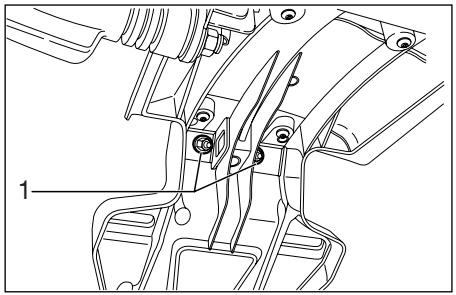
Replacing the tail/brake light bulb

1. Remove the tail/brake light lens by removing the screws.
2. Remove the defective bulb by pushing it in and turning it counterclockwise.
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 screws.

EC000108

CAUTION:

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

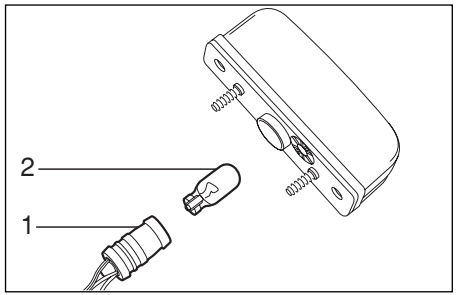


1. Nut (x 2)

EAUB0019

Replacing the license plate light bulb

1. Remove the license plate light by removing the nuts.
2. Remove the bulb socket from the license plate light by pulling it out.
3. Remove the defective bulb by pulling it out.
4. Insert a new bulb into the socket.
5. Install the bulb socket into the license plate light.
6. Install the license plate light by installing the nuts.



1. Bulb socket
2. Bulb

EAUB0015

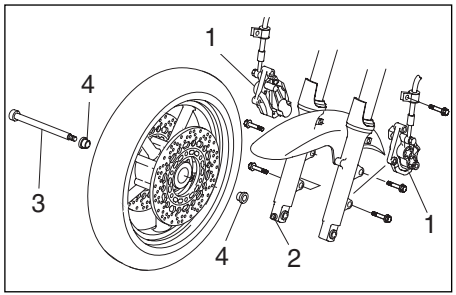
Front wheel

To remove the front wheel

⚠ WARNING EW000122

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. Mark either side of the wheel so that it can be installed in the original running direction.
2. Remove the brake calipers by removing the bolts.



1. Brake caliper (x 2)
2. Wheel axle pinch bolt
3. Wheel axle
4. Spacer (x 2)

CAUTION: ECA00047

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

3. Loosen the front wheel axle pinch bolt, then the wheel axle.
4. Pull the wheel axle out together with the spacers, and then remove the wheel.

EAB00016

To install the front wheel

1. Lift the wheel up between the fork legs.
2. Install the spacers and insert the wheel axle.
3. Lower the front wheel so that it is on the ground.
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. Tighten the wheel axle, then the front wheel axle pinch bolt, and the brake caliper bolts to the specified torques.

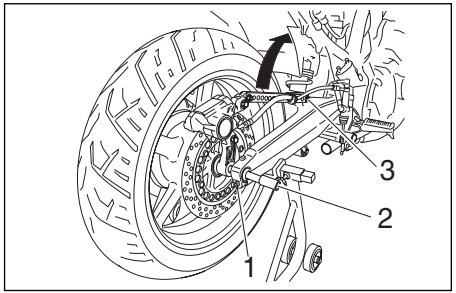
Tightening torques:

Wheel axle:
75 Nm (7.5 m·kgf)

Front wheel axle pinch bolt:
25 Nm (2.5 m·kgf)

Brake caliper bolt:
42 Nm (4.2 m·kgf)

6. Push down hard on the handlebar several times to check for proper fork operation.



1. Wheel axle pinch bolt
2. Axle nut
3. Brake torque rod bolt

EAUB0017

Rear wheel

To remove the rear wheel

⚠ WARNING EW000122

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 rear wheel axle pinch bolt, and then remove the axle nut.

2. Remove the brake torque rod bolt from the brake caliper bracket, and then turn the caliper up, away from the disc.
3. Remove the wheel axle together with the spacers.
4. Pull the wheel to the right to separate it from the final gear case, and then remove it.

ECA00062

CAUTION:

Do not push the brake pedal after the wheel has been removed together with the brake disc, otherwise the brake pads will be forced shut.

EAUB0018

To install the rear wheel

1. Apply a light coating of lithium-soap-based grease to the splines of the final gear case and wheel hub.
2. Install the wheel by inserting the wheel axle, then installing the axle nut.
3. Turn the caliper down so that it fits over the brake disc.

NOTE:

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

4. Install the wheel axle pinch bolt.
5. Install the brake torque rod bolt at the brake caliper bracket.
6. Install the wheel axle pinch bolt.
7. Lower the rear wheel so that it is on the ground.
8. Tighten the axle nut, wheel axle pinch bolt, and brake torque rod bolt to the specified torques.

Tightening torques:
Axle nut:
110 Nm (11.0 m·kgf)
Wheel axle pinch bolt:
22 Nm (2.2 m·kgf)
Brake torque rod bolt:
35 Nm (3.5 m·kgf)

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.

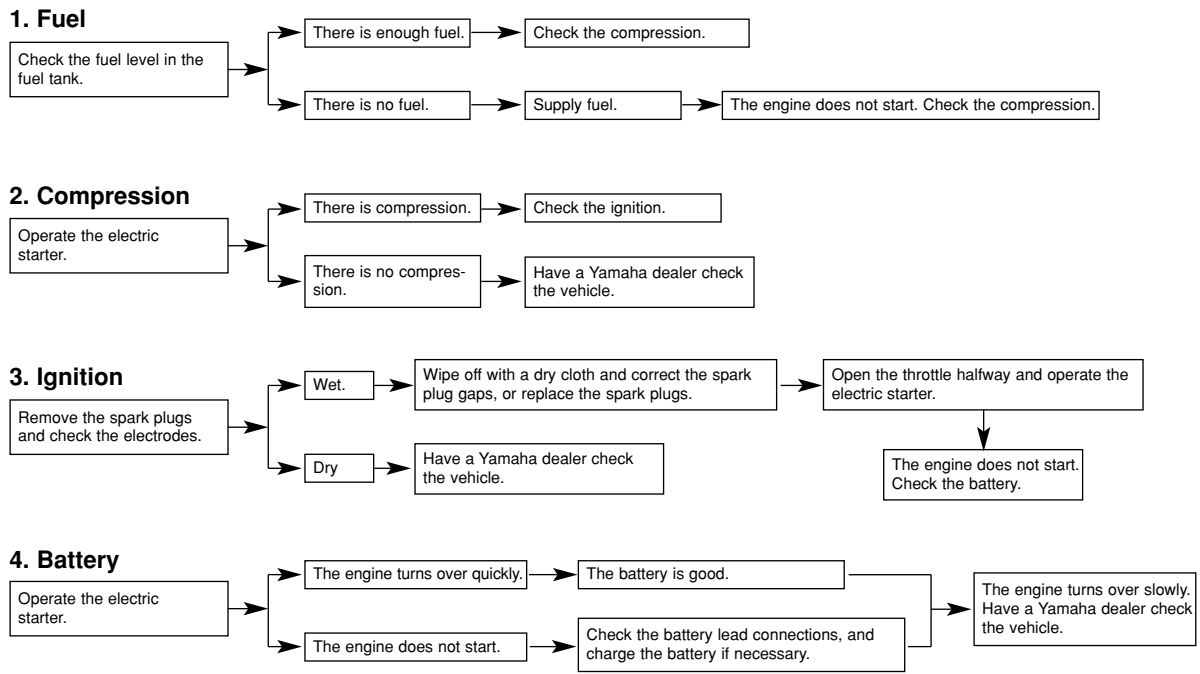
Use only genuine Yamaha replacement parts. Imitation parts may look like Yamaha parts, but they are often inferior, have a shorter service life and can lead to expensive repair bills.

EAU01297

Troubleshooting chart

⚠ WARNING EW000125

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



6

MOTORCYCLE CARE AND STORAGE

MOTORCYCLE CARE AND STORAGE

EAU03412

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.

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 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.**

7

- **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 swingarm 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.

EAU03412

After cleaning

1. Dry the motorcycle with a chamois or an absorbing cloth.
2. 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).
3. To prevent corrosion, it is recommended to apply a corrosion protection spray on all metal, including chrome- and nickel-plated, surfaces.
4. Use spray oil as a universal cleaner to remove any remaining dirt.
5. Touch up minor paint damage caused by stones, etc.
6. Wax all painted surfaces.
7. Let the motorcycle dry completely before storing or covering it.

EWA00031

⚠ 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 riding at higher speeds, test the motorcycle's braking performance and cornering behavior.**

ECA00013

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.

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. For motorcycles equipped with a fuel cock that has an "OFF" position: Turn the fuel cock lever to "OFF".
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.

EAU03412

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 6-27.

NOTE:
Make any necessary repairs before storing the motorcycle.

SPECIFICATIONS

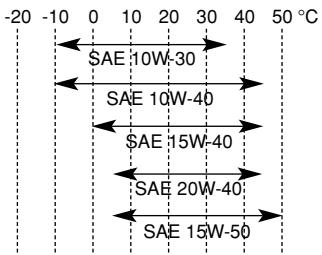
SPECIFICATIONS

Specifications

Model	BT1100
Dimensions	
Overall length	2,200 mm
Overall width	800 mm
Overall height	1,140 mm
Seat height	812 mm
Wheelbase	1,530 mm
Ground clearance	168 mm
Minimum turning radius	2,980 mm
Basic weight (with oil and full fuel tank)	250.5 kg
Engine	
Engine type	Air-cooled 4-stroke, SOHC
Cylinder arrangement	V type 2-cylinder
Displacement	1,063 cm^3
Bore x stroke	95.0 x 75.0 mm
Compression ratio	8.3 : 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.8

Quantity	
Without oil filter cartridge replacement	3.0 L
With oil filter cartridge replacement	3.1 L
Total amount (dry engine)	3.6 L

8

Final gear oil	
Type	Hypoid gear oil SAE 80 (API GL4) or multigrade hypoid gear oil SAE 80W-90
Quantity	0.2 L
Air filter	Dry type element
Fuel	
Type	Regular unleaded gasoline
Fuel tank capacity	20 L
Fuel reserve amount	5.8 L
Carburetor	
Manufacturer	MIKUNI
Model x quantity	BSR37 x 2
Spark plug	
Manufacturer/model	NGK / BPR7ES or DENSO / W22EPR-U
Gap	0.7–0.8 mm
Clutch type	Wet, multiple-disc
Transmission	
Primary reduction system	Spur gear
Primary reduction ratio	1.660
Secondary reduction system	Shaft drive
Secondary reduction ratio	2.875
Transmission type	Constant mesh 5-speed
Operation	Left foot
Gear ratio	1st 2,353
	2nd 1,667
	3rd 1,286
	4th 1,032
	5th 0,853
Chassis	
Frame type	Twin tube Backbone
Caster angle	25°
Trail	106 mm
Tires	
Front	
Type	Tubeless
Size	120/70-ZR17 (58W)
Manufacturer/ model	Dunlop / D205F TL Metzeler / MEZ3F TL
Rear	
Type	Tubeless
Size	170/60-ZR17 (72W)
Manufacturer/ model	Dunlop / D205 TL Metzeler / MEZ3 TL
Maximum load*	200 kg

Tire air pressure
(measured on cold tires)

Up to 90 kg*

Front	230 kPa; 2.30 kg/cm²; 2.30 bar
Rear	250 kPa; 2.50 kg/cm²; 2.50 bar

90 kg–maximum*

Front	250 kPa; 2.50 kg/cm²; 2.50 bar
Rear	270 kPa; 2.70 kg/cm²; 2.70 bar

* Total weight of rider, passenger, cargo and accessories

Wheels

Front

Type	Cast wheel
Size	17 x MT 3.50

Rear

Type	Cast wheel
Size	17 x MT 5.50

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 (link suspension)

Spring/shock absorber

Front:	Coil spring / oil damper
Rear:	Coil spring / gas-oil damper, spring preload adjustable

Wheel travel

Front:	130 mm
Rear:	113 mm

Electrical system

Ignition system	Transistorized coil ignition (digital)

Charging system

Type	A.C. magneto
Standard output	14V, 350W at 5,000 r/min

Battery	
Model	GT14B-4
Voltage, capacity	12 V, 12 Ah
Headlight type	Quartz bulb (halogen)
Bulb voltage, wattage x quantity	
Headlight	12 V 60 W / 55 W x 1
Auxiliary light	12 V 5 W x 1
Tail/brake light	12 V 5 W / 21 W
Turn signal indicator light	12 V 10 W x 4
Meter lighting	14 V - 1.2 W x 4
Oil level warning light	LED x 1
Neutral indicator light	LED x 1
Turn signal light	LED x 1
High beam indicator light	LED x 1
Fuel level warning light	LED x 1
Fuses	
Main fuse	30 A
Backup fuse (odometer)	5 A
Ignition fuse	10 A
Headlight fuse	15 A
Carburetor heater fuse	15 A
Signaling system fuse	10 A

EAU01064

Conversion table

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

Example

METRIC		MULTIPLIER		IMPERIAL
** mm	x	0.03937	=	** in
2 mm	x	0.03937	=	0. 08 in

8

Conversion table

METRIC TO IMPERIAL			
	Metric unit	**Multiplier**	**Imperial unit**
Torque	m·kg	7.233	ft·lb
	m·kg	86.794	in·lb
	cm·kg	0.0723	ft·lb
	cm·kg	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
	kg/cm^2	14.2234	psi (lb/in^2)
	Centigrade (°C)	9/5 + 32	Fahrenheit (°F)

CONSUMER INFORMATION

EAU01039

EAU02944

Identification numbers

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.

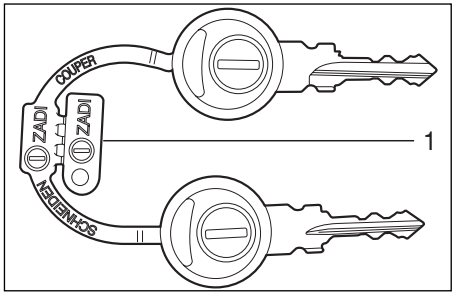
1. KEY IDENTIFICATION NUMBER:

2. VEHICLE IDENTIFICATION NUMBER:

3. MODEL LABEL INFORMATION:

○

●

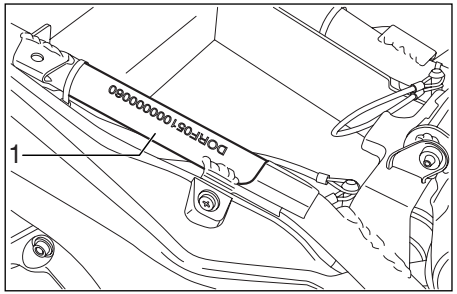


1. Key identification number

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.

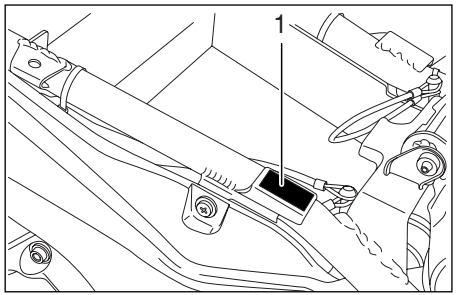


1. Vehicle identification number

EAU01044

Vehicle identification number

The vehicle identification number is stamped into the frame.
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.



1. Model label

EAU01050

Model label

The model label is affixed to the frame under the seat. (See page 3--13 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.

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BELGARDA s.p.a.

distributrice esclusiva per l'Italia
20050 Gerno di Lesmo (MI) - Via Tinelli, 67/69
Telefono (039) 60961 Ricerca automatica

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