YAMAHA

OWNER'S MANUAL

YZF-R125

5D7-F8199-E0

INTRODUCTION

EAU10100

Welcome to the Yamaha world of motorcycling!
As the owner of the YZF-R125, 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 YZF-R125. 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

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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.

EWA10030

⚠ WARNING

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

*Product and specifications are subject to change without notice.

IMPORTANT MANUAL INFORMATION

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YZF-R125
OWNER'S MANUAL
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1st edition, November 2007
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Printed in France.

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⚠ SAFETY INFORMATION

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1

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 you are 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 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 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, the 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. 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 that 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.
- A passenger should also observe the above precautions.

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:
185 kg (408 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 a 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 opera-

tor 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. If the motorcycle should lean over, gasoline may leak out of the 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.

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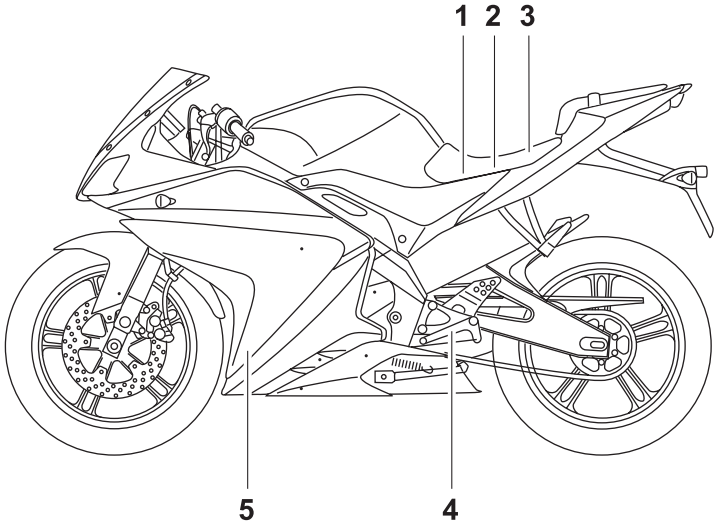
Left view



1. Battery (page 6-29)
2. Fuse box (page 6-30)
3. Owner's tool kit (page 6-1)
4. Shift pedal (page 3-6)
5. Coolant reservoir (page 6-12)

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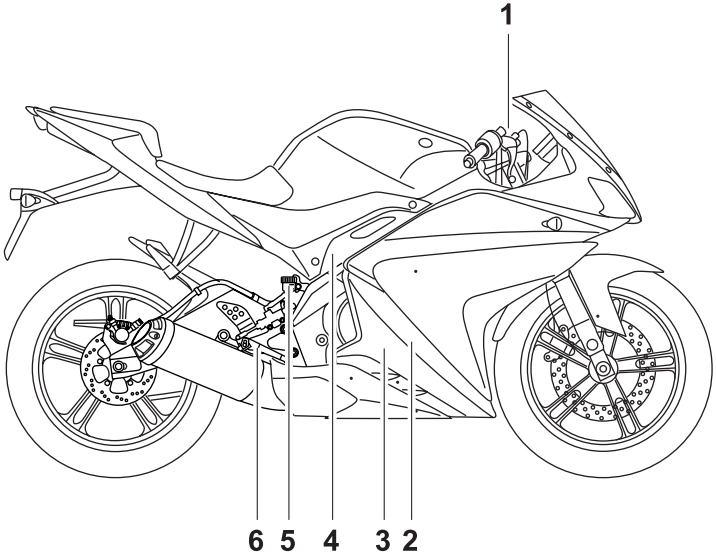
Right view



1. Front brake fluid reservoir (page 6-21)
2. Engine oil filter element (page 6-9)
3. Dipstick (page 6-9)
4. Idle adjusting screw (page 6-14)
5. Rear brake fluid reservoir (page 6-21)
6. Brake pedal (page 3-6)

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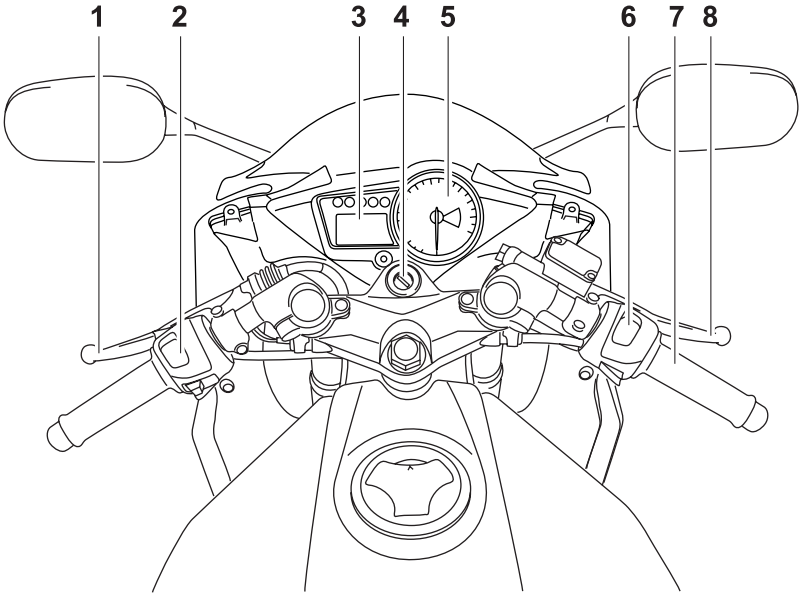
Controls and instruments



1. Clutch lever (page 3-5)
2. Left handlebar switches (page 3-4)
3. Multi-function display (page 3-3)
4. Main switch/steering lock (page 3-1)
5. Tachometer (page 3-3)
6. Right handlebar switches (page 3-4)
7. Throttle grip (page 6-15)
8. Brake lever (page 3-6)

Main switch/steering lock

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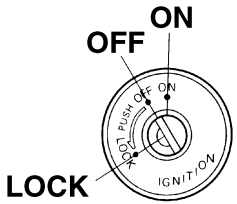

The main switch/steering lock controls the ignition and lighting systems, and is used to lock the steering. The various positions are described below.

EAU36870

ON

All electrical circuits are supplied with power, the meter lighting, taillight, license plate light and auxiliary lights come on, and the engine can be started. The key cannot be removed.

NOTE:

The headlight comes on automatically when the engine is started and stays on until the key is turned to "OFF", even if the engine stalls.

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OFF

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

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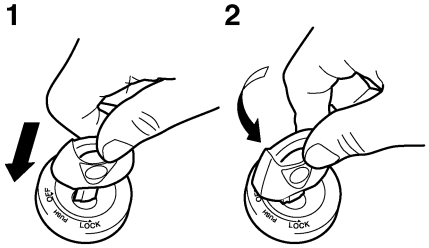
LOCK

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

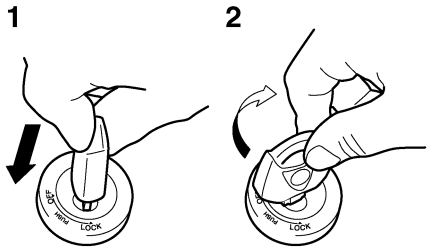
To lock the steering



1. Push.
2. Turn.

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

To unlock the steering



1. Push.
2. Turn.

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

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⚠ 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".

3

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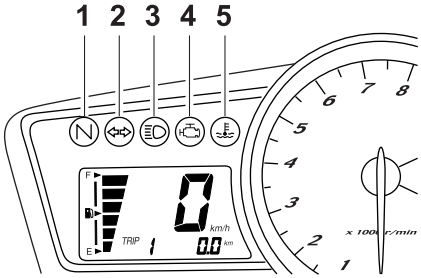
Indicator and warning lights



1. Neutral indicator light " N "
2. Turn signal indicator light " ⇦ ⇨ "
3. High beam indicator light " ≡D "
4. Engine trouble warning light " "
5. Coolant temperature warning light " "

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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.

EAU11080

High beam indicator light " ≡D "

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

EAUM2290

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.

EAU11500

Engine trouble warning light " "

This warning light comes on or flashes when an electrical circuit monitoring the engine is defective. When this occurs, have a Yamaha dealer check the self-diagnosis system.

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.

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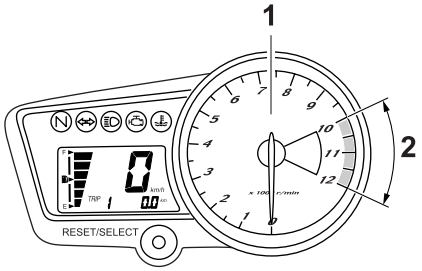
Tachometer



1. Tachometer
2. Tachometer red zone

The electric tachometer allows the rider to monitor the engine speed and keep it within the ideal power range.
When the key is turned to "ON", the tachometer needle will sweep once across the r/min range and then return to zero r/min in order to test the electrical circuit.

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CAUTION:

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

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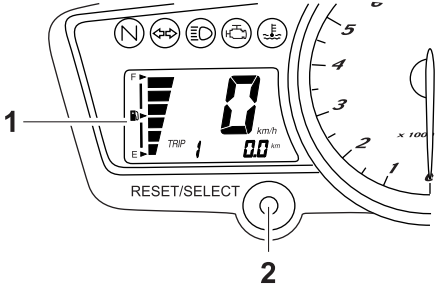
Multi-function display



1. Multi-function display
2. "RESET/SELECT" button

The multi-function display is equipped with the following:

- a speedometer (which shows the riding speed)
- an odometer (which shows the total distance traveled)
- two tripmeters (which show the distance traveled since they were last set to zero)
- a fuel reserve tripmeter (which shows the distance traveled since the fuel level warning light came on)
- a fuel meter

NOTE:

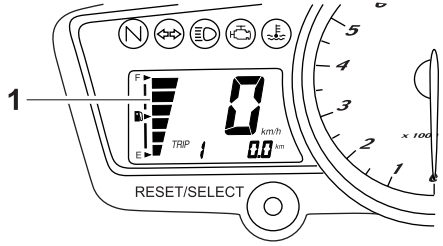
- Be sure to turn the key to "ON" before using the "RESET/ SELECT" button.
- For the U.K. only: To switch the speedometer and odometer/tripmeter displays between kilometers and miles, press the "RESET/SELECT" button for at least eight seconds.

Odometer and tripmeter modes

A brief push (less than one second) on the "RESET/SELECT" button switches the display between the odometer mode "ODO" and the tripmeter modes "TRIP 1" and "TRIP 2" in the following order:
ODO → TRIP 1 → TRIP 2 → ODO
When approximately 1.6 L (0.42 US gal)(0.35 Imp.gal) of fuel remains in the fuel tank, the odometer display will automatically change to the fuel reserve tripmeter mode "F-TRIP" and start counting the distance traveled from that point, and the last segment of the fuel meter will start flashing. In that case, pushing the "RESET/SELECT" button

switches the display between the various tripmeter and odometer modes in the following order:
F-TRIP → TRIP 1 → TRIP 2 → ODO → F-TRIP
To reset a tripmeter, select it by pushing the "RESET/SELECT" button briefly (less than one second), and then push the button again for at least three seconds while the selected tripmeter is flashing. If you do not reset the fuel reserve tripmeter manually, it will reset itself automatically and the display will return to the prior mode after refueling and traveling 5 km (3 mi).

Fuel meter



1. Fuel meter

The fuel meter indicates the amount of fuel in the fuel tank. The display segments of the fuel meter disappear towards "E" (Empty) as the fuel level decreases. When the last fuel meter segment starts flashing, refuel as soon as possible.

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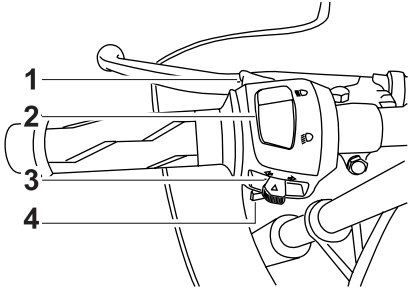
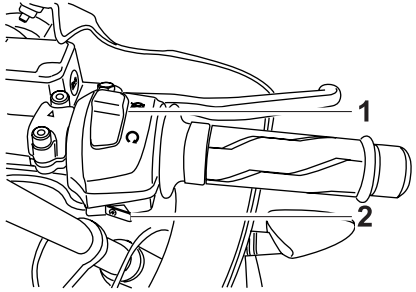
Handlebar switches

Left



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

Right



1. Engine stop switch "⟳/⊗"
2. Start switch "(≋)"

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Pass switch "PASS"

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.

EAU12460

Turn signal switch "⇦/⇨"

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

EAU12500

Horn switch "📯"

Press this switch to sound the horn.

EAU12660

Engine stop switch "○/⊠"

Set this switch to "○" before starting the engine. Set this switch to "⊠" to stop the engine in case of an emergency, such as when the vehicle overturns or when the throttle cable is stuck.

EAU12710

Start switch "Ⓢ"

Push this switch to crank the engine with the starter.

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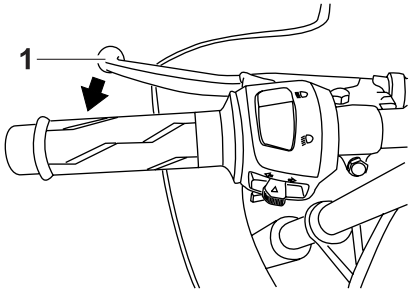
CAUTION:

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 3-10.)

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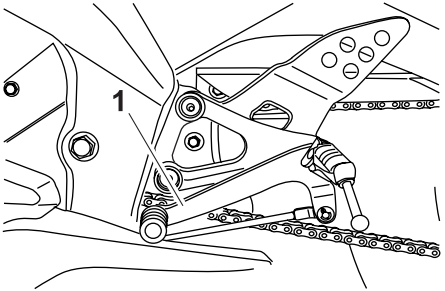
Shift pedal



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.

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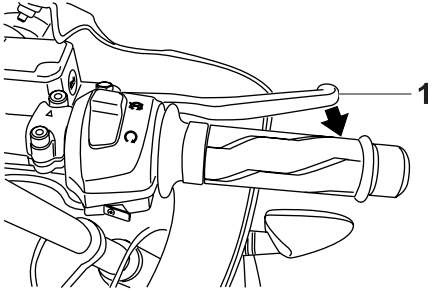
Brake lever



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.

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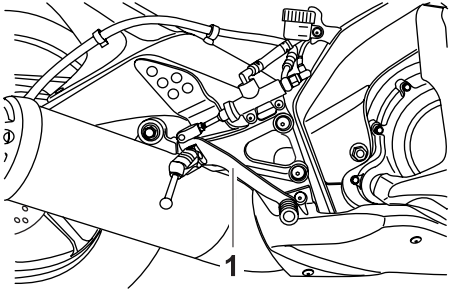
Brake pedal

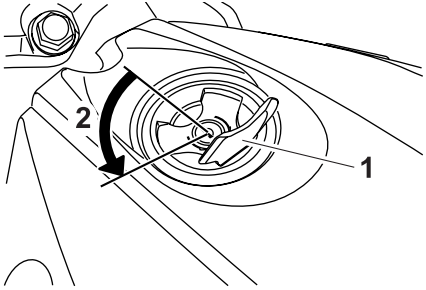


1. Brake pedal

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

EAUM2080

Fuel tank cap



1. Fuel tank cap lock cover
2. Unlock.

To remove the fuel tank cap

1. Open the fuel tank cap lock cover.
2. Insert the key into the lock and turn it 1/4 turn counterclockwise. 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 clockwise to the original position, and then remove it.
3. Close the lock cover.

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.

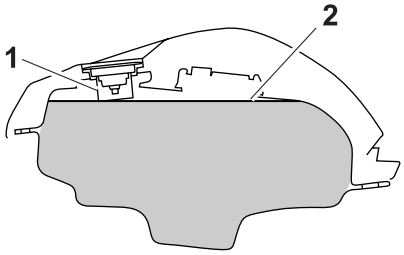
EWA11140

⚠ WARNING

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

EAU13211

Fuel



1. Fuel tank filler tube
2. Fuel level

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

EWA10880

⚠ WARNING

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

ECA10070

CAUTION:

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

EAU43420

Recommended fuel:
PREMIUM UNLEADED GASOLINE ONLY
Fuel tank capacity:
13.8 L (3.65 US gal) (3.04 Imp.gal)
Fuel reserve amount (when the fuel level warning indicator comes on):
1.6 L (0.42 US gal) (0.35 Imp.gal)

ECA11400

CAUTION:

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

Your Yamaha engine has been designed to use premium unleaded gasoline with a research octane number of 95 or higher. If knocking (or pinging) occurs, use a gasoline of a different brand. Use of unleaded fuel will extend spark plug life and reduce maintenance costs.

EAU13442

Catalytic converters

This vehicle is equipped with catalytic converters 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.

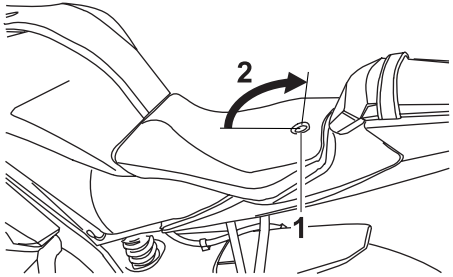
- **Use only unleaded gasoline. The use of leaded gasoline will cause unrepairable damage to the catalytic converter.**
- **Never park the vehicle near possible fire hazards such as grass or other materials that easily burn.**
- **Do not allow the engine to idle too long.**

EAUM2460

Rider seat

To remove the rider seat

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

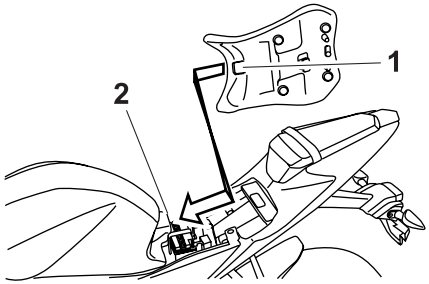


1. Seat lock
2. Open.

2. Pull the rider seat off.

To install the rider seat

1. Insert the projection on the front of the rider seat into the seat holder as shown.



1. Projection
2. Seat holder

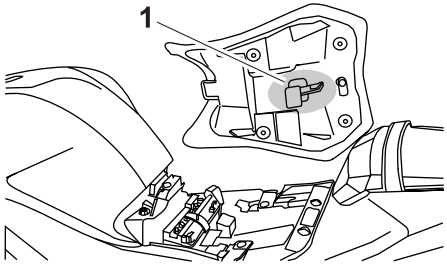
2. Push the rear of the rider seat down to lock it in place.
3. Turn the key counterclockwise, and then remove it.

NOTE:

Make sure that the rider seat is properly secured before riding.

EAUM2311

Anti-theft device housing



1. Anti-theft device housing

The anti-theft device housing, located under the rider seat, is designed to hold a genuine Yamaha CYCLELOK. (See page 3-9 for seat removal and installation procedures.)

NOTE:

Some locks cannot fit into the housing due to their size or shape.

EAU15301

Sidestand

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

EAU44890

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.**

PRE-OPERATION CHECKS

EAU15593

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.

EAU15605

Pre-operation check list

ITEM	CHECKS	PAGE
Fuel	• Check fuel level in fuel tank. • Refuel if necessary. • Check fuel line for leakage.	3-7
Engine oil	• Check oil level in engine. • If necessary, add recommended oil to specified level. • Check vehicle for oil leakage.	6-9
Coolant	• Check coolant level in reservoir. • If necessary, add recommended coolant to specified level. • Check cooling system for leakage.	6-12
Front 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.	6-20, 6-21
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.	6-20, 6-21
Clutch	• Check operation. • Lubricate cable if necessary. • Check lever free play. • Adjust if necessary.	6-19

PRE-OPERATION CHECKS

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.	6-15, 6-25
Control cables	• Make sure that operation is smooth. • Lubricate if necessary.	6-24
Drive chain	• Check chain slack. • Adjust if necessary. • Check chain condition. • Lubricate if necessary.	6-22, 6-24
Wheels and tires	• Check for damage. • Check tire condition and tread depth. • Check air pressure. • Correct if necessary.	6-16, 6-18
Brake and shift pedals	• Make sure that operation is smooth. • Lubricate pedal pivoting points if necessary.	6-25
Brake and clutch levers	• Make sure that operation is smooth. • Lubricate lever pivoting points if necessary.	6-26
Sidestand	• Make sure that operation is smooth. • Lubricate pivot if necessary.	6-26
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.	—
Sidestand switch	• Check operation of ignition circuit cut-off system. • If system is defective, have Yamaha dealer check vehicle.	3-10
Battery	• Check fluid level. • Fill with distilled water if necessary.	6-29

EAU15950

EWA10270

⚠ WARNING

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

EAUM2320

Starting the engine

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

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

EWA10290

⚠ WARNING

- **Before starting the engine, check the function of the ignition circuit cut-off system according to the procedure described on page 3-10.**
- **Never ride with the sidestand down.**

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

ECAM1100

CAUTION:

The following warning lights and indicator light should come on for a few seconds, then go off.

- **Neutral indicator light**
- **Turn signal indicator light**
- **High beam indicator light**
- **Coolant temperature warning light**
- **Engine trouble warning light**

If a warning or indicator light does not go off, see page 3-2 for the corresponding warning and indicator light circuit check.

2. 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.

3. 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.

ECA11040

CAUTION:

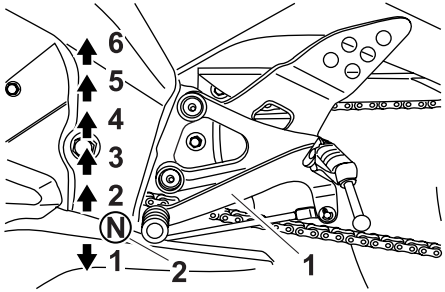
For maximum engine life, never accelerate hard when the engine is cold!

NOTE:

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

EAU16671

Shifting



1. Shift pedal
2. Neutral position

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.**

EAU16810

Tips for reducing fuel consumption

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

- 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).

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.

EAU16980

0–500 km (0–300 mi)

Avoid prolonged operation above 6000 r/min.

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.

500–1000 km (300–600 mi)

Avoid prolonged operation above 8000 r/min.

Rev the engine freely through the gears, but do not use full throttle at any time.

ECA10320

CAUTION:

After 1000 km (600 mi) of operation, the engine oil must be changed, the oil filter cartridge or element replaced, and the oil strainer cleaned.

1000 km (600 mi) and beyond

The vehicle can now be operated normally.

ECA10310

CAUTION:

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

5

EAU17212

Parking

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

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.**

ECA10380

CAUTION:

Never park in an area where there are fire hazards such as grass or other flammable materials.

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.

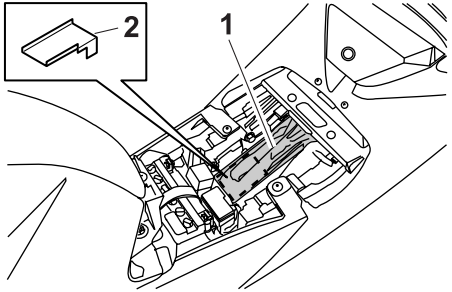
EWA10320

⚠ WARNING

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

EAU17360

Owner's tool kit



1. Owner's tool kit
2. Engine oil drain attachment

The owner's tool kit is located under the rider seat. (See page 3-9.)
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.

EAU17715

Periodic maintenance and lubrication chart

NOTE:

- **The annual checks must be performed every year, except if a kilometer-based maintenance, or for the UK, a mileage-based maintenance, is performed instead.**
- From 30000 km (17500 mi), repeat the maintenance intervals starting from 6000 km (3500 mi).
- Items marked with an asterisk should be performed by a Yamaha dealer as they require special tools, data and technical skills.

NO.		ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING					ANNUAL CHECK
				1000 km (600 mi)	6000 km (3500 mi)	12000 km (7000 mi)	18000 km (10500 mi)	24000 km (14000 mi)	
1	*	**Fuel line**	• Check fuel hoses for cracks or damage.		√	√	√	√	√
2		**Spark plug**	• Check condition. • Clean and regap.		√		√		
			• Replace.			√		√	
3	*	**Valves**	• Check valve clearance. • Adjust.		√	√	√	√	
4	*	**Air filter element**	• Clean.		√		√		
			• Replace.			√		√	
5	*	**Battery**	• Check electrolyte level and specific gravity. • Make sure that the breather hose is properly routed.		√	√	√	√	√
6		**Clutch**	• Check operation. • Adjust.	√	√	√	√	√	

NO.		ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING					ANNUAL CHECK
				1000 km (600 mi)	6000 km (3500 mi)	12000 km (7000 mi)	18000 km (10500 mi)	24000 km (14000 mi)	
7	*	**Front brake**	• Check operation, fluid level and vehicle for fluid leakage.	√	√	√	√	√	√
			• Replace brake pads.	Whenever worn to the limit					
8	*	**Rear brake**	• Check operation, fluid level and vehicle for fluid leakage.	√	√	√	√	√	√
			• Replace brake pads.	Whenever worn to the limit					
9	*	**Brake hoses**	• Check for cracks or damage.		√	√	√	√	√
			• Replace.	Every 4 years					
10	*	**Wheels**	• Check runout and for damage.		√	√	√	√	
11	*	**Tires**	• Check tread depth and for damage. • Replace if necessary. • Check air pressure. • Correct if necessary.		√	√	√	√	√
12	*	**Wheel bearings**	• Check bearing for looseness or damage.		√	√	√	√	
13	*	**Swingarm**	• Check operation and for excessive play.		√	√	√	√	
			• Lubricate with lithium-soap-based grease.	Every 24000 km (14000 mi)					
14		**Drive chain**	• Check chain slack, alignment and condition. • Adjust and lubricate chain with a special O-ring chain lubricant thoroughly.	Every 1000 km (600 mi) and after washing the motorcycle or riding in the rain					

NO.		ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING					ANNUAL CHECK
				1000 km (600 mi)	6000 km (3500 mi)	12000 km (7000 mi)	18000 km (10500 mi)	24000 km (14000 mi)	
15	*	Steering bearings	• Check bearing play and steering for roughness.	√	√	√	√	√	
			• Lubricate with lithium-soap-based grease.	Every 24000 km (14000 mi)					
16	*	Chassis fasteners	• Make sure that all nuts, bolts and screws are properly tightened.		√	√	√	√	√
17		Sidestand	• Check operation. • Lubricate.		√	√	√	√	√
18	*	Sidestand switch	• Check operation.	√	√	√	√	√	√
19	*	Front fork	• Check operation and for oil leakage.		√	√	√	√	
20	*	Shock absorber assembly	• Check operation and shock absorber for oil leakage.		√	√	√	√	
21	*	Rear suspension relay arm and connecting arm pivoting points	• Check operation.		√	√	√	√	
			• Lubricate with lithium-soap-based grease.			√		√	
22	*	Fuel injection	• Adjust engine idling speed.	√	√	√	√	√	√
23		Engine oil	• Change. (See page 3-2.)	√	2000 km (1200 mi) after the initial 1000 km (600 mi) and every 3000 km (1800 mi) thereafter				
			• Check oil level and vehicle for oil leakage.	Every 3000 km (1800 mi)					√
24		Engine oil filter element	• Replace.	√	√	√	√	√	

NO.		ITEM	CHECK OR MAINTENANCE JOB	ODOMETER READING					ANNUAL CHECK
				1000 km (600 mi)	6000 km (3500 mi)	12000 km (7000 mi)	18000 km (10500 mi)	24000 km (14000 mi)	
25	*	**Cooling system**	• Check coolant level and vehicle for coolant leakage.		√	√	√	√	√
			• Change.	Every 3 years					
26	*	**Front and rear brake switches**	• Check operation.	√	√	√	√	√	√
27		**Moving parts and cables**	• Lubricate.		√	√	√	√	√
28	*	**Throttle grip housing and cable**	• Check operation and free play. • Adjust the throttle cable free play if necessary. • Lubricate the throttle grip housing and cable.		√	√	√	√	√
29	*	**Lights, signals and switches**	• Check operation. • Adjust headlight beam.	√	√	√	√	√	√

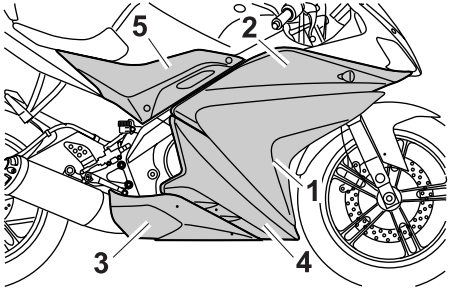
EAUM2070

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 change the brake fluid.
  - Replace the brake hoses every four years and if cracked or damaged.

EAU18731

Removing and installing the cowlings and panel



1. Cowling A
2. Cowling B
3. Cowling C
4. Cowling D
5. Panel A

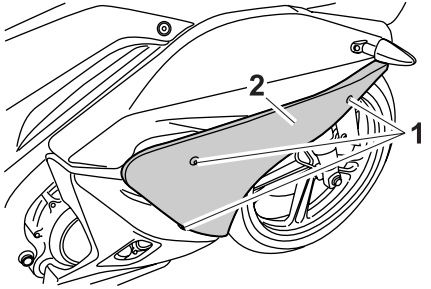
The cowlings and panel shown need to be removed to perform some of the maintenance jobs described in this chapter. Refer to this section each time a cowling or panel needs to be removed and installed.

EAU18790

Cowling A

To remove the cowling

Remove the screws, and then take the cowling off.



1. Screw
2. Cowling A

To install the cowling

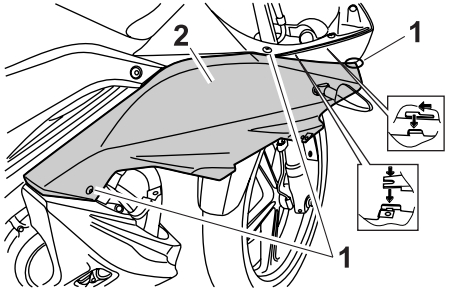
Place the cowling in the original position, and then install the screws.

EAUM2350

Cowling B

To remove the cowling

1. Remove cowling A and panel A.
2. Remove the screws, slide the cowling forward, and then take it off.
3. Disconnect the turn signal light lead coupler.



1. Screw
2. Cowling B

To install the cowling

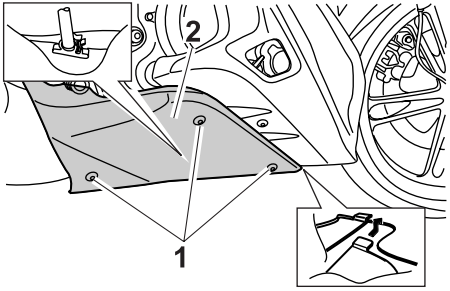
1. Connect the turn signal light lead coupler.
2. Fit the projection on the cowling into the slot, and then slide the cowling backward.
3. Install the screws.
4. Install cowling A and panel A.

EAU18851

Cowling C

To remove the cowling

Remove the screws, and then pull the cowling off as shown.



1. Screw
2. Cowling C

To install the cowling

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

EAUM2360

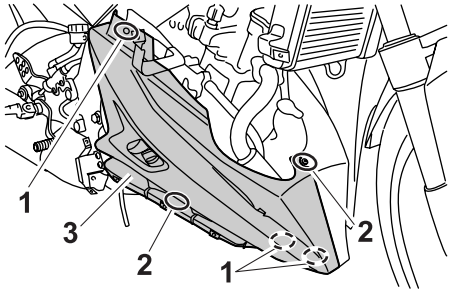
Cowling D

To remove the cowling

1. Remove panel A, cowlings A, B and C.
2. Remove the screws and the quick fasteners, and then take the cowling off.

NOTE:

The quick fastener is removed by pushing the center pin in with a screwdriver, then pulling the fastener out.



1. Quick fastener
2. Screw
3. Cowling D

To install the cowling

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

NOTE:

To install the quick fasteners, push the center pin out so that it will protrude from the fastener head, insert the fastener into the cowling, and then push the protruding pin in until it is flush with the fastener head.

2. Install cowlings C, B, A and panel A.

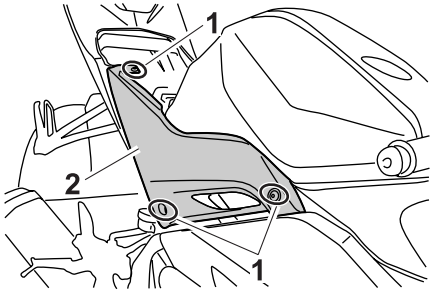
EAUM2370

Panel A

To remove the panel

1. Remove the rider seat. (See page 3-9.)
2. Remove the screws, and then take the panel off.

6



1. Screw
2. Panel A

To install the panel

1. Place the panel in the original position, and then install the screws.
2. Install the rider seat.

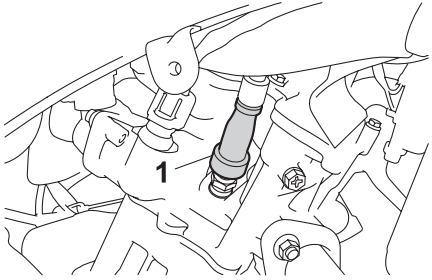
EAU19631

Checking the spark plug

The spark plug is an important engine component, which is easy to check. Since heat and deposits will cause any spark plug to slowly erode, the spark plug 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.

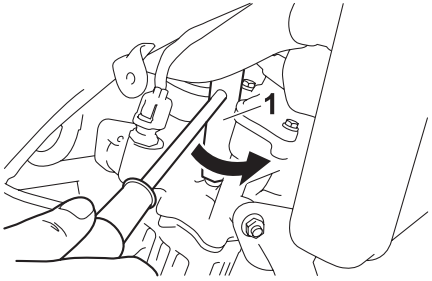
To remove the spark plug

1. Remove cowling A. (See page 6-6.)
2. Remove the spark plug cap.



1. Spark plug cap

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



1. Spark plug wrench

To check the spark plug

1. Check that the porcelain insulator around the center electrode of the spark plug is a medium-to-light tan (the ideal color when the vehicle is ridden normally).

NOTE:

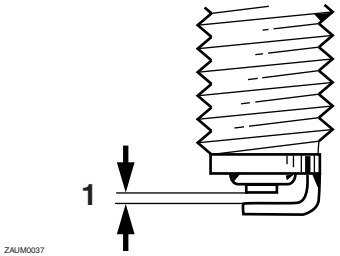
If the spark plug shows a distinctly different color, the engine could be operating improperly. Do not attempt to diagnose such problems yourself. Instead, have a Yamaha dealer check the vehicle.

2. Check the spark plug for electrode erosion and excessive carbon or other deposits, and replace it if necessary.

Specified spark plug:
NGK/CR8E

To install the spark plug

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



1. Spark plug gap

Spark plug gap:
0.7–0.8 mm (0.028–0.031 in)

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

Tightening torque:
Spark plug:
12.5 Nm (1.25 m·kgf, 9.0 ft·lbf)

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

4. Install the spark plug cap.
5. Install the cowling.

EAUM2380

Engine oil and oil filter element

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

To check the engine oil level

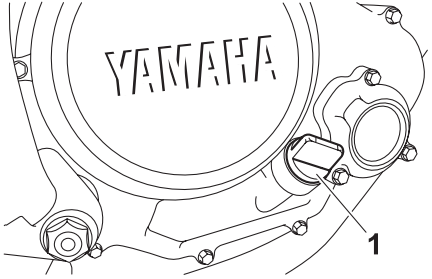
1. Place the vehicle on a level surface and hold it in an upright position.

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.

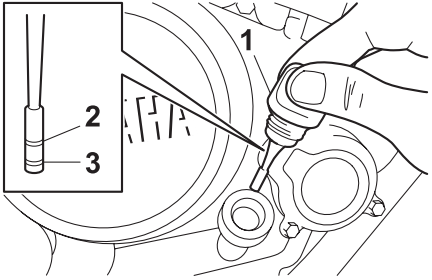
2. Start the engine, warm it up for several minutes, and then turn it off.
3. Wait a few minutes until the oil settles, remove the oil filler cap, wipe the dipstick clean, insert it back into the oil filler hole (without screwing it in), and then remove it again to check the oil level.

NOTE:

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



1. Engine oil filler cap



1. Dipstick
2. Maximum level mark
3. Minimum level mark

ECA10010

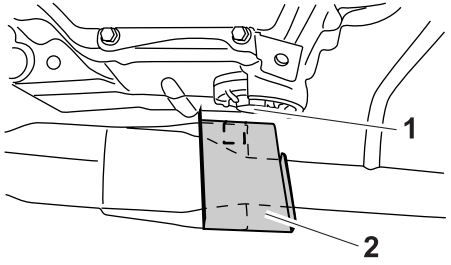
CAUTION:

Do not operate the vehicle until you know that the engine oil level is sufficient.

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

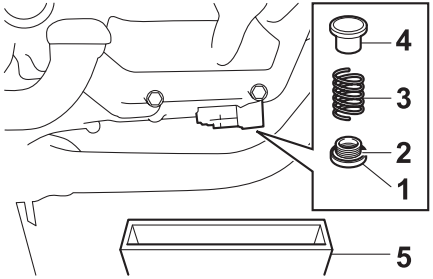
To change the engine oil (with or without oil filter element replacement)

1. Remove cowling D. (See page 6-6.)
2. Start the engine, warm it up for several minutes, and then turn it off.
3. Install the engine oil drain attachment, provided with the owner's tool kit, under the drain bolt of the crankcase.



1. Engine oil drain bolt (crankcase)
2. Engine oil drain attachment

4. Place an oil pan under the engine to collect the used oil.
5. Remove the engine oil filler cap and the drain bolt along with the O-ring, compression spring, and engine oil strainer, to drain the oil from the crankcase.



1. Engine oil drain bolt
2. O-ring
3. Compression spring
4. Strainer
5. Oil pan

ECA11000

CAUTION:

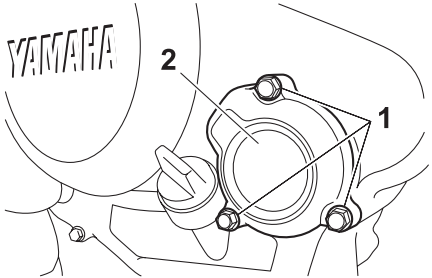
When removing the engine oil drain bolt, the O-ring, compression spring, and oil strainer will fall out. Take care not to lose these parts.

6. Clean the engine oil strainer with solvent.

NOTE:

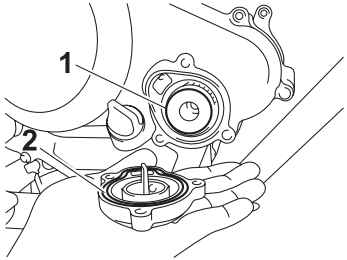
Skip steps 7–9 if the oil filter element is not being replaced.

7. Remove the oil filter element cover by removing the bolts.



1. Bolt
2. Oil filter element cover

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



1. Oil filter element
2. O-ring

9. Install the oil filter element cover by installing the bolts, then tightening them to the specified torque.

Tightening torque:
Oil filter element cover bolt:
10 Nm (1.0 m·kgf, 7.2 ft·lbf)

NOTE:

Make sure that the O-ring is properly seated.

10. Install the engine oil strainer, compression spring, O-ring and the engine oil drain bolt, and then tighten it to the specified torque.

ECA10420

CAUTION:

Before installing the engine oil drain bolt, do not forget to install the O-ring, compression spring, and oil strainer in position.

Tightening torque:
Engine oil drain bolt:
32 Nm (3.2 m·kgf, 23 ft·lbf)

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

Recommended engine oil:
See page 8-1.
Oil quantity:
Without oil filter element replacement:
0.95 L (1.00 US qt) (0.84 Imp.qt)
With oil filter element replacement:
1.00 L (1.06 US qt) (0.88 Imp.qt)

ECA11620

CAUTION:

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

12. Start the engine, and then let it idle for several minutes while checking it for oil leakage. If oil is leaking, immediately turn the engine off and check for the cause.
13. Turn the engine off, and then check the oil level and correct it if necessary.

EAU20070

Coolant

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

EAU20091

To check the coolant level

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

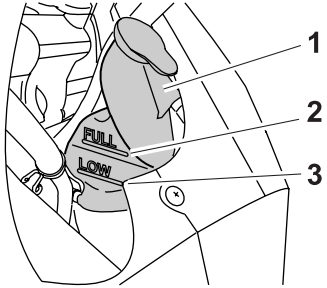
NOTE:

- 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.

2. Check the coolant level in the coolant reservoir.

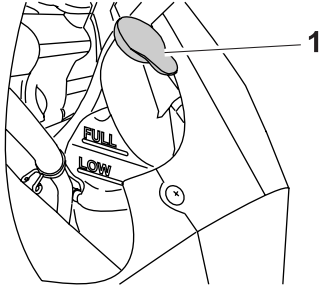
NOTE:

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



1. Coolant reservoir
2. Maximum level mark
3. Minimum level mark

3. If the coolant is at or below the minimum level mark, remove the reservoir cap.



1. Coolant reservoir cap

4. Add coolant to the maximum level mark, and then install the reservoir cap.

Coolant reservoir capacity (up to the maximum level mark):
0.25 L (0.26 US qt) (0.22 Imp.qt)

ECA10471

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 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.

NOTE:

- The radiator fan is automatically switched on or off according to the coolant temperature in the radiator.
- If the engine overheats, see page 6-37 for further instructions.

EAU33030

Changing the coolant

EWA10380

⚠ WARNING

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

The coolant must be changed at the intervals specified in the periodic maintenance and lubrication chart. Have a Yamaha dealer change the coolant.

6

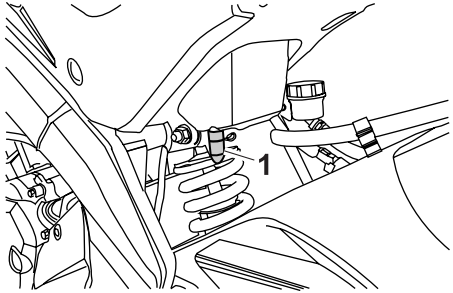
EAUM2390

Replacing the air filter element and cleaning the check hose

The air filter element should be replaced at the intervals specified in the periodic maintenance and lubrication chart. Have a Yamaha dealer replace the air filter element more frequently if you are riding in unusually wet or dusty areas. In addition, the air filter check hose must be frequently checked and cleaned if necessary.

To clean the air filter check hose

1. Check the hose on the side of the air filter case for accumulated dirt or water.



1. Air filter check hose

2. If dirt or water is visible, remove the hose, clean it, and then install it.

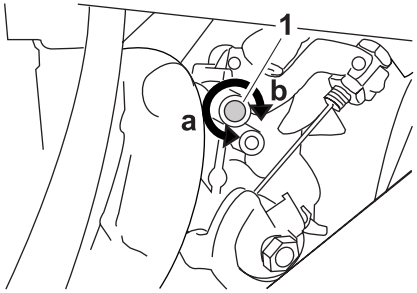
EAU33482

Adjusting the engine idling speed

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

The engine should be warm before making this adjustment.

1. Remove panel A. (See page 6-6.)
2. Check the engine idling speed and, if necessary, adjust it to specification by turning the idle adjusting 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).



1. Idle adjusting screw

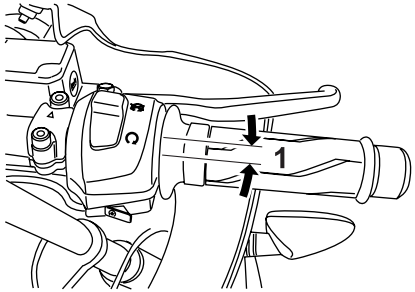
Engine idling speed:
1300–1500 r/min

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

3. Install the panel.

EAU21370

Adjusting the throttle cable free play

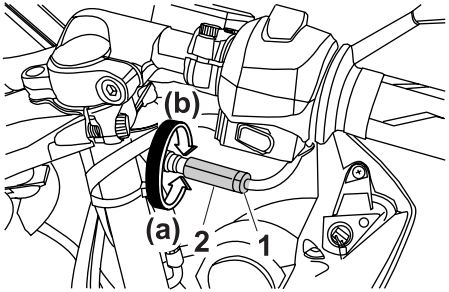


1. Throttle cable free play

The throttle cable free play should measure 3.0–5.0 mm (0.12–0.20 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).



1. Locknut
2. Adjusting nut

3. Tighten the locknut.

6

EAU21401

Valve clearance

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

EAUM2400

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.

EWA10500

⚠ WARNING

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

Tire air pressure (measured on cold tires):
0–90 kg (0–198 lb):
Front:
175 kPa (25 psi) (1.75 kgf/cm²)
Rear:
200 kPa (29 psi) (2.00 kgf/cm²)
90–185 kg (198–408 lb):
Front:
175 kPa (25 psi) (1.75 kgf/cm²)
Rear:
225 kPa (33 psi) (2.25 kgf/cm²)
Maximum load*:
185 kg (408 lb)
* Total weight of rider, passenger, cargo and accessories

EWA11200

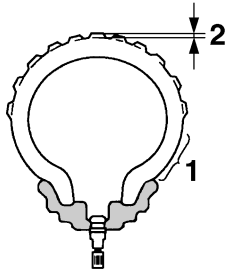
⚠ WARNING

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, passenger,**

cargo, and accessories does not exceed the specified maximum load for the vehicle.
- **Do not carry along loosely packed items, which can shift during a ride.**
- **Securely pack the heaviest items close to the center of the vehicle and distribute the weight evenly on both sides.**
- **Adjust the tire air pressure with regard to the load.**
- **Check the tire condition and air pressure before each ride.**

Tire inspection



1. Tire sidewall
2. Tire tread depth

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.

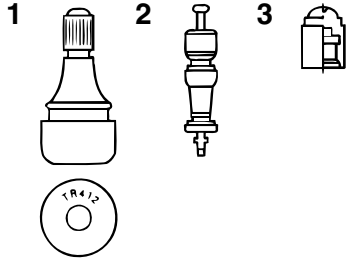
Minimum tire tread depth (front and rear):
1.6 mm (0.06 in)

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



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

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

EWA10900

WARNING
- **The front and rear tires should be of the same make and design, otherwise the handling characteristics of the motorcycle cannot be guaranteed.**

6

- **After extensive tests, only the tires listed below have been approved for this model by Yamaha Motor Co., Ltd.**
- **Always make sure that the valve caps are securely installed to prevent air pressure leakage.**
- **Use only the tire valves and valve cores listed below to avoid tire deflation during a ride.**

Front tire:
Size:
100/80-17 M/C 52H
Manufacturer/model:
PIRELLI/SPORT DEMON
MICHELIN/PILOT SPORTY
Tire air valve:
TR412
Valve core:
V3002 (original)

Rear tire:
Size:
130/70-17 M/C 62H
Manufacturer/model:
PIRELLI/SPORT DEMON
MICHELIN/PILOT SPORTY
Tire air valve:
TR412
Valve core:
V3002 (original)

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

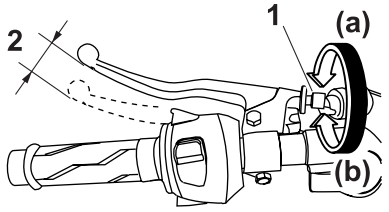
Cast wheels

To maximize the performance, durability, and safe operation of your vehicle, 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. Clutch lever free play adjusting bolt
2. Clutch lever free play

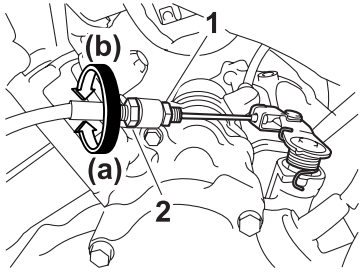
The clutch lever free play should measure 10.0–15.0 mm (0.39–0.59 in) as shown. Periodically check the clutch lever free play and, if necessary, adjust it as follows.

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.



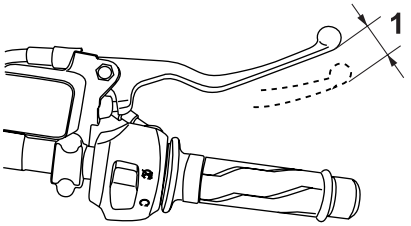
1. Locknut
2. Clutch lever free play adjusting nut (crankcase)

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.

6

EAUT1220

Checking the front brake lever free play



1. Brake lever free play

The brake lever free play should measure 3.0–5.0 mm (0.12–0.20 in) as shown. Periodically check the brake lever free play and, if necessary, have a Yamaha dealer check the brake system.

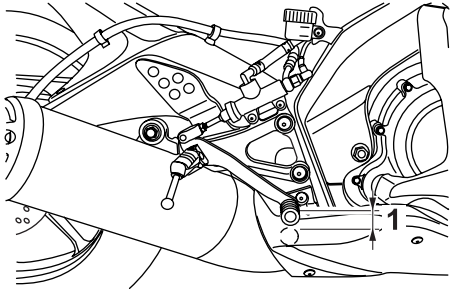
EWA10640

⚠ WARNING

An incorrect brake lever free play indicates a hazardous condition in the brake system. Do not operate the motorcycle until the brake system has been checked or repaired by a Yamaha dealer.

EAUM1353

Adjusting the brake pedal free play



1. Brake pedal free play

The brake pedal free play should measure 3.5–4.5 mm (0.14–0.18 in) as shown. Periodically check the brake pedal free play and, if necessary, have a Yamaha dealer adjust it.

EWAM1030

⚠ WARNING

An incorrect brake pedal free play indicates a hazardous condition in the brake system. Do not operate the motorcycle until the brake system has been checked or repaired by a Yamaha dealer.

EAU22390

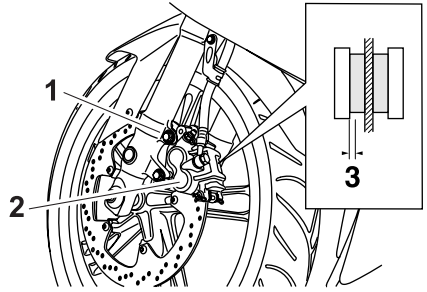
Checking the front and rear brake pads

The front and rear brake pads must be checked for wear at the intervals specified in the periodic maintenance and lubrication chart.

EAU22440

Front brake pads

1. Remove the front brake caliper by removing the bolts.



1. Bolt
2. Brake caliper
3. Lining thickness

2. Check each front brake pad for damage and measure the lining thickness. If a brake pad is damaged or if the lining thickness is

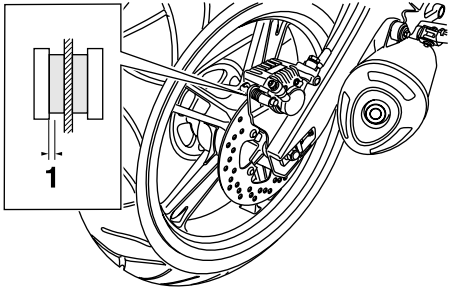
less than 0.8 mm (0.03 in), have a Yamaha dealer replace the brake pads as a set.

3. Install the front brake caliper by installing the bolts, then tightening them to the specified torque.

Tightening torque:
Brake caliper bolt:
30 Nm (3.0 m·kgf, 22 ft·lbf)

EAU22500

Rear brake pads



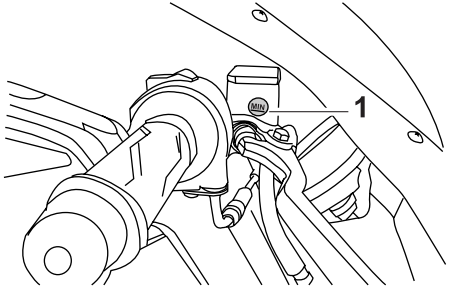
1. Lining thickness

Check each rear brake pad for damage and measure the lining thickness. If a brake pad is damaged or if the lining thickness is less than 1 mm (0.04 in), have a Yamaha dealer replace the brake pads as a set.

EAU22580

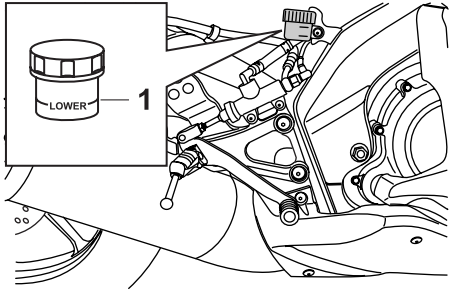
Checking the brake fluid level

Front brake



1. Minimum level mark

Rear brake



1. Minimum level mark

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 fluid 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.
- Use only the recommended quality brake fluid, otherwise the rubber seals may deteriorate, causing leakage and poor braking performance.

Recommended brake fluid:
DOT 4

- 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.

EAUM1360

Changing the brake fluid

Have a Yamaha dealer change the brake fluid at the intervals specified in the periodic maintenance and lubrication chart. In addition, have the brake hose replaced every four years or whenever it is damaged or leaking.

EAU22760

Drive chain slack

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

EAU22773

To check the drive chain slack

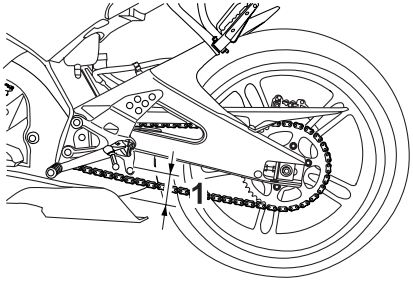
1. Place the motorcycle on the sidestand.

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:
30.0–40.0 mm (1.18–1.57 in)



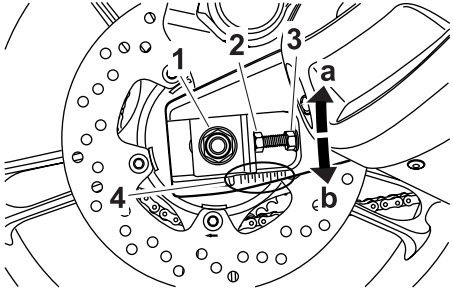
1. Drive chain slack

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

EAU34312

To adjust the drive chain slack

1. Loosen the axle nut and the locknut on each side of the swingarm.



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

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

NOTE:

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

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.

3. Tighten the locknuts, then the axle nut to their specified torques.

Tightening torques:
Locknut:
16 Nm (1.6 m·kgf, 11 ft·lbf)
Axle nut:
85 Nm (8.5 m·kgf, 61 ft·lbf)

6

EAU23022

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

ECA11120

CAUTION:

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

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

ECA11110

CAUTION:

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

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.

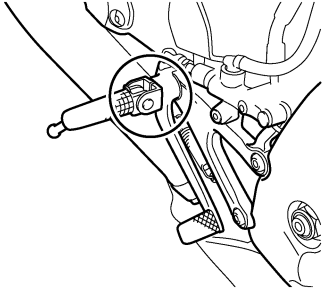
EAU23111

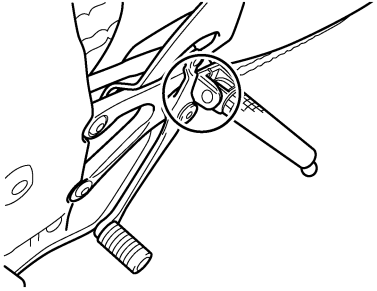
Checking and lubricating the throttle grip and cable

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

EAU44271

Checking and lubricating the brake and shift pedals





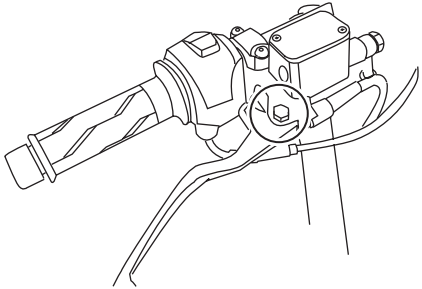
The operation of the brake and shift pedals should be checked before each ride, and the pedal pivots should be lubricated if necessary.

Recommended lubricant:
Lithium-soap-based grease

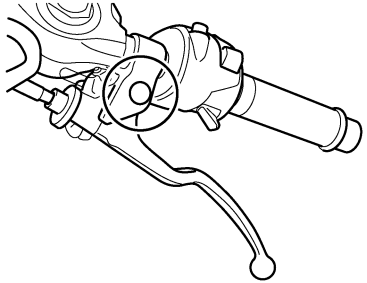
EAU43610

Checking and lubricating the brake and clutch levers

Brake lever



Clutch lever

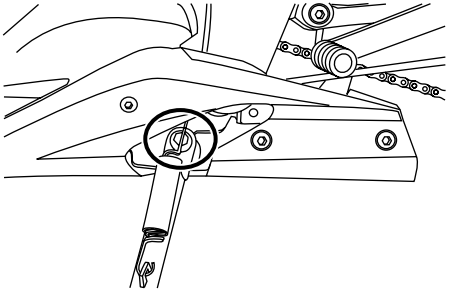


The operation of the brake and clutch levers should be checked before each ride, and the lever pivots should be lubricated if necessary.

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

EAU23201

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

EAUM1650

Lubricating the swingarm pivots

The swingarm pivots must be lubricated at the intervals specified in the periodic maintenance and lubrication chart.

Recommended lubricant:
Lithium-soap-based 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

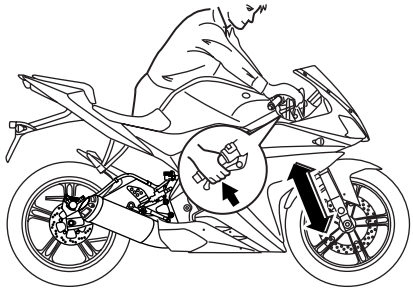
⚠ WARNING

Securely support the vehicle 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 vehicle 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.

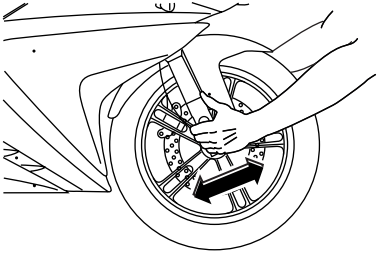
1. Place a stand under the engine to raise the front wheel off the ground.

EWA10750

⚠ WARNING

Securely support the vehicle 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.

EAU23310

Battery

A poorly maintained battery will corrode and discharge quickly. The electrolyte level, battery lead connections and breather hose routing should be checked before each ride and at the intervals specified in the periodic maintenance and lubrication chart.

To check the electrolyte level

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

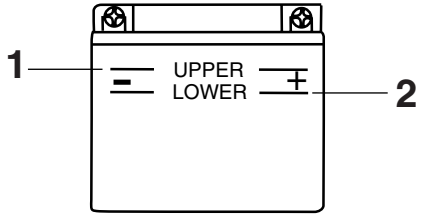
NOTE:

Make sure that the vehicle is positioned straight up when checking the electrolyte level.

2. Check the electrolyte level in the battery.

NOTE:

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



ZAUM0106

1. Maximum level mark
2. Minimum level mark

3. If the electrolyte is at or below the minimum level mark, add distilled water to raise it to the maximum level mark.

EWA10770

⚠ 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.**
- **Take care not to spill electrolyte on the drive chain, as this may weaken it, shorten chain life and possibly result in an accident.**
- **KEEP THIS AND ALL BATTERIES OUT OF THE REACH OF CHILDREN.**

ECA10610

CAUTION:

Use only distilled water, as tap water contains minerals that are harmful to the battery.

4. Check and, if necessary, tighten the battery lead connections and correct the breather hose routing.

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 the specific gravity of the electrolyte at least once a month and fully charge the battery whenever necessary.
3. Fully charge the battery before installation.
4. After installation, make sure that the battery leads are properly connected to the battery terminals and that the breather hose is properly routed, in good condition, and not obstructed.

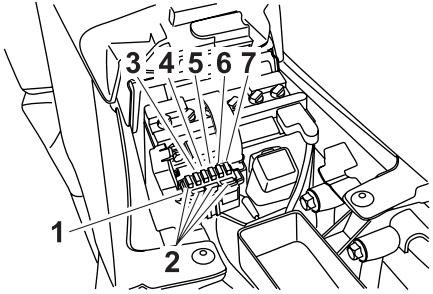
ECA10600

CAUTION:

If the breather hose is positioned in such a way that the frame is exposed to electrolyte or gas expelled from the battery, the frame could suffer structural and external damages.

EAUM2410

Replacing the fuses



1. Fuse box
2. Spare fuse
3. Headlight fuse
4. Signaling system fuse
5. Ignition fuse
6. Radiator fan fuse
7. Main fuse

The fuse box is located under the rider seat. (See page 3-9.)

If a fuse is blown, replace it as follows.

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

Specified fuses:
Main fuse:
20.0 A
Ignition fuse:
7.5 A
Signaling system fuse:
7.5 A
Headlight fuse:
15.0 A
Radiator fan fuse:
5.0 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 circuit in question to check if the device operates.
4. If the fuse immediately blows again, have a Yamaha dealer check the electrical system.

EAU34240

Replacing a headlight bulb

This model is equipped with quartz bulb headlights. If a headlight bulb burns out, have a Yamaha dealer replace it and, if necessary, adjust the headlight beam.

EAU24181

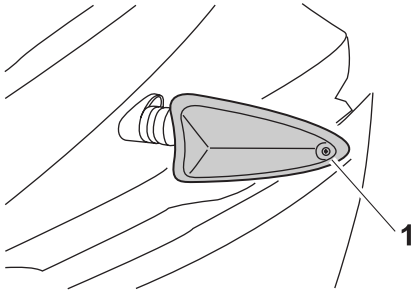
Tail/brake light

This model is equipped with an LED-type tail/brake light.
If the tail/brake light does not come on, have a Yamaha dealer check it.

EAU24202

Replacing a turn signal light bulb

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



1. Screw

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

ECA11190

CAUTION:

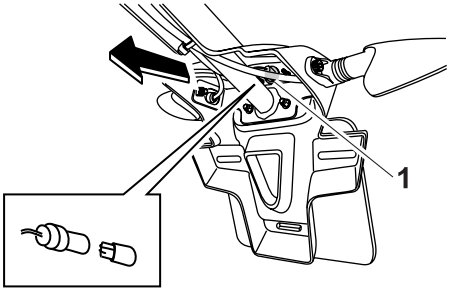
Do not overtighten the screw, otherwise the lens may break.

6

EAUM2200

Replacing the license plate light bulb

1. Remove the socket (together with the bulb) by pulling it out.



1. License plate light bulb

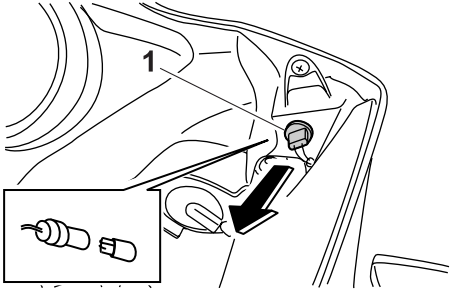
2. Remove the defective bulb by pulling it out.
3. Insert a new bulb into the socket.
4. Install the socket (together with the bulb) by pushing it in.

EAU43230

Replacing an auxiliary light bulb

This model is equipped with two auxiliary lights. If an auxiliary light bulb burns out, replace it as follows.

1. Remove the socket (together with the bulb) by pulling it out.



1. Auxiliary light bulb

2. Remove the defective bulb by pulling it out.
3. Insert a new bulb into the socket.
4. Install the socket (together with the bulb) by pushing it in.

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.

Front wheel

EAU24360

To remove the front wheel

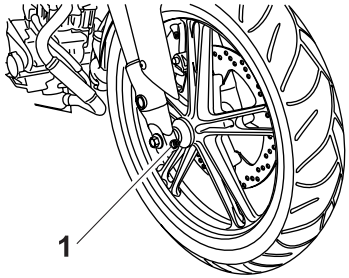
EAUM2420

EWA10820

⚠ WARNING

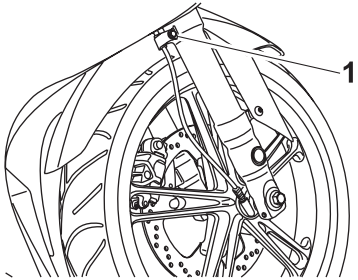
- **It is advisable to have a Yamaha dealer service the wheel.**
- **Securely support the motorcycle so that there is no danger of it falling over.**

1. Loosen the front wheel axle pinch bolt, then the wheel axle and the brake caliper bolts.



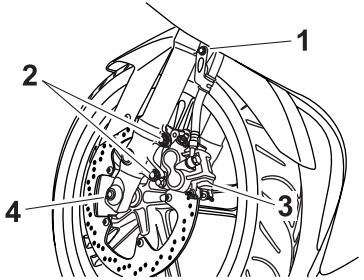
1. Front wheel axle pinch bolt

2. Lift the front wheel off the ground according to the procedure on page 6-32.
3. Remove the speed sensor lead holder by removing the bolt.



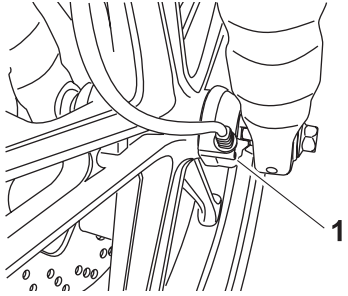
1. Speed sensor cable holder

4. Remove the brake hose holder by removing the bolt.
5. Remove the brake caliper by removing the bolts.



1. Brake hose holder
2. Brake caliper bolt
3. Brake caliper
4. Axle bolt

6. Pull the wheel axle out, remove the speed sensor by pulling it out, and then remove the wheel.



1. Speedometer gear unit

ECA11050

CAUTION:

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

EAUM2430

To install the front wheel

1. Lift the wheel up between the fork legs.
2. Install the speed sensor at the wheel hub.

NOTE:

Make sure that the projections on the speed sensor rotor are aligned with the notches in the wheel hub and that the slot in the speed sensor fits over the retainer on the fork leg.

3. Insert the wheel axle.
4. Lower the front wheel so that it is on the ground.
5. Push down hard on the handlebar several times to check for proper fork operation.
6. Install the brake caliper by installing the bolts.

NOTE:

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

7. Install the brake hose holder by installing the bolt.
8. Install the speed sensor lead holder by installing the bolt.
9. Tighten the wheel axle, front wheel axle pinch bolt and brake caliper bolts to the specified torques.

Tightening torques:
Wheel axle:
59 Nm (5.9 m·kgf, 43 ft·lbf)
Front wheel axle pinch bolt:
14 Nm (1.4 m·kgf, 10 ft·lbf)
Brake caliper bolt:
30 Nm (3.0 m·kgf, 22 ft·lbf)

Rear wheel

EAU25080

To remove the rear wheel

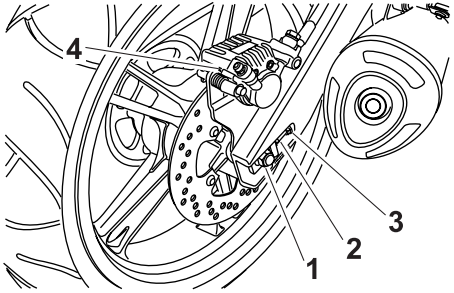
EAU25311

EWA10820

⚠ WARNING

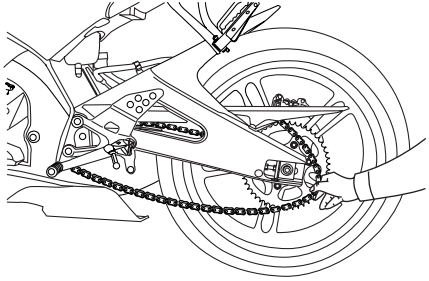
- **It is advisable to have a Yamaha dealer service the wheel.**
- **Securely support the motorcycle so that there is no danger of it falling over.**

1. Loosen the axle nut.



1. Axle nut
2. Drive chain slack adjusting bolt
3. Locknut
4. Brake caliper

2. Lift the rear wheel off the ground according to the procedure on page 6-32.
3. Remove the axle nut.
4. Loosen the locknut on each side of the swingarm.
5. Turn the drive chain slack adjusting bolts fully in direction (a) and push the wheel forward.
6. Remove the drive chain from the rear sprocket.



NOTE:

- If the drive chain is difficult to remove, remove the wheel axle first, and then lift the wheel upward enough to remove the drive chain from the rear sprocket.
- The drive chain cannot be disassembled.

7. While supporting the brake caliper bracket, pull the wheel axle out, and then remove the wheel.

ECA11070

CAUTION:

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

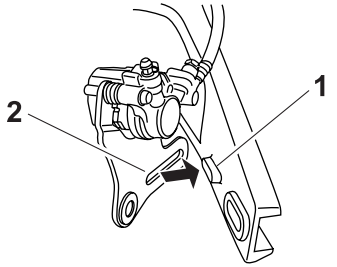
EAU39411

To install the rear wheel

1. Install the wheel and the brake caliper bracket by inserting the wheel axle from the left-hand side.

NOTE:

- Make sure that the slot in the brake caliper bracket is fit over the retainer on the swingarm.
- Make sure that there is enough space between the brake pads before installing the wheel.



1. Retainer
2. Slot

2. Install the drive chain onto the rear sprocket.
3. Install the axle nut, and then lower the rear wheel so that it is on the ground.
4. Adjust the drive chain slack. (See page 6-22.)
5. Tighten the axle nut to the specified torque.

Tightening torque:
Axle nut:
85 Nm (8.5 m·kgf, 61 ft·lbf)

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.

EAUM2440

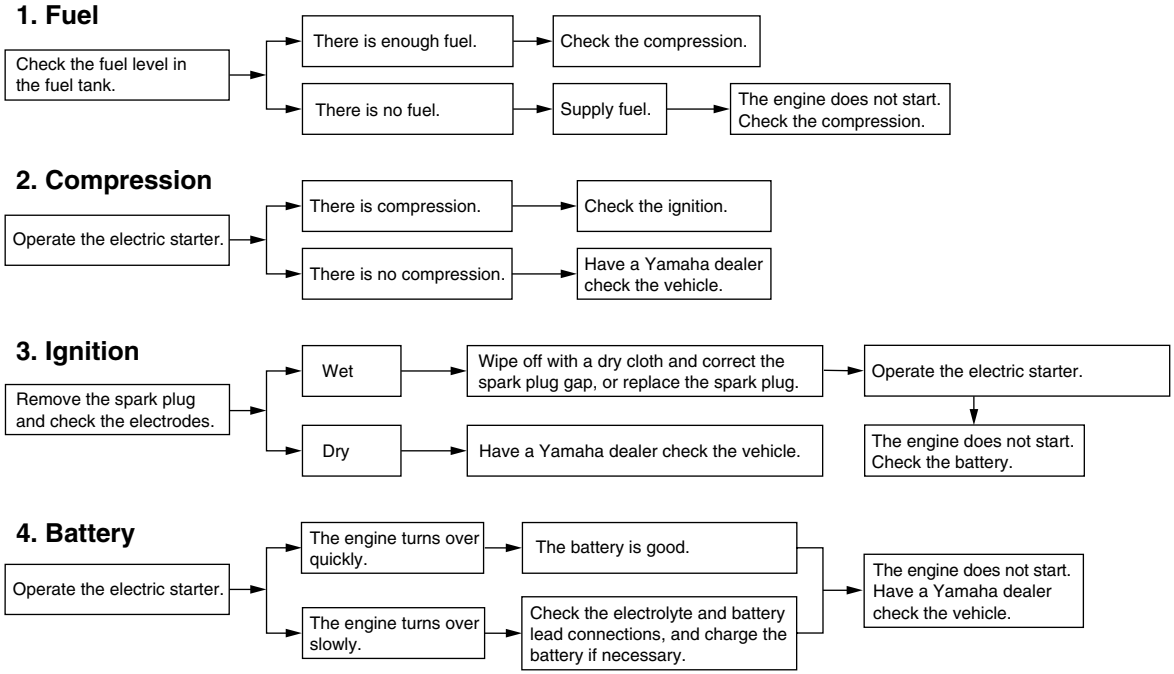
Troubleshooting charts

Starting problems or poor engine performance

EWA10840

WARNING

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

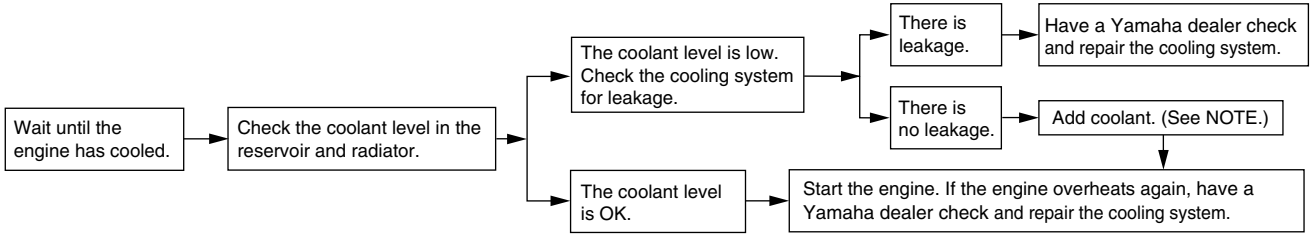


Engine overheating

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.

EAU37833

Matte color caution

ECA15192

CAUTION:

Some models are equipped with matte colored finished parts. Be sure to consult a Yamaha dealer for advice on what products to use before cleaning the vehicle. Using a brush, harsh chemical products or cleaning compounds when cleaning these parts will scratch or damage their surface. Wax also should not be applied to any matte colored finished parts.

EAUM2450

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

ECA10771

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 plastic parts such as cowlings, panels, windshields, headlight lenses, meter lenses, etc. 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 bottlebrush for hard-to-reach areas. Stubborn dirt and insects will come off more easily if the area is covered with a wet cloth for a few minutes before cleaning. Use the special sponge, which is located under the tool kit, to clean the muffler and to remove any discoloration from it.

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. After drying the motorcycle, 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 in-

duced 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.

EWA11130

⚠ WARNING

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

ECA10800

CAUTION:

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

NOTE:

Consult a Yamaha dealer for advice on what products to use.

EAU43200

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. Fill up the fuel tank and add fuel stabilizer (if available) to prevent the fuel tank from rusting and the fuel from deteriorating.

3. 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.

4. Lubricate all control cables and the pivoting points of all levers and pedals as well as of the sidestand/centerstand.
5. 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.
6. Cover the muffler outlet with a plastic bag to prevent moisture from entering it.
7. 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 6-29.

NOTE:

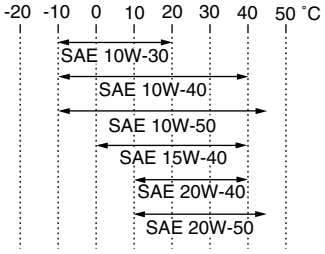
Make any necessary repairs before storing the motorcycle.

Dimensions:
Overall length:
2015 mm (79.3 in)
Overall width:
660 mm (26.0 in)
Overall height:
1065 mm (41.9 in)
Seat height:
818 mm (32.2 in)
Wheelbase:
1355 mm (53.3 in)
Ground clearance:
155 mm (6.10 in)
Minimum turning radius:
3100 mm (122.0 in)

Weight:
With oil and fuel:
138.0 kg (304 lb)

Engine:
Engine type:
Liquid cooled 4-stroke, SOHC
Cylinder arrangement:
Forward-inclined single cylinder
Displacement:
124.7 cm^3
Bore × stroke:
52.0 × 58.6 mm (2.05 × 2.31 in)
Compression ratio:
11.20 :1
Starting system:
Electric starter
Lubrication system:
Wet sump

Engine oil:
Type:
SAE 10W-30, SAE 10W-40, SAE 15W-40, SAE 20W-40 or SAE 20W-50



Recommended engine oil grade:
API service SG type or higher, JASO standard MA
Engine oil quantity:
Without oil filter element replacement:
0.95 L (1.00 US qt) (0.84 Imp.qt)
With oil filter element replacement:
1.00 L (1.06 US qt) (0.88 Imp.qt)

Cooling system:
Coolant reservoir capacity (up to the maximum level mark):
0.25 L (0.26 US qt) (0.22 Imp.qt)
Radiator capacity (including all routes):
1.00 L (1.06 US qt) (0.88 Imp.qt)

Air filter:
Air filter element:
Dry element

Fuel:
Recommended fuel:
Premium unleaded gasoline only
Fuel tank capacity:
13.8 L (3.65 US gal) (3.04 Imp.gal)
Fuel reserve amount:
1.6 L (0.42 US gal) (0.35 Imp.gal)

Fuel injection:
Throttle body:
Manufacturer:
MIKUNI
Type/quantity:
SE AC28-2/1

Spark plug (s):
Manufacturer/model:
NGK/CR8E
Spark plug gap:
0.7–0.8 mm (0.028–0.031 in)

Clutch:
Clutch type:
Wet, multiple-disc

Transmission:
Primary reduction system:
Helical gear
Primary reduction ratio:
73/24 (3.042)
Secondary reduction system:
Chain drive
Secondary reduction ratio:
48/14 (3.429)
Transmission type:
Constant mesh 6-speed
Operation:
Left foot operation

Gear ratio:
1st:
34/12 (2.833)
2nd:
30/16 (1.875)
3rd:
30/22 (1.364)
4th:
24/21 (1.143)
5th:
22/23 (0.957)
6th:
21/25 (0.840)

Chassis:
Frame type:
Semi double cradle
Caster angle:
24.20 °
Trail:
86.1 mm (3.39 in)

Front tire:
Type:
Tubeless
Size:
100/80-17 M/C 52H
Manufacturer/model:
PIRELLI/SPORT DEMON
Manufacturer/model:
MICHELIN/PILOT SPORTY

Rear tire:
Type:
Tubeless
Size:
130/70-17 M/C 62H
Manufacturer/model:
PIRELLI/SPORT DEMON
Manufacturer/model:
MICHELIN/PILOT SPORTY

Loading:
Maximum load:
185 kg (408 lb)
(Total weight of rider, passenger, cargo and accessories)

Tire air pressure (measured on cold tires):
Loading condition:
0–90 kg (0–198 lb)
Front:
175 kPa (25 psi) (1.75 kgf/cm²)
Rear:
200 kPa (29 psi) (2.00 kgf/cm²)
Loading condition:
90–185 kg (198–408 lb)
Front:
175 kPa (25 psi) (1.75 kgf/cm²)
Rear:
225 kPa (33 psi) (2.25 kgf/cm²)

Front wheel:
Wheel type:
Cast wheel
Rim size:
17xMT2.75

Rear wheel:
Wheel type:
Cast wheel
Rim size:
17 x MT3.75

Front brake:
Type:
Single disc brake
Operation:
Right hand operation
Recommended fluid:
DOT 4

Rear brake:
Type:
Single disc brake
Operation:
Right foot operation
Recommended fluid:
DOT 4

Front suspension:
Type:
Telescopic fork
Spring/shock absorber type:
Coil spring/oil damper
Wheel travel:
130.0 mm (5.12 in)

Rear suspension:
Type:
Swingarm (monocross)
Spring/shock absorber type:
Coil spring/oil damper
Wheel travel:
125.0 mm (4.92 in)

Electrical system:
Ignition system:
TCI (digital)
Charging system:
AC magneto

Battery:
Model:
12N5.5-3B / YUASA
Voltage, capacity:
12 V, 5.5 Ah

Headlight:
Bulb type:
Halogen bulb

Bulb voltage, wattage × quantity:
Headlight:
12 V, 55.0 W × 2
Tail/brake light:
LEDS x 8
Front turn signal light:
12 V, 10.0 W × 2
Rear turn signal light:
12 V, 10.0 W × 2
Auxiliary light:
12 V, 5.0 W × 2
Meter lighting:
LED
Neutral indicator light:
LED
High beam indicator light:
LED
Turn signal indicator light:
LED
Coolant temperature warning light:
LED
Engine trouble warning light:
LED

Fuses:
Main fuse:
20.0 A
Headlight fuse:
15.0 A
Signaling system fuse:
7.5 A
Ignition fuse:
7.5 A
Radiator fan fuse:
5.0 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.

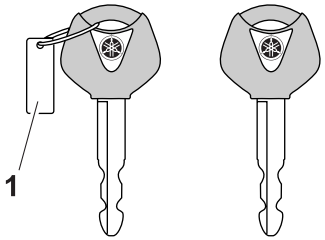
KEY IDENTIFICATION NUMBER:

VEHICLE IDENTIFICATION NUMBER:

MODEL LABEL INFORMATION:

EAU26381

Key identification number

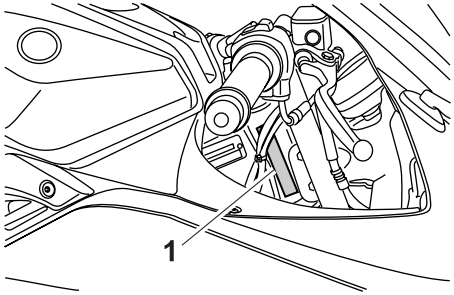


1. Key identification number

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

EAU26400

Vehicle identification number



1. Vehicle identification number

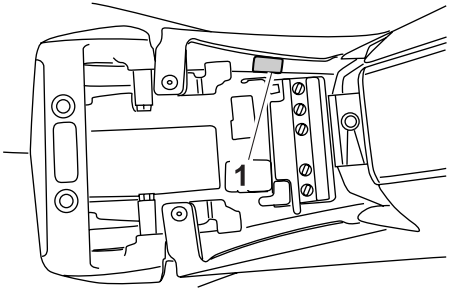
The vehicle identification number is stamped into the steering head pipe. Record this number in the space provided.

NOTE:

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

EAU26470

Model label



1. Model label

The model label is affixed to the frame under the rider seat. (See page 3-9.) 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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YAMAHA MOTOR CO., LTD.

PRINTED IN FRANCE
2007.12 (E)