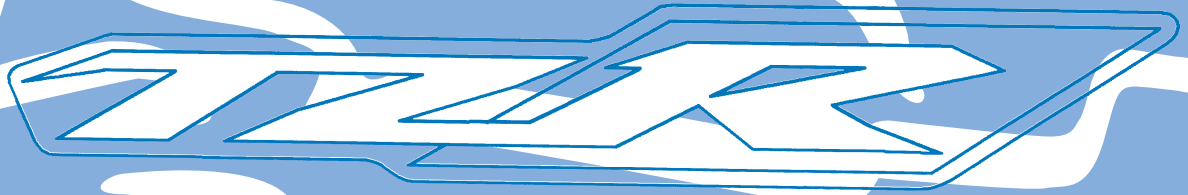
YAMAHA

OWNER'S MANUAL



TZR50

5WX-F8199-E1

INTRODUCTION

EAU10100

Welcome to the Yamaha world of motorcycling!
As the owner of the TZR50, 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 TZR50. 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

EAU10150

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

EWA10030

⚠ WARNING

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

IMPORTANT MANUAL INFORMATION

EAUS1171

TZR50
OWNER'S MANUAL

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

HE OR SHE SHOULD:

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

Safe riding

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

  Therefore:
  - Wear a brightly colored jacket.
  - Use extra caution when approaching and passing through intersections, since intersections are the most likely places for motorcycle accidents to occur.
  - Ride where other motorists can see you. Avoid riding in another motorist's blind spot.
- Many motorcycle accidents involve inexperienced operators. In fact, many operators who have been involved in accidents do not even have a current motorcycle license.
  - Make sure that you are qualified and that you only lend your motorcycle to other qualified operators.
  - Know your skills and limits. Staying within your limits may help you to avoid an accident.

- We recommend that you practice riding your motorcycle where there is no traffic until you have become thoroughly familiar with the motorcycle and all of its controls.

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

Protective apparel

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

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

Modifications

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

Loading and accessories

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

Loading

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

Maximum load:
195 Kg (429,98 lb)

When loading within this weight limit, keep the following in mind:

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

Accessories

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

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

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

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

- Use caution when adding electrical accessories. If electrical accessories exceed the capacity of the motorcycle's electrical system, an electric failure could result, which could cause a dangerous loss of lights or engine power.

Gasoline and exhaust gas

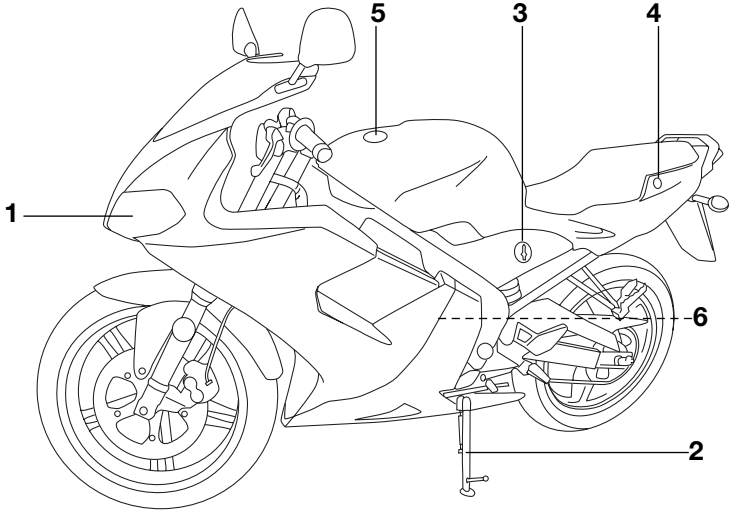
- GASOLINE IS HIGHLY FLAMMABLE:
  - Always turn the engine off when refueling.
  - Take care not to spill any gasoline on the engine or exhaust system when refueling.
  - Never refuel while smoking or in the vicinity of an open flame.
- Never start the engine or let it run for any length of time in a closed area. The exhaust fumes are poisonous and may cause loss of consciousness and death within a short time. Always operate your motorcycle in an area that has adequate ventilation.
- Always turn the engine off before leaving the motorcycle unattended and remove the key from the main switch. When parking the motorcycle, note the following:
  - The engine and exhaust system may be hot, therefore, park the motorcycle in a place where pedestrians or children are not likely to touch these hot areas.
  - Do not park the motorcycle on a slope or soft ground, otherwise it may fall over.
  - Do not park the motorcycle near a flammable source (e.g. a kerosene heater, or near an open flame), otherwise it could catch fire.
- When transporting the motorcycle in another vehicle, make sure that it is kept upright and that the fuel cock is turned to "ON" or "RES" (for vacuum type) / "OFF" (for manual type). If it should lean over, gasoline may leak out of the carburetor or fuel tank.

- If you should swallow any gasoline, inhale a lot of gasoline vapor, or allow gasoline to get into your eyes, see your doctor immediately. If any gasoline spills on your skin or clothing, immediately wash the affected area with soap and water and change your clothes.

DESCRIPTION

EAU10410

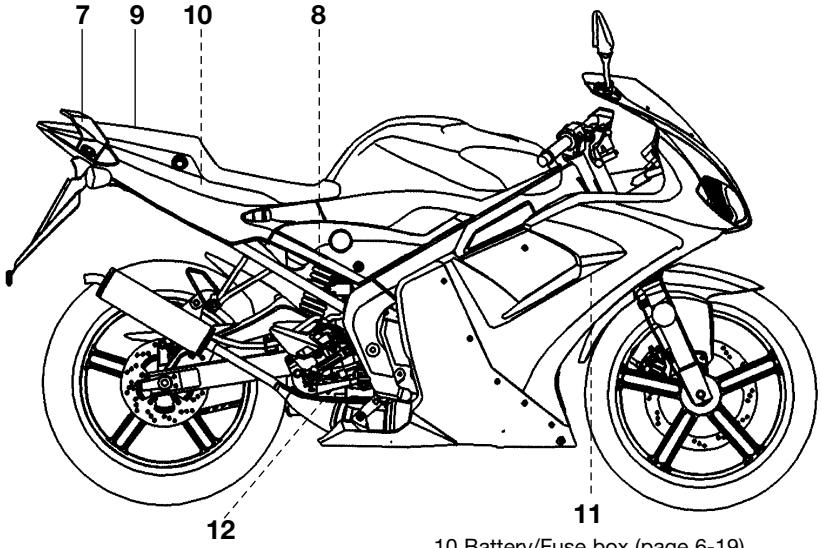
Left view



1 Headlight (page 6-21)
2 Sidestand (page 3-8)
3 Fuel cock (page 3-6)
4 Seat lock (page 3-7)
5 Fuel tank cap (page 3-5)
6 Coolant recovery tank (page 6-8)

EAU10420

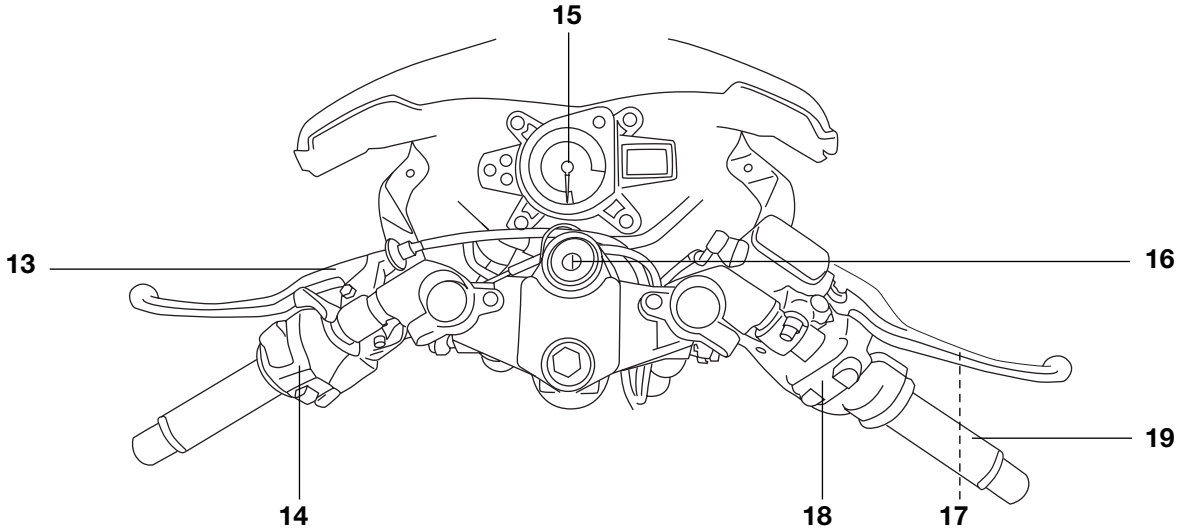
Right view



7 Passenger handle
8 Rear shock absorber
9 Seat (page 3-7)
10 Battery/Fuse box (page 6-19)
11 Radiator
12 Rear brake pedal (page 3-5)

EAU10430

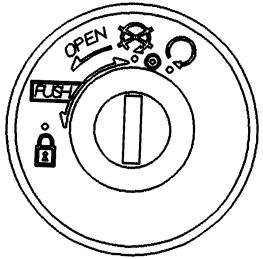
Controls and instruments



13 Clutch lever (page 3-4)
14 Left handlebar switch (page 3-3)
15 Controls and instruments (page 3-2)
16 Main switch/Steering lock (page 3-1)
17 Front brake lever (page 3-4)
18 Right handlebar switch (page 3-3)
19 Throttle grip (page 6-9)

EAU10460

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.

EAU10640

ON

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

NOTE:

The headlight, meter lighting and taillight come on automatically when the engine is started.

EAU10660

OFF

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

EAU10670

"○"

The 2-stroke engine oil level warning light should come on. (See page 3-2.)

EAUM1020

"○"

The coolant temperature warning light should come on when the key is turned to "○". (See page 3-2.)

EAU10680

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.

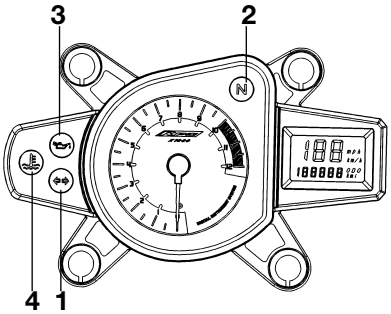
EWA10060

⚠ WARNING

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

EAU10980

Indicator lights



1. Turn signal indicator light "◆⇨"
2. Neutral indicator light "N"
3. Oil level warning light "🛢"
4. Coolant temperature warning light "🌡"

EAU11020

Turn signal indicator light "⇦⇨"

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

EAU11060

Neutral indicator light "N"

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

EAU11120

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 by turning the key to "ON".

If the warning light does not come on for a few seconds, then go off, 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.

EAU11440

Coolant temperature warning light "🌡"

This warning light comes on when the engine overheats. When this occurs, stop the engine immediately and allow the engine to cool.

The electrical circuit of the warning light can be checked by turning the key to "ON".

If the warning light does not come on for a few seconds, then go off, have a Yamaha dealer check the electrical circuit.

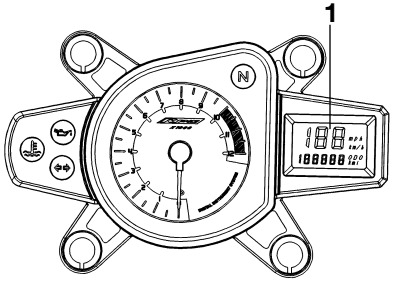
ECA10020

CAUTION

Do not operate the engine if it is overheated.

EAU11620

Speedometer unit

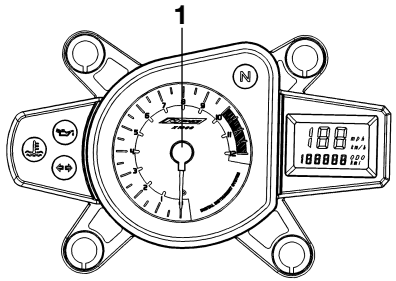


1. Speedometer/Odometer

The speedometer unit is equipped with a speedometer and an odometer. The speedometer shows riding speed. The odometer shows the total distance traveled.

EAU11880

Tachometer



1. Tachometer

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

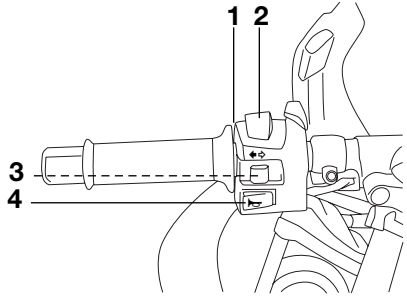
ECA10030

CAUTION

Do not operate the engine in the tachometer red zone.
Red zone: 10000 r/min and above

EAU12343

Handlebar switches



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

EAU12350

Pass switch "≡D"
Press this switch to flash the headlight.

EAU12400

Dimmer switch "≡D/≡D"
Set this switch to "≡D" for the high beam and to "≡D" for the low beam.

EAU12440

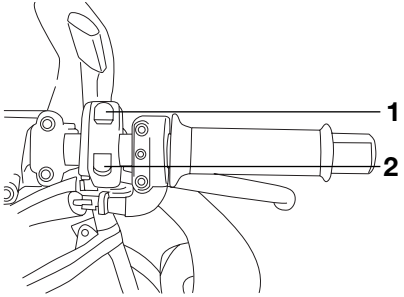
Turn signal switch "TURN"
To signal a right-hand turn, push this switch to the right. To signal a left-hand turn, push this switch to the left. When released, the switch returns to the center position. To cancel the turn signal lights, push the switch in after it has returned to the center position.

EAU12500

Horn switch "⇀"
Press this switch to sound the horn.

EAU12660

Engine stop switch "○/⊠"



1.Stop switch "○/⊠"
2. Start 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.

EAU12690

Start switch "START"

Push this switch to crank the engine with the starter.

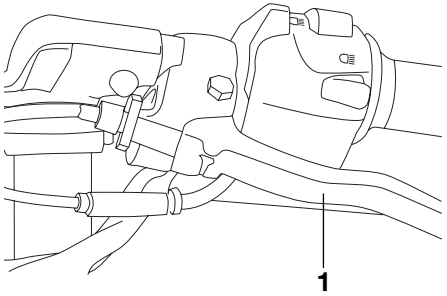
ECA10050

CAUTION

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

EAU12820

Clutch lever



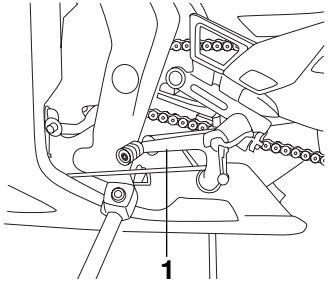
1. Clutch lever

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 3-8.)

EAU12870

Shift pedal

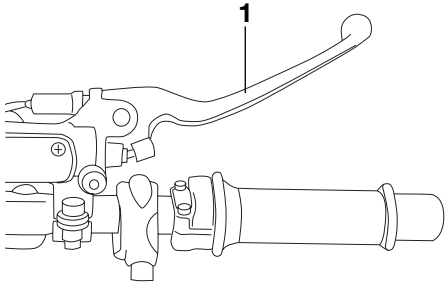


1. Shift pedal

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 6-speed constant-mesh transmission equipped on this motorcycle.

EAU12890

Brake lever

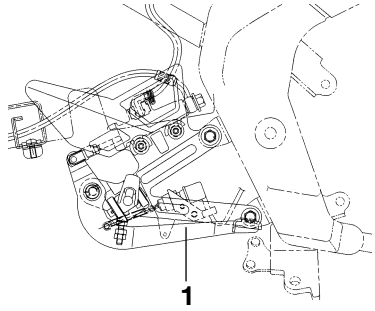


1. Brake lever

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

EAU12941

Brake pedal

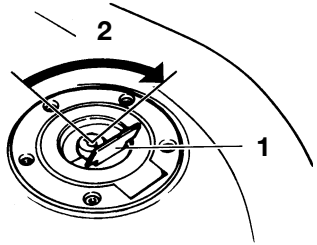


1. Brake pedal

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

EAU13000

Fuel tank cap



1. Key over
2. Open

To remove the fuel tank cap

Insert the key into the lock and turn it 1/4 turn clockwise. The lock will be released and the fuel tank cap can be removed.

To install 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, and then remove it.

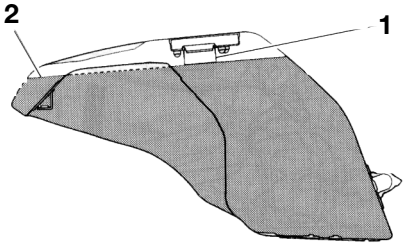
NOTE:

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

EWA11140

⚠ WARNING

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



1. Filling tube
2. Fuel level

EAU13270

Recommended fuel:
REGULAR UNLEADED GASOLINE ONLY
Fuel tank capacity:
13,8 L (3.03 Imp.gal)
Fuel reserve amount:
2,2 L (0.48 Imp.gal)

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

EAU13431

Catalytic converter

This model is equipped with a catalytic converter in the exhaust system.

EWA10860

⚠ WARNING

The exhaust system is hot after operation. Make sure that the exhaust system has cooled down before doing any maintenance work.

ECA10700

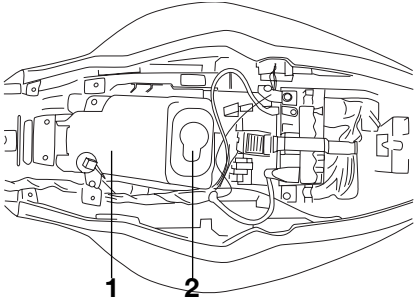
CAUTION

The following precautions must be observed to prevent a fire hazard or other damages.

- **Use only unleaded gasoline. The use of leaded gasoline will cause unrepairable damage to the catalytic converter.**
- **Never park the vehicle near possible fire hazards such as grass or other materials that easily burn.**
- **Do not allow the engine to idle too long.**

EAU13460

2-stroke engine oil



1. 2-stroke engine oil tank
2. 2-stroke engine oil tank cap

Make sure that there is sufficient oil in the 2-stroke engine oil tank. Add the recommended 2-stroke engine oil if necessary.

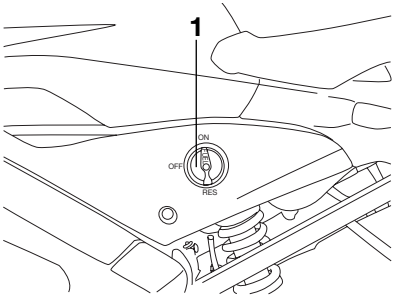
NOTE:

Make sure that the 2-stroke engine oil tank cap is properly installed.

Recommended oil:
Yamalube 2 or equivalent 2-stroke engine oil (JASO grade “FC”, or ISO grades “EG-C” or “EG-D”)
Oil quantity:
1,35 L (1,18 Imp.qt)

EAU13560

Fuel cock



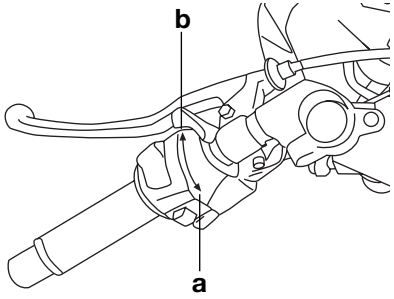
1. Fuel reserve switch

The fuel cock supplies fuel from the tank to the carburetor while filtering it also.
The fuel cock has three positions:
OFF
With the lever in this position, fuel will not flow. Always return the lever to this position when the engine is not running.

ON
With the lever in this position, fuel flows to the carburetor. Normal riding is done with the lever in this position.
RES
This indicates reserve. If you run out of fuel while riding, move the lever to this position. Fill the tank at the first opportunity. Be sure to set the lever back to "ON" after refueling!

EAU13590

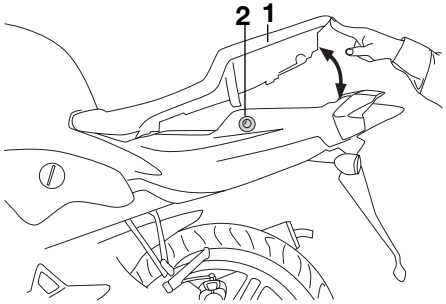
Starter (choke) lever "|↘|"



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

EAU13940

Seat



1. Seat
2. Seat lock

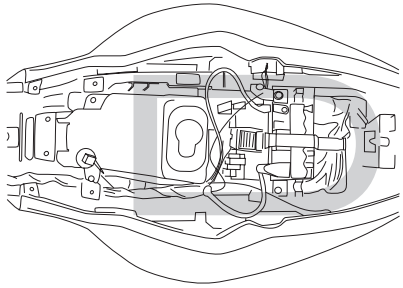
To remove the seat
1. Insert the key into the seat lock, and then turn it clockwise.
2. While holding the key in that position, lift the rear of the seat, and then pull the seat off.

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

NOTE:
Make sure that the seat is properly secured before riding.

EAU14411

Storage compartment



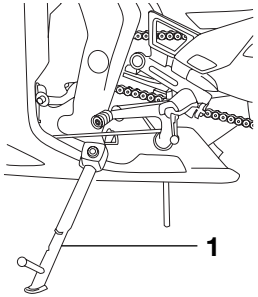
U-lock

This storage compartment is designed to hold an optional genuine Yamaha U-LOCK. (Other locks may not fit.) When placing a U-LOCK in the storage compartment, securely fasten it with the straps. When the U-LOCK is not in the storage compartment, be sure to secure the straps to prevent losing them.

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.

EAU15300

Sidestand



1. Side stand

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.)

EWA10240

⚠ WARNING

The vehicle 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.

EAU15311

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.

EWA10250

⚠ 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 turned on.
3. Turn the key 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.

NOTE:

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

EAU15591

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.

NOTE:

Pre-operation checks should be made each time the vehicle 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.

EWA11150

⚠ WARNING

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

EAU15603

Pre-operation check list

ITEM	CHECKS	PAGE
Fuel	• Check fuel level in fuel tank. • Refuel if necessary. • Check fuel line for leakage.	3-5
2-stroke engine oil	• Check oil level in oil tank. • If necessary, add recommended oil to specified level. • Check vehicle for oil leakage.	3-6
Transmission oil	• Check oil level in transmission case. • If necessary, add recommended oil to specified level.	6-6
Coolant	• Check coolant level in reservoir. • If necessary, add recommended coolant to specified level. • Check cooling system for leakage.	6-8
Front brake	• Check operation. • If soft or spongy, have Yamaha dealer bleed hydraulic system. • Check lever free play. • Adjust if necessary. • Check brake pads for wear. • Replace if necessary. • Check fluid level in reservoir. • If necessary, add recommended brake fluid to specified level. • Check hydraulic system for leakage.	6-14
Rear brake	• Check operation. • If soft or spongy, have Yamaha dealer bleed hydraulic system. • Check brake pads for wear. • Replace if necessary. • Check fluid level in reservoir. • If necessary, add recommended brake fluid to specified level. • Check hydraulic system for leakage.	6-14
Clutch	• Check operation. • Lubricate cable if necessary. • Check lever free play. • Adjust if necessary.	6-12

ITEM	CHECKS	PAGE
Throttle grip	• Make sure that operation is smooth. • Check cable free play. • If necessary, have Yamaha dealer adjust cable free play and lubricate cable and grip housing.	6-9
Control cables	• Make sure that operation is smooth. • Lubricate if necessary.	6-17
Drive chain	• Check chain slack. • Adjust if necessary. • Check chain condition. • Lubricate if necessary.	6-16
Wheels and tires	• Check for damage. • Check tire condition and tread depth. • Check air pressure. • Correct if necessary.	6-10
Brake and clutch levers	• Make sure that operation is smooth. • Lubricate lever pivoting points if necessary.	6-18
Sidestand	• Make sure that operation is smooth. • Lubricate pivot if necessary.	6-18
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.	—
Engine stop switch	• Check operation.	3-3
Sidestand switch	• Check operation of ignition circuit cut-off system. • If system is defective, have Yamaha dealer check vehicle.	3-8

EAU16000

Starting a cold engine

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

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

EWA10290

⚠ WARNING

- **Before starting the engine, check the function of the ignition circuit cut-off system according to the procedure described on page 3-9.**
- **Never ride with the sidestand down.**

1. Turn the fuel cock lever to “ON”.
2. Turn the key to “ON” and make sure that the engine stop switch is set to “○”.
3. Shift the transmission into the neutral position.

NOTE:

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

4. Turn the starter (choke) on and completely close the throttle. (See page 3-7.)
5. Start the engine by pushing the start switch.

NOTE:

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

ECA11160

CAUTION

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 go off after starting with sufficient engine oil, have a Yamaha dealer check the electrical circuit.

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

ECA11040

CAUTION

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

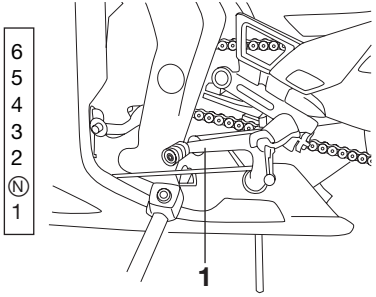
7. When the engine is warm, turn the starter (choke) off.

NOTE:

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

EAU16671

Shifting



1. 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.

ECA10260

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.**

EAU16800

Tips for reducing fuel consumption

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

- 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).

5

EAU16830

Engine break-in

There is never a more important period in the life of your engine than the period between 0 and 1000 km (600 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 1000 km (600 mi). The various parts in the engine wear and polish themselves to the correct operating clearances. During this period, prolonged full-throttle operation or any condition that might result in engine overheating must be avoided.

EAU16860

0~150 km (0~90 mi)

Avoid prolonged operation above 1/3 throttle.

After every hour of operation, stop the engine, and then let it cool for five to ten minutes.

Vary the engine speed from time to time. Do not operate the engine at one set throttle position.

150~500 km (90~300 mi)

Avoid prolonged operation above 1/2 throttle.

500~1000 km (300~600 mi)

Avoid prolonged operation above 3/4 throttle.

ECA10280

CAUTION

After 1000 km (600 mi) of operation, the engine oil must be changed.

1000 km (600 mi) and beyond

Avoid prolonged full-throttle operation. Vary the speed occasionally.

ECA10270

CAUTION

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

EAU17170

Parking

When parking, stop the engine, remove the key from the main switch, and then turn the fuel cock lever to “OFF”.

EWA10310

⚠ WARNING

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

EAU17240

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.

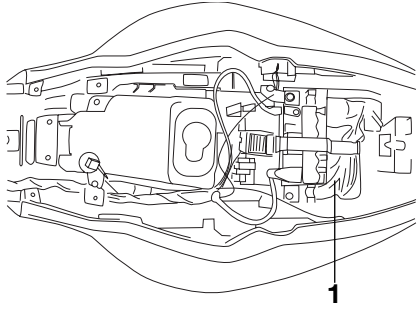
EWA10320

⚠ WARNING

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

EAU17380

Owner's tool kit



1. Owner's took kit

The owner's tool kit is located under the seat. (See page 3-7 for.)

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.

EWA10350

⚠ WARNING

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

6

EAU17710

Periodic maintenance and lubrication chart

NOTE:

- **The annual checks must be performed every year, except if a kilometer-based maintenance is performed instead.**
- From 30000 km, repeat the maintenance intervals starting from 6000 km.
- Items marked with an asterisk should be performed by a Yamaha dealer as they require special tools, data and technical skills.

NO		ITEM	CHEK OR MAINTENANCE JOB	ODOMETER READING (x 1000 Km)					ANNUAL CHECK
				1	6	12	18	24	
1	*	**Fuel line**	Check fuel and vacuum hoses for cracks or damage.		√	√	√	√	√
2		**Spark plug**	Replace.		√	√	√	√	√
3		**Air filter element**	Clean.		√		√		
			Replace.			√		√	
4		**Clutch**	Check operation. Adjust.	√	√	√	√	√	
5	*	**Front brake**	Check operation, fluid level and vehicle for fluid leakage.	√	√	√	√	√	√
			Replace brake pads.	Whenever worn to the limit					
6	*	**Rear brake**	Check operation, fluid level and vehicle for fluid leakage.	√	√	√	√	√	√
			Replace brake pads.	Whenever worn to the limit					
7	*	**Brake hose**	Check for cracks or damage.		√	√	√	√	√
			Replace.	Every 4 years					
8	*	**Wheels**	Check runout and for damage.		√	√	√	√	

NO		ITEM	CHEK OR MAINTENANCE JOB	ODOMETER READING (x 1000 Km)					ANNUAL CHECK
				1	6	12	18	24	
9	*	**Tires**	Check tread depth and for damage. Replace if necessary. Check air pressure. Correct if necessary.		√	√	√	√	√
10	*	**Wheel bearings**	Check bearing for looseness or damage.		√	√	√	√	
11	*	**Swingarm**	Check operation and for excessive play.		√	√	√	√	
			Lubricate with lithium-soap-based grease.	Every 24000 km					
12		**Drive chain**	Check chain slack, alignment and condition. Adjust and thoroughly lubricate chain with engine oil.	Every 500 km and after washing the motorcycle or riding in the rain					
13	*	**Steering bearings**	Check bearing play and steering for roughness.	√	√	√	√	√	
			Lubricate with lithium-soap-based grease.	Every 24000 km					
14	*	**Chassis fasteners**	Make sure that all nuts, bolts and screws are properly tightened.		√	√	√	√	√
15		**Sidestand**	Check operation. Lubricate.		√	√	√	√	√
16	*	**Sidestand switch**	Check operation.	√	√	√	√	√	√
17	*	**Front fork**	Check operation and for oil leakage.		√	√	√	√	
18	*	**Shock absorber assembly**	Check operation and shock absorber for oil leakage.		√	√	√	√	
19	*	**Carburetor**	Check starter (choke) operation. Adjust engine idling speed.	√	√	√	√	√	√
20	*	**Autolube pump**	Check operation. Bleed if necessary.	√		√		√	√
21		**Transmission oil**	Check oil level.	√	√	√	√	√	√
			Change.	√				√	

NO		ITEM	CHEK OR MAINTENANCE JOB	ODOMETER READING (x 1000 Km)					ANNUAL CHECK
				1	6	12	18	24	
22	*	**Cooling system**	Check coolant level and vehicle for coolant leakage.		√	√	√	√	√
			Change.	Every 3 years					
23	*	**Air filter element**	Clean.		√		√		
			Replace.			√		√	

EAU18670

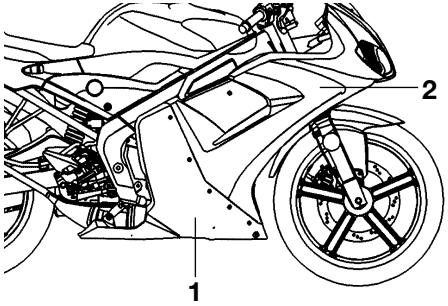
NOTE:

- 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.

6

EAU18781

Removing and installing cowlings

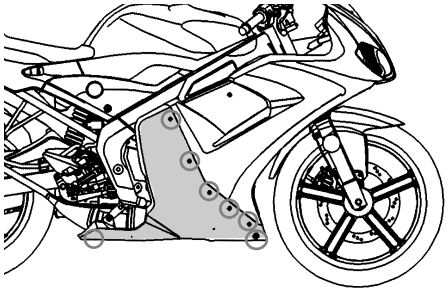


1. Cowling A
2. Cowling B

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

EAU18880

Cowling A



1. Screws (x 7 Right side)
   (x 6 Left side)

To remove the cowling

1. Remove the cowling screws.
2. Push the cowling in lightly, and then pull it back as shown.

ECA11200

CAUTION

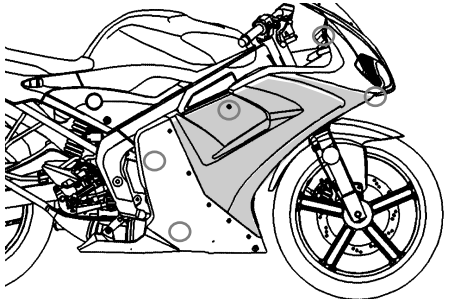
Take care not to damage the tabs on the cowling when removing and or installing it.

To install the cowling

1. Insert the tabs on the cowling into the slots as shown, and then push the cowling in until it snaps into place.
2. Install the cowling screws.

EAU18790

Cowling B



1. Screws (x 5 Rechterkant)
   (x 7 Linkerkant)

To remove the cowling

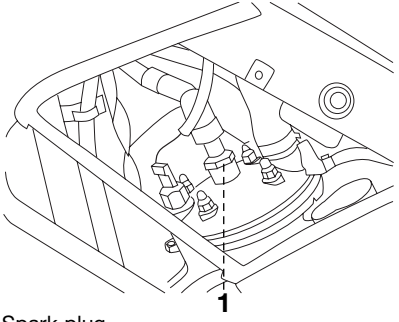
Remove the screws, and then take the cowling off.

To install the cowling

Place the cowling in the original position, and then install the screws.

EAU19620

Checking the spark plug



1. Spark plug

The spark plug is an important engine component, which should be checked periodically, preferably by a Yamaha dealer. Since heat and deposits will cause any spark plug to slowly erode, it should be removed and checked in accordance with the periodic maintenance and lubrication chart. In addition, the condition of the spark plug can reveal the condition of the engine.

The porcelain insulator around the center electrode of the spark plug should be a medium-to-light tan (the ideal color when the vehicle is ridden normally). If the 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 vehicle.

If the spark plug shows signs of electrode erosion and excessive carbon or other deposits, it should be replaced.

Specified spark plug:
BR9ES (NGK)

Before installing a spark plug, the spark plug gap should be measured with a wire thickness gauge and, if necessary, adjusted to specification.

Spark plug gap:
0,6 ~ 0,7 mm (0,023~0,027 in)

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

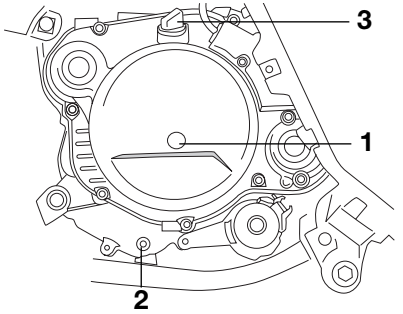
Tightening torque:
Spark plug:
20 Nm (2,0 m•kgf)

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.

EAUM1270

Transmission oil



1. Oil level check bolt
2. Oil drain bolt
3. Oil filler cap

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

To check the transmission oil level

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

NOTE:

Make sure that the vehicle 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 check bolt, and then check the oil level.

NOTE:

The oil should be at the brim of the check hole.

3. If the oil is below the brim of the check hole, remove the oil filler cap, add sufficient oil of the recommended type to raise it to the correct level, and then install the oil filler cap.
4. Install the oil check bolt, and then tighten it to the specified torque.

Tightening torque:
Oil check bolt:
3 Nm (0,3 m•kgf)

To change the transmission oil

1. Place an oil pan under the transmission oil case to collect the used oil.
2. Remove the drain bolt and the oil check bolt to drain the oil.
3. Install the drain bolt and the check bolt, and then tighten them to the specified torque.

Tightening torque:
Transmission oil drain bolt:
17 Nm (1,7 m•kgf)
Oil check bolt:
3 Nm (0,3 m•kgf)

4. Remove the oil filler cap, add the specified amount of the recommended transmission oil, and then install and tighten the oil filler cap.

Recommended transmission oil:
See page 8-1.
Oil change quantity:
0,75 L (0,65 imp.qt)

ECAM1020

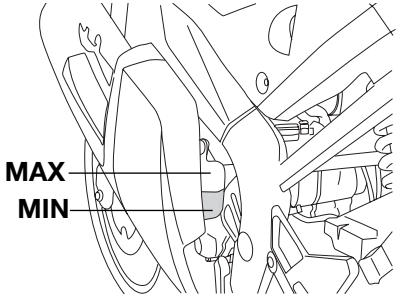
CAUTION

Make sure that no foreign material enters the transmission case.

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

EAU20170

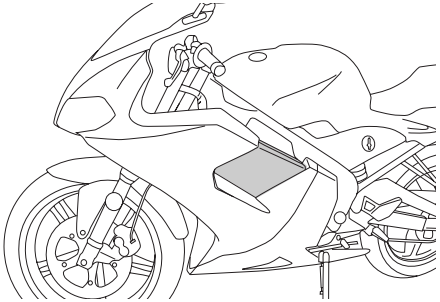
To check the coolant level



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

NOTE:

- The coolant level must be checked on a cold engine since the level varies with engine temperature.
- Make sure that the vehicle is positioned straight up when checking the coolant level. A slight tilt to the side can result in a false reading.



1. Panel

2. Remove panel (1). (See page 6-8.)
3. Check the coolant level in the coolant reservoir.

NOTE:

The coolant should be between the minimum and maximum level marks.

4. If the coolant is at or below the minimum level mark, open the reservoir cap, add coolant to the maximum level mark, and then close the reservoir cap.

Coolant reservoir capacity:
0,45 L (0.39 Imp.qt)

ECA10470

CAUTION

- **If coolant is not available, use distilled water or soft tap water instead. Do not use hard water or salt water since it is harmful to the engine.**
- **If water has been used instead of coolant, replace it with coolant as soon as possible, otherwise the engine may not be sufficiently cooled and the cooling system will not be protected against frost and corrosion.**
- **If water has been added to the coolant, have a Yamaha dealer check the antifreeze content of the coolant as soon as possible, otherwise the effectiveness of the coolant will be reduced.**

EWA10380

⚠ WARNING

Never attempt to remove the radiator cap when the engine is hot.

5. Install the panel.

NOTE:
If the engine overheats, see page 6-5 for further instructions.

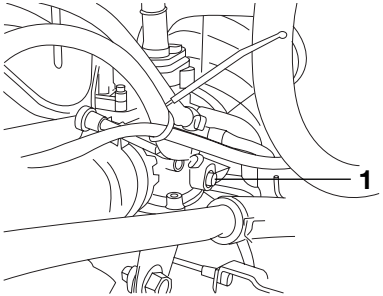
EAU21300

Adjusting the carburetor

The carburetor is an important part of the engine and requires very sophisticated adjustment. Therefore, all carburetor adjustments should be left to a Yamaha dealer, who has the necessary professional knowledge and experience.

EAU21320

Adjusting the engine idling speed



1. Idle aedjusting bolt

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

NOTE:
The engine is warm when it quickly responds to the throttle.

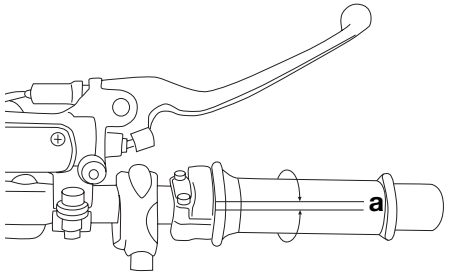
Check the engine idling speed and, if necessary, adjust it to specification by turning the throttle stop screw. To increase the engine idling speed, turn the screw in direction (a). To decrease the engine idling speed, turn the screw in direction (b).

Engine idling speed:
1700 ~ 2000 tpm

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

EAU21370

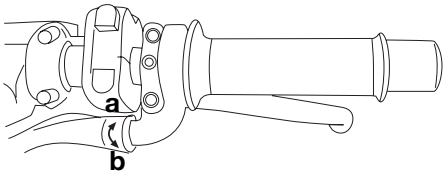
Adjusting the throttle cable free play



(a) Throttle cable free play

The throttle cable free play should measure 2~5 mm (0,08~0,2 in) at the throttle grip. Periodically check the throttle cable free play and, if necessary, adjust it as follows.

NOTE:
The engine idling speed must be correctly adjusted before checking and adjusting the throttle cable free play.



1. Loosen the locknut.
2. To increase the throttle cable free play, turn the adjusting nut in direction (a). To decrease the throttle cable free play, turn the adjusting nut in direction (b).
3. Tighten the locknut.

EAU21500

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.

EWA10440

⚠ WARNING

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

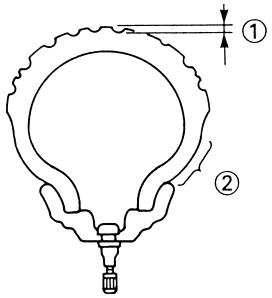
Tire air pressure (measured on cold tires):
Up to 90 kg (198 lb):
Front:
180 kPa (25,6 psi) (1,8 kgf/cm^2)
Rear:
200 kPa (28,4 psi) (2,0 kgf/cm^2)
90 kg (198 lb) to maximum load:
Front:
190 kPa (27 psi) (1,9 kgf/cm^2)
Rear:
230 kPa (32,7 psi) (2,3 kgf/cm^2)
High-speed riding:
Front:
190 kPa (27 psi) (1,9 kgf/cm^2)
Rear:
230 kPa (32,7 psi) (2,3 kgf/cm^2)
Maximum load*:
195 kg (429,9 lb)
* Total weight of rider, cargo and accessories

EWA10450

⚠ WARNING

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

- **NEVER OVERLOAD THE VEHICLE! Operation of an overloaded vehicle may result in tire damage, loss of control, or severe injury. Make sure that the total weight of rider, 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 vehicle 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.**



1. Depth
2. Side face

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 (0.06 in)

NOTE:

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

EWA10470

⚠ WARNING

- **Have a Yamaha dealer replace excessively worn tires. Besides being illegal, operating the vehicle 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.

EWA10480

⚠ WARNING

- **The front and rear tires should be of the same make and design, otherwise the handling characteristics of the motorcycle cannot be guaranteed.**
- **After extensive tests, only the tires listed below have been approved for this model by Yamaha Motor España, S.A.**
- **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 tire:
Size:
100/80-17
Manufacturer/model:
PIRELLI
Rear tire:
Size:
130/70-17
Manufacturer/model:
PIRELLI

EWA10600

⚠ 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.**

EAU21960

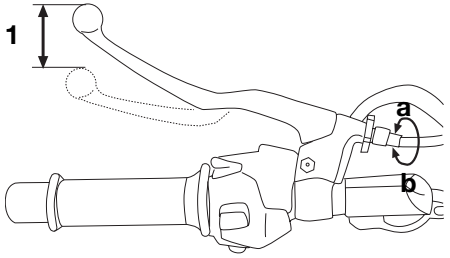
Cast wheels

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.

EAU22041

Adjusting the clutch lever free play



1. Free play

The clutch lever free play should measure 2~5 mm (0,08~0,2 in) 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 (a). To decrease the clutch lever free play, turn the adjusting bolt in direction (b).

NOTE:

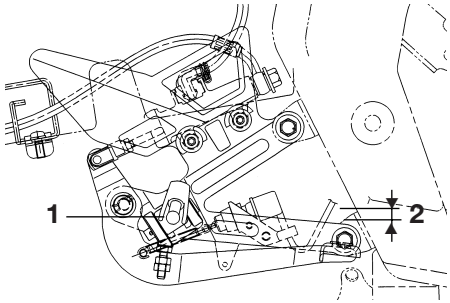
If the specified clutch lever free play could be obtained as described above, tighten the locknut and skip the rest of the procedure, otherwise proceed as follows.

3. Fully turn the adjusting bolt at the clutch lever in direction (a) to loosen the clutch cable.
4. Loosen the locknut at the crankcase.
5. To increase the clutch lever free play, turn the adjusting nut in direction (a). To decrease the clutch lever free play, turn the

adjusting nut in direction (b).
6. Tighten the locknut at the clutch lever and the crankcase.

EAU22220

Adjusting the brake pedal position and free play



1. Position adjusting bolt
2. Brake pedal position

EWA10670

⚠ WARNING

It is advisable to have a Yamaha dealer make these adjustments.

Brake pedal position

The top of the brake pedal should be aligned with the top of the footrest as shown. Periodically check the brake pedal position and, if necessary, adjust it as follows.

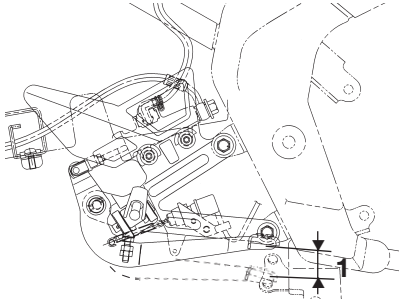
1. Loosen the locknut at the brake pedal.
2. To raise the brake pedal, turn the adjusting bolt in direction (a). To lower the brake pedal, turn the adjusting bolt in direction (b).
3. Tighten the locknut.

EWA11230

⚠ WARNING

After adjusting the brake pedal position, the brake pedal free play must be adjusted.

Brake pedal free play



1. Free play

The brake pedal free play should measure 10~15 mm (0,39~59 in) at the brake pedal end. Periodically check the brake pedal free play and, if necessary, adjust it as follows.

To increase the brake pedal free play, turn the adjusting nut at the brake rod in direction (a). To decrease the brake pedal free play, turn the adjusting nut in direction (b).

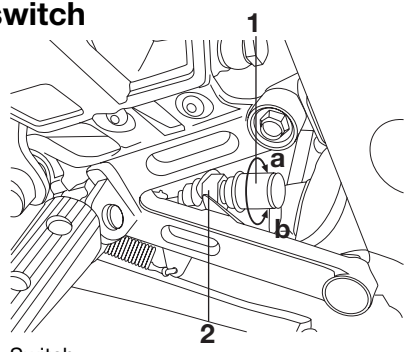
EWA10660

⚠ WARNING

After adjusting the brake pedal free play, check the operation of the brake light.

EAU22270

Adjusting the rear brake light switch



1. Switch
2. Lock nut

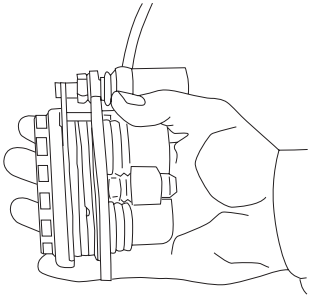
The rear brake light switch, which is activated by the brake pedal, is properly adjusted when the brake light

6

comes on just before braking takes effect. If necessary, adjust the brake light switch as follows.
Turn the adjusting nut while holding the rear brake light switch in place. To make the brake light come on earlier, turn the adjusting nut in direction (a). To make the brake light come on later, turn the adjusting nut in direction (b).

EAU22420

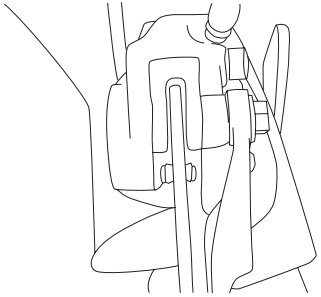
Front brake pads



Each front brake pad is provided with a wear indicator groove, which allows you to check the brake pad wear without having to disassemble the brake. To check the brake pad wear, check the wear indicator groove. If a brake pad has worn to the point that the wear indicator groove has almost disappeared, have a Yamaha dealer replace the brake pads as a set.

EAU22480

Rear brake pads



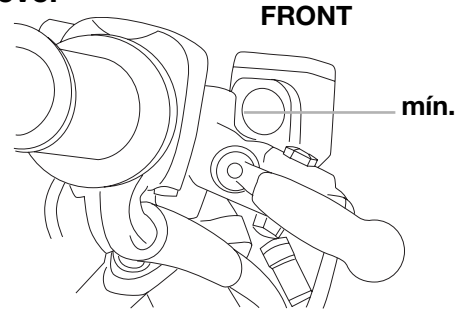
Each rear brake pad is provided with a wear indicator groove, which allows you to check the brake pad wear without having to disassemble the brake. Check the brake pad wear as follows.

1. Remove the brake caliper bolt, and then tilt the caliper forward to inspect the wear indicator groove. If a brake pad has worn to the point that the wear indicator groove has almost disappeared, have a Yamaha dealer replace the brake pads as a set.
2. Install the brake caliper bolt, and then tighten it to the specified torque.

Tightening torque:
Brake caliper bolt:
30 Nm (3,0 m•kgf)

EAU22610

Checking the brake fluid level



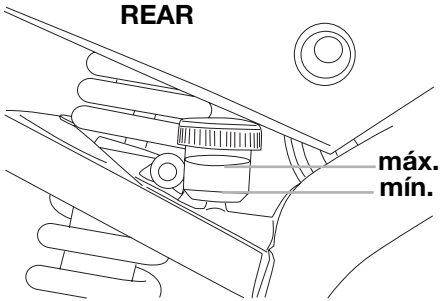
Insufficient brake fluid may allow air to enter the brake system, possibly causing it to become ineffective.

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.
Observe these precautions:

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

Recommended brake fluid:
DOT 4

NOTE:
If DOT 4 is not available, DOT 3 can be used for the front brake system.



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

EAU22720

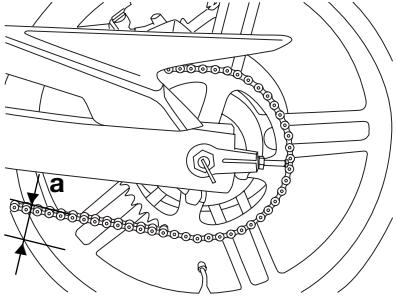
Changing the brake fluid

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 brake master cylinder and caliper as well as the brake hose replaced at the intervals listed below or whenever they are damaged or leaking.

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

EAU22760

Drive chain slack



(a) Drive chain slack

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

EAU22771

To check the drive chain slack

1. Place the motorcycle on the sidestand.

NOTE:

When checking and adjusting the drive chain slack, there should be no weight on the motorcycle.

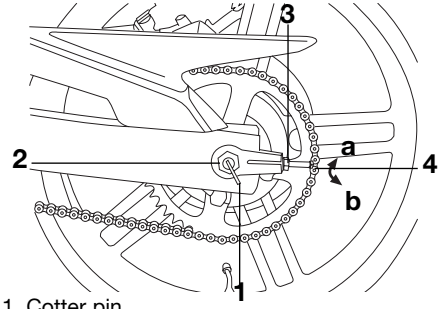
2. Shift the transmission into the neutral position.
3. Move the rear wheel by pushing the motorcycle to locate the tightest portion of the drive chain, and then measure the drive chain slack as shown.

Drive chain slack:
40~50 mm (1,5 ~1,9 in)

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

EAU22920

To adjust the drive chain slack



1. Cotter pin
2. Axle nut
3. Lock nut
4. Chain tensioner

1. Remove the cotter pin from the axle nut, and then loosen the axle nut.
2. Loosen the chain puller locknut at each end of the swingarm.
3. To tighten the drive chain, turn the adjusting nut at each end of the swingarm in direction (a). To loosen the drive chain, turn the adjusting nut at each end of the swingarm in direction (b), and then push the rear wheel forward.

NOTE:

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

ECA10570

CAUTION

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

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

Tightening torque:
Axle nut:
90 Nm (9,0 m•kgf)

5. Insert a new cotter pin into the axle nut, and then bend its ends as shown.

NOTE:
Make sure that two notches in the axle nut are aligned with the hole through the wheel axle, otherwise further tighten the axle nut until they are.

EWA10700

⚠ WARNING

Always use a new cotter pin for the axle nut.

EAU23012

Lubricating the drive chain

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

ECA10581

CAUTION

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

1. Remove all dirt and mud from the drive chain with a brush or cloth.

NOTE:
For a thorough cleaning, have a Yamaha dealer remove the drive chain and soak it in solvent.

2. Spray Yamaha Chain and Cable Lube or a high-quality spray-type drive chain lubricant on both sides and on the middle of the chain, making sure that all side plates and rollers have been sufficiently oiled.

EAU23100

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

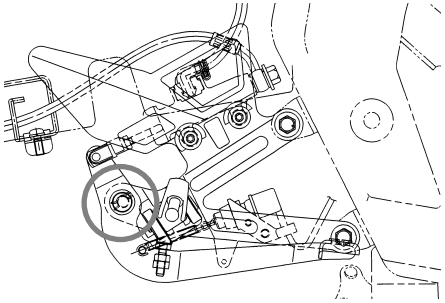
EWA10720

⚠ 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.

EAU23131

Checking and lubricating the brake and shift pedals

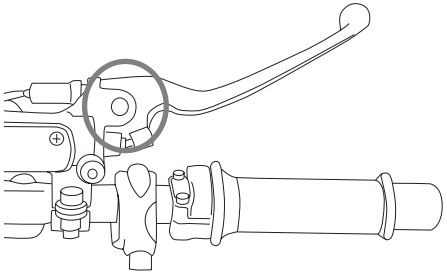


The operation of the brake and shift pedals should be checked before each ride, and the pedal pivots should be lubricated if necessary.

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

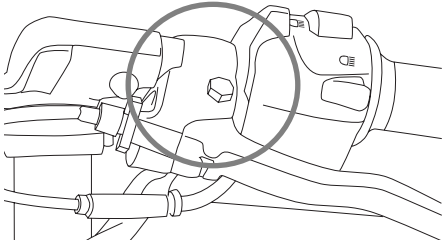
EAU23140

Checking and lubricating the brake and clutch levers



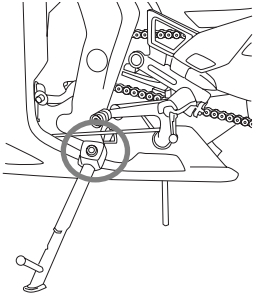
The operation of the brake and clutch levers should be checked before each ride, and the lever pivots should be lubricated if necessary.

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



EAU23200

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.

EWA10730

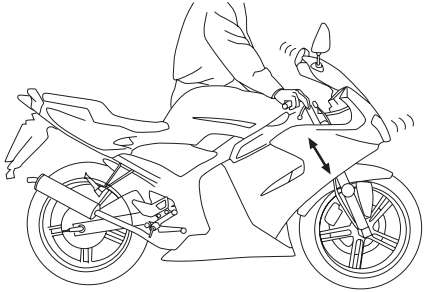
⚠ WARNING

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)

EAU23271

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

EWA10750

⚠ WARNING

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

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

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.

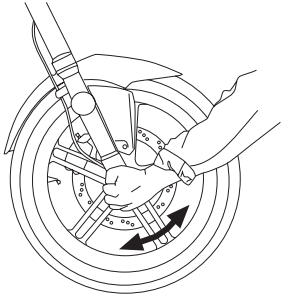
ECA10590

CAUTION

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

EAU23280

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.

EWA10750

⚠ 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.

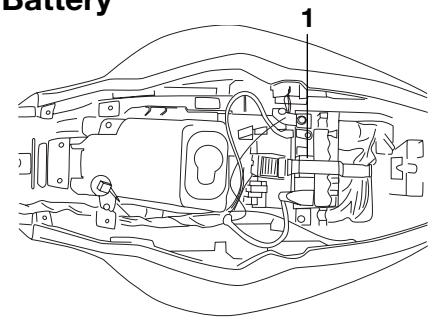
EAU23290

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.

EAU23440

Battery



1. 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.

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.

EWA10760

⚠ WARNING

- **Electrolyte is poisonous and dangerous since it contains sulfuric acid, which causes severe burns. Avoid any contact with skin, eyes or clothing and always shield your eyes when working near batteries. In case of contact, administer the following FIRST AID.**
  - **EXTERNAL: Flush with plenty of water.**
  - **INTERNAL: Drink large quantities of water or milk and immediately call a physician.**
  - **EYES: Flush with water for 15 minutes and seek prompt medical attention.**
- **Batteries produce explosive hydrogen gas. Therefore, keep sparks, flames, cigarettes, etc., away from the battery and provide sufficient ventilation when charging it in an enclosed space.**
- **KEEP THIS AND ALL BATTERIES OUT OF THE REACH OF CHILDREN.**

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.

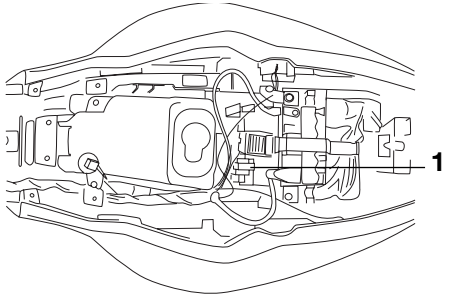
ECA10630

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.**

EAU23480

Replacing the fuse



1. Fuse

The fuse box is located under the seat. (See page 3-7.)
If the fuse is blown, replace it as follows.

1. Turn the key to “OFF” and turn off all electrical circuits.

2. Remove the blown fuse, and then install a new fuse of the specified amperage.

Specified fuse:
10 A

ECA10640

CAUTION

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

3. Turn the key to "ON" and turn on the electrical circuits to check if the devices operate.
4. If the fuse immediately blows again, have a Yamaha dealer check the electrical system.

EAU23800

Replacing the headlight bulb

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

1. Remove the headlight bulb cover, and then disconnect the headlight lead connectors.
2. Unhook the headlight bulb holder, and then remove the defective bulb.

EWA10790

⚠ 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.

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

ECA10660

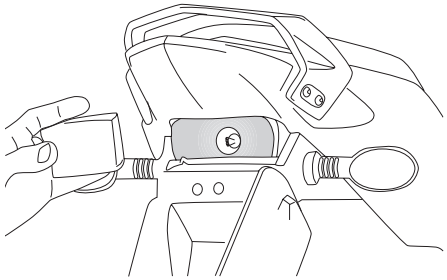
CAUTION

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.

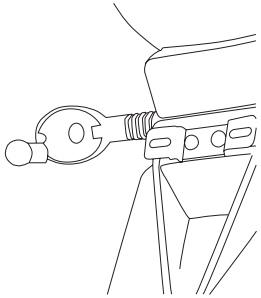
4. Connect the headlight lead connectors, and then install the bulb cover.
5. Have a Yamaha dealer adjust the headlight beam if necessary.

EAU24281

Replacing a turn signal light bulb or the tail/brake light bulb



1. Remove the 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.

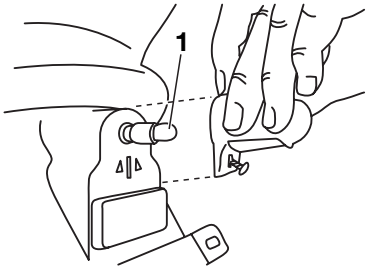
ECA10680

CAUTION

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

EAUM1460

Replacing the license plate light bulb



1. Auxiliary light

1. Remove the license plate light cover by removing the screw.
2. Remove the socket (together with the bulb) by pulling it out.
3. Remove the defective bulb by pulling it out.
4. Insert a new bulb into the socket.
5. Install the socket (together with the bulb) by pushing it in.
6. Install the license plate light cover by installing the screw.

EAU24350

Supporting the motorcycle

Since this model is not equipped with a centerstand, follow these precautions when removing the front and rear wheel or performing other maintenance requiring the motorcycle to stand upright. Check that the motorcycle is in a stable and level position before starting any maintenance. A strong wooden box can be placed under the engine for added stability.

To service the front wheel

1. Stabilize the rear of the motorcycle by using a motorcycle stand or, if an additional motorcycle stand is not available, by placing a jack under the frame in front of the rear wheel.
2. Raise the front wheel off the ground by using a motorcycle stand.

To service the rear wheel
Raise the rear wheel off the ground by using a motorcycle stand or, if a motorcycle stand is not available, by placing a jack either under each side of the frame in front of the rear wheel or under each side of the swingarm.

EAU25870

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 charts represent quick and easy procedures 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.

EAU25921

Troubleshooting charts

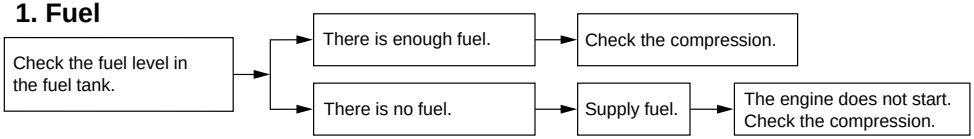
Starting problems or poor engine performance

EWA10840

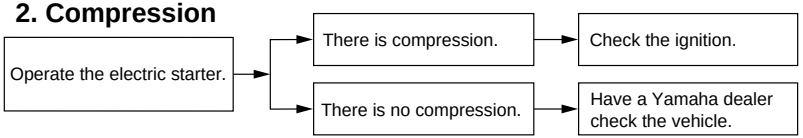
⚠ WARNING

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

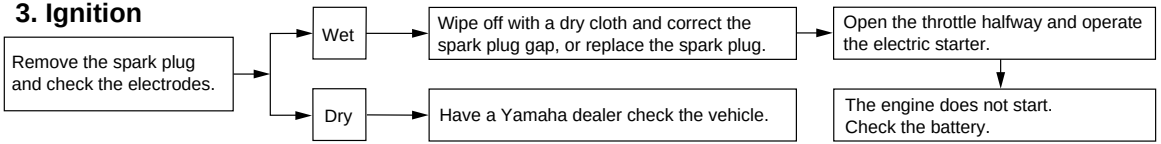
1. Fuel



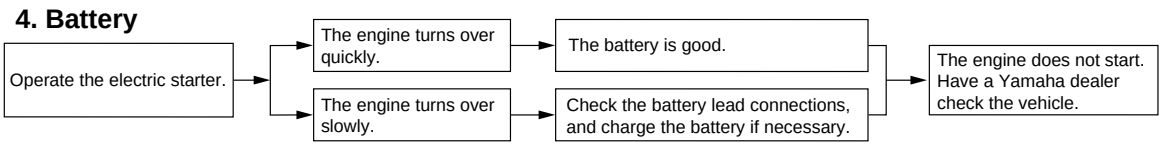
2. Compression



3. Ignition



4. Battery

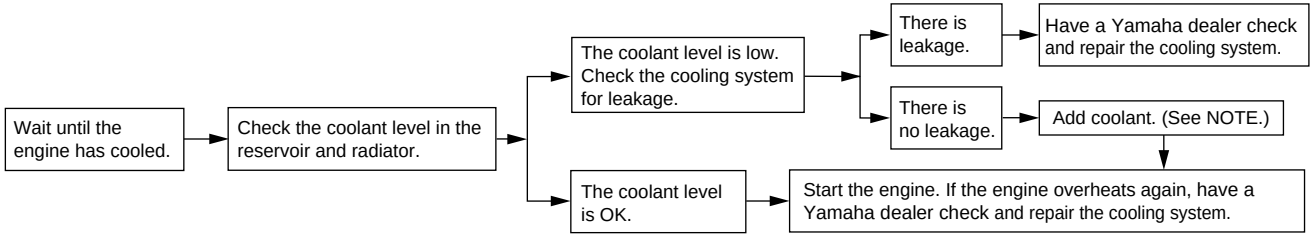


Engine overheating

EWA10400

⚠ WARNING

- **Do not remove the radiator cap when the engine and radiator are hot. Scalding hot fluid and steam may be blown out under pressure, which could cause serious injury. Be sure to wait until the engine has cooled.**
- **After removing the radiator cap retaining bolt, place a thick rag, like a towel, over the radiator cap, and then slowly rotate the cap counterclockwise to the detent to allow any residual pressure to escape. When the hissing sound has stopped, press down on the cap while turning it counterclockwise, and then remove the cap.**



NOTE:

If coolant is not available, tap water can be temporarily used instead, provided that it is changed to the recommended coolant as soon as possible.

MOTORCYCLE CARE AND STORAGE

EAU26000

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 outlet with a plastic bag 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 cap, are tightly installed.
3. Remove extremely stubborn dirt, like oil burnt onto the crankcase, with a degreasing agent and a brush, but never apply such products onto seals, gaskets, sprockets, the drive chain and wheel axles. Always rinse the dirt and degreaser off with water.

Cleaning

ECA10770

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.**
- **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 bottle-brush 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.

ECA10790

CAUTION

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

2. Apply a corrosion protection spray on all metal, including chrome- and nickel-plated, surfaces to prevent corrosion.

After cleaning

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

EWA10930

⚠ WARNING

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

ECA10800

CAUTION

- **Apply spray oil and wax sparingly and make sure to wipe off any excess.**

7

- **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.

EAU26150

Storage

Short-term

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

ECA10810

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 chamber by loosening the drain bolt; 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 cylinder, piston rings, etc. from corrosion.

a. Remove the spark plug cap and spark plug.
b. Pour a teaspoonful of engine oil into the spark plug bore.
c. Install the spark plug cap onto the spark plug, and then place the spark plug 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 wall with oil.)
e. Remove the spark plug cap from the spark plug, and then install the spark plug and the spark plug cap.

EWA10950

⚠ WARNING

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

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 outlet with a plastic bag to prevent moisture from entering it.
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 (30 °F) or more than 30 °C (90 °F)]. For more information on storing the battery, see page 6-19.

NOTE:
Make any necessary repairs before storing the motorcycle.

SPECIFICATIONS

EAU26339

Dimensions
Overall length
2007 mm
Overall width
675 mm
Overall height
1065 mm
Seat height
815 mm
Wheelbase
1330 mm
Ground clearance
144 mm
Minimum turning radius
2900 mm

Weight
With oil and fuel
124.2 kg

Engine
Engine type
Liquid cooled 2-stroke
Cylinder arrangement
Forward-inclined single cylinder
Displacement
49.7 cm^3
Bore x stroke
40.3 x 39.0 mm
Compression ratio
6.85 :1
Starting system
Electric starter
Lubrication system
Separate lubrication (Yamaha autolube)

Transmission oil
Oil change quantity
0.75 L
Coolant reservoir capacity (up to the maximum level mark)
0.71 L
Radiator capacity (including all routes)
0.70 L
Air filter element
Wet element

Fuel
Fuel tank capacity
13.8 L
Fuel reserve amount
2.2 L

Carburetor
Manufacturer
Dell'Orto
Type x quantity
PHBN 16 NS / 1

Spark plug (s)
Manufacturer/model
NGK/BR9ES
Spark plug gap
0.6-0.7 mm
Clutch type
Wet, multiple-disc

Transmission
Primary reduction system
Helical gear
Primary reduction ratio
71 x 20 (3.550)
Secondary reduction system
Chain drive
Secondary reduction ratio
47 x 11 (4.270)
Transmission type
Constant mesh 6-speed

Gear ratio
1st
36 x 12 (3.000)
2nd
33 x 16 (2.062)
3rd
29 x 19 (1.526)
4th
27 x 22 (1.227)
5th
25 x 24 (1.041)
6th
24 x 25 (0.960)

Chassis
Frame type
Double cradle
Caster angle
25.00 degree
Trail
92.0 mm

Front tire
Type
Tubeless
Size
100/80-17 52H
Manufacturer/model
PIRELLI

Rear tire
Type
Tubeless

Size
130/70-17 62H
Manufacturer/model
PIRELLI
Maximum load
195 kg

Tire air pressure (measured on cold tires)
Loading condition
0-90 kg
Front
180 kPa
Rear
200 kPa
Loading condition
90-180 kg
Front
190 kPa
Rear
230 kPa

Front wheel
Wheel type
Cast wheel
Rim size
MT 2.75x17”

Rear wheel
Wheel type
Cast wheel
Rim size
MT 3.50x17”

Front brake
Type
Single disc brake
Recommended fluid
DOT 4

Rear brake
Type
Single disc brake
Recommended fluid
DOT 4

Front suspension
Type
Telescopic fork
Spring/shock absorber type
Coil spring/oil damper
Wheel travel
130.0 mm

Rear suspension
Type
Swingarm
Spring/shock absorber type
Coil-gas spring/oil damper
Wheel travel
102.0 mm

Electrical system
Ignition system
DC. CDI
Charging system
CDI magneto
Model
YT4L-BS
Voltage, capacity
12 V, 3.0 Ah
Bulb type
Incandescence

Bulb voltage, wattage x quantity
Headlight
12 V, 25 W/25.0 W x 2
Tail/brake light
12 V, 5.0 W/21.0 W x 1
Front turn signal light
12 V, 16.0 W
Rear turn signal light
12 V, 10.0 W x 2
Neutral indicator light
LED
Oil level warning light
LED
Turn signal indicator light
LED
Coolant temperature warning light
LED
Main fuse
10.0 A

EAU26351

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.

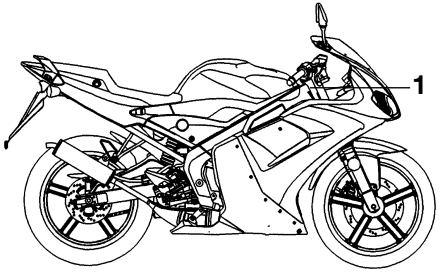
KEY IDENTIFICATION NUMBER:

VEHICLE IDENTIFICATION NUMBER:

MODEL LABEL INFORMATION:

EAU26420

Frame serial number

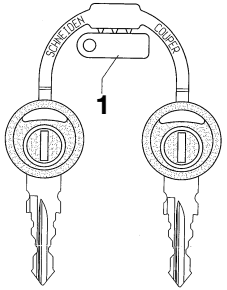


1. Frame serial number

The frame serial number is stamped into the steering head pipe.

NOTE:

The frame serial number is used to identify your motorcycle and may be used to register your motorcycle with the licensing authority in your area.



1. Key identification number

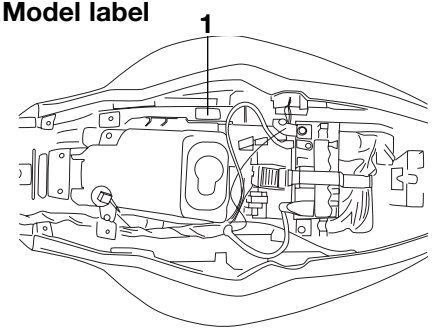
EAU26390

Key identification number

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

EAU26480

Model label



1. Model label

The model label is affixed to the frame under the seat. (See page 3-7.) 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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